EVIDENCE-BASED PRACTICE PREPARATION IN NURSING EDUCATION: RECENT BSN GRADUATES AND THEIR EXPERIENCE WITH APPLYING EVIDENCE-BASED PRACTICE

by

Claudia Werner-Rutledge

ELAINE GUERRAZZI, PhD, Faculty Mentor and Chair

JULIA BRONNER, PhD, Committee Member

MARY DERESHIWSKY, PhD, Committee Member

Barbara Butts Williams, PhD, Dean, School of Education

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

Capella University

March 2012

Abstract

The purpose of this phenomenological study was to explore the level of knowledge of evidence-based practice (EBP) among registered nurses (RNs) who have joined the profession within the last 5 years. The Promoting Action on Research Implementation in Health Services PARIHS framework provided the appropriate lens through which to discover the experiences of nurses and their use of EBP. Results based on interviews of 20 recent BSN graduates working in urban hospitals in a southern state revealed four major themes: (a) expectation of change, (b) providing the best care to the patient, (c) limited autonomy due to policy constraints, and (d) applying a foundation of knowledge and skill to implement EBP. The findings indicate a readiness for change in recent graduates. Motivation to implement EBP was to provide the best available care. Difficulty to implement EBP because of policy constraints was of concern. Knowledge and experience gained during education was reported to have positively influenced and contributed to the nurse's current perceived skill and comfort to implement EBP. Recommendations for practice based on these findings include linking curriculum with clinical experiences to better prepare future graduates to use EBP in practice. Each organization must find ways to allow recent nursing graduates a stronger voice and input in policy changes and organizational restructuring that will support sustained EBP implementation. Emphasis should be placed on the positive findings of this study that nurses are ready for change and willing and interested to implement EBP, as they strive to provide the best care possible for their patients.

Acknowledgments

The completion of this dissertation has been an adventurous journey that allowed me to explore new ideas supported by the wise counsel of scholars, family, and friends. All played important parts at essential moments and for their guidance and support, I am deeply grateful.

To my parents, Paul and Rose Werner, who have given me their unending love and understanding throughout my life goes the biggest heartfelt thank you. Because you have encouraged me to follow my dreams wherever they may lead, was it possible for me to reach this juncture. To my aunt, Dr. Barbara Werner, I am forever grateful for sharing your wisdom and perspective; you have helped me persevere.

My sincere appreciation goes to my mentor and committee for their knowledge and for encouraging my professional growth. A warm thank you goes to Dr. Elaine Guerrazzi, my mentor and committee chair, for your belief in my work, and sharing your expertise and valuable feedback. To my committee members, Dr. Julia Bronner and Dr. Mary Dereshivsky, a special note of thanks for your support and guidance through my dissertation progression.

I would also like to acknowledge my appreciation to the nurses who participated in this study and freely shared their evidence-based practice experiences with me. Through their openness, new information was uncovered and contributed to this study, the profession of nursing, and nursing education.

Table of Contents

List of Tables

CHAPTER 1. INTRODUCTION

Introduction to the Problem

Evidence-based practice (EBP) has been identified as essential in improving patient care by the nursing and medical profession. The connection between EBP and improved patient care is reflected in the definition of EBP by the Institute of Medicine ([IOM] 2001) as "the integration of best research evidence with clinical expertise and patient values" (p. 147). The National Council of State Boards of Nursing ([NCSBN] as cited in Spector, 2007) echoed its support of the 2001 IOM recommendation to include EBP as a core competency in nursing education. The American Association of College Nursing ([AACN] 2008) provided guidelines and standards underscoring the importance and utility of EBP in nursing education.

In educational institutions, EBP has been found to improve a specific element of the EBP process (Aronson, Rebeschi, & Killion, 2007; Carrazzone, 2009; Leufer & Cleary-Holdforth, 2009; Moch, Cronje, & Branson, 2010), but these studies did not investigate whether that improvement carried over into BSN graduates' decision-making processes in practice. Some studies of nurses' decision-making processes in practice found that nurses frequently failed to apply EBP (McConnell et al., 2009; Özdemir & Akdemir, 2009; Pravikoff, Tanner, & Pierce, 2005; Thiel & Ghosh (2008), but these quantitative studies did not distinguish between recent graduates who relied heavily on their formal education and seasoned nurses who were strongly influenced by their clinical

and organizational environment and personal continuing education. When the effects of educational programs outside of formal education settings were considered, researchers concluded that education can help to strengthen EBP knowledge and skill (Ecoff, 2009; Hart et al., 2008).

Whether and how EBP is used in practice also depends on organizational support systems (Gale & Schaffer, 2009). No studies have sought connections between use of EBP and the impact of leadership and organizational support on recent graduates and their decision-making processes. Neither have studies been conducted to investigate whether and how changes made to incorporating EBP into BSN curricula have had an impact on nurses' decision-making processes once these newly minted nurses enter practice. Understanding of whether and how well recent BSN nurses are prepared through education to use EBP in practice is needed. Information gained from an understanding of the experiences of recent nursing graduates relative to applying EBP can help educational institutions, nursing programs, nurse educators, employers, and nursing leadership strengthen their EBP education and environment to facilitate EBP transition from theory to practice. In particular, insights gained from this study might help health care institutions support recent BNS graduates to apply EBP in their practice.

Background of the Study

The movement toward incorporation of EBP in all aspects of health care started decades ago with Dr. Archie Cochrane. As an epidemiologist with a clear understanding and appreciation of evidence based outcomes, in 1972 he publicly criticized the medical profession, for not providing reviews of evidence that would allow health care decisions by policy makers and organizations to be based on best evidence. His influence was so

strong that even after his death in 1988, his legacy was continued and the Cochrane Center was formed in 1992, followed in 2001 by the Cochrane Collaboration that reached beyond Cochrane's British origins to include international partnerships to advance the creation of freely accessible, systematic reviews of health care interventions (The Cochrane Collaboration, 2012). This international change towards EBP inclusion was also reflected when the IOM (2001) published a landmark report and recommended the inclusion of EBP in nursing education. With a wider recognition of the importance of EBP in health care, each profession and specialty developed strategies to include EBP in their practice and education.

In nursing, the instruction in EBP was encouraged and supported by the IOM since 2001 and the International Council of Nurses ([ICN] 2007) reflected its commitment to include EBP in nursing education in its position statement on nursing research. The NCSBN also provided guidelines and recommendations for faculty and boards of nursing regarding the inclusion of EBP in nursing education, and each state board of nursing has defined and described the required inclusion at each level of education in more detail (Spector, 2007). Accrediting agencies such as the AACN require EBP practice inclusion in all nursing education programs, and the National League for Nursing, while not specifically stating EBP requirements as part of its accreditation process, has offered a position statement to guide faculty in instruction and curricular inclusion of EBP in nursing education.

The American Nurses Association (n.d.), the Honor Society of Nursing, Sigma Theta Tau International, and advanced practice and nursing specialty organizations have developed their own EBP guidelines and provided strategies and resources for educators

and clinical nurses to maintain and update their EBP. Following this near-universal support for inclusion of EBP in nursing education, assessments and evaluations of successful EBP preparation would be expected to follow, but an extensive search of the literature yielded no such studies. Instead, the search revealed an unbalanced and incomplete record of empirical studies about the knowledge, engagement in practice, and attitudes and perceptions regarding EBP practice of recent nursing graduates.

Instruction in EBP

Educational interventions and EBP taught as part of basic formal nursing education to nursing students as well as to clinical staff at training facilities are believed to be beneficial to all participants and the patients to whom they administer care (Carrazzone, 2009; Moch et al., 2010). Although Carrazzone (2009) and Moch et al. (2010) highlighted the benefit of EBP education, they did not investigate how well study participants were prepared to implement EBP. Researchers who underscored the importance of clinical education in EBP have studied different models and strategies to include staff nurses and clinical educators in the process (Aronson et al., 2007; Brown, Kim, Stichler, & Fields, 2010; Callister, Matsumura, Lookinland, Mangum, & Loucks, 2005; Cronje & Moch, 2010; Heye & Stevens, 2009; Kenny, Richard, Ceniceros, & Blaize, 2010; Levin, 2010; Levin et al., 2010; McSherry, Artley, & Holloran, 2006; Melnyk, Fineout-Overholt, & Mays, 2008; Missal, Schafer, Halm & Schaffer, 2010; Pennington, Moscatel, Dacar, & Johnson, 2010; Pravikoff et al., 2005; Rolfe, Segrott, & Jordan, 2008; Stone & Rowles, 2007).

Instructional interventions presented at institutions of higher education and through fellowships, modular continuing education seminars, and workshops have been

studied, with results indicating that awareness has increased and attitudes about using EBP have improved since 2003 (Bradley, Nordheim, De La Harpe, Innvær, & Thompson, 2005; Ecoff, 2009; Hockenberry, Brown, Walden, & Barrera, 2009; Larrabee, Sions, Fanning, Withrow, & Ferretti, 2007; Leufer & Cleary-Holdforth, 2009; McConnell et al., 2009; Melnyk et al., 2004; Oh et al., 2010; Phillips et al., 2006; Pierson & Schuelke, 2009; Steurer, 2010; Varnell, Haas, Duke, & Hudson, 2008). McCluskey and Lovarini (2005) found that while application of an education module did increase participants' knowledge about EBP, it did not change behavior. Kim, Brown, Fields, and Stichler (2009) determined that an educational program could increase knowledge of EBP but not improve attitudes about its importance.

Barriers to Use of EBP

Included in the literature are studies of educational programs involving nursing students and practicing nurses, but researchers did not consider new graduates and the influence of their basic education on EBP. Morris and Maynard (2007) suggested that nursing students perceived themselves to have competent levels of EBP skills after an independent educational practice module on EBP. Based on course interviews with the students, the researchers concluded that to successfully develop and implement these skills further in practice, barriers of time constraints and organizational culture must be overcome. In addition to requiring more time to master application of EBP in practice, Morris and Maynard concluded, based on their study of a computer-aided clinical EBP practice cycle, that online access was a barrier. In contrast, Hart et al. (2008) contended that a computer-based EBP practice program was effective in providing research utilization in a clinical setting, provided appropriate organizational support was available.

Barriers to the implementation of EBP by nurses have been studied; commonly recurring themes include resistance to change, lack of time, lack of organizational support, lack of Internet access, often in combination with a lack of information literacy and lack of EBP preparation during education. These same elements that have been identified as barriers can also serve as facilitators for EBP implementation if the strengths of these elements are improved (Adib-Hajbaghery, 2007; Brown, Wickline, Ecoff, & Glaser, 2009; Chang, Russell, & Jones, 2010; Gerrish, Ashworth, Lacey, & Bailey, 2008; Hannes et al., 2007; Penz & Bassendowski, 2006). The barrier noted as lack of EBP education is a concern and indicates a need for additional information as to what and how recent nursing graduates have learned about using EBP. Thiel and Ghosh (2008) studied hospital nurses' readiness regarding EBP and remarked that the majority of nurses in the study needed significant information literacy support.

For nurses to develop EBP skills, they need the ability to access and evaluate professional literature, and in the electronic environment of the 21st century, this need includes a level of information literacy (Jacobs, Rosenfeld, & Haber, 2003). Courey, Benson-Soros, Deemer, and Zeller (2006) studied the effects of an information literacy course administered to hospital nurses and found that, although literacy skills improved, the participating nurses reported they did not believe there was a need for information literacy in their profession. Doran et al. (2010) evaluated the use of different portable information terminals and found that nurses who used them were satisfied with the functions of the terminals. The researchers concluded that there was a significant improvement in research awareness, value of research, and communication of identified research, providing a key component to the implementation of EBP (Doran et al., 2010).

The common conclusions of these studies were that, to successfully use EBP, the underlying skill to arrive at the best evidence included the ability to effectively search for and evaluate current literature, but the researchers did not evaluate the use of EBP that their information literacy course might have encouraged.

Organizational support can facilitate or impede nurses' implementation of EBP. Koehn and Lehman (2008) surveyed nurses of various ages, experience, and levels of education at a large hospital and found moderate scores on practice and attitude towards EBP, with lowers scores on skills. These findings indicate that nurses with a diploma and an associate's degree do not have as positive an attitude towards EBP as do baccalaureate nurses and those nurses with higher degrees. Based on the skills, attitude, and identified barriers, Koehn and Lehman recommended a systematic plan be implemented to change the institutional culture. Because recent graduates were not identified as a separate group within the study, no conclusion could be drawn about the nature and extent of the influence of professional nursing education on the use of EBP.

Organizational infrastructure and issues such as autonomy, time, and access to evaluate research, managerial and administrative support, as well as leadership, have been identified as important for nurses to implement use of EBP (Boström, Wallin, & Nordström, 2007; Estrada, 2007, 2009; Gale & Schaffer, 2009; Gerrish & Clayton, 2004; Johansson, Fogelberg-Dahm, & Wadensten, 2010; Marchionni & Ritchie, 2008; Miller, Ward, & Young, 2010; Munroe, Duffy, & Fisher, 2008; Tolson, Booth, & Lowndes 2008; Wallen et al., 2010). After studying the relationship between attitudes about EBP, innovativeness, and perceived organizational support in a community mental health center, Palmer (2010) concluded that organizational support predicted attitudes that, in

turn, predicted implementation. The educational preparation and duration since graduation was not considered as a potential predictor of EBP implementation.

Higher education that includes instruction in the use of EBP was found to be associated with increased knowledge of EBP by advanced practice nurses, but attitudes toward the actual use of EBP are unchanged (Milner, Estabrooks, & Myrick 2006; Profetto-McGrath, Negrin, Hugo, & Smith, 2010; Tuite & George, 2010). Although these studies provided insight into the current state of EBP, they did not include any information on how well educational experiences prepared recently graduated nurses to use EBP. In a study that explored how nurse prescribers implemented EBP and evidence-based medicine (EBM) in their role as practitioner, Banning (2005) argued that both EBP and EBM were essential. Banning also remarked that education in both EBP and EBM needed to be strengthened, given that many study participants had difficulty differentiating between EBP and EBM.

In a study of how Turkish nurses use research findings to implement EBP, researchers found an increase in experience and appreciation of evidence were associated with increased implementation of EBP (Özdemir & Akdemir, 2009). Most participants identified lack of research knowledge and skill as a barrier to EBP implementation, while many participants remarked that their research education was unsatisfying because of limited opportunities to practice, insufficient content, and an inadequate amount and quality of instruction (Özdemir & Akdemir, 2009). Although this study provided a link between education and instruction, it offered limited information linking educational preparation to the use of EBP in a clinical setting.

Results of a study in Australia that assessed recent nursing graduates and nursing students approaching graduation found that impending graduates self-reported their EBP knowledge and skill higher than did the recent graduates (Waters, Crisp, Rychetnik, & Barratt, 2009). Because the combined response rate was low (21%) and recent graduates were selected from a group that signed up for a continuing education course at the university, the strength of evidence is limited. Nevertheless, Waters et al. (2009) did not recommend permitting recent graduates to engage in EBP.

When Adib-Hajbaghery (2009) studied Iranian nurses' perceptions of EBP, the participants indicated that, although they valued many levels and sources of evidence to guide their practice, their current nursing practice was not based on scientific evidence. Adib-Hajbaghery concluded that supplementing the nurses' positive outlook with educational and organization support could improve the nurses' ability to increase EBP while they provided care. A study of Swedish head nurses indicated that an educational intervention in EBP did not change EBP, but postlicensing education in scientific methodology did improve research utilization (Johansson et al., 2010).

