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**Evidence-based Practice Perspective of the Effects of Intuition on Clinical Practice
As Perceived by the Nurse Practitioner**

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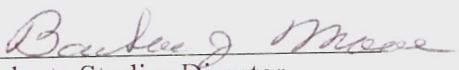
An Evidence Based Practice Project Presented to the Graduate Faculty
of Mississippi University for Women in
Partial Fulfillment of the Requirements for
the Degree of Master of Science in Nursing

by

James Darnell McIntyre

MSN, Mississippi University for Women

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Date August 4, 2006

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Committee Member

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DEDICATION

I wish to dedicate this research project to God, my parents, wife, my newborn son and my brother and sister. I thank God for giving the strength, knowledge and will power to guide me through all my years of school. I thank my parents for giving me the support and guidance to get to where I am now. To my loving wife, the best women in the world, who has supported me through all of this, while keeping me focused and encouraged me to put away my video games. To my brother and sister, Anthony and Laciana thank you for being there for me when I needed you. I love you all.

**Evidence-Based Practice Perspective of the Effects of Intuition on Clinical Practice
as Perceived by the Nurse Practitioner**

James Darnell McIntyre, MSN(c), RN

Mississippi University for Women, 2006

Supervising Professor: Dr. Amelia Higginbottom

Abstract

This paper explored whether or not a nurse practitioner possessed the perception of utilizing intuition in a clinical setting. If intuition is used, what extent does expertise as registered nurses affect this perception as a nurse practitioner? The purpose of this review is to explore the relationship between intuition and advanced practice nursing. Further the purpose is to determine if there is a correlation between intuition and years of experience as a registered nurse and if this correlation exists, does it impact advanced practice nurse intuition. A computer search of nursing and medical literature for theory-based, data-based, randomized controlled trials for citations utilizing CINAHL, MEDLINE, and the Cochrane Library was conducted for this systematic review.

Patricia Benner's mode novice to expert (1982) served as the theoretical basis for this study. The meta-analysis was produced from a review of literature between years 1982 to 2000. The results produced a positive association

between the self-perception of intuition and years of experience as a nurse practitioner.

The research demonstrated a significantly positive correlation between years of experience as a nurse, and in return, the nurse practitioner showed increased intuitive decision-making in clinical practice. The result of this review implies that nurses use a variety of experiences to make decisions. Total nursing experience correlates with the nurse practitioner's utilization of intuition in clinical practice. Implications for nursing theory, nursing research, advanced nursing practice, nurse practitioner education, and health policy are provided as they emerge from the concepts explored.

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CHAPTER I

Dimensions of the Problem

Nurses have often reported experiencing a "premonition" or "gut feeling" that all is not right with a patient. This perception has been identified as intuition (Rew, 1986). Research related to this topic has generated ideas about the characteristics of an intuitive personality and the effectiveness of integrating intuition with traditional scientific reasoning in making decisions.

Since the 1900's, the concept of intuition, instinct, and perception have been used interchangeably throughout nursing literature. Theory based nursing practice was derived from objective and scientific data, while the concept of intuitive knowledge was being recognized as a method of critical thinking, which was being ignored. When compared with empirical, logical, and factual knowledge, intuition is an important component to the framework of nursing and has been regarded as demoralizing knowledge (Young, 1987).

Historically, intuition has been identified as a female attribute and devalued in a culture, dominated by the male perspective. Modes of thought such as analytical and linear reasoning generated by man, has taken precedence over alternative ways of knowing like intuition. There has been little recorded in nursing literature of the use of intuition by

nurse practitioners in clinical practice (Rew, 1990). Benner (1982) discussed perceptual awareness of the nurse as a necessary characteristic in forming accurate nursing judgments.

The ability to solve problems and make judgments in an objective way is characteristic of the critical thinking process. Two types of cognitions are noted in critical thinking, analytical and intuitive, which result in clinical nursing judgments. Analytical judgments are acquired through reasoning or the analysis of a situation based on logic and facts (Polge, 1995). Intuition, as defined by Schraeder and Fischer (1987), is the perception or immediate knowledge without the conscious use of reason. Nurse practitioners are taught to make skilled and expedient decisions related to client care using the analytical process of critical thinking.

Intuition combined with analytical reasoning in the decision-making process has been noted as an effective means of considering alternatives to problems (Rew, 1988; Umiker, 1989). "The concern in nursing for diagnosing human responses to illness predisposes clinical practitioners to situations in which information essential to a diagnosis cannot be solely derived from objective information" (Young 1987, p. 60). Judgments and decisions may be formed based on subjective data which are a representative of intuitive knowledge.

Judgments and decisions may be formed based on subjective data which are a representative of intuitive knowledge.

Nurse practitioners have emerged as an economical and important means of meeting the healthcare needs of the underserved. The ability to make accurate and prompt decisions in the presence of limited scientific data requires an intuitive sense (Polge, 1995).

Problem Statement

Prior to the 1980's, nursing was focused primarily on rational calculation and analytical decision-making with skepticism of the use of intuition in clinical areas and in nursing education. Other researchers have stated that intuition is the quality that sets expert nurses apart. According to Benner and Tanner (1987) intuitive knowledge and analytical reasoning used by expert nurses are not opposing phenomena, instead it is complimentary.

Benner and Tanner (1987) have demonstrated a positive relationship between the expert or experienced nurse and the use of intuition in nursing practice. The question is do nurse practitioners possess the perception of utilizing intuition in the clinical setting? If so, to what extent does experience as a registered nurse and as a nurse practitioner affect this perception?

Over the last 10 years, much work has been done concerning how and when nurses use intuition, giving validity to the fact that nurses do rely on the concept of this. According to Rew (1988) intuition is an inherited quality that can be developed. According to Miller (1993) intuitive nurses are characterized as a skilled clinician, who acts upon willed intuition, with a spiritual connection with clients interested in the abstract.

Past concrete experiences guide the expert advanced practice nurse to have an intuitive grasp of a situation, while accurately assessing and diagnosing the problem. Initially, nurse practitioners were taught in continuing education programs, now the majority of advance practice nurses are educated to the master's level of education. There was no research reflecting the correlation of years of experience and the self-perception of intuition in the advanced practice nurse. This review explored the relationship of years of experience of the advanced practice nurse and the self perception of intuition.

Statement of the Purpose

The purpose of this research project is to review and explore the literature regarding a relationship between the self perception of intuitiveness in clinical practice, years of experience as a registered nurse, and years of experience as a

nurse practitioner. It was thought that if years of experience had an effect on the use of intuition in the advanced practice nurse's clinical practice.

Significance of study

According to Rew (1990), intuition is described as a fundamental component of advanced nursing practice. Nurses learn problem-solving and decision making skills by combining scientific knowledge, recall of past experiences, and use of intuition (Pyles & Stern, 1983). According to Young (1987) the past research has shown that intuition is indeed an integral part of the nursing process, bridging the domains of empirics, esthetics, and personal knowledge. The ability to use and trust intuitive knowledge is the difference between the proficient and the expert nurse (Benner, 1982). As intuition becomes more quantifiable, it can then become a more trusted aspect of nursing care both in theory and practice (Miller, 1993). The results of this research add to nursing body of knowledge by providing data on the concept of the use of intuition in the area of advanced practice nursing. The current level of knowledge related to self-perception of intuition and nurse practitioner is limited and needs further research. A computer search utilizing CINAHL, MEDLINE and COCHRANE, revealed only

several articles on this subject. Terms utilized in the search included the following:

Summary of Literature Searches

Search Terms	Number of Citations	Database
Intuition	675	CINAHL
	468	MEDLINE
	85	COCHRANE
Nurse practitioner	112	CINAHL
Experience	68	MEDLINE
	15	COCHRANE
Nurse Practitioner and	4	CINAHL
Theoretical Framework	4	MEDLINE
	20	COCHRANE
Intuition and nurse	3	CINAHL
Practitioners	0	MEDLINE
	0	COCHRANE

Note. CINAHL= Cumulative Index to Nursing and Allied Health Literature, MEDLINE= Medical Literature Online, COCHRANE= Cochrane Library (Cochrane Database of Systematic Review,

Cochrane Database of Abstracts of Reviews of Evidence, and Cochrane Clinical Trials Register).

The purpose of this research project is to review the literature regarding the use of intuitive skills in formulating diagnoses in the management of care of clients by nurse practitioners in the clinical setting and to ascertain if years of experience as a registered nurse and nurse practitioner affect one's degree of intuition. The results of this study add to the nursing body of knowledge by providing data on the concept of the use of intuition in the area of advanced practice nursing. The majority of advanced practice nurses use intuition with every patient encounter. The volume of medical information is so overwhelming that it is impossible for an advanced practice nurse to solely rely on linear cognitive knowledge. For this reason, intuition plays a part on learned information to process and critically solve problems and it will contribute to the body of knowledge fundamental to professional nursing.

Theoretical Framework

For the purpose of this project, Patricia Benner's model, Novice to Expert (1984), serves as the theoretical basis for this study. Benner's model was derived from the Dreyfus Model of Skill Acquisition and generalized to nursing. Benner's model focuses on skilled performance based on experience and

education. Benner concluded that the expert nurse uses intuitive processes in forming nursing judgments and actions.

The model lists five levels of proficiency that one passes through in the development of knowledge. These levels are: stage 1, novice; stage 2, advanced beginner; stage 3, competent; stage 4, proficient; and stage 5, expert. These five levels of proficiency reflect two changes in knowing how to approach a problem; a movement from relying on abstract principles or rules to the use of past concrete experience or recall, and a perception and understanding of the situation as a whole in which only certain points are relevant.

In the novice stage of skill development, objective attributes (weight, intake and output, pulse, etc.) are taught. Novices have had no previous experience of the situations in which they are to perform. The objectives for this level are features of the task that can be recognized without situational experience. Novice nurses are taught rules to guide their nursing actions in response to these objective attributes. Problems occur when situations requiring the ability to form discretionary judgments, do not respond to context-free rules. Rules cannot delineate which tasks are most relevant or when to make exceptions.

The advanced beginner demonstrates marginal acceptable performance. The nurse functioning in this level of skill development has participated in enough real situations to note the meaningful points of a situation. The advanced beginner has difficulty in sorting out the most important aspects of an event. Priority setting needs to be taught to the nurse at this level.

The competent nurse has usually been in practice two to three years. The competent nurse is capable of sorting out the important aspects of a situation and forming long-range goals. Tasks are achieved but lack the speed and flexibility of the proficient nurse. This stage is marked by a feeling of mastery of achievement and the ability to manage many nursing scenarios.

The proficient nurse perceives situations as wholes rather than in parts. Decision making is achieved with less effort because the nurse views the situation from a holistic perspective. The proficient nurse considers fewer alternatives and focuses in on the accurate portion of the problem. Experience teaches the proficient nurse what to expect in a given situation and how to adapt the plan of action in response to these events.

The expert nurse has an enormous background of experience. The nurse performing at this level no longer relies on analytical principles (rules or guidelines) to direct nursing action. According to Benner (1982), the expert nurse has an intuitive grasp of the situation and focuses in on the accurate region of the problem with speed and accuracy. The expert nurse operates from a deep understanding of the situation and perception of the patient, picking up on verbal and nonverbal cues presented.

Benner and Tanner (1987) stated that it is intuitive judgment that distinguishes expert human judgment from that of beginners. Dreyfus' (1985), noted six aspects of intuitive judgments while developing the model of skill acquisition. These characteristics are common among experts in the decision-making process. The aspects are pattern recognition, similarity recognition, common sense understanding, skilled know-how, sense of salience (ability to distinguish important from non-important), and deliberate rationality. The six concepts, as explained by Benner and Tanner (1987) are listed below:

1. "Pattern recognition is a perceptual ability to recognize relationships. Patients present patterns of responses that expert nurses learn to recognize" (Benner & Tanner, 1987, p. 24).

2. "Similarity recognition is the ability to recognize resemblances or similarities despite differences in past and current situations" (Benner & Tanner, 1987, p. 24). This recognition raises questions in the nurse's mind which inevitably leads to identification of problems even in the most covert circumstances.

3. Common sense understanding refers to comprehending another's culture and language. Common sense understanding enables the nurse to perceive the illness experience affecting the individual not just the disease process. The expert clinician may note relevance to any observable change in a patient's behavior, habits, or appearance. The inexperienced clinician may not perceive these observations as important.

4. Skilled know-how refers to mastery of a technique or understanding concepts to such degree that the knowledge becomes incorporated into oneself. The expert clinician has a deep understanding of the relationship between therapeutic actions administered and of the expected response of the individual. An abnormal or unachieved response steers the expert to inquire why this is occurring.

5. The expert clinician is said to have a sense of salience. This is the ability to recognize important events and respond appropriately. Salience is a difficult task for the

novice or inexperienced clinician due to the need to react by rules not judgment.

6. Deliberate rationality is a process of explaining one's current view of the situation by considering causative alternatives. "The expert clinician looks for salient facts as if the situation was viewed from a different perspective" (Benner & Tanner, 1987, p. 28). Benner & Tanner noted that Dreyfus's six aspects of intuitive judgment are synergistic mechanisms, working together to produce expert intuitive judgment.