Prior, Wilkinson, and Neville (2010) found that both educational intervention and basic education contributed to the success of EBP implementation by nurses in New Zealand. Mills, Field, and Cant (2009) surveyed general practice nurses in Australia to assess their knowledge and relationship to EBP and found nurses preferred learning in the workplace and the use of in-service and training opportunities. Younger nurses rated their information technology skills higher than did older nurses, and nurses with advanced education self-reported higher skills in EBP than did nurses with lesser education (Mills et al., 2009). No information regarding preparation to use EBP was provided and 50-60%

of the participants had less than 5 years of nursing experience. Mills et al. did not indicate whether the more experienced nurses answered survey questions differently from the less experienced nurses. In a survey of hospital nurses and physicians in Taiwan, participants indicated overwhelmingly positive attitudes and beliefs in the importance of EBP (Chiu et al., 2010). Knowledge and skill in using EBP were only considered strong by 22-36% of the participants (Chiu et al., 2010). Although these studies touched on the subject of nurses' education, level of experience, and EBP, they did not address how well recently graduated nurses were prepared to use EBP.

Statement of the Problem

There is an unbalanced and incomplete record of empirical research about the effect of professional nursing education on the preparedness of recent BSN graduates to use EBP in the workplace. Efforts have been made to include EBP education in every nursing curriculum, according to the ICN (2007), the NCSBN (as cited in Spector, 2007), and the AACN (2008), all of which agreed that inclusion of this topic would contribute to improved nursing care and better patient outcomes. It is unclear, based on the available empirical research, how recent nursing graduates demonstrate knowledge, engagement in practice, and attitudes and perceptions regarding EBP. The few available studies of EBP considered advanced practice nurses, or if considering registered nurses in general, the distinction of how recently the nurses had graduated was missing. The only valuable information that is available on the subject is from individual educational courses, internships, fellowships, or learning institutes that are available to nurses after graduation and licensing.

The lack of documented research on how well recently graduated nurses are prepared to use EBP represents a gap in the knowledge base. Research in other fields of study and professions have evaluated the link between education and use of EBP (or similar competency). Rubin and Parrish (2007) found that recent graduation, younger age, higher professional entry degree, and specialty organizational memberships were positive predictors of EBP competency in social work. West and McDonald (2008), who evaluated the progress medical students made regarding EBM throughout their medical education, found that evidence-based knowledge scores increased throughout the studies and that EBM was considered highly important in educational and clinical practice. Zlotnik (2007) studied the effects of an evidence-based teaching model to include EBP content in athletic training education and found knowledge, familiarity, and confidence increased, while interest and importance scores remained unchanged.

Mascola (2008), who conducted a pilot study on the effects of guided mentorship in EBM for psychiatry, found that knowledge and skills increased, leading to the conclusion that guided mentoring appeared promising for further study. Coomarasamy and Khan (2004) compared the effects of standalone versus clinical teaching in EBM in postgraduate medical students and found that only knowledge increased with standalone teaching, and that knowledge, skills, attitudes, and behavior increased with clinically integrated teaching. These studies added information to the knowledge base about the effects of EBP content in education for students close to, or shortly after, graduation from medical, athletics, and physical theory fields. Results of the present study contributes to our understanding of whether nurses respond to EBP teaching similar to or different from the way their counterparts in other disciplines behave.

Purpose of the Study

The purpose of this phenomenological study was to explore the level of knowledge of EBP among registered nurses (RNs) who have joined the profession within the last 5 years. Since 2001, the topic of EBP has been strengthened in nursing education through lectures and clinical courses. Despite the increased attention to providing instruction of EBP, there is no research available on how these changes are reflected in the practice of the nurses who have recently graduated. The little published information available is focused on a wide range of nurses in practice, or only advanced-practice nurses, or nurses who participate in additional education courses, but none of the published studies address how recently graduated nurses experience EBP. None of these studies describe the influence of environment and education on EBP and whether, with increased quantity and quality of EBP content, recently graduated nurses use more EBP in their practice.

Because EBP is a complex process that requires repeated exposure to the tasks of information collection, evaluation, and decision making, it is not reasonable to assume how any one aspect of how EBP, when used in practice, could be related to a specific educational intervention. Many factors shape the decision-making processes of a nurse in practice and these factors must be explored, including how nurses experience the EBP process. Because their recent nursing education strongly influences new BSN graduates, they are the population that can best provide insight into the use of EBP that reflects the new educational changes. The experiences of seasoned nurses reflect continuing education provided by employers and individual pursuits. By learning how EBP is experienced based on current educational practices and clinical work environments,

information can be gained that can be used to further strengthen nurses' and work environments to promote the integration of EBP in everyday nursing practice.

Research Questions

The following primary research question guided the methodological approach to the study: *What are the lived experiences of recent BSN graduates regarding EBP use in the workplace?* The following subquestions reflect the central question:

RQ1. How well do BSN recent graduates perceive professional nursing education programs prepare them to practice nursing using EBP?

RQ2. What is recent BSN graduates' perceived level of skill to implement EBP in an urban hospital in a southern state?

RQ3. What is the experience and meaning of EBP for recent BSN graduates in an urban hospital in a southern state?

RQ4. How do nurses describe the effect of leadership on the implementation of EBP?

Conceptual Framework

The Promoting Action on Research Implementation in Health Services (PARIHS) framework was identified and chosen to best support the search for answers to the question of how well do professional nursing education programs prepare nursing students to practice nursing using EBP because it allows the exploration of nurses' experiences and continuous change of their practice based on the evidence from current research (Helfrich, Li, Sharp, & Sales, 2009). There may be characteristics, philosophies, and educational influences that allow some individuals to connect research and theory to

practice. The PARIHS framework is believed to provide the appropriate lens to discover the experiences of nurses and their use of EBP.

To confirm the PARIHS framework is truly suitable and not merely a model upon which to build a questionnaire, a progression of theories that evaluate implementation potential were considered. The diffusion of innovation theory (Rogers, 2003) considers knowledge transfer from a relatively linear, positivistic perspective. Mitton, Adair, McKenzie, Patten, and Perry (2007) supported Rogers's concept of knowledge transfer with their producer-push idea that implies the role of the researcher as producer and the implementers as consumers. Aita, Richter, and Héon (2007) identified the phenomenon with which most nurses and educators are tacitly aware, namely that transferred knowledge is not always used or implemented in daily practice. Gherardi (2006) expanded even further on the complexity of knowledge transfer and implementation of new practices by using a constructivist perspective, stressing that knowledge is not constant and relies strongly on experimental knowledge, reflection, negotiation, situation, and environment. This constructivist perspective supports the stance advocated by Fitzgerald, Ferlie, Wood, and Hawkins (2002), who commented on the social nature of knowledge transfer through interpretation, social influence, and debate within practice communities.

These various theories provided insights that facilitated an understanding of the complexity of knowledge translation and EBP implementation in nursing practice. The PARIHS framework is broad enough to include the main factors of evidence, context, and facilitation to be meaningful in the consideration of EBP implementation issues (Helfrich et al., 2009). Rycroft-Malone et al. (2004) suggested the key subelements in the

PARIHS framework include research, clinical experience, patients' experience, leadership, culture, evaluation, purpose, and role match with skills and attributes of the facilitator. Because the PARIHS framework allows for a complex view of EBP, it is ideally suited as a lens through which to observe and describe the experiences of recently graduated RNs and their use of EBP.

Nature of the Study

The qualitative method with a phenomenological design was appropriate to interpret the experiences and roles of nurses that should be knowledgeable and use the best evidence when caring for patients. Creswell (2008) indicated that the qualitative research method allows the researcher to explore participants' views and focus on individual lived experiences to assess meaning. The phenomenological design increased understanding of participants' thought processes and, in the present study, the experiences of the participant nurses regarding their use of EBP (Moustakas, 1994; Vishnevsky & Beanlands, 2004).

A phenomenological design was chosen to collect the data with which the primary research question was answered because such a design allows for exploration of the meaning of nurses' experience with EBP. EBP is a complex process that includes decision making, and a phenomenological approach allows consideration of the whole human being, not solely his or her behavior (Speziale & Carpenter, 2007). The desire to understand the commonality in human experience of a phenomenon (Speziale & Carpenter, 2007) and the essence of the experience (Merriam, 2009) makes the choice of a phenomenological design the best fit for this study.

This phenomenological study of 20 nurses in urban hospitals in southern states was implemented with an interview protocol. Using an interview protocol allowed for exploration of the experience and meaning of nurses' exposure and practice of EBP, as well as their knowledge, engagement in practice, and attitudes and perceptions regarding EBP. The participants were purposefully selected to represent recent graduates of a BSN program. Only BSN programs and higher educational degrees are accredited by the AACN, and programs awarding these degrees are required to include the teaching of EBP. At the baccalaureate level, the competencies of EBP include integration of best evidence, clinical judgment, interprofessional perspectives, and the patient's perspectives (AACN, 2008). The chosen nurses represented a typical population with definable characteristics (Creswell, 2011).

Significance of the Study

Findings of the present study may contribute to the existing body of knowledge about EBP and add essential information about how recently graduated BSNs are using EBP. The results might identify how well nursing students are prepared to practice their profession using EBP, and how well recent graduates implement EBP in their professional duties. Because this new information could provide insight into the use of EBP 10 years after instruction in EBP was encouraged by AACN (2008) and other organizations, it may also indicate which areas, if any, of formal and continuing education regarding EBP need to be strengthened. Both nursing programs and hospital administrators might benefit from awareness of these findings.

Nursing programs might benefit from knowing, in recently graduated BSNs' own words, how EBP education is used in practice. Aspects of EBP that were not identified by

recent graduates can point to areas of weakness in the curriculum that might be bolstered or modified and practiced. Aspects that were learned in nursing education might need to be monitored and reinforced in new-to-practice nurses to enhance their EBP education foundation. If EBP is perceived to be inhibited by any factors such as infrequency of use or lack of managerial support, changes in clinical organization and continued education might be identified and developed to resolve these obstacles. With the potential for new information based on the insights, perceptions, and experiences of recently graduated nurses, quantitative studies can be developed to further analyze specific components of the EBP process.

Findings from the study could directly benefit nursing educators and nursing education leaders, who will have definitive information upon which to adapt their current courses and participate in curriculum development to strengthen EBP content that was difficult for recent graduates to understand or implement and thereby better prepare future graduates for their new role in practice. New nurses who come to recognize, based on the findings of the study and self-reflection, certain shortcomings in their own use of EBP might benefit by seeking out educational opportunities to increase their understanding of EBP and how it can be used in their practice.

Koehn and Lehman (2006) surveyed nurses and found only moderate scores related to practice and attitude towards EBP, with lower scores on skills. They concluded, based on the skills, attitudes, and identified barriers, that a systematic plan to change the institutional culture was needed. Answering the question "What are the lived experiences of recent BSN graduates regarding EBP use in today's workplace?" will provide insight into any missing elements in EBP education and practice environment as it is experienced

by nurses. On the basis of information gathered from this study, health care institutions might identify changes that could be implemented to improve their of recent BSN graduates to encourage the use of EBP in practice.

Definition of Terms

The terminology used in the study is defined as follows.

Bachelor of science in nursing (BSN).

> The four-year university-based Bachelor of Science in Nursing (BSN) degree provides the nursing theory, sciences, humanities, and behavioral science preparation necessary for the full scope of professional nursing responsibilities, and provides the knowledge based necessary for advanced education in specialized clinical practice, research, or primary health care. (American Nurses Association, n.d., para. 2).

Evidence-based practice (EBP). "A combination of the following three factors: (1) best research evidence, (2) best clinical experience, and (3) consistent with patient values" (IOM, 2001, p. 147).

Perception. "That kind of living system of meanings which makes the concrete essence of the object immediately recognizable, and allows its 'sensible properties' to appear only through that essence" (Merleau-Ponty, 2002, p. 151).

Professional nursing education program.

> Professional Nursing Educational Programs are an educational unit that offers courses and learning experiences preparing graduates who are competent to practice safely and who are eligible to take the NCLEX-RN® examination, often referred to as a pre-licensure nursing program" (Professional Nursing Education Program Rule, 2005, para. 32).

Recently graduated nurse. For the purpose of this study, a registered nurse who has graduated within the past 5 years.

Registered nurse (RN). A nurse who has graduated from a state-approved professional nursing education program and is licensed. A nursing license is issued by individual states, with state licensure requirements determined by state legislature. There is no standardized licensure in the United States, but 24 states have entered into an agreement allowing nurses to practice in the respective state if they possess a license issued by their state of residence (NCSBN, n.d.).

Assumptions

A number of assumptions were made relative to this study. As in any study for which findings are based on interviews of participants, it must be assumed that all participants were honest and openly shared their experiences of EBP. It was also assumed that the participants had a working knowledge of English sufficient to participate in the interview. Another assumption related to the phenomenological design of this study is that the researcher was skilled in eliciting and synthesizing the lived experiences of the participants who shared their lived experiences during the interviews (Hegel, 1977; Husserl, 1962; Moustakas, 1994).

Limitations

Limitations are potential weaknesses in the study over which the researcher has no control (Creswell, 2008). Researcher bias is a potential weakness in any qualitative study; however, detailed note-taking and audiotaping of the interviews (with permission of the participants) limits the natural bias the researcher brings to a study. In a phenomenological study, there is also a potential for perceptual misrepresentation (Moustakas, 1994). The interviewer's reaction to the participant's response to questions, as well as the time limitation of the interview, may be weaknesses. The scope of the

present phenomenological study was geographically limited to registered nurses who recently graduated from a BSN program and were, at the time of the study, working in an urban hospital in a southern state. The intent of the study was to interview 20 RNs and to collect data until saturation was achieved.

Organization of the Remainder of the Study

The study is organized into five chapters, references (works cited), and appendices. Chapter 2 is a review of pertinent literature related to the use of EBP. Chapter 3 presents a description of the research methodology, the instrument development, the sample, and the data collection process, including analysis and reporting. Chapter 4 is a presentation of the data collection and analysis process. Chapter 5 is a discussion of results, conclusions and recommendations for future study.

CHAPTER 2. REVIEW OF THE LITERATURE

EBP by nurses is recognized as important to the care of patients (IOM, 2001) and has been a part of BSN program curricula since 1998 (AACN, 1998). Studies conducted to date have identified barriers to nurses implementing EBP that include experience, attitude, skill, and institutional culture. Various studies have touched on aspects of nursing education, EBP, attitude, and skill (see, for example, Koehn & Lehman, 2008) but none have investigated the possible link between recent education, EBP, and organizational culture. This chapter presents a review of literature on the theoretical background of EBP, a definition of EBP, a summary of EBP instruction in educational institutions, the implementation of EBP, workplace experiences with EBP, the role of leadership in hospitals, and studies conducted to date on these topics.