Benner (1982) stated that preparation and experience are required to develop expert practice. Experience is expressed, not as a passage of time, but as the improvement of one's knowledge base and the ability to form judgments from experiencing unexpected situations which add subtle variations to the accepted norm. Experience augments one's perceptual abilities. Benner added that a nurse with extensive experience in one clinical setting may be regarded as a novice or advanced beginner in another area because of lack of experience. It is not known how universal this framework is and also Benner's model does not address nurse practitioners. This framework can be applied to nurse practitioners, who like graduate nurses must

transition into a new role acquiring experience and expertise as familiarity transpires.

Benner emphasized that expert nurses give attention to intuitive perceptions. These perceptions or "hunches" sometimes lead to early recognition of problems. According to Benner's model of novice to expert, it explains how nurses progress through stages refining skills and developing an ability to form judgments and make decisions.

Novice nurses must rely on rules to guide their performance. Lack of experience in situations gives the novice nurse no events or patterns to recall. Advanced beginners need guidance with priority setting because they are unable to sort out significant aspects of a situation. Level three denotes competent nursing proficiency and nurses functioning at this level usually have been in practice for two to three years. The competent nurse relies on long-range goals and can differentiate significant findings. Proficient practitioners perceive situations holistically and can focus on the significant problem at hand.

The final stage listed in Benner's model is the expert nurse. The expert nurse has usually been in practice for five or more years in a particular clinical area. Expert practitioners possess an intuitive grasp of situations that enable them to

address the problem in a timely manner. The expert nurse assesses alternatives to the situations and makes accurate judgments and decisions based on past experiences.

Not every nurse will reach the expert stage. Benner emphasizes that expert nurses do not rely solely on intuitive perceptions. Expert practitioners give attention to "hunches" or perceptions and act on them by confirming facts and identifying early problems. Benner's model, novice to expert, clearly implies that intuition is proportional to the experience level of the practitioner. Based on the assumption that intuitive ability is related to the nurse's level of skill proficiency and expertise, nurse practitioners with a background of vast nursing experience and experience as a nurse practitioner will probably utilize intuition in formulating diagnoses and client care in clinical practice, while those with less experience may not.

Definition of Terms

For the purposes of this research project, the following definitions are provided:

Nurse Practitioner

Theoretical. A registered nurse who has completed a formal program of advanced educational preparation; who has successfully completed licensure requirements for the state of

practice which allows the practitioner to function in an expanded role and deliver primary health care in a variety of settings (Strickland & Fishman, 1994).

Operational- this will be defined as a certified nurse practitioner providing health care services in Mississippi.

Experience

Theoretical. - Refinement of preconceived notions and theory by encountering many actual practical situations that add subtle differences to theory (Benner, 1982).

Operational- years of experience as a registered nurse will be defined as time spent in practice in a specific clinical setting as a registered nurse as stated by subjects in the sample. Years of experience as a nurse practitioner is operationally defined as time spent in advanced nursing practice in the role of a nurse practitioner as stated by subjects in the research.

Self Perception of Intuition

Theoretical- An awareness achieved through the senses (Webster, 1989), in which "accurate conclusions are reached on the basis of consensually inadequate information" (Westcott, 1968, p. 8). "Immediate knowing of something without the conscious use of reason" (Schrader & Fischer, 1987, p. 47).

Operational-For the purposes of this study, intuition will be measured by the Miller Intuitiveness Instrument.

Intuition

Theoretical- Defined as the "direct knowing or learning of something without the conscious use of reasoning; immediate apprehension or understanding; something known or learned in this way" (Webster, 1984, p. 740). Intuition is used synonymously with terms like "instinct, sixth sense, insight, feeling, inspiration, and innate knowledge" (Rew, 1986, p. 23). "Intuition is the process of reaching an accurate conclusion on the basis of inadequate information" (Westcott, 1968, p. 8).

Operational-For the purposes of this study, intuition will be measured by the Miller Intuitiveness Instrument.

Research Question

For the purpose of this study, the following research questions were generated:

1. What is the relationship between self perception of intuition and years of experience?
2. How can years of experience as a registered nurse increase intuition in a nurse practitioner?
3. How can nurse practitioner's increase intuition?

Assumptions

It is assumed that the data was gained from much rigorous research and that the findings are recorded accurately. There are ten assumptions which serve as principals upon which will be used for this research project:

1. Intuitive experiences are common in humans and initiate creativity (Rew, 1988).
2. Intuitive knowing relates to an interpersonal and spiritual connection between the nurse and client and is reflective of holistic nursing care (Agan, 1987).
3. Experienced nurses who display expert nursing skills in a particular clinical setting are more likely to trust and act on their intuitions (Rew, Agor, Emery, & Harper, 1991).
4. Nurses synthesize analytical and intuitive knowledge in making decisions under ambiguous circumstances (Rew et al., 1991).
5. Intuition is difficult to express because (a) feelings of intuition are difficult to explain, (b) fear that decisions based on intuition are not professional and are unscientific, and (c) intuitive perceptions are devalued by physicians and educators (Rew et al, 1991).

6. Intuitive nurses are open-minded and self-confident. Decisions are not made until all the facts are in (Miller, 1995).
7. Intuition is recognized as a component of perception (Rew & Barrow, 1987).
8. Registered nurses progress through levels of proficiency as individual experiences are acquired.
9. Nurse practitioners transitioning into a new role progress through levels of proficiency as individual experiences are acquired.
10. Nurse practitioner's responses will be construed as authentic.

Delimitations

Literature was delimited, for the purpose of this integrative literature review, to the following:

1. Literature that pertains to self-perception of intuition with nurse practitioners.
2. Literature available through CINAHL, MEDLINE, and COCHRANE libraries.
3. Literature that is available in the English language or translated into English abstracts.

4. Literature that is available through the Mississippi University for Women Library and Interlibrary loan program

Limitations

For the purpose of this investigation a particular limitation identified is that the information obtained cannot be generalized beyond the scope of research reviewed. The generalizability of the findings is further impacted by the lack of nursing research regarding self-perception of intuition in nurse practitioners in clinical practice.

Summary

Nursing practice has evolved from applying principles of scientific reasoning in developing the steps of the nursing process. Nurses were taught to formulate decisions based on scientific data and facts. Historically, the use of intuition in the decision making process was ignored because intuition was thought to be a feminine characteristic and unscientific.

The concept of intuition as a component in clinical judgment making has emerged in nursing research. Schraeder and Fischer (1987) relate intuition to perception or awareness achieved through the senses. Intuitive decisions are formed when

images, memories, feelings, and non-verbal cues are received and synthesized (Rew, 1989).

Scientific reasoning obtained from objective data does not always emerge overtly. The ability to make accurate and expedient decisions in the presence of limited scientific data requires an intuitive sense (Umiker, 1989). Intuition used in combination with analytical or scientific reasoning has been noted as effective and as a means of considering alternatives to problems (Rew, 1988).

Benner (1984), and Benner and Tanner (1987), noted a correlation between years of nursing experience and the perceived characteristics of an intuitive personality. It is not known if intuition is perceived as a way of knowing in the development of clinical judgments by nurse practitioners or if nursing experience correlates with this perception.

Advanced practice nurses, specifically nurse practitioners, function in a role that requires the ability to recognize cues and formulate accurate decisions related to client care in a systematic and appropriate manner. The research highlighted the study of utilization of intuition in the clinical practice setting perceived by nurse practitioners and determined if was a relationship that exists between years of nursing experience and intuitiveness.

CHAPTER II

REVIEW OF LITERATURE

This investigation is an integrative literature review which summarizes research on a topic of interest by placing the research problem in context and identifying gaps and weaknesses in prior studies to justify new investigations (Polit & Beck, 2004). For this project, self perception of intuitiveness with nurse practitioners in clinical practice will be evaluated. Three data-bases were researched that are peer reviewed that include MEDLINE, CINAHL and COCHRANE Library. A systematic approach was used to research for effects of intuition in clinical practice as perceived by the nurse practitioner. Literature regarding intuition and nurse practitioner totaled 14 manuscripts and, which represent review of another 100 references. In this chapter, an over view of the study variables are presented as it has emerged from the developing knowledgebase.

An Overview of the Healthcare Literature Relate to Intuition and nurse practitioner in clinical practice

The review of literature on intuition focuses on defining the concept, a historical description, intuitive types and measurement, experience as a correlate, spirituality, intuitive decision making, ways to develop or enhance intuition and

research on intuition. Much of the early research on intuition has been conceptual in nature due to its abstract quality. Intuition is an old concept that has resurged with a new interest over the past two decades. Recent studies indicate that intuition is an important means of reasoning utilized by certain personality types. Growing interest about intuitive thought processes have encouraged the development of quantitative design tools to study this qualitative topic.

Rew (1986) listed the defining attributes of intuition as (a) knowledge as a whole, (b) immediate knowledge, and (c) knowledge independent of linear reasoning. Rew (1988, p. 28), identified three more attributes of intuitive experience as (d) inner knowing, (e) sensing, feeling, perceiving, and (f) strength of feeling that affects perception.

"Bastick in 1982 (as cited by Rew, 1986) postulated a theory of intuition, describing the concept as a universal ability reflected in the creative inspirations of scientists as well as in the daily hunches that guide individual behaviors". "Those who experience events from a perceptive feeling and subjective mode are characteristically more intuitive than those who experience events on an objective and analytical level" (Miller, 1993). Intuition is a "perception of possibilities, meanings, and relationships by insight" (Gerrity, 1987) Feeling,

insight, and perception are commonalities described in each of these definitions.

Historically, intuition has been considered a female attribute, therefore being devalued by a society dominated by the male perspective (Burnard, 1989). Analytical linear reasoning is accepted as scientific knowledge based on absolute evident facts. Intuitive perceptions are described as being difficult to articulate. Phrases like "I just had a feeling" lack the explanation that concrete scientific data possess.

In Jung's theory, as described by Gerrity (1987), all conscious mental activity can be classified into four processes - two perceptive processes (sensing and intuition) and two judgment processes (thinking and feeling). Perceptions enter the consciousness through the senses. Perceptions must be dissipated to remain in the consciousness. Perceptions are sorted, weighed, analyzed, and evaluated by the judgment processes of thinking and feeling.

The Myers-Briggs Type Indicator (MBTI) is a qualitative tool, designed to measure intuitive psychological types as based on Carl Jung's theory (1926). Jung identified four basic preferences that direct the use of perception and judgment. These preferences affect what one perceives as important as well as how one draws conclusions about one's

perceptions. The four choices are (a) extroversion versus introversion, (b) sensing versus intuition, (c) thinking versus feeling, and (d) perception versus judgment. One pole of each of the four choices is preferred by a given individual over the other pole and becomes the basis for sixteen personality types. For instance, someone may show a preference for extroversion, sensing, thinking, and judgment.

Intuition refers to a perception of possibilities, meanings, and relationships by way of insight. Intuition permits perception beyond what is visible to the senses including future events (Gerrity, 1987). Jung's concept of preferences states that these four mental processes are innate characteristics. Everyone has a predisposition to prefer some functions over others (Gerrity, 1987).

Miller (1995), summarized the following characteristics of intuitive nurses as identified from the literature: (a) an acknowledged experience of intuition in practice, (b) trust or confidence in intuition, (c) a sense of self as skilled in practice, (d) clinical mastery (expert), (e) unconventional approach to problems, (f) awareness of the use of self-receptivity (spirituality) in practice, and (g) interest in the abstract. Miller (1995) concluded that those who prefer the mental process of intuition as a means of taking in information

(Jungian personality) tend to perceive themselves as intuitive. The intuitive nurse tends to be extroverted and is self-confident about her intuition. The intuitive nurse delays reaching the conclusions until all information are known (Miller, 1995).

Nurses utilize intuition in carrying out the nursing process. The intuitive ability of the expert nurse is enhanced by a vast level of experience and skilled clinical competency (Benner, 1982). The expert nurse is knowledgeable about nursing and is able to intuitively determine the significance of a situation (Paul & Heaslip, 1995).

Experts have two kinds of knowledge, experiential and theoretical, which enable them to sort out relevant information when problem solving and to recognize patterns from previous experiences (Hampton, 1994). Experts can recognize when a pattern or rule does not correspond to the situation at hand (Hampton, 1994). Benner recognized these concepts as salience and pattern recognition. Hampton (1994) noted that the characteristics of expertise include quality decision making, intuition, knowledge, adept psychomotor skills, and clinical specialization. Peers seek the advice and guidance of experts due to their exceptional abilities (Hampton, 1994).