Documentation

Scholarly books, seminal journal articles, and research documents were reviewed through the Capella University online library. Additional databases searched included Campbell Collaboration, CINAHL, Cochrane Library, EBSCOhost, ERIC, InfoTrac One File, Journals@Ovid, MEDLINE, PsychINFO, PubMed, ProQuest, ProQuest Digital Dissertations, SAGE Journals online, Science Direct, Wiley Online Library, and WorldCat. Google online databases facilitated the search of pertinent literature. Bibliographic and reference listings were accessed from appropriate titles discovered within the review process. Approximately 320 current scholarly articles pertaining to EBP, evidence-based nursing, evidence-based care, evidence-based health care, EBM,

evidence-based implementation, instruction of EBP, education in EBP, practice of evidence-based care, role of EBP, and research in EBP were reviewed.

Evidence-Based Practice in Theory

Several concepts and theories have been posited about nurses' use of EBP. Many theories have been effective for use in nurses specific areas of inquiry and were considered for this study. Interdisciplinary groups such as the United States Service Task Force, the Cochrane Collaboration, and the Campbell Collaboration offered systematic reviews and practice guidelines that might be of value to clinical practitioners and educators. As part of a review of evidence-based models from different disciplines, Satterfield et al. (2009) presented a unified transdisciplinary model of EBP that was grounded in an ecological framework and emphasized shared decision making.

Tolson et al. (2008) investigated the impact of the Caledonian development model on EBP and found that the many approaches to educate and support nurses to value EBP can lead to improvements at the patient level. The collaboration process and education was reported to stimulate nurses' interest and promote self-reflection of nurses' current practice. Virtual college education and collaboration appeared to contribute significantly to the success of EBP implementation.

Bahtsevani, Willman, Khalaf, and Östman (2008) studied an instrument that facilitated evaluation of clinical practice guidelines as well as factors that were expected to influence the success of EBP implementation. The instrument was based on the PARIHS model. Responses to the translated and adapted questions indicated good and acceptable agreement using Cohen's kappa, meaning that the instrument would be viable for further development. Bahtsevani et al. concluded that the PARIHS model can be used

to successfully evaluate the factors that support evidence and guidelines to be implemented into practice.

Defining Evidence-Based Practice

EBP originated in the medical field as EBM. It evolved from the definition of EBM offered by Sackett, Rosenberg, Gray, Haynes, and Richardson (1996):

> Evidence based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research. (Sackett et al., 1996, p. 71)

Sackett et al.'s (1996) definition focused on medicine, research, and the physician's knowledge. The definition was subsequently broadened to include the essential aspect of patient preferences and values. As additional health care providers began using EBP, more role-neutral definitions that did not specify a field such as medicine or nursing were developed.

The definition of EBP by the IOM (2001), "the integration of best research evidence with clinical expertise and patient values" (p. 147), was used in this study because it is descriptive, focused, and is applicable to any health care setting. Instruction of EBP has been encouraged and supported by the IOM since 2001, when recommendations for an inclusion of EBP in nursing education were published. The ICN (2007) echoed the importance of including EBP in nursing education in its position statement on nursing research. The NCSBN (as cited in Spector, 2007) also provided guidelines and recommendations for faculty and boards of nursing regarding the inclusion of EBP in nursing education, and each state board of nursing has defined and described the required inclusion at each level of education in more detail.

Summary of EBP Instruction in Educational Institutions

Instruction in EBP is provided in many forms. In some instances, EBP instruction is woven throughout a nursing curriculum or it is included in a research course, offered as a standalone course or module, a capstone project, or as an elective course. Researchers have stressed the importance of clinical education in EBP and have studied different models and strategies to include staff nurses and clinical educators in the EBP process.

EBP Instruction With Clinical Aspects

Educational interventions of EBP that are included in clinical nursing education can have a positive impact on the students, the staff, and the patients. Carrazzone (2009) studied the effect of an EBP course by administering a pre-/posttest to nursing students and found that posttest scores were significantly increased. Additionally, 16 of the 32 nursing students who took the course were able to write valid PICO questions and indicated on a survey that they found the EBP course effective. Because the EBP course was provided on a hospital unit during a clinical nursing education rotation, the staff nurses also benefited from the information and changed their practice to support EBP principles. Staff nurses were not included in the study and the researcher made recommendations to the hospital to implement an EBP course based on the findings of the study with the nursing students. Carrazzone acknowledged the limitations of the small sample, and validity and reliability issues with the teacher-designed pre-/posttest. No information was provided how the study participants used their EBP knowledge after graduation from their nursing program or whether any of the surveyed nurses had any EBP experience from recent nursing training. No demographic information was offered about the staff nurses included in the study.

Moch et al. (2010) conducted a three-part study of EBP instruction in undergraduate nursing education; the first part was a literature review on the topic of EBP nursing pedagogy. Moch et al. concluded that clinical hands-on practice with EBP is essential, and highlighted various learning opportunities that other researchers had studied. All the studies mentioned by Moch et al. focused on the process of education and did not indicate how recent graduates used or experienced EBP. In Part 2 of the study, Moch and Cronje (2010) focused on preliminary results of an action research study of a curricular innovation that encouraged EBP through student and staff partnerships. Descriptive information was used to present the data collection with different instruments and a subsequent evaluation. In many cases, students were considered as opinion leaders because they brought new information about practice issues to light. Process summaries were used to reveal evidence of social engagement between students and staff. This descriptive information demonstrated that EBP is actively included in nursing education and that researchers have studied different approaches to EBP.

In Part 3 of the study, Cronje and Moch (2010) discussed the principles of diffusion of innovations and how nursing students could play a larger role in bridging the practice gap between the EBP instruction they received in the classroom and the EBP they observed during clinical rotations. Although Part 3 was not based on a research study, it revealed that a gap exists relative to knowledge of the experience that recent nursing graduates have with EBP. To understand whether there exists a practice gap between nursing education about EBP and use in practice upon graduation, it is essential to explore the lived experiences of recent graduates with EBP in today's workplace, the purpose of the present study.

Additional descriptive studies portray collaborative efforts and curriculum changes aimed at supporting EBP education and dissemination. Stone and Rowles (2007) described how nursing students completed a research utilization project that supported the staff at the students' clinical rotation site relative to building knowledge and practice with EBP. The results indicated that almost 60% of the staff preceptors believed the student project was educational and useful. An unintended effect was that, as a result of the collaboration, policies and nursing practices had changed. Missal et al. (2010) described a partnership between a university and a healthcare organization, the intent of which was to teach research from the standpoint of EBP. They concluded the 3-year project increased student understanding of the EBP process in practice and the participating nurses contributed to a culture that embraced EBP (Missal et al., 2010). Pennington et al. (2010) described a similar partnership and encouraged further research on collaboration between nursing schools and healthcare facilities that allowed students to gain a deeper understanding of the EBP process.

Levin et al. (2010) described their test of a new practice model that combined EBP and practice improvement by partnering a university nursing program with clinical practice sites: a community hospital and a home health agency. While they acknowledged that the 6 to 18 months to implement this model was taxing, they argued the financial and human recourses that were saved in the long run outweighed the initial investment. Although Levin et al. perceived benefits from their practice model; assessment of students after the curriculum and teaching strategies were changed was not completed. These few descriptive studies are indicative of the effectiveness of improvements being made to enhance EBP education in nursing programs through collaboration with clinical

sites or to prepare practice sites to support EBP, but none of the cited studies include any information to indicate how nursing students used their experiences with EBP after graduation, or how recent BSN graduates use EBP in their profession.

EBP Instruction With Academic Aspects

Educational interventions in the United States and internationally have been studied from an academic perspective. Kim et al. (2009) determined that the educational program studied by 208 senior nursing students indicated an increase in EBP knowledge and use, but no significant differences in attitudes and future use of EBP based on posttest results. Heye and Stevens (2009) described how they used new resources to teach EBP in a BSN program as well as how gaps in student knowledge and skills were assessed and concluded that their new project was an effective learning strategy, based on student evaluation, student feedback, and faculty feedback. Aronson et al. (2007) improved the BSN curriculum at their nursing school by reorganizing and restructuring the curriculum to include EBP teaching in the first semester. Results of Aronson et al.'s mixed method study demonstrated that students who were introduced to EBP early in their nursing program were better prepared for their clinical experiences.

Brown et al. (2010) assessed BSN students at two California universities using a cross-sectional survey design with a sample of 436 nursing students (response rate of 63.3%). The study was an investigation of predictors of knowledge, attitudes, and future use of EBP. Results indicated that advancing academic levels correlated with an increase in knowledge, attitude, and future use of EBP. Perhaps even more importantly, the students' confidence in their clinical decision-making ability was a positive predictor for knowledge, use, and future use of EBP.

It would be valuable to take the next step and evaluate if the prediction of future use holds true once those students enter practice. The cited studies did not consider the effects of education on recently graduated nurses, or how recent graduates use EBP in a manner that reflects their education about EBP. Because the studies did not contain a qualitative component, only the chosen variables could be considered. Exploring the experiences of recent graduates and allowing them to express how they use EBP based on their education, the subject of the present study, will provide new information that is needed to better understand the theory-practice gap that exists between EBP education and practice. This section presented information about domestic studies on EBP. International studies have also been conducted that indicate EBP education is important.

International Studies of Evidence-Based Practice Education

EBP as part of nursing care is a government mandate in the United Kingdom and Sweden. The mandate has led to a wealth of research from these and other nations. While the educational structures, practice roles, and responsibilities differ around the world, based on the role descriptions in many studies, these studies can provide valuable information that is translatable to international nursing education programs and practice environments, including those in the United States

Leufer and Cleary-Holdforth (2009) studied how embedding a culture of EBP through teaching at Dublin City University and assessment in two research modules in undergraduate nursing studies could enhance EBP beliefs and implementation. The study included 217 students (response rate 66%) who completed a posttest survey. Leufer and Cleary-Holdforth found that, based on the attitudes towards EBP and implementation of EBP scores, a positive correlation existed, indicating that a positive attitude about EBP

would increase the likelihood of implementation of EBP. The participants remarked that application of EBP resulted in the best care for the patients but responded neutrally toward providing care to their patients based on EBP. Leufer and Cleary-Holdforth concluded that educational and healthcare organizations need to foster a climate conducive to EBP wherein inquiry and change are welcome.

Oh et al. (2010) studied the integration of EBP into clinical courses in the curriculum of RN and BSN students in Korea using a one-group posttest design with 74 participants. Their students, in addition to the customary course, participated in a 3-day practicum in the middle of the course and again towards the end of the course. Postpracticum scores of confidence in understanding and implementing EBP increased significantly while the identified barriers to research utilization decreased. Oh et al. concluded that educational practices need to be reviewed and clinical courses might have to be strengthened by practice.

Morris and Maynard (2007) suggested that nursing students at a British nursing school perceived their skills in EBP to be at a skilled or competent level after an independent educational practice module on EBP. Morris and Maynard used a pre-/posttest adapted from the Fresno questionnaire for the evaluation of the educational cycle for the three students who participated. Based on this limited sample, the researchers concluded that even though the students reported difficulty accessing computers in the clinical area, the teaching practice to add a journal club was beneficial in increasing the students' EBP knowledge and skills. In another study conducted in the England, Bradley et al. (2005) reviewed the literature and found that more studies were needed that described potential strengths and weaknesses of EBP courses, educational

processes, and outcomes. Bradley et al. found that no studies compared the experiences of participants with different EBP courses. They recommended that future studies include the experiences of participants and providers. The studies cited by Bradley et al. highlighted the importance of all types of education to improve EBP use, but none of the researchers considered how well recently graduated nurses were prepared to use EBP or what influence EBP education had on the practice of nurses entering the workforce.

Implementation of EBP

Many approaches have been taken to increase the likelihood of EBP implementation. In a study conducted in Turkey using descriptive design including 219 nurses from 55 inpatient clinics and three hospitals, essential factors that contribute to EBP use were explored (Özdemir & Akdemir, 2009). Özdemir and Akdemir (2009) found that nurses' use of research findings to implement EBP indicated increases in experience and appreciation of evidence were linked to increased implementation of EBP. The majority of participants identified a lack of research knowledge and skill as a barrier to EBP implementation. Two thirds of the participants indicated that the research courses in their education were unsatisfying because of limited opportunities to practice, insufficient content, an inadequate amount and quality of instructions, and did not sufficiently prepare them to implement EBP (Özdemir & Akdemir, 2009). A survey study conducted in Sweden achieved a 59% response rate of head nurses and indicated that an educational intervention in EBP did not change EBP, but postlicensing education in scientific methodology did improve research utilization (Johansson et al., 2010).

McConnell et al. (2009) reported on a continuing education series called the Geriatric Nursing Innovations through Education Institute. The study included 214 nurses

enrolled in a 6- to 9-month 39-contact-hour program. Of the 128 nurses who completed the program, 48 indicated they found the clinical practice improvement project helpful to improve their clinical and management skills, and 41 found it helped them improve quality of care.

Prior et al. (2010) found education contributed to the success of EBP implementation in New Zeeland nurses. A descriptive survey design with 55 nurses was chosen. The results indicated a positive relationship between additional postlicensure or tertiary qualifications and implementation of EBP, leading Prior et al. to conclude that education positively influences EBP understanding and implementation. Mills et al. (2009) conducted a survey of general practice nurses in Australia and achieved a 33% response rate (590 completed responses) to assess nurses' knowledge of and relationship to EBP. The results indicated a preference for learning in the workplace and the use of in-service and training opportunities. Younger nurses rated their information technology skills higher and nurses with advanced education self-reported higher skills in EBP. No information regarding the preparation to use EBP was provided. Demographic information indicated that 50-60 % of the participants had less than 5 years of nursing experience. The survey responses did not distinguish between years of nursing experience or provide other demographic information.

In a survey of hospital medical personnel in Taiwan that achieved a 65% response rate from nurses and a 73% response rate from physicians, the participants indicated positive attitudes and beliefs in the importance of EBP. Knowledge in using EBP was considered strong by 30% of nurses and 36% of physicians, and skill was rated strong by 22% of nurses and 30% of physicians (Chiu et al., 2010). Results of a study that assessed

nurses in practice and nursing students close to graduation in Australia (Waters et al., 2009) indicated that the nursing students close to graduation self-reported their EBP knowledge and skill higher than did recent graduates. Postgraduation nurses had an average of 25 years of experience for the hospital-trained group, and 8 years of experience for the university-trained nurses. Strength of evidence was limited by the low combined response rate of 21% and the recent graduates having been selected from a group that signed up for a continuing education course at the university. Waters et al. indicated that they would not recommend permitting recent graduates to engage in EBP because both groups scored low to moderate on self-rated knowledge and skill of EBP. It would be valuable to learn if nurses in other nations self-rate their knowledge and skill so low that the higher rated student group were, at best, in the moderate range. The many limitations in the study by Waters et al. means the study adds little worthwhile information about recent graduates and their use of EBP.

None of the studies reviewed here provided any information about recent graduate nurses and their use of EBP, or how nurses experience EBP as related to their nursing practice. The quantitative nature of these studies limited the information that could be gained. Even in studies that captured demographic data, these data were not used to differentiate the findings.

Barriers to EBP Implementation

Results of recent studies indicate there are many barriers to the implementation of EBP by nurses. Recurring themes include resistance to change, lack of time, lack of organizational support, lack of Internet access, often in combination with lack of information literacy, and a lack of EBP preparation during education. The same elements

represented as barriers could serve as facilitators for EBP implementation if they are strengthened.