Three primary theories describe the cognitive processes by which expertise develops. Chunking theory, network theory, and schema theory are based on the association or linking of information. According to chunking theory, experts possess an ability to rapidly organize information into groups or chunks of related facts. Automatic organization and recall of information from memory allows experts to accomplish tasks in a swift and efficient manner. According to network theory perceptions are described as nodes connected by links which are representative of the relationship existing between two concepts. "As individuals encounter new information or situations within their discipline new nodes are formed or strengthened as the individual connects textbook principles to actual events. The experienced clinician begins to activate the links spontaneously without effort" (Hampton, 1994, p.19). Schema theory is based on the belief that knowledge is grouped into schemata that controls the retrieval of stored information, new information input and storage into memory. Expertise develops as schemata evolve and change. Principles of knowledge are integrated into memory as the individual progresses toward the expert level. Experience allows new particles of information to link to established knowledge structures creating patterns of memory for the expert to use in ambiguous situations (Hampton,

1994). Intuition develops from experiences. "As experience builds, information is chunked into patterns, and the expert bypasses the sustained systematic thought processes used by the novice" (Hampton, 1994, p. 21).

Benner (1982) described the nurse expert as someone who responds to knowledge gained from holistic rather than fragmented steps. Advanced practice nurse as a expert use past experiences to formulate judgments. Experience enables experts to develop analytical methods that result in fast and expedient problem solutions. Intuition is predicated on a valid knowledge and experience base which is acquired over years of learning in a particular area of clinical practice (Hampton, 1994).

The novice nurse and beginning nurse practitioner must develop knowledge and skills by experience obtained in real life situations. Pertinent clinical experience is essential to the nurse's movement from lower to higher levels of nursing proficiency (Polge, 1995). Nurses perform at the level of proficiency related to the quality and quantity of their individualized experience (Benner, Tanner, & Chesla, 1992). Individual's progress from one proficiency level to the next as experience is gained in a specific area.

Spirituality

Rew (1989) and Agan (1987) correlated the use of intuition with the development of spirituality. The change in a nurse's consciousness or perceptual awareness denotes a spiritual bond between the nurse and client (Rew, 1989). Intuition occurs within oneself as empathy. Intuitive decisions are induced by higher levels of consciousness (Rew, 1989). An example of the spiritual dimension of intuition is when the nurse perceives unspoken feelings or cues presented by the client. The nurse must be able to recognize the spiritual side of the client as presented in moods. Some nurses experience intuitive perceptions when the spiritual bond of nurse-client exists. Agan (1987) described intuitive knowledge as a connection between the nurse and the client with a restorative source and as part of a larger entity. Intuitive knowing relates to an interpersonal and spiritual bond. The relationship between spirituality and intuition is reflective of holistic nursing (Rew, 1989).

The use of intuition in the decision-making process is a relatively new concept in nursing practice. The interest in intuitive decision-making has created a surge of research studies over the past two decades resulting in the

The use of intuition in the decision-making process is a relatively new concept and has been acknowledged in the nursing literature. Gearhart and Young (1990) noted that ethical decision-making based on objective data collection is not always effective in situations of rapid change. Decisions based on past trends can be deceiving and inaccurate.

Miller and Rew (1989), stated that analytical reasoning is a useful decision making process in settings where solutions could be examined relative to meeting desired outcomes. Nursing involves complex situations in which analytical and intuitive thinking processes are required. Schraeder and Fischer identified four factors that influence intuitive thinking in clinical decision-making as noted by Gearhart and Young (1990). These factors are (a) characteristics of the nurse, (b) feelings of relatedness to the patient, (c) perception of individual cues, and (d) linking of past experiences to present perceptions.

Ethical dilemmas, expert nursing care, and the ability to predict behavior based on inadequate or obscure information necessitate the use of intuitive knowledge (Rew & Barrow, 1987). Intuition has been referred to as right-brain or creative thinking. Analytical thinking, known as logical or left-brain, is a sequential thought process. Analytical thinkers select the

acknowledgment of intuition as a legitimate thought process (Gearhart & Young, 1990).

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thinking. Analytical thinking, known as logical or left-brain, is a sequential thought process. Analytical thinkers select the most promising approach in solving problems. Irrelevant extraneous alternatives are excluded. The intuitive thinker considers all alternatives in searching for solutions (Umiker, 1989). Analytical thinkers gather data by plan and process it in an orderly and algorithmic fashion. Intuitive thinkers are considered more data receptive. Options are considered and the search continues even after a likely solution is found. The steps do not need to be sequential in intuitive data processing (Umiker, 1989).

The strength of intuition often urges a nurse to do something more for a patient. Communication problems arise when the nurse is unable to rationalize this urgency other than as "I have a strong feeling that . . ." (Rew et al., 1991). The authors support the use of intuition in crisis management and noted if critical situations can be anticipated and planned for, the effects can be minimized and perhaps prevented, Rew et al. (1991). Anticipation and planning require awareness. When one uses sensory and intuitive perceptions, the ability to anticipate and prepare for pre-crisis situations is enhanced. In addition to analyzing concrete data obtained through the senses, nurses apply intuitive techniques such as memory recall in

making decisions during situations of rapid change (Rew et al., 1991).

Various researchers (Umiker, 1989; Rew et al., 1991) noted ways in which a person could enhance intuitive skills. Umiker (1989), suggested mind storming. This technique involves setting a specified quota in seeking alternatives to problems. The problem is written out succinctly and a list of alternative solutions is started. The list should continue even after the most promising leads have been obtained. Umiker suggests the last alternatives are the most difficult to conceive, occurring only after one has searched into the subconscious.

Rew et al., (1991), recommended that one should always acknowledge and honor intuitive thoughts. Quiet reflection, music and activities that better acquaint a person with the "inner self" were noted as ways to augment intuitive abilities.

Research into the application of intuition in nursing began to emerge in the 1980's. Pyles and Stern (1983) qualitatively studied the intuitive component of clinical decision making. After identifying cardiogenic shock as the leading cause of death in hospitalized patients suffering acute myocardial infarction, the researchers interviewed 28 critical care nurses in eight large, urban hospitals in northern Louisiana to determine how they detect and prevent cardiogenic

shock. The researchers asked how the nurses learned these processes. The interviews and data analysis were done in accordance with the grounded theory method. The results of this study led the researcher to develop a theory of nursing gestalt.

The term nursing gestalt refers to a process where the nurses' past experiences and "gut feelings" are linked with present cues from patients. Nursing gestalt was determined by applying the gray gorilla syndrome. This syndrome suggests that a novice nurse can learn nursing gestalt from a mentor who nurtures, socializes, and teaches the process, as the older gray gorilla does with her younger primates. The novice nurse learns skills in complex decision-making situations through a mentor relationship.

Nursing gestalt depicts a synthesis of logical inquiry and intuitive thinking. This process requires the nurse to sort and distinguish information and clues in determining nursing diagnoses to guide care. The researchers noted that the concept of nursing gestalt was difficult to articulate.

Benner (1982) analyzed critical clinical incidents described by expert and novice nurses in a qualitative design. The sample consisted of 51 experienced nurse clinicians, 11 new graduate nurses, and 5 senior nursing students to delineate and describe characteristics of nurse performance at the different

levels of skill acquisition. The interviews and observations were conducted in six hospitals: two private communities, two community teaching hospitals, one university medical center and one inner-city general hospital. Benner concluded that the expert nurse has an intuitive grasp of the situation. The expert nurse has the capabilities of focusing in on discrete and relevant cues and correctly identifying the health status of patients. This study subsequently became the basis of Benner's model, novice to expert.

Benner and Tanner (1987) used a qualitative design in which they interviewed and observed 21 nurses with 5 or more years experience and who were identified as experts by their peers. The nurses were interviewed three or more times and observed in practice at least once. The interviews contained detailed narratives of situations in which the nurses contributed positive patient outcomes. The researcher's analyzed data according to the six components of intuitive judgment as defined by Dreyfus and Dreyfus: pattern recognition, similarity recognition, common sense understanding, skilled know-how, sense of salience, and deliberative rationality. Benner and Tanner discovered expert nurses experience self-doubt and devaluation of their intuitive judgments by physicians and other nurses.

Benner and Tanner found that expert nurses use scientific reasoning and intuitive thinking in nursing practice.

Schraeder and Fischer (1987), in a qualitative study interviewed 15 nurses with varying degrees of experience (from 1-7 years) in a neonatal intensive care setting of a large university medical center. The major theme of the study was the use of intuitive knowledge in deriving clinical judgments and initiating nursing actions. Information was obtained from interviews, observation, and examination of documents. Tape recordings from the interviews and researcher notes were analyzed. From this study the researchers identified four factors that influenced intuitive thinking. The nurses had intuitive (a) characteristics, (b) feelings of relatedness to the infants placed in their care, (c) perceptions of individual cues from the infants, and (d) experience of linking present perceptions/sensations with past experiences. Schraeder and Fischer noted that the most experienced and technically proficient nurses were more likely to rely on intuition. Similar to the findings of Pyles and Sterns, the nurses in this study also expressed frustration in trying to communicate their intuitive perceptions to physicians and other staff. Nurses who possess self-confidence and the ability to take risks were

willing to act on their intuitions. Poor patient care resulted when the nurses did not trust their intuitive decisions.

Agan (1987), studied the relevance of intuition to holistic nursing using a qualitative design. He interviewed seven nurses belonging to a holistic nursing organization. In analyzing the responses to these interviews, intuitive knowing was identified as a connection between the nurse and the patient. According to Agan, the bond between nurse and patient is reflective of holistic nursing. Intuitive knowing, as derived in the study, involved taking in information about another person suddenly through the senses.

Young (1987), using grounded theory, interviewed and observed 41 nurses from 7 different agencies and a variety of clinical areas in an attempt to determine where intuition is utilized in the nursing process. Thirty-nine of the subjects were registered nurses. Young noted that nursing judgments are intuitive and deliberative in nature. From the study, the researcher identified five dimensions that facilitate intuition: (a) direct patient contact, (b) self-receptive/open attitude toward people and alternative therapies, (c) experience, (d) energy/awareness or perception as information is received, and (e) self-confidence.

Rew (1988) examined nurses' descriptions of intuitive experiences using a qualitative design. She interviewed 56 registered nurses employed in critical care and home health settings. The participants were questioned about experiencing intuitive thoughts during the application of the nursing process and what behaviors resulted from those experiences. Rew found the nurses in the study experienced intuition in all steps of the nursing process. In response to the intuitive experiences, the nurses in the study reported they sought additional data about the patient, attempted to validate the experiences by discussing them with another nurse, reported their findings, and took appropriate actions.

In another study Rew (1990) explored nurse's descriptions of intuitive experiences, the recognizable use of intuition in the nursing process, and types of feelings or sensations associated with intuitions using a qualitative design. The sample consisted of 25 critical care nurses. The results of the study indicated that critical care nurses trust their intuition in clinical practice. The nurses in the study validated the use of intuition in their application of the nursing process. Feelings and sensations associated with intuition fell into three categories (a) feelings about their

patients, (b) feelings about the future, and (c) feelings about self.

Kenny (1994) using a qualitative design, explored nurses descriptions of intuitive experiences. The sample consisted of eleven nurses with a minimum of five years nursing experience. Kenny concluded that nurses have difficulty articulating the concept of intuition. Kenny noted two forms of intuitive thinking identified from the study (a) cognitive - process by which understanding results in a quiet, low key manner (b) empathetic - intense feelings at the onset coinciding with a sense of increased awareness. Kenny identified four pre-existing conditions required for the development of intuition as referred to in the literature: (a) presence/sense of salience, (b) psychology of connectedness with others, (c) language, and (d) hands-on experience.

In another investigation Polge (1995) examined the relationship between the use of intuition in clinical judgment-making and the characteristics of the nurse from the perspective of the level of nursing proficiency and years of clinical experience. The research design was descriptive correlation. The researcher surveyed 179 critical care nurses. The questionnaires included a case study, demographics, and the Rew Intuitive Judgment Scale (measures the use of intuition in clinical

nursing practice). Polge's results coincide with Benner's study in 1984 in that the expert nurse relies almost exclusively on intuition in making clinical judgment. Polge (1995) noted that not all nurses progress to the expert level, consistent with earlier themes presented in Benner's work.

Summary

Intuition is a relatively new concept in nursing. Although the phenomenon has existed for centuries, nursing research in intuition over the last two decades has caused a surge of interest into the topic. Historically, intuition has been considered as a female attribute. Society's bias toward the masculine perspective is a major factor in the devalued and incredulous attitude exhibited toward intuition.

Much of the early literature on intuition is conceptual, due to the abstractness of the idea. Early research consisted of qualitative methods to retrieve information regarding intuition. Instruments such as the Myers-Briggs Type Indicator and the Miller Intuitiveness Instrument were developed in an effort to quantify this qualitative subject.

There are many individualized definitions of intuition given in the literature. All evaluate the basic theme that intuition exists as a perception or immediate knowledge experienced without the conscious use of reason. Intuitive

processes are common in individuals and initiate creativity (Rew, 1988). Certain personality types as defined by Jung are more prone to be intuitive. Other researchers (Benner, 1984; Schrader & Fischer, 1987; Polge, 1995; and Young, 1987) contend that expert and highly skilled nurses are more likely to experience and act upon intuition.

The literature also correlates intuition with a sense of spirituality. This is described as a bond or connection that forms between the nurse and patient. Intuitive processes and a sense of spiritual awareness with patients are indicative of holistic nursing practice (Rew, 1989; Agan, 1987).