Brown et al. (2010) conducted a study in an academic medical center. A convenience sample of 458 nurses answered two questionnaires with a response rate from 44-68%. The participating nurses identified lack of time and lack of nursing autonomy as the main organizational barriers that prevented them from identifying and implementing EBP. At the same time, the participants identified learning opportunities, culture building, and readily available user-friendly resources as assets that facilitate EBP implementation. Brown et al. concluded that these same barriers and facilitators had been identified in other studies and encouraged nursing educators to work closely with nursing and hospital administrators to remove institutional barriers.

Chang et al. (2010) conducted a descriptive quantitative survey study in Taiwan to investigate perceived barriers to EBP use. The study included 89 nurses who worked in six nursing homes. Results of the study indicated that organizational and educational barriers, such as lack of authority to implement change, difficulty understanding statistical analyses, uncertainty of the evaluation process of research, and lack of knowledgeable peers, were the main obstacles to implementation of EBP. Chang et al. did not identify facilitators that were present but identified potentially beneficial facilitators that were present, including computer and Internet access at work, improved research training, and collaboration with academic nurses. The researchers concluded that nurses in Taiwan encountered similar barriers and facilitators as did other nurses studied in other locales.

Gerrish et al. (2008) conducted a cross-sectional survey with 598 nurses representing a 42% response rate to compare factors identified by junior and senior nurses at two hospitals in England. Junior nurses (that is, those who did not have seniority) reported feeling overwhelmed with information and having difficulty in managing time to appraise available research. These same nurses also indicated more comfort with using formal texts and information gained from colleagues. Senior nurses (that is, those with seniority), on the other hand, reported confidence in accessing and evaluating all available resources and initiating change to overcome potential barriers to implementation. The designation "junior nurse" does not directly relate to years of experience, and does not reflect recent graduates. In this study, 80 junior nurses had 10 to 20 years of experience and 83 nurses had more than 20 years of experience. Junior nurses who do not have the same status as nurses with seniority may be reflected in their strong feelings of disempowerment to implement EBP in the nursing culture in place. There was no distinction between recent graduates and experienced nurses that might have indicated if recent changes to nursing education are having an impact on the experiences of nurses who have recently attended nursing school. The quantitative nature of these studies did not add any new information to the knowledge base regarding barriers to implementation of EBP.

Hannes et al. (2007) explored barriers to EBP using a grounded theory approach to make sense of the meaning, expectation, attitudes, and suggestions of nurses in Belgium by means of a problem tree, which identified obstacles that might be overcome to allow nurses to implement evidence-based nursing. The study was conducted in 2004 and 2005 and included 53 nurses divided into five focus groups. Educational and

organizational problems similar to those noted in previous studies were identified. Additional barriers highlighted included lack of respect for the nurses and their knowledge, nurses with different degrees having different competences, and that little research is available in the nurses' native language. Results added valuable new information to the known barriers that nurses encounter relative to implementation of EBP. As was noted in analyses of other studies, results in this study did not separate recent graduates from nurses with many years of practice experience. It would be interesting to investigate whether recent graduated nurses in the United States report similar experiences with EBP use, the subject of the present study.

Preparedness for EBP Implementation

Pravikoff et al. (2005) assessed the state of understanding EBP of nurses in the United States by conducting a survey with 1,097 nurses (37% response rate) who provided their perception of the information resources available and used by the nurses in pursuit of EBP. The majority (61%) of respondents stated they seek information once a week and, of those, 58% reported that they did not use research reports. Of the respondents, 57% reported access to a medical or health science library. When asked about the searches they conducted, 76% of respondents never searched CINAHL and 58% never searched MEDLINE. With regard to conducting research, 59% had not identified a research problem within the last year and 72% stated they had not evaluated research reports. The primary barrier preventing nurses from using research in practice was not noted as lack of time.

Additional high-ranking barriers noted by nurses who participated in the study by Pravikoff et al. (2005) included, on a personal level, not valuing research in practice, not

understanding electronic databases, and having difficulty accessing research material. High-ranking organizational barriers included other goals with higher priority, difficulty in recruiting and retaining nursing staff, and limited budgets to acquire information resources. The conclusion reached by Pravikoff et al. was that nurses acknowledge the need for information to effectively practice but, according to the nurses' answers, they are not prepared to use available information resources and are not prepared for EBP.

McSherry et al. (2006) studied levels of research awareness and how research awareness influences EBP in nurses in England. The descriptive quantitative survey study included 843 respondents (39% return rate). Of the respondents, 91% agreed that EBP plays a larger part in improving patients care. A majority (86%) of respondents indicated EBP is the way to change clinical practice. Significant associations were noted between the level of confidence to undertake research and knowledge about the research process, research awareness, or research education. McSherry et al. concluded that nurses have a positive attitude towards research and that organizations need to enable and empower nurses to practice using EBP.

Rolfe et al. (2008) studied tensions and contradictions regarding EBP of nurses in England. A survey was used to identify the sources that influenced nurses' practice. With a low response rate of 8.9%, the results indicated that nurses used local and national guidelines, their own experiences, and the patients' preferences as their main guides for practice. Rolfe et al. concluded that practicing nurses relied heavily on their own experiences when making decisions. Although Rolfe et al.'s desire to identify if the confusion and contradiction in published literature was reflected by the views of the study participants, results indicated that nurses were largely unaffected by any

contradictions because they relied mostly on their own experiences. With such a small response rate, it is possible that these findings do not represent the perceptions of most nurses.

Thiel and Ghosh (2008) studied the readiness for EBP of hospital nurses. They conducted a descriptive cross-sectional survey with 121 participants (59% return rate). Barriers became evident as a majority (72.5%) of the nurses indicated their main source of information came from their peers, indicating a significant need for information literacy support existed. The barrier also identified lack of EBP education as a concern and indicated a need for additional information about the education status relative to EBP use by recent nursing graduates. This study, along with the other studies mentioned here, provided a snapshot into the preparedness of nurses to implement EBP as well as the barriers that are encountered. This information supports the previously reported need for better and more easily accessible education regarding EBP.

Although many of the studies collected demographic data and recent graduates were represented in some of the studies, these recently graduated nurses were not considered as an independent group, only as members of the overall sample. The results do not make clear whether recent graduates encountered the same barriers and facilitators to EBP implementation, how prepared they were to use EBP, or if their experience differed due to the changes made in nursing education over the past 10 years, the subject of the present study. Fresh information is needed to evaluate how recent graduate nurses experience EBP in their workplace after exposure to the newly strengthened EBP nursing education.

Workplace Experiences With EBP

Common threads run through the studies about EBP implementation: lack of knowledge and education regarding EBP and problems with information literacy. Learning opportunities are available for nurses outside of their formal education that can address the need for additional EBP information. Many of these educational opportunities are available at nurses' workplaces.

Educational initiatives such as those found in educational institutions, fellowships, modular education opportunities, and workshops have been studied to evaluate how nurses engaged in current practice can enhance their experiences with EBP. Ecoff (2009) used a descriptive study with a mixed method design to evaluate an EBP intervention. The intervention was administered at the Evidence-Based Practice Institute, where nurses participated in a mentoring program to learn more about EBP. Quantitative results included eight mentors and nine nurse fellows. A significant increase in the development of EBP skill and knowledge was recorded. The qualitative component of the study consisted of nine mentors and 11 fellows participating in a focus group. Themes of barriers with "organizational culture and support, EBP structure and process, and professional growth" emerged from the focus group (Ecoff, 2009, p. 3).

Hockenberry et al. (2009), Pierson and Schuelke (2009), and Steurer (2010) described the efforts taken at their respective healthcare facilities to include an EBP educational element in support of a changing culture to embrace EBP in practice. The educational element to change the culture was expected to help practicing nurses increase their skills in applying EBP. The descriptions of these programs did not include any

assessment or follow-up information that could indicate strengths and weaknesses that need to be addressed in further research.

Larrabee et al. (2007) evaluated an EBP program to gather insights into nurses' attitudes and participation surrounding EBP and related activities. Pre-/posttest and descriptive evaluations were used to assess the nurses from many departments and the variety of backgrounds of nurses who attended the EBP workshop. The study conducted in 1999 achieved a response rate of 56%, and the study conducted in 2002 achieved a response rate of 49.6%. Higher attitude scores were associated with increased knowledge about available support services. Also, increasingly positive attitudes were reported in nurses who participated in research-related activities. Larrabee et al. concluded, based on the findings, that providing support for research-related activities could improve nurses' attitudes and their participation in research-related activities.

The findings reported by Larrabee et al. (2007) supported those by Melnyk et al. (2004), which indicated that a positive attitude towards research utilization could enhance participation in EBP-related activities. Varnell et al. (2008) conducted a study that used EBP beliefs and implementation scales to evaluate the effectiveness of the presented education program at their healthcare facility. Forty-nine nurses from five acute care facilities completed a 2-hour course presented by a local nursing school faculty. Pre-/ posttests indicated that after the educational presentation, the participants scored higher on the beliefs and implementation scale. Varnell et al. touted the benefits of collaboration between nursing schools and healthcare facilities to improve EBP knowledge.

Hart et al. (2008) contended that a computer-based EBP practice program was effective in providing research utilization skills in a clinical setting with appropriate

organizational support. A convenience sample of 744 nurses completed a pre-/posttest questionnaire to assess the effectiveness of an educational program. Hart et al. concluded that the improvements in all assessed areas, knowledge, attitude, and skill reflected the results of previous studies, which found EBP educational interventions were beneficial for practicing nurses because the nurses ultimately used EBP. The participating nurses also reported their peers and direct managers were more supportive of their implementation of EBP than were physicians and administrators.

In a study using grounded theory conducted in Iran in 2005, 21 participants were interviewed and observed for 30 hours in their hospital setting (Adib-Hajbaghery, 2007). Adib-Hajbaghery (2007) concluded, based on the emerging themes, that healthcare facilities, managers, and educators need to provide a supportive environment to implement EBP. Adib-Hajbaghery (2007) contended researchers should work with nurses in practice to generate high-quality evidence to support nursing practice.

Kenny et al. (2010) studied collaboration between two military hospitals to advance EBP. Their results indicated that the project was successful because experts conducted the training workshops, support staff was shared, lessons were learned, and sustainability strategies could be exchanged. Even though typical change barriers were encountered, the benefit of sharing of knowledge between the medical centers prevented redundancy in the development of practice guidelines, and a culture that supported EBP was established.

In sum, the studies cited here contributed to knowledge about educational intervention in the clinical setting. While concluding that educational intervention is beneficial, no information was provided that would allow a distinct consideration of

recent graduates and their use of EBP. Results illustrate the importance of persistent and continuous efforts to provide educational opportunities to nurses, and to promote a work environment that is supportive of EBP.

For nurses to develop EBP, they need the ability to evaluate professional literature, and in the current electronic environment, this ability must include a level of information literacy (Jacobs et al., 2003). Jacobs et al. (2003) added computer literacy components to their master's degree nursing program to strengthen the foundation for EBP. Students entering the program completed a baseline survey as part of the program and 45% of those students were asked 1 year later to answer the same questions. Findings to the computer competency questions indicated improvement.

Courey et al. (2006) studied the effects of an information literacy course in an associate's degree nursing program. A pre-/postintervention questionnaire administered to 58 respondents was used to evaluate the program. Courey et al. found that, while the literacy skill improved, the participating nurses indicated they did not feel the need for information literacy in their profession. In considering possible factors that might have influenced the students' negative attitudes toward information literacy, Courey et al. remarked the ambivalence could stem from a lack of awareness of the importance of EBP, as well as a lack of consistent role models or exposure to EBP.

Doran et al. (2010) evaluated the use of different portable information terminals using a pre-/posttest design with 488 nurses in 29 different health care settings. Findings indicated that nurses who used the terminals where satisfied with the functionality. Doran et al. concluded that there was a significant improvement in research awareness, value of

research, and communication of identified research, providing a key component to the implementation of EBP.

The studies cited here identified that a key to successfully using EBP and arriving at the best evidence is the ability to effectively search for and evaluate current literature. Researchers in these studies did not evaluate the use of EBP that their information literacy courses might have encouraged. Further information is needed to learn how nurse information literacy enhances implementation of EBP.

Milner et al. (2006) recognized the potential that a cumulative effect of information and knowledge sharing could have in research utilization and studied the effects of various combinations of specialists in collaboration. The use of EBP in the workplace and participants' role in relation to the facilitation of EBP in advanced practice nurses was considered. Higher education was generally associated with increased knowledge and use of EBP but attitudes did not always change towards the issue.

Milner et al. (2006) contended that clinical nurse educators and clinical nurse specialists are important linking agents in the facilitation of EBP. Because research utilization is an important component of EBP, Milner et al. conducted a literature review to gain information about the research utilization of clinical nurse educators and found a positive relationship existed between research utilization and attitude towards research. There was also a positive relationship noted between research utilization and higher education and the reading of professional nursing journals by clinical nurse educators. The conclusion reached was that while clinical nurse educators are at the front line with practicing nurses, future studies need to investigate the outcomes of research utilization and the effectiveness of the clinical nurse educators as facilitators in this context.

Profetto-McGrath et al. (2010) conducted a descriptive cross-sectional telephone survey of clinical nurse specialists (CNSs) in Canada. The researchers examined the approaches that were used by 94 CNSs (76% response rate) to choose and use evidence in their clinical practice. Results indicated that the CNSs used literature that was tailored to their specialty most often; as far as people-based evidence was concerned, their personal experiences were used most often. Evidence was used most often to facilitate improvements in patient care and least often to develop new research proposals. The factors influencing CNS access, utilization, and dissemination of research were time and assistance/support from others. Profetto-McGrath et al.'s conclusions and implications were that new networking methods might help CNSs to improve collaboration relative to EBP. A need for organizational support was evident because CNSs reported feeling torn between their multiple roles of being at the bedside and being at the computer terminal.

Tuite and George (2010) discussed the important role of CNSs in the implementation of EBP. Their study focused on a strategy to develop a culture of EBP, with the CNS and physician leading interdisciplinary teams planning and developing changes based on identified problems and evidence that was identified as best practice. Difficulties were noted because the time constraints on the leading CNS were great and much work seemed to revolve around compliance and measures of outcomes. Results indicated that the CNS seemed to be the sole initiator of change and the one who developed new protocols and education tools. Although valuable collaboration between administration, physicians, and nurses existed, the nurse educators and staff nurses seemed to assume the role of consumers who support the cause and implement the newly developed protocols. Following this hierarchical structure of implementation, the time

and manpower limitation become apparent and it is likely that this process of implementation allows for a few chosen practices each year to be changed.

Banning (2005) explored the role of nurses with prescriptive power in Australia as they implemented EBP, as well EBM in their practitioner role. Illuminative evaluation was used with a sample of 16 nurses who had more than 5 years of experience. Focus group interviews and responses to open-ended questions were examined by analytical abstraction. Banning argued that both EBP and EBM were essential to the medication prescribing nurse, and that education in both areas needed to be strengthened because many study participants reported difficulty in differentiating between EBP and EBM.

Although the studies cited here provided valuable insight into the current state of EBP and how advanced practice nurses use it, these studies did not include any information as to how well nurses were prepared to use EBP based on recent educational experiences. The researchers also did not investigate how BSN graduates use EBP. It is likely that recent graduates experience similar situations with time and role constraints, and possibly encounter parallel issues with a lack of organizational support.

Role of Leadership in Hospitals

EBP requires a certain level of collaboration between leaders and nurses and organizational supports to develop an environment that is conducive to EBP and to bring about positive patient outcomes. Marchionni and Ritchie (2008) studied organizational factors that support the implementation of EBP using best practice guidelines. Based on a survey with a 25% response rate, the 25 nurse participants indicated that transformational leadership and a culture that supports nursing, learning, and education contribute to the sustained implementation of best practice. Limitations of this study were that the two

units that participated in the study volunteered to implement best practice guidelines and might therefore have been predisposed to provide their staff with facilitators whose input was not considered in this study. Further study of organizational support is warranted.

Boström et al. (2007) conducted a study in Sweden that considered research utilization necessary for EBP and organizational climate in elder care. In Sweden, as in the United States, elder care includes care by nurses and nonlicensed care providers. To address this range of care providers, the researchers included all of the primary caregivers in their survey study. The study included all staff in seven elder care units ($N = 132$) and 89 responded (67% response rate). Eleven of the 89 participants who completed the survey were nurses. Of the 89 participants, 25 (28%) reported to using research findings. Those participants who acknowledged using research findings reported a positive attitude towards research, and when demographics were considered, a greater portion of this group indicated university education. The group whose members indicated research utilization also reported support from their managers to implement EBP, as well as better access to research at their workplace. They also rated higher on the dimensions of challenge, trust, and risk taking in regard to organizational climate. Boström et al. concluded that a positive attitude towards research, practice-related research, access to research, and managerial support were associated with increased research use, which in turn is essential to implement EBP.

Gale and Schaffer (2009) studied what factors affected EBP adoption or rejection and how nurse managers and staff nurses perceived those factors. Ninety-two (21% response rate) of 426 hospital nurses completed the survey questionnaire. Results indicated that all respondents agreed that a lack of time, lack of staff, and inappropriate

equipment or supplies was the main barrier to implementing EBP. The top reasons to facilitate EBP were personal interest in the topic, personally valuing the evidence, and avoiding potentially negative consequences to the patient. In application of EBP, differences between managers and staff nurses emerged. Staff nurses indicated that existing limitations in their practice setting were not taken into account when applying EBP. Nurse managers rated this existing limitations in the practice setting as least important when application of EBP was considered. On the other hand, proportionally more managers than nurses found sufficient information could be accessed to answer practice questions. Gale and Schaffer explained this discrepancy existed because managers were not as well attuned to the front-line work environment as were the staff nurses. The researchers reached the conclusion that organizational hurdles of time, staffing, equipment, and supply, along with available resources to answer practice questions should be addressed to enhance practice changes. Based on the results, organizational changes should assure that changes to promote EBP implementation are valuable and of interest to the nursing staff.

The studies cited here reflect on the identified issues of organizational support systems and collaboration of leadership and staff needed to bring about an environment that allows nurses to practice using EBP. The studies did not reveal how recent graduates fared in their endeavor to use EBP. Results also did not indicate what nurses' experiences were within the organizational structure from an EBP perspective.

Studies that considered multiple aspects of EBP including organizational support reveal the complexity of EBP. Thiel and Ghosh (2008) studied how well prepared nurses were to use published research evidence. The researchers conducted a survey completed

by 121 hospital nurses (59% response rate) and found that although the nurses were interested in EBP and had a positive attitude, 72.5% looked for information not in current literature, but preferred to consult colleagues and peers. Only 24% used journals, books, and electronic databases. The study also indicated a slightly positive correlation exists between nursing education and knowledge, as well as between nursing education and attitudes.

A similar positive correlation was found to exist between years in nursing and knowledge as well as years in nursing and attitude (Thiel & Ghosh, 2008). The two strongest positive correlations were found to exist between organizational culture and knowledge, with a positive correlation of 0.504, and between attitudes and unit culture, with a positive correlation of 0.626. Although no cause and effect can be determined from the correlation, the study indicated that culture, attitude, and knowledge are inextricably linked by strong correlations, and nursing education and years in nursing have only weak correlations to knowledge and attitude. Thiel and Ghosh (2008) acknowledged the small convenience sample as a serious limitation of the study. Their recommendations included a thorough unit and facility assessment prior to instituting any changes to support EBP in a clinical environment.

A study similar to that conducted by Thiel and Ghosh (2008) with descriptive cross-sectional survey design was conducted by Koehn and Lehman (2008) with a larger sample of 422 nurses (40.9% response rate). Responses of nurses with baccalaureate degrees and higher education were compared with those of nurses with associate's degrees or diplomas. Koehn and Lehman found that nurses with higher education had a more positive attitude towards EBP, attributing this finding to the course requirements of

research and statistics in their nursing programs. However, nurses who had completed their education 20 or more years prior to the study did not focus in their research courses on EBP, and they indicated that hospital-based or continuing education training would be helpful. The overall conclusion reached by Koehn and Lehman was that each institution should conduct its own assessment to determine the support needed by its staff to become successful users and implementers of EBP.

Munroe et al. (2008) assessed the EBP knowledge, skills, and attitudes of nurses in a rural hospital before and after the implementation of organizational supports. A pre-/posttest survey design was used. Representing a 20% response rate, only 40 nurses participated in each stage of data collection. The results indicated that nurses educated with a baccalaureate degree and higher scored highest on skills, and leadership scored highest on attitude towards EBP. Overall, the participants scored higher on the posttest than on the pretest, indicating that organizational changes positively affect knowledge, skills, and attitudes towards EBP.

Wallen et al. (2010) studied the effectiveness of a mentorship program on EBP implementation. The mixed method study including interviews with nursing leadership and shared governance staff, and pre-/postintervention questionnaires included assessments of organizational and personal factors about EBP. One-hundred fifty-nine participants were selected, 94 in the workshop group and 65 in the nonworkshop group. The focus groups consisted of three groups, one with four CNSs, one with nine nurse managers, and one with five members of the clinical practice committee. Results of the focus group indicated the CNSs were most knowledgeable of EBP. All participants agreed that bedside nurses might be resistant to change unless it was applicable to their

working practice. All groups agreed that resources and leadership support were needed to create a culture for EBP. The survey was completed by 99 participants, 58 in the EBP workshop group and 41 in the nonworkshop group. Results of the survey indicated that EBP workshop attendees had a larger increase in positive responses to the questions about perceived organizational culture, readiness for EBP, and EBP beliefs than did those study participants who were members of the nonworkshop group. Wallen et al. concluded that an EBP mentorship program had a positive effect on EBP beliefs and implementation by nurses and that organizational culture was positively perceived.

Estrada (2007) studied EBP by RNs and the organizational infrastructure necessary to support it. Learning organizations were considered because of their compatibility with the complexities of current health care. In this descriptive study, 592 nurses (34% response rate) from six hospitals participated in a survey. Participants gave neutral responses about how their organization supported and used learning. EBP implementation was indicated mostly in terms of knowledge, followed by resources. EBP beliefs were influenced mostly by resources of the learning organization. Estrada concluded that a learning organization might support acute care nurses in the implementation of EBP. Participants in this study who perceived the hospital as a learning organization indicated that knowledge, resources, and time were important factors to implementing EBP.

Johansson et al. (2010) studied Swedish head nurses and their use of EBP in a survey that was answered by 99 head nurses (59% response rate). Most head nurses (82%) reported a positive attitude towards EBP but also indicated a lack of time for EBP activities. Increased research utilization was correlated to more years of experience as

head nurse, and education in research methods and support from immediate supervisors was associated with increased EBP activities. Johansson et al. concluded that education of head nurses was important and that managerial support was essential to create work environments conducive to provide high-quality care using EBP.

Tolson et al. (2008) studied the impact of the Caledonian development model to promote EBP. Twenty-four nurses from 18 practice sites participated in a pre-/posttest study and focus groups that concentrated on the implementation of five existing best practice statements. After 6 months, outcomes were assessed and improvements in the knowledge translation intervention were noted. The focus groups stressed the need for support mechanisms. Tolson et al. concluded that the model was effective in promoting EBP, and that it was noted most at the patient level.

The studies cited here highlight the importance of collaboration among teams and disciplines within organizations, as well as organizational support systems that must be provided to allow for an environment that is conducive to practice EBP. Results did not add any information about recent graduates because they were not considered as a unique and important group in any study, even though many studies acknowledged the advances made in education and healthcare organization. This finding warrants a new perspective on essential themes that affect nurses who are now entering practice, have experienced changed nursing education, and are better prepared to benefit from facilities-based EBP education. Research on EBP conducted since 2006 has remained focused on themes that were identified in much older studies and has not taken into consideration the changes to education and health care that have taken place since 2001. This gap in the timeliness of information is why a qualitative phenomenological study is needed to explore the

experiences of recent nursing graduates and their use of EBP in today's workplace, as in the present study.

Summary

EBP was named by the IOM (2001) as one of the five core competencies that all health professionals should possess. With the increase in EBP education in professional nursing education programs and independent professional development courses, it could be expected that RNs are well prepared to use EBP in their daily practice. Many professional development courses in EBP have been studied and participants have shown increased knowledge, skill, and implementation, but the body of literature is incomplete and unbalanced relative to how well nurses are prepared to use EBP in the workplace based on their EBP preparation during nursing school. To address this gap in the knowledge base, the present study was conducted to gain insight into this important aspect of EBP use by recent graduates. Methodology for the study is described in Chapter 3.

CHAPTER 3. METHODOLOGY

Based on the review of literature presented in Chapter 2, there is an unbalanced and incomplete record of empirical research about the effect of professional nursing education on recent graduates' preparedness to use EBP in the workplace. This chapter is a summary of the rationale for the choice of qualitative research method. A definition of phenomenological design is included. The research questions, participants, and the role of the researcher are defined. A discussion of the instrumentation, data collection, validity and reliability, and data analysis procedures that were used is also included.

Purpose of the Study

The purpose of this phenomenological study was to explore the level of knowledge of EBP among RNs who joined the profession since 2006 (within the last 5 years). In the last 10 years (since 2001), curriculum on EBP has been strengthened in nursing education through lectures and clinical courses; however, there is no research available regarding how these changes are reflected in the practice of the nurses who have recently graduated. The available research is focused on a wide range of nurses in practice, or only advanced practice nurses, or nurses who participate in additional education courses. None of the research conducted to date reflects how recently graduated nurses experience EBP, and what the influence their environment and education with increased quantity and quality of EBP content have on their use of EBP in their workplace.

Because EBP is a complex process that requires repeated information collection, evaluation, and decision making, it is unreasonable to assume any one aspect of how EBP is used in practice could be related to a specific educational intervention. Many factors shape the decision-making processes of a nurse in practice. Exploring how nurses experience the EBP process might yield information that could enable hospitals to improve nurses' use of EBP. EBP has been a component of nursing education curriculum since 2001. Because nursing education still has a strong influence on recent graduates, they are the population that can best provide insight into the use of EBP that reflects the new educational changes. The experiences of seasoned nurses are reflective of continuing education provided by employers and individual pursuit. By learning how EBP is experienced based on current educational practices and clinical work environments, information can be gained that might be used to further strengthen the education and work environments of nurses to promote the integration of EBP in everyday nursing care.

Research Questions

The following primary research question guided the methodological approach to the study: *What are the lived experiences of recent BSN graduates regarding EBP use in the workplace?* The following subquestions connect to the central question:

RQ1. How well do BSN recent graduates perceive professional nursing education programs prepare them to practice nursing using EBP?

RQ2. What is recent BSN graduates' perceived level of skill to implement EBP in an urban hospital in a southern state?

RQ3. What is the experience and meaning of EBP for recent BSN graduates in an urban hospital in a southern state?

RQ4. How do nurses describe the effect of leadership on the implementation of EBP?

Research Design

In qualitative research, an inductive process is used to study the lived experiences of the participants in their environment and at a certain point in time, in depth and in great detail (Creswell, 2011). Of interest are the realities that are constructed by each participant and how they experience the phenomenon under study. Creswell (2011) explained how the worldviews of the participants influence the reality they have constructed and the context in which they experience a phenomenon, in this case EBP. Essential characteristics of this qualitative study important to consider were how EBP is experienced by the participants, that the study took place in a natural setting, provided multiple perspectives, and the research is the essential instrument that provides answers to the primary research questions. Even if an interview protocol is used, the research does not rely on an instrument developed by other researchers because the researcher is part of the instrument (Creswell, 2011; Merriam, 2009). Because gaining a better understanding of a phenomenon or situation is at the heart of a qualitative study, it is important that the researcher consciously process the obtained data to allow for the clarification and further exploration of unusual information during the interview.

Qualitative research is considered largely interpretive and the researcher does not manipulate any variables such as the environment or the phenomenon; the study is allowed to develop naturally (Burns & Grove, 2007). Large amounts of rich, descriptive data are collected and the analysis consists of recognizing themes and patterns through a complex cognitive organization. Results are presented as summaries of the collected data

with quotes from the interviews with the participants. The researcher does not attempt to prove a predetermined expected outcome, but rather presents the newfound information as it relates to the research questions (Burns & Grove, 2007; Merriam, 2009).

A phenomenological design increased understanding of the thought processes of the participants, and in the present study, the experiences of participant nurses regarding their EBP use (Moustakas, 1994; Vishnevsky & Beanlands 2004). As van Manen (1997) declared, knowledge can only discovered through the sharing of meaning of the history, culture, and language of the world, not through analytical sciences. This declaration highlights that the epistemology of phenomenology does not prove or argue a point; rather, the focus is on illuminating meaning and awareness.

Many research designs are used in nursing studies, and several designs were considered for this study. Ethnographic and historical research were consider too broad, and although they are well suited to study culture and historical events, they cannot sufficiently capture the experiences of nurses and their use of EBP. Grounded theory was considered and found more appropriate to explore the symbolic expression of meaning, but this theory-generating approach was not sought for this study (Burns & Grove 2007; Glaser & Strauss, 1967; Strauss & Corbin, 1990). Creswell (2011) indicated that predetermined analytical theories based on existing research are used in grounded theory. These predetermined analytical theories would interfere with the study of experiences and meanings of the experiences sought in the present study; therefore, the grounded theory approach was rejected.

Phenomenology was the appropriate research design to study lived experiences. Burns and Grove (2007) declared an essential concept of phenomenology that is

paramount to this study "being a person is self-interpreting; therefore, the only reliable source of information to answer this question is the person" (p. 64). The phenomenological approach allowed nurses to understand and express the deeper meanings of their experiences with EBP. This approach can delve deeper than any casual description that may be given when EBP is considered.

Phenomenology is both a philosophy and a research method because it is an effort to understand the lived experiences of a small group of participants through engagement with the researcher. Speziale and Carpenter (2007) concluded that phenomenology allows for the understanding of a lived experience. The two main phenomenological approaches are descriptive and interpretive.

Descriptive Phenomenology

Husserl based his descriptive phenomenological approach on the premise that to understand human motivation, which in turn influences human action, subjective information was important (Merriam, 2009). Husserl proposed a scientific approach that included bracketing or the exclusion of the researcher's preconceived notions, knowledge, or perceptions that could influence the study. Many scholars support bracketing as a method to enhance rigor (Hamill & Sinclair, 2010; LeVasseur, 2003; Maggs-Rapport, 2001; Sadala & Adorono, 2002). Journaling and subsequent reflection is recommended to separate one's own perspective from the study during all steps of the research (Speziale & Carpenter, 2007). Essential to Husserl's perspective are the concepts of radical autonomy—that each individual has freedom of choice independent of his or her culture, society, or politics. Husserl assumed that through prolonged

consideration of the data, the researcher can recognize the universal truth of the phenomenon.