Nurses use both analytical and intuitive processes in making decisions in clinical practice (Rew, 1990; Pyles & Sterns, 1983; Young, 1987; Schraeder & Fischer, 1987; Polge, 1995). Intuitive perceptions are difficult to communicate due to the abstract quality of the concept. Nurses are educated to follow scientific rational processes when making decisions that guide care. Intuition has been perceived as unscientific and not professional.

Characteristics of intuitive people include self-confidence and open-mindedness. Decisions are not made until all the data have been examined (Miller, 1995; Young, 1987; Umiker, 1989). Intuitive individuals are creative and devise alternative

solutions to complex problems. Intuition is a component of perception (Rew & Barrow, 1987). Intuitive nurses are completely in touch with patients and aware of any discrete or subtle cues that might be given.

Intuition is an insight or immediate perception of knowledge obtained without conscious reasoning. Although intuition is common, not everyone experiences the phenomenon. If intuition is to be accepted as a method of critical thinking, intuitive processes need to be fostered and acknowledged. The literature strongly supports that intuition is a major component of decision-making that directs patient care among experienced nurses. With this assertion, it is relevant to advanced practice to investigate the presence of intuition as perceived in the role of the nurse practitioner. Based on the assumption that experience and level of skill proficiency increase one's intuitive abilities, nurse practitioners with a vast background of nursing experience in a particular clinical setting should characteristically be intuitive in nature. Intuitiveness has been studied in many groups of nurses, but not with nurses in advanced practice. This study seeks to fill that gap.

CHAPTER III

Design and Methodology

This chapter will explain the approach, literature selection and analysis procedure utilized for this study. This research study is that of an evidence-base practice systematic review, with its description explained below the approach heading. While an integrative literature review summarizes research on a topic of interest, (Polit & Beck, 2004), evidence-based research practice seeks to integrate best research with clinical expertise and patient values. The literature review begins with a search of CINAHL, MEDLINE, and COCHRANE Library. Concepts relevant to intuition with nurse practitioner care in clinical practice are search within the databases. Once the relevant articles are retrieved from the databases, the knowledgebase template is arranged systematically. This section describes the literature selection procedure provides a description of the method utilized to obtain literature of self-perception of intuition with nurse practitioners.

Approach

An integrated literature review, which is a review of research that amasses comprehensive information on a topic, weight pieces of evidence, and integrates information to draw conclusions about the state of knowledge, will be used for this

study; this investigation is an evidence-based practice systematic review. While an integrative literature review summarizes research on a topic of interest, by placing the research problem in context and identifying gaps and weaknesses in prior studies to justify the new investigation (Polit & Beck, 2004), evidence-based practice seeks to integrate best research evidence with clinical expertise and patient values (Sackett, Richardson, Rosenberg, & Haynes, 2000). A summary of the current literature is provided regarding intuition with nurse practitioners in clinical practice.

Literature Selection Procedure

A systematic search of CINAHL, MEDLINE, and the COCHRANE Library was conducted for the relevant literature regarding self-perception of intuition in nurse practitioners. The reference list accompanying each article was then manually reviewed for further articles pertaining to the subject. Articles were selected based on inclusion of at least one of the relevant concepts, whether as the focus of the article or as part of a broader topic. Other informative articles were also included to further explore the knowledgebase.

The systematic review of the literature began with CINAHL to find relevant nursing literature regarding intuition with nurse practitioner in clinical practice. Next, MEDLINE and then

the COCHRANE library were evaluated for further relevant literature. Journal articles were obtained through the Mississippi University for Women library, via Internet databases and interlibrary loan. The review incorporated data beyond nursing literature to expand the knowledgebase for a thorough review, thus providing a multi-disciplinary approach.

References utilized were relevant and applicable to this investigation. The references were obtained from reputable and respected scholarly journals in the healthcare fields. The evidence-based practice procedure (Sackett et al., 2000) for the systematic review comprises the following steps:

1. Convert the need for information (about prevention, diagnosis, prognosis, therapy, causation, etc.) into research questions.
2. Track down the best evidence with which to answer the questions using a variety of database strategies.
3. Critically appraise the evidence for its validity (closeness to the truth), impact (size of the effect) and applicability (usefulness in our clinic our practice addressing both sensitivity and specificity).

4. Integrate the critical appraisal with clinical expertise and the patient's unique biology, values and circumstances (3-4).

Literature Analysis Procedure

For the purpose of this study, a knowledgebase of literature critiques will be used to organize the literature by source and date, variables of interest, literature type and research tools, research design and sample size, theoretical foundation, references, and key findings. Data (provided in Appendix A) is analyzed in terms of relevancy of findings and then summarized utilizing a chart format to assist in application of findings to the clinical problem. The findings document the current state of knowledge available that is discussed in Chapter Four according to the research questions regarding intuition with nurse practitioner in clinical practice.

Summary

In this chapter literature was narrowed down to the most relevant and applicable studies pertaining to this research. This was performed in a structured procedure. This chapter gives guidance to the direction of this research and

Chapter IV

Knowledgebase Findings and Practice-Based Application

The aim of this chapter is to present the findings of the knowledgebase that was derived from this evidenced-based systemic literature review. Tables showing pertinent findings from of this knowledgebase are provided with practice-based applications from current clinical practice guidelines.

Knowledgebase findings

The key findings discovered during the review of literature can be used to begin answering the research questions. As the key findings are pulled and evaluated the concept of the problem statement begins to take shape. Revealing the findings, shapes the ideas of the research into the viewpoint sought out by the researcher.

Research Question One

Research question asks: what is the level of healthcare knowledge regarding experienced nurse practitioners in the clinical practice? Patients entrusted to our care "know" on an intuitive and intellectual level if we radiate authenticity or are merely going through the motions of the medical/nursing encounter. A sense of presence for both the patient and the nurse practitioner can promote trust and may lead to the

development of a transpersonal caring moment. The essence of presence in each caring relationship is the key.

Research Question Two

Research question asks: According to literature how can experience as a registered nurse contribute to effective decision making as a nurse practitioner in clinical practice? Professional connectedness is often expressed in everyday practice in which the nurse practitioner is an active listener and advocate for care strategies. The challenge is made to practitioners to actualize connections with each patient and focus not only on treatments for disease, but also on healing strategies for the patient.

Research Question Three

Research question asks: According to the literature, to what extent do experienced nurse practitioners contribute to cost-effective, high-quality care through clinical practice? It was determined in recent studies, (Mundinger, 2000) that nurse practitioners generated more money and used less resources thus producing cost-effective, high quality care. According to Mundinger (2000) studies also showed that patients who received nurse practitioner and physician care, reported the same level of satisfaction, and had the same level of positive outcomes.