Interpretive Phenomenology

Heidegger's beliefs ran contrary to those of Husserl (Merriam, 2009). Heidegger thought the focus of phenomenology should be the exploration of the lived experiences or the presence within the world. He stressed that humans are inextricably embedded in their culture, and social and political context (Merriam, 2009). Hermeneutics is a research method based on Heidegger's perspectives and is designed to find out what people experience, not only what they know. It primarily uses textual analysis to expose hidden meaning. A life experience is described through phenomenological reflection in writing and the development of a description of the phenomenon. This description of the phenomenon leads to the understanding of the meaning of the lived experience (Annells, 1996, 2006; Osborne, 1994; Walker 2011).

Heidegger stressed the importance of the researcher's expert knowledge and that it should be used to guide the study. He rejected the notion of bracketing, indicating that a researcher could not ignore any knowledge of the topic that was considered important enough to study (Koch 1995). The meaning that is arrived at to answer the research questions is based on a blend of the interpretation of a phenomenon by the participant and the researcher, as understanding of the participants can only occur through the researcher's own understanding. All of these perspectives of phenomenology serve as a method of discovery, and are used to understand how the participants view their experience with EBP. Van Manen (1997) stressed in his theory of reduction the importance of disclosure of the role and assumptions of the researcher.

Researcher's Beliefs

As a nurse educator, the researcher of the present study noticed an increase in EBP teaching volume and quality. The literature does not clearly describe the experiences of recently graduated BSN nurses with EBP in their work environment. This complex phenomenon was explored in the study. The researcher's background, understanding, assumptions, experiences, and perceptions are bracketed. Bracketing or suspending one's own beliefs and knowledge about a topic is a continuously debated issue relative to phenomenological studies. It is almost impossible to completely exclude one's knowledge and belief of a subject. It can also be argued that it is not in the best interest of the study if the researcher tries to completely set aside his or her knowledge of the subject being studied. It is, after all, his or her knowledge that allows the researcher to decide if further probing questions and clarifications are needed during the interview process to allow the participants to fully explore their lived experience. By using carefully considered steps throughout the research process, bracketing can be achieved (Creswell, 2011; Hamill & Sinclair, 2010; Moustakas, 1994).

Personal experience with EBP started in nursing school when key principles were learned. During 10 years of active acute care practice in neurology nursing, the researcher experienced and participated in the implementation and development of EBP. The researcher witnessed that EBP empowered nursing teams and improved patient outcomes. Applying EBP to the teaching of nursing, in addition to the inclusion in the curriculum and modeling at the community college, reinforced the utility and importance of using EBP in all nursing and education environments. Now, as an instructor of nursing

education at a university, the researcher has the opportunity to share her passion for EBP and learn how other nurses and educators use EBP.

EBP is a complex phenomenon that is experienced in many different ways. The experiences of recent graduates are valuable to understand the effectiveness of recent and current education and use of EBP in nursing. The use of bracketing or epoch, as Husserl referred to the concept (Hamill & Sinclair, 2010; Moustakas, 1994), allowed me to take a fresh look at the experiences of nurses as they use EBP every day in the workplace.

Setting

Participants in the study included 20 purposively selected recently graduated nurses in an urban hospital in a southern state. The participants were selected to represent recent graduates of a BSN program. Only BSN programs and higher educational degrees are accredited by the AACN and, as such, are required to include the teaching of EBP. At the baccalaureate level, competencies of EBP include integration of best evidence, clinical judgment, interprofessional perspectives, and the patient's perspectives (AACN, 2008). Nurses chosen to participate in the study represented a typical population with definable characteristics (Creswell, 2011).

The participants were chosen because they possessed the selection qualities of having graduated from a BSN program within the last 5 years and were practicing in an urban hospital in a southern state. Twenty participants were included in the study to assure saturation of developing themes, yet be a small enough sample to allow for sufficient depth of the experience. As encouraged by Moustakas (1994), the potential for variety as well as homogeneity of the selected group was also considered. The sample size of 20 participants was chosen because the goal was to reach saturation. Guest,

Bunce, and Johnson (2006) found that saturation is often achieved within the first six to 12 interviews. In this study, the additional participants who were interviewed served as redundancy to assure all possible themes were identified. If saturation had not been reached after 20 interviews were completed, additional participants would have been invited and interviews would have been conducted until no new themes were uncovered and richness and credibility were achieved. Moustakas (1994) did not discuss sample size as a parameter of phenomenological inquiry; instead, he focused on the experiences of the participants and discovering the essence descriptions.

The study took place in a southern state where the researcher resides. Face-to-face interviews were conducted at locations convenient to the participants and researcher. Potential participants were contacted by mail and informed of the purpose and all the elements involved in the study, and to schedule the interview. The interviews were scheduled to accommodate each participant's availability and were conducted at one of the city's public libraries of the participant's choice. Full disclosure of potential risks and benefits of study participation was provided, and written consent, including confidentiality statement and consent to audio-record the interview, was sought and obtained before interviews were conducted.

Instrumentation

In qualitative studies, data are collected from different sources. Most often used are observations, interviews, documents, and audio-visual material (Creswell 2008). Because the lived experiences of EBP use by the participants was sought, face-to-face interviews were chosen as the best data source. Although observation helps the researcher immerse in the environment being studied, it is the meaning of the experiences that are

lived by the participants and the decisions made by the participants using free will without outside influence that provided the information being sought. The only type of observation that took place was that of participants' nonverbal cues as part of the face-to-face interview. Moustakas (1994) and Creswell (2011) recommended the use of open-ended interview questions developed from the literature review to allow for the exploration of the perceptions and experiences of nurses and their use of EBP. An existing instrument would not be appropriate because the phenomenon needs to be guided by the experiences of the participants.

A pilot study was conducted prior to the start of the research study and after approval was received from the Capella University Institutional Review Board (IRB). The purpose of conducting a pilot study was to test the researcher-developed interview protocol and the data collection and analysis process (Burns & Grove 2007). All of the parameters used in the pilot study were the same as those that were used in the actual study. The pilot test allowed to refine any aspect of the research process. Responses of the pilot participants were not included in the study because the main focus of pilot participants was to provide feedback on the understanding and readability of the questions and potential follow-up questions. The three participants in the pilot study did not participate in the final study because they might have developed stronger opinions and might have redefined their experience in a way that they believed was desirable for the study outcome, and no longer spontaneous and fresh.

Permission to conduct this study was sought from the Capella University IRB (#284665-1). The study did not expose the participants to any more harm than would be encountered in any everyday conversation, and therefore was deemed to be of minimal

risk to the participant. This study was conducted in compliance with the Policy for Protection of Human Research Subjects (2009).

Interview Questions

Eighteen open-ended questions (see Appendix A) were asked based on the interview protocol, followed by clarifying or further probing questions depending on the participant's answers, until the question had been fully explored in depth. The participant's responses were audio-recorded with each participant's permission. The participant were allowed to review the transcript and provide any additional information or corrections. To increase the rigor of qualitative studies, it has been recommended that prolonged engagement, journaling, and participant feedback will improve the rigor of the study (Creswell, 2011; Guba & Lincoln, 1994; Lincoln & Guba, 1985).

Interview Process

Each interview was conducted face-to-face using open-ended questions from a researcher-developed interview protocol because open-ended questions allowed the participants to fully express his or her lived experiences with EBP. If necessary, follow-up questions or telephone calls were considered to clarify data provided by the participants. Follow-up questions were asked during the interview. No follow-up telephone calls were necessary because no clarification was required. Follow-up is essential in descriptive phenomenology to return to the original source of information if any clarification is necessary (Hamill & Sinclair, 2010; Moustakas, 1994).

Validity and Reliability

Validity is a term used mostly in quantitative studies and indicates how well an instrument measures the examined construct. *Reliability* has the same difficulty in its application to qualitative studies because reliability refers to how consistently an instrument measures a construct. In a qualitative study, the terms *credibility*, *transferability*, and *dependability* are preferred (Guba & Lincoln, 1994).

Credibility is established through documentation of the researcher's actions, opinions, and biases. Documentation includes presentation of the researcher's perspective and a clear description of the process of data collection and analysis. Bracketing of the researcher's knowledge and perception to forestall influencing the participants and the data analysis are also important contributors to the credibility of a study. Participant feedback is essential during the data collection process. During the analysis phase, however, phenomenological reduction by the researcher through prolonged immersion in the data is key. Participant feedback and peer debriefing do not support the process because the researcher is the only one with close contact and understanding of the data (Morse, 1994, Sandelowski, 1998).

Transferability is demonstrated by clear description how the understanding of the presented experiences can be applied to nurses with similar experiences in similar situations. Providing the defined parameters of the participant selection allows readers to identify how the chosen nurses represent a typical population with definable characteristics (Creswell, 2011). The participants were chosen because they represent the one group that was able to describe their experience of EBP based on what they were taught during their education and what they recently learned in practice, providing the

most accurate picture of the current use of EBP and potential future needs in education and practice.

Dependability is confirmed by clearly demonstrating the research process, the development of a clear sequence of the study, and using an interview protocol. Strict ethical guidelines to assure confidentiality and IRB approval are required for dissertation research conducted at a university (Beck, Keddy, & Cohen, 1994). Because the existing gap in the scientific literature has been clearly identified and the research questions are based on a methodology that could best provide answers to the identified gap in the knowledge, it will be evident to readers that a logical flow of information is filling the identified gap and is presented based upon the experiences of the participants (Sandelowski, 2002).

Data Collection Procedures

Data collection began in December 2011 and concluded in December 2011. The data collection process involved interviewing participants at a location of the participant's choice. A purposive sample of 20 BSN nurses graduated within the past 5 years (since 2006) and who worked at the time of the study in an urban hospital in a southern state was chosen. This age population was the one most recently exposed to modern nursing curricula that included EBP teaching in lecture and clinical rotation and were, at the time of the study, practicing nursing and applying the knowledge they gained during their education. These participants were also the ones applying the skills they learned as they continued to develop a deeper understanding and knowledge of EBP.

At the beginning of the interview, the purpose and nature of the study, informed consent form, including permission to voice-record was reviewed and signed by the

participants. The entire interview was audio-recorded and transcribed into written form. Each participant's transcribed interview was provided to him or her, which allowed the participants to review and add to or correct any information.

The participants were encouraged to explore their experiences and perceptions of the topic completely and respond in any direction that was meaningful to them. Personal impressions were noted as part of the bracketing strategy. It is essential during the data collection and analysis phase to prevent personal understanding and perspective of EBP to influence the participants' experience of the phenomenon (Beck, 2007; Crotty, 1996). Open to the participants' individually constructed realities of EBP use allows new information, knowledge, and understanding can be revealed through identification of essential themes (Parahoo, 2006). The goal was to understand the phenomenon as it was described from the perspective of the participants.

Data Analysis Procedures

Once the interview data were transcribed, they were reviewed by the participants and researcher for accuracy and completeness. For cohesion, the audio recordings were played immediately after the interview. Information about tone, inflection, and pauses of the voice as well as any noted observations were added to the electronically transcribed words (Morse & Field, 1995). Data from the completed transcripts were analyzed using the modified van Kaam method, as described by Moustakas (1994). Following theme identification of the invariant constituents and grouping by like themes, the clusters were uploaded and organized into nodes in the QSR International NVivo® 9.0 software. The original data were also entered into NVivo to identify emerging themes and themes that were shared by participants. Meanings identified by individual participants or those that

overlapped among participants were organized according to the created nodes. These nodes containing the manually themathized and clustered information as well as the electronically organized information were organized and aggregated, if appropriate, for further analysis. Researcher guided reduction and thematic clustering by the software to take advantage of the storage capacity and organizational functions of the software, thereby supplementing the intellectual and intuitive human understanding to assure that all possible themes were identified. Once the analysis was completed, the names of participants, the institutions and organizations with which they were affiliated, as well as facility-specific processes and personal examples that could link a participant to a facility were removed.

Ethical Considerations

An important part of the research process includes that participants are protected, confidentiality maintained, data properly stored, as well as assuring that the researcher is qualified and guards against bias or conflict of interest that could interfere (Creswell, 2011). The steps taken to protect the participants in the study and ensure the integrity of the research are linked to the ethical principles that guide research, nursing, and education.

Permission to pursue this study was obtained from the Capella University IRB. Ethical principles as described by Burns and Grove (2007) including respect for person and right to privacy were implemented during this study. The ethical principle of beneficence is upheld because the study adds to the repository of information on which further research, education, and resource allocation may be based. The act of answering the questions of the interview protocol may encourage nurses to think about their

professional practices and their commitment to support EBP and may have beneficial effects if awareness can be heightened. No harm was anticipated by completing the interview because the option to stop at any time was available to the participants.

Prior to the interview, the informed consent form was reviewed with the participants to assure understanding of potential risks and benefits of participating in the study. By signing the consent form, the participants indicated understanding of the risk and benefits and the process of the study, including the confidentiality statement, allowing the audio-recording of the interview, and agreeing to voluntarily participate in the study. The ethical principal of confidentiality was maintained by only collecting demographic data meaningful to help in the definition of the characteristics of the participants. Any personal identifiers were removed prior to data analysis and not connected in any form with the research data or results presented in the study. All electronic, paper, and audio data were and continue to be stored in a safe place accessible only by the researcher. To assure confidentiality of participant information, all collected data will be kept securely for 7 years and then appropriately destroyed.

Researcher bias and conflict of interest was minimized by considering each previously unknown participant openly during the interview without any expectations and preconceptions, allowing the participants to freely express their experiences and perceptions of EBP. Throughout the data analysis process accurate representation of the participant's experiences of EBP was maintained. Chapter 4 offers a presentation of the data collection and analysis procedure.

CHAPTER 4. DATA COLLECTION AND ANALYSIS

The purpose of this phenomenological study was to explore the level of knowledge of EBP among RNs who have joined the profession within the last 5 years. Since 2001, the topic of EBP has been reinforced in nursing education through lectures and clinical courses. Despite the increased attention to providing instruction of EBP, there is no research available on how these changes are reflected in the practice of nurses who have recently graduated. The little published information available is focused on a wide range of nurses in practice, or only advanced practice nurses, or nurses who participate in additional education courses, but none of the published studies address how recently graduated nurses experience EBP. None of these studies describe the influence of environment and education on EBP and whether, with increased quantity and quality of EBP content, recently graduated nurses use more EBP in their practice.

Because EBP is a complex process that requires repeated exposure to the tasks of information collection, evaluation, and decision making, it is not reasonable to assume how any one aspect of EBP, when used in practice, could be related to a specific educational intervention. Many factors shape the decision-making processes of a nurse in practice and these factors must be explored, including how nurses experience the EBP process. Because it is reasonable to surmise their recent nursing education strongly influences new BSN graduates, they are the population that can best provide insight into the use of EBP as reflected in the new educational changes. The experiences of seasoned nurses reflect continuing education provided by employers and individual pursuits. By

learning how EBP is experienced based on current educational practices and clinical work environments, information can be gained that can be used to further strengthen nurses' classroom and work environments to promote the integration of EBP in everyday nursing practice.

In Chapter 4, the findings of the phenomenological reduction and exploration are described in the context of the research questions. The pilot study, sampling procedure, and demographic information are discussed. Participants' responses to the interview questions complete the chapter.

Research Questions

The following primary research question guided the methodological approach to the study: *What are the lived experiences of recent BSN graduates regarding EBP use in the workplace?* The following subquestions reflect the central question:

RQ1. How well do BSN recent graduates perceive professional nursing education programs prepare them to practice nursing using EBP?

RQ2. What is recent BSN graduates' perceived level of skill to implement EBP in an urban hospital in a southern state?

RQ3. What is the experience and meaning of EBP for recent BSN graduates in an urban hospital in a southern state?

RQ4. How do nurses describe the effect of leadership on the implementation of EBP?

Pilot Study

After IRB approval was obtained, three qualified participants, two recently graduated female nurses and one recently graduated male nurse, were chosen to serve as

the pilot study participants and review the interview questions for clarity and focus on the study goal. The choice of these individuals was based on their availability for the pilot interview immediately following IRB approval. All essential inclusion parameters of having graduated from a BSN program within the last 5 years and currently practicing in an urban hospital in a southern state were met by two participants. In addition to having graduated from a BSN program less than 5 years ago, the third participant had also completed an MSN program in nursing administration with the last year; however, he is not currently practicing in an urban hospital but in managed care. One participant answered the interview questions to evaluate their appropriateness and indicate if the answers could truly be linked to the research questions but these answers were not included in the study. The pilot study participants did not participate in the research study.

During the pilot study, the purpose of the study and the guiding research questions were discussed. The three pilot participants stated that the interview questions were clear and would encourage responses that could yield information that would help to answer the research questions. No changes or clarifications were recommended.

Demographics

Demographic information was collected to provide supplemental details to the qualitative analysis. These data included sex, age group, educational achievements, years of practice as BSN, state in which BSN was obtained, and nursing specialty. The participants included one male nurse and 19 female nurses in the age groups of 18-29 years and 30-39 years. Each of the 20 participants had obtained a BSN degree in the last 5 years. Demographic data are summarized in Table 1.

Table 1. Participants' Demographics

Partici-pant	Sex	Age group	Years BSN	Degree state	Specialty
P01	F	18-29	2.5	SD	Pediatrics
P02	F	18-29	2	TX	Dialysis
P03	F	18-29	3	OK	Operating/recovery
P04	F	18-29	2	TX	Critical care
P05	F	30-39	3	TX	Oncology
P06	F	18-29	4.5	IL	Pediatrics
P07	F	18-29	4	TX	Critical care
P08	F	18-29	4	SD	Critical care
P09	F	18-29	3.5	CO	Emergency/critical care
P10	F	18-29	4	TX	Critical care/gastrointestinal
P11	M	30-39	3	TX	Informatics
P12	F	18-29	2	TX	Pediatrics
P13	F	18-29	4	TX	Emergency/pediatrics
P14	F	18-29	4	Canada	Operating/recovery
P15	F	30-39	3	TX	Obstetrics/ gynecology
P16	F	18-29	5	TX	Critical care
P17	F	30-39	4	IL	Pediatrics
P18	F	18-29	3	TX	Neonatology
P19	F	30-39	4	CO	Medical/surgical
P20	F	30-39	2	TX	Critical care

Data Collection and Analysis Process

Each participant who responded to the invitation letter scheduled an appointment for a one-on-one interview at a time and location that was convenient for him or her. After informed consent and inclusion criteria were reviewed, each participant signed and dated the consent form. A copy of the countersigned informed consent form was returned to him or her and the original form was retained and stored securely. With the participants' approval, interviews were audio-recorded. Following the interviewers, the participants' responses to the interview questions were transcribed. Only two interviews per day were scheduled to allow for reflection on each interview and transcribe the audio recording immediately after the interview. Participants were given the opportunity to review their transcripts and submit changes or additions by e-mail, telephone, or in person. Any additional information or changes provided by the participants were added to the original transcript. Observations and comments were also added to the transcript to provide clarification and additional information. Once the transcripts were deemed to be complete, personal identifiers were removed and random numbers assigned to the participants.

Data from the completed transcripts were analyzed using the modified van Kaam method, as described by Moustakas (1994). Following thematization of the invariant constituents and grouping by like themes, the clusters were uploaded and organized into nodes in the QSR International NVivo® 9.0 software. The original data were also entered into QSR International NVivo 9.0 software to identify emerging themes and themes that were shared by participants. Meanings identified by individual participants or those that

overlapped among participants were organized according to the created nodes. These nodes containing the manually themathized and clustered information as well as the electronically organized information were organized and aggregated, if appropriate, for further analysis. Researcher guided reduction and thematic clustering by the software to take advantage of the storage capacity and organizational functions of the software, thereby supplementing the intellectual and intuitive human understanding to assure that all possible themes were identified. Once the analysis was complete, the names of participants, the institutions and organizations with which they were affiliated, as well as facility-specific processes and personal examples that could link a participant to a facility were removed.

Thematic Results of Research Questions

The overarching focus of the study was expressed in the primary research question: *What are the lived experiences of recent BSN graduates regarding EBP use in the workplace?* Information used to answer this fundamental question was gathered by asking four subquestions. Answers to those subquestions follow.

RQ1: How Well Do Recent BSN Graduates Perceive Professional Nursing Education Programs Prepare Them to Practice Nursing Using EBP?

Thematic results to the first subquestion indicate that 100% of the participants believed they were well prepared to use EBP as an integral part of their nursing practice. Many nurses stated they had developed an interest in EBP and understood the process. They indicated they thought about and explored new evidence to include in their practice, based on their educational preparation. Several nurses elaborated on how they were taught to use EBP:

> We had to find a project of an issue that we see a lot and do some research on it. We were doing it on wound vacs and the dressing changes. . . . It was enjoyable and I liked it, even though I did not think that I would like it, and that triggered a little interest in EBP and to continue my education. (P04)

> The one thing nursing school taught me was to think outside the box and always do research and look up information and bring in new resources, and go above and beyond and make suggestions, whether the suggestion is welcome or not. (P06)

> The program that I went to we were required to do a couple of small research projects. I think that understanding the process made the whole idea of looking up research and integrating it into practice less intimidating for me. I try to be proactive, and I subscribe to the nursing journals, and I like to read and maybe incorporate that with my practice. (P08)

RQ2: What Is Recent BSN Graduates' Perceived Level of Skill to Implement EBP in an Urban Hospital in a Southern State?

In response to RQ2, 85% of the participants indicated they perceived their skills included knowledge to evaluate evidence and preparedness for change that strengthened their skill to implement EBP. Some of the comments identified specific skills, while others indicated a more general awareness of the process of implementing EBP. One nurse remarked,

> Compared to a seasoned not-aware-of-EBP nurse, I think I could do more because I have more understanding of research articles and this (EBP) is what this means and being able to get it out there. I don't have a problem implementing it, because I know that there is evidence and someone has done the research and found that this [is] better. (P14)

One nurse's response connected her skill in implementing EBP according to how and by whom the evidence behind EBP was presented: "After I look at the evidence, if the educator presents information, I would feel comfortable to implement new practice or change my practice" (P12). Another nurse spoke to the confidence gained from EBP: "Just knowing that whatever intervention that I am doing, that there is evidence behind it

and the intervention works and that there is back-up" (P07). Comments from other nurses in the study were similar:

> Of course as a nurse I want to do the best practice for my patients, the best evidence that we can find to make our protocols and our procedures. This is not only going to benefit us, you know, as interventions. It is also going to benefit the patients as well. (P13)

> One of my strengths is that I know how to evaluate the evidence and that I would do so before implementing new research into my practice. I would evaluate it, and make sure that the study could also fit culturally. (P03)

RQ3: What Is the Experience and Meaning of EBP for Recent BSN Graduates in an Urban Hospital in a Southern State?

In their responses to RQ3, nurses introspectively evaluated what EBP meant to them in their practice. Eighty-five percent of the participants indicated that doing the right and best thing for their patients was an incentive to actively include EBP in their practice every day. Two representative comments are as follows.

> For me, it goes back to that oath, when I stood up at graduation, I said the nursing oath that I was going to [take] the best possible care of my patent. Well, I truly believe that and I have the integrity to back that [up] and I have to do EBP because that is the best practice to take care of my patients that I know how. (P08)

> I think it is very important to be skilled in EBP and willing to implement it for your patients because you have a responsibility to give them the best care. Using EBP would be a definite way to provide them with the highest quality care. (P12)

One nurse expressed her sentiments succinctly: "I guess I feel responsible for our patients here and I want them to get the best care possible and the evidence usually points that way, so there" (P11).

RQ4: How Do Nurses Describe the Effect of Leadership on the Implementation of EBP?

In their answers to RQ4, the nurses were able to ponder the impact of leaders of their units and organizations on how EBP was implemented. Eighty-five percent of the

participants expressed mixed feelings. While they expressed feeling supported by their leaders, they also felt constrained by policies to autonomously implement EBP. Comments by a few nurses indicated more obstacles than encouragements to implementation of EBP.

Several nurses spoke to financial issues having an adverse impact on their ability to implement EBP. One nurse said,

> There are no autonomous decisions. It is pretty rigid; we have autonomy within the policy. We have very strict protocols, but the leaders are open to change. They would be open if it would benefit the patients. I feel like we [have] done little changes that are not specified by the policy to make things better. Financially, we would have to get approval. It is pretty rigid. (P18)

Another nurse expressed similar sentiments when she said, "We may have manager support but sometimes not funding support. The managers state, 'That would be a great idea, but where we are going to get the money to implement it?'" (P10). Yet another nurse commented on the hierarchy of the organization as being an obstacle to implementing EBP: "You have to really prove your point there is no real autonomous decision; everything has to go up the chain of command and through committees" (P15). Another nurse simply stated, "There are no autonomous decisions" (P17).

One nurse explained the lack of autonomy in making EBP decisions:

> There is no such thing as an autonomous EBP decision. Even if it is within the policy, it is very difficult to make any changes, no matter what the literature and solid evidence indicates because everything is tightly regulated by policies. If staffing or finances are involved, there is no chance, as it is turned down before the evidence is even considered. Everything is about profit, not about evidence. (P19).

Individual Textual Description by Question

The one-on-one interviews provided the opportunity to pose 18 interview questions. These questions were based on the reviewed literature and designed to

encourage the participants to share their experiences with EBP. Interview Questions 1 through 5 related to RQ1, *How well do BSN recent graduates perceive professional nursing education programs prepare them to practice nursing using EBP?*

IQ1: Are There any Issues in Your Practice That You Have Identified and Found or Would Like to Find Solutions Through EBP?

The response from every participant was resounding *yes*, followed by examples from their current practice and longstanding interests. The question opened up the flow of the conversation and participants readily recounted their EBP situations and experiences. One nurse remarked, "I would be interested to find more EBP regarding pre-and postop care" (P03). Another nurse said, "I am curious how and what effect the length of time chest tubes are in place affects patients' outcomes" (P08).

Several nurses expressed interest in the interdisciplinary communication process and if there was information available that could help build EBP solutions. One participant stated,

> I think the whole interdisciplinary team work brings many issues that could benefit from EBP. Sometimes the doctors don't really listen or respect what the nurse has to say in regards to the patient, even though the nurse is the one that is there with the patient. (P04)

Another recurring topic was how staffing levels were determined. Acuity was an issue questioned by nurses who sought solutions in their own research to support EBP. One nurse commented,

> The acuity levels do not take into consideration the family and support system of the patient, this is especially important in a pediatric setting. Our assignments are based on acuity but not all parameters are included in the decision making process. (P06)

Another nurse said, “Something that could benefit from EBP is staffing ratios.” Another nurse remarked, “It would be interesting to see what EBP would say about acuity and staffing—how other places have used it and if they were successful” (P11).

Infection control was on the minds of many participants. Examples of this concern were expressed as follows. One nurse said, “I wonder how we clump together or cohort patients with similar infections and what the isolation procedures would be like” (P12). Another nurse remarked simply, “Infection control with IV starts and central lines” (P13), and a third nurse said, “Research shows not to take scrubs home, that it would be better to find a laundry service (by the hospital). Our protocol recommends taking off your uniforms before entering your home, if possible” (P06).

IQ2: How Did Your Experience in Nursing School Influence You to Integrate Evidence That You Have Looked Up?

Answers to this question from 17 of the 20 participants indicated that their experience in nursing school influenced them to integrate evidence in their practice. Each participant described their experience and evidence integration as it occurred in their practice environment. Comments from participants are as follows. One participant said, “In school, they make you do those EBP papers and projects. Especially in community health, they made us choose a topic that really bothered us” (P01). This same participant expanded on how her experience with EBP in nursing school helped her to integrate evidence in her practice:

> Also it prepares you to know about evidence and look up information, especially if a doctor wants to do something [a procedure] and you can say, I think we are supposed to have this and this at the bedside before we do that. That has been good for me. (P01)

Several nurses elaborated on the connection as follows:

> We had to find a project of an issue that we see a lot and do some research on it. We were doing it on wound vacs and the dressing changes, … it was enjoyable and I liked it even though I did not think that I would like it, and that triggered a little interest in EBP and to continue my education. (P04)

> The one thing nursing school taught me was to think outside the box and always do research and look up information and bring in new resources, and go above and beyond and make suggestions, whether the suggestion is welcome or not. (P06)

> The program that I went to we were required to do a couple of small research projects. I think that understanding the process made the whole idea of looking up research and integrating into practice less intimidating for me. I try to be proactive, and I subscribe to the nursing journals, and I like to read and maybe incorporate that with my practice. (P08)

> Well, during school EBP was in everything every paper every class, every textbook, so you don't really understand what it is exactly as in practice and then you graduate and then go into the real world of particle and you see that you actually do use EBP. I tend to seek out research that speaks to a certain part of my practice. I think this helps our patients to have the best interventions and care. (P12)

> We took research classes in school and basically it showed me that just doing the old way just because you have always been doing it is not necessarily the right way, and there is always emerging evidence, and new findings and the best practices and you should always stay current with new practices. (P13)

> There are answers in writing on everything. That is the part that I love so much about my job, that there is something that I have never experienced. A lot of times, you discuss it amongst your peers and coworkers, but the evidence is there and you can also just look it up. (P16)

> Nursing school has really given me a good base knowledge of how EBP works and how important it is to combine research and practice knowledge and include the patient. We were taught to question everything and to look for solutions in the literature. (P20)

Three participants had a different experience with EBP. One nurse said, "One of my mayor frustrations during nursing school and outside of nursing schools is not knowing where to look for EBP. It takes a lot of time to find a credible source" (P05). A few nurses remarked on access to research publications:

> Well I took a research class. But at my hospital we don't have the ability to go into the research site or a something like CINAHL. We have a librarian, but not electronic access to look up information in electronic library. (P17)

> We have protocols for everything, but there is information that I look up if it is not a common source, and everything we have is based on something, it is very rigid here there is no need to look up information. (P18)

IQ3: How Has Your Education Prepared You to Continuously Reevaluate Your Practice and Incorporate EBP?