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Practice-Based Application

Along with knowledge-based findings the research questions are also answered with practice-based clinical guidelines derived from active research. Healthcare providers practice research everyday when they treat according to a protocol or recommended clinical pathway.

Research Question One

Research question ask: Do years of experience as a registered nurse aid in expert nurse practitioner care? Based on the research, there is a positive relationship between years of experience as a registered nurse and the experienced nurse practitioner.

Research Question Two

Research question ask: According to literature how can experience as a registered nurse contribute to effective decision making as a nurse practitioner in clinical practice? Based on a search of the World Wide Web (WWW) no best practice guidelines were found pertaining to effective intuition in clinical practice by nurse practitioners.

Research Question Three

Research question asks: According to the literature, to what extent do experienced nurse practitioners contribute to cost-effective, high-quality care through clinical practice?

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Healthcare reform is being driven by the economy, opening the door for cost-effective quality care. Currently, nurse practitioners can be found in diverse roles ranging from general practice to mental health. Nurse practitioners have demonstrated to provide high-quality cost-effective care in whatever environment they practice...rural or urban. What is clear, however, is that the market-driven health care system continues to look for new, more cost-effective ways to deliver services, and nurse practitioners can at least *promise* a greater cost-effectiveness that can't be ignored.

Summary

The knowledge-based and practice-based findings work together to define a partnership of effective clinical practice with the aid of intuition needed for independent practice. Knowledge-based and practice-based findings are collected from different sources but help to achieve the same ideal goal. The literature produced answers that can be studied and formulated upon while clinical practice gave answers that are happening now.

Chapter V

Evidence-Based Conclusions, Implications and Recommendations

This chapter addresses findings of the study, makes interpretations, and provides and the conclusions of healthcare knowledge. In summary, the concept of intuition, its definitions, and its application to the expertise of clinical practice of a nurse practitioner have been analyzed in this paper. The concept of intuition was abstract idea, in return, brought forth a principle that can be grasped. The achievement gave a comparison and review of multiple definitions and their influence in the literature as well as a systematic selection and analysis of pertinent literature. The results of the knowledgebase critique, including limitations of the available research studies will be discussed. Additionally, the implications and recommendations for further research and practice are addressed.

Summary of the Investigation

This project was implemented to explore the healthcare literature related to effectiveness of intuition in clinical practice as perceived by nurse practitioners. The research findings indicated that the total years of nursing experience of the advanced practice nurse had a positive relationship to the

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the advanced practice nurse had a positive relationship to the self-perception of intuition. Practice-based findings supported this by determining that these qualities of intuition: self-receptivity, experience, energy and self-confidence was the dynamic process which is improved through evaluation of prior decision by direct patient contact.

Interpretation of Findings with Conclusions

An analysis of the knowledgebase findings result in a final response to research question. Practice-based guidelines will be used for comparison to the literature review findings. In this section, the interpretation of the findings will be presented in response to each research question.

Research Question One

Research question ask: Do years of experience as a registered nurse aid in expertise in nurse practitioner care? The results of the research indicated that there was positive correlation between years of experience as a registered nurse and nurse practitioner care in the clinical practice.

Research Question Two

Research question ask: According to literature how can experience as a registered nurse contribute to effective decision making as a nurse practitioner in clinical practice? Nursing is focused primarily on rational calculation and

analytical decision-making. In the past decade, much qualitative and quantitative research has shown that there is validity in the use of intuition in nursing practice. In return, advanced practice nurses use intuition with every patient encounter. For this reason, the advanced nurse practitioner may rely on intuitive synthesis of many bits and parts of learned information.

Research Question Three

Research question asks: According to the literature, to what extent do experienced nurse practitioners contribute to cost-effective, high-quality care through clinical practice? The ability to use and trust intuitive knowledge is the difference between the proficient nurse practitioner and the expert nurse practitioner. As intuition becomes more quantifiable, it can then become a more trusted aspect of nursing care both in theory and practice, thus, having the experienced-based ability to perceive the clinical situation holistically, giving the ability to focus on the problem area without unneeded mistakes.

Limitations

There was limited literature found related specifically to intuition and nurse practitioners. There was limitation present in the literature that was available. The majority of the studies did not have a theoretical foundation to guide the

research. Other limitations include use of retrospective data and convenience sampling that could skew results.

Implications and Recommendations

The investigation of the literature regarding an evidence-based practice approach to intuition with nurse practitioners resulted in implication and recommendation for nursing pertaining to research, practice, education and theory were derived from this review.

Nursing Research

This research study contributed to nursing body of knowledge by presenting data on the self-perception of intuition related to years of experience of the advanced practice nurse (APN). Additional research is needed relating to quality and type of experience associated with the self-perception of intuition in the APN. The use of correct decisions arrived at with the use of intuition as well as interpretation of objective data can improve patient outcomes and possibly decrease cost and time of care.

Nursing Practice

The advanced practice nurse providing primary care can use this research in the area of self-evaluation. Proponents of the use of intuition state that trusting the intuitive component of the nursing process enhances the quality of patient care

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therefore may improve patient outcomes. The information from this study can be used to challenge thought provoking self inquiry.

Education

In the academic setting, nurse educators must address the intuitive way of obtaining knowledge. Educational programs should include additional teaching modalities that allow students to think like experts. Understanding that the linear mode is not the only way to practice nursing is paramount in nursing education. The standard for advanced practice education is master's degree in nursing. These programs should include learning modalities that prepare the student for objective analysis as well as the intuitive component of decision-making.

Theory

Benner's model of novice to expert was used as the conceptual framework for this study. Benner (1982) suggests that experience plays an important role as the nurse moves through levels of proficiency, from novice to expert. Benner's model may serve as a guide for studying the use of intuition in the advanced practice nurse.

The result of this study supports the concept that possible years of experience increase the self-perception of intuition. If nurse practitioners are to change the tide of

common thought they must anchor themselves in nursing theory and actively support it with evidence-based practice. Only through repeated justifiable nursing theory will nurse practitioners draw the eye of legislators willing to learn about the differences between physicians and nurse practitioners.

Summary

The research studied supported the theory that there is a flexible guideline for the number of years of clinical experience necessary to move through the levels of proficiency from novice to expert (Benner & Tanner, 1987). Thus, the advanced practice nurse has experience gained through both theoretical and clinical experience. The APN may qualify as an expert after years of educational preparation and clinical experience. Though studies suggest that more research may be needed to study the influence of practice settings of the APN and the self-perception of intuition, however, there were positive indications of the total years of nursing experience and advanced practice nursing which had a positive relationship with intuition.

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