All of the participants expressed encouragement to reevaluate their practice and incorporate EBP. They shared different experiences of the influence and process:

> I think back then when my mom was a nurse, you did not question things really, but now if you read something and you want your policies changed, be on a committee and affect change, that is the big thing, and you have your nursing meeting every month and they are always saying what things need to be changed. (P01)

> I think it makes me look at what nursing practices that I am doing and the studies that are out there to reaffirm what I am doing and if there is anything that I need to add or change in my practice. (P03)

One nurse demonstrated less confidence with using EBP: "I think in nursing school, I [was] constantly asking myself, 'Am I doing this right and am I doing this the newest way?' I would like easy access to EBP information, with key information about studies" (P05). Other nurses' comments reflected more confidence with using EBP: "I think it is a combination of personal preference and school influence" (P06), and "I am still establishing my practice; there are always EBP questions and information to find" (P14).

Other nurses expounded as follows:

> All we do is EBP and I use it to reevaluate my practice. Even with just 4 years of nursing experience, I have practices to reevaluate and I do that because that's how I was taught and it makes sense. (P07)

> I think one of the things about reevaluating practice is that medicine is fluid, it never stops changing, there is research, and the research that has been going on [since] 5 years ago when I was in school, we are now putting it into play. And it [EBP] is always a future-based thing. (P16)

> Well, in school, we learned about looking up evidence and finding research articles and evaluating them, so I guess in that sense it has prepared me to look for new research that supports what I'm doing and by looking for research that supports what I'm doing or what I should be doing instead. (P20)

IQ4: What Changes Would You Make in Nursing Education to Prepare Future Students Better to Use EBP?

All participants had suggestions of how using EBP could be strengthened in nursing education. The main themes revolved around access to literature and databases after graduation, a more realistic presentation of how EBP is used in practice, and a stronger focus on EBP in a special course and threaded throughout the program.

One comment regarding access to literature and databases after graduation was as follows: "I wish more of the journals were free. They are so expensive; in nursing school you, get a discount. Our school did not have an extensive electronic library, and then the access expired after graduation" (P01).

Several nurses commented about the importance of learning and experiencing how EBP is used in practice. One nurse spoke about experience at a variety of sites: "Just encourage them to experience different clinical facilities. Then we would have to look at different evidence and research to discern which one is best for each situation. We just need more experience, a variety of clinical sites" (P10). Others mentioned shortcomings in the instruction process. For example, one nurse said, "We did a lot of hypotheticals, planned it out on a paper, talked about how we would do it, but we did not do a whole lot of implementing it into clinical" (P12). Another nurse said, "It is already embedded in the curriculum. It needs to be more implemented and then they need to learn more how to

actually use it" (P15), and another nurse said, "I would have liked to work more with the nurses on the unit and got involved in how they revised their policies and how they used EBP" (P19).

Other nurses provide more general assessments:

> Hmm . . . probably the time aspect of it, they want you to know everything about the patient that you choose for that day, but realistically in the work environment, you don't have that amount of time to dedicate realistically. Maybe a more realistic way that you can incorporate EBP and researching on the fly. (P02)

> We did a lot in school, nursing school is already pretty tough, and we integrated a lot of EBP in the nursing care plans. Maybe relating it more to practice in one or two studies on our own that we are interested in, that would be more appealing to us and our interests. Apply it to clinical and to their current and future practice, linking theory and clinical. (P03)

> I will just look up information and use only what is accredited and what is supported by evidence and studies. And if I can't find any information, I will look for information on clinical trials. Clinical trials and experience should also count as an important aspect, as well as the patient's side. We should ask our patients more about their care and we could assess their needs and perspectives more. (P07)

> I had this idea, or in general, the picture was painted that everyone used EBP and everyone agreed on what it was and it was understood and included in the workplace, but when I came out here, it was not at all clear or understood, the hospital policies are very stuck in their ways and EBP has to be chosen very much so. (P16)

Several nurses commented on their desire for stronger preparation in EBP:

> I would like to see a really dedicated class that is primarily research focused because, in my senior year, we had a class that was completely research focused. That was all we did and that helped me incorporate my enjoyment and strengthen my knowledge of research into my practice. (P08)

> I think there are so many classes that I took in the baccalaureate program that were ridiculous and I am not sure why I had to take them. The educational classes that were provided by my employer after nursing school were like nursing school on steroids. I would have liked nursing school to prepare me better. (P09)

> To educate new students to not be afraid to share their knowledge. Not to be afraid to speak up even if they say, "This is the way we have always done it." To kind of ease them into it, a confidence booster, and educate them well. (P14)

IQ5: What Opportunities Did You Have During Your Education to Practice Different Aspects of EBP?

The participants' responses to this question were generally divided into two groups, one whose members practiced aspects of EBP mostly during lectures and one whose members linked lectures on EBP with clinical experiences. Of the comments made by participants whose experience with EBP was strongest in the classroom, one nurse said, "We put a lot of trust in what the instructors were saying was truly EBP and the right way to do it" (P05). Another nurse said, "I really did not have a chance to. Our clinical were so short" (P06), and a third nurse said, "We did not do a lot, not like an actual study, we read a lot about EBP, we looked up a lot of articles, wrote a lot of papers, but that's about it" (P12).

Some nurses provided more elaborate and extensive answers to the question, as follows:

> Much was done with the care plans, and we did have a research class. We did a research paper, so we did integrate EBP with that, not so much in the clinical setting, we were, like, we were unsure what to do during clinical. Maybe in the last semester it all came together and it made more sense. (P03)

> I'd say papers. We did a lot of papers, peer reviewed journals to support our topics. They gave us the opportunity do an independent research study, but I opted out to do a different elective. So no linking of theory to practice. (P13)

> I can recall that we had to do a research class. We had to come up with an EBP-based research study, and we had to gather 10 EBP articles and combine them and make up your own study from it. (P14)

> I don't think we really did much. A lot of what we did in clinical was based on the hospital policies, but they never showed us whether the hospital policy was based on evidence, so I don't really know if our practice was related to EBP. We talked

> about EBP but really a lot of our opportunities were based on the hospital policies, so as far as how up to date the hospital was, I don't know. (P17)
>
> Well, our care plans had to be based on evidence, but EBP was mostly limited to the research class, really, when we learned how to read and write and evaluate research that has been done. In the end, we realized that those research reports that are written up eventually are the evidence that we use in evidence-based practice and we learned a little bit about how to evaluate them, but it was never applied in practice it didn't translate into the real world. That was up to every student themselves to figure that out for her if she wanted to or not. (P19)

The comments of the participants whose experience with EBP linked lecture and clinical experiences ranged from brief answers to lengthy comments. One nurse said, "We did a lot of prewriting and they really stressed teamwork, and most of our papers developed into an end product that could be used at the end of the year" (P11). Another nurse said, "During the whole program, I focused on breastfeeding and did all my research projects on breastfeeding. And I actually got my facility to hire a lactation consultant" (P15). A third nurse said, "With care plans and in the clinical, we applied information that we looked up that was the evidence from the literature, and in the clinical, we planned how to implement it" (P02).

Other nurses responded at greater length:

> They would always have us look at articles, review articles, summarize them, bring them to the clinical group, and to the bedside about how we could improve practice. And if we had a specific case, like my patient that I had this week in clinical, to find some kind of research to implement on the patient. (P04)
>
> I had a bunch of them in my management class. We were required to do a change project, which was essentially a research project. I got through the process of interviewing the different players and in my research project, how to set up a blind study and determine whether my theory was right and what outcome I got out of my theory. This helped foster the interest that I had in research. It was interesting to see some of the change projects from past classes they have actually implemented as change in the facility. It was nice to see that the hospital personnel were interested in what the research said and used the information to change policy and practice. (P08)

> During school with my research class, we did EBP practice and we did a lot of research projects and got to experience a lot of EBP-based things. I think I do it a lot more now than I did in school. That was the basics and now I really implement it. I feel like I use EBP a lot more now, I learned about it school and apply it now. (P10)

Interview Questions 6 through 8 related to RQ2, *What is recent BSN graduates' perceived level of skill to implement EBP in an urban hospital in a southern state.*

IQ6: How Would You Rate Your Skill to Implement EBP?

Comments from participants stating that they could improve their EBP implementation skills were primarily short and concise. One nurse said, "It could definably be better, maybe a 5 or 6. There is so much out there to read and sometimes you get lazy and tired and you just don't have the time or energy to read" (P01). Other nurses said, "On a scale from 1 to 10, I would think a 6 or 7. I would like to see the studies and during what time period they were done and evaluate them closely before implementing them" (P03), "I don't know, if I had the time and would find evidence, I would change my practice, but I just don't have the time to do that" (P05), and "On a scale from 1 to 10, I would think a 6. I would participate in a study but not conduct one" (P12). One nurse provided a lengthier response:

> I need to work on those. I want to get more involved with EBP. Now that I am done with school, hopefully I will get into it. I am halfway there as I have already had success with a previous project. (P15)

Comments from participants who perceived their EBP implementation skills to be strong were sometimes coupled with excuses. Nurses said, "I think I would rate it pretty well. I am good at recognizing when something is not working, but I don't have enough manpower to force it and be the EBP implementer" (P16), and "If it makes sense and the study shows the positive effects, my skill to implement it is good, I am going to do it if

the product is something we want, I am going for it" (P18). Another nurse side-stepped the question this way: "I make changes based on research that I have read and found, so I can use it a lot" (P10).

Comments from other nurses were as follows:

> I think I have the skill, I just lack the time, especially if you are working on the floor, there is not a whole lot of nurses that will look at articles and research in their time off and then come to work and say, "Look what I found" or "The latest studies say . . . ." We just don't have the time. Now that I am going back to school, I may have some topics that we discuss in school that apply to practice. But otherwise we don't have the time unless you are part of the policy-making team, then it is part of your committee work. (P04)

> Compared to a seasoned not-aware-of-EBP nurse, I think I could do more because I have more understanding of research articles and this is what this means and being able to get it out there. I don't have a problem implementing it because I know that there is evidence and someone has done the research and found that this better. (P14)

IQ7: What Do You Perceive to Be Your Strengths to Implement EBP?

As with the other interview questions, some nurses provided brief responses and other nurses lengthier responses. One nurse said, "Just knowing that whatever intervention that I am doing, that there is evidence behind it and the intervention works and that there is back-up" (P07). Another nurse said, "My biggest strength is that I am really organized, and I tend to be a very linear thinker, and I like to plot things out, because you have been able to plan and foresee possible roadblocks for your situation" (P08). A third nurse remarked on her skills related to implementing EBP as follows, "My ability to read and critically think. To read and think about it further and apply it to my patients" (P09), while another said, "I guess it would be I know how to do it now and I have the means to do it" (P11).

Another nurse said, “After I look at the evidence, if the educator presents information, I would feel comfortable to implement new practice or change my practice” (P12). Other participants in the study said, “Probably being a newer nurse, I’d say that it is helpful. And I had EBP in school” (P14), “I like to do what’s best for the patients and what has the best outcome” (P17), and “Well, I have learned how to use it in school, I can recognize good evidence, and I know how to find multiple sources and include pros and cons to really evaluate an issue or presented solution” (P19).

Other nurses remarked as follows:

> I am definitely a driven person, so that helps and, where I work, . . . it is part of your evaluation of the year, like, what have you done for the unit, and it is not only EBP but they trying to get you involved in projects. (P01)

> One of my strengths is that I know how to evaluate the evidence and that I would do so before implementing new research into my practice. I would evaluate it and make sure that the study could also fit culturally. (P03)

> Of course as a nurse I want to do the best practice for my patients, the best evidence that we can find to make our protocols and our procedures. This is not only going to benefit us, you know, as interventionists. It is also going to benefit the patients as well. (P13)

> It’s really difficult sometimes to find out what the patient wants and what the patient needs. Usually, their wants and needs are very basic and very small. Once that is taken care of, sometimes we can get to the deeper things and start talking about care. I think one of my strengths is to connect with the patient and allow them to give their input into their care, and that I feel comfortable sharing this with the physician. (P20)

IQ8: What Do You Perceive to Be Your Weaknesses to Implement EBP?

Nurses who responded to this request indicated self-awareness was one of several challenges. Some comments had to do with time limitations, such as these responses: “Maybe overanalyzing it or if it does not work the first time, I would make a quick judgment and abandon a new practice” (P03), “Time, procrastination, maybe I’ll do it

later and just put it aside for a while" (P04), and "I don't have time to even check if a new changes is actually based on evidence, I hope so, but I think I should review this more thoroughly" (P20). Other comments reflected perceived or possibly actual lack of power or confidence: "I am low on the totem pole. That would be a weakness that I am still considered a new nurse and my voice would not be heard" (P09), and "I think the hardest part is knowing whether the EBP implementing was effective and reassessing after implementing. Independently, I would not feel comfortable" (P12). One comment was unique among the others: "I don't think I have a weakness" (P18). Topics of lengthier comments were similar to most of the shorter comments:

> For one thing, I have struggled with reading and at one point I get tired of reading. I don't want to read anymore, but also I think sometimes you get a little burnt out with things because it all changes so fast. (P01)
>
> I'm nonconfrontational. That makes it hard. I look up information but if get push back, it is easier to just give in. Especially in the facility that I am in right now, they are about the bottom line. You get a lot of push-back and there is no money, so a lot of time it is just easier to give up then to trudge on. I think that is my biggest weakness. (P08)
>
> Probably the time and the manpower of being the one doing the research. It can be exhausting trying to get a whole chain of command of a hospital to agree to use something different, or to hear your side, or believe the research because it is so much larger then you are. (P16)
>
> A lack of time that is the biggest one. I have a lot of big ideas and I think I need to look this up and just because I have no time at work and then you can't look it all up at home. (P17)
>
> There is no time to look anything up at work. So time is a big issue. I would have to look it up at home. My weakness at implementing what comes down the chain of command is that I question the evidence and I would look at the sources that the new changes are based on, and that is not always welcomed. (P19)

Interview Questions 9 through 13 relate to RQ3, *What is the experience and meaning of EBP for recent BSN graduates in an urban hospital in a southern state?*

IQ9: What Is Your Comfort Level in Implementing EBP?

In their responses to this question, most of the nurses expressed confidence: "Higher now that I'm planning to go back to school and I am getting back into the research mode " (P06), and "It is high, in the 90% if know that there is study that has been done and if there is some sort of evidence that works, I am confident about using it" (P07). Other nurses commented as follows: "The fact that there is evidence that is very comforting. And I am fine implementing change if there is evidence and if there are people that will back me" (P10), "I could use what I have learned and I feel confident" (P12), "I don't have a problem implementing if it makes sense [and] I am interested, I'll implement it" (P14), and "I am comfortable. I think that it needs to be backed up with every new change, it needs to be backed up with evidence because people want to know why we change" (P17). Other responses were as follows:

> My comfort level is based on what I think is going on with the research, so if I read research on whatever and I think if it seems researched correctly and it is reliable, and quality information, by a dependable and credible researcher, I would feel comfortable implementing it and maybe taking it up the chain for a change in process. (P09)

> I am pretty comfortable as long as there is a logical approach, as long as we are taught to know what you are doing and why you are doing it and you can see the research, then I am comfortable. (P16)

Other nurses' responses indicated less confidence: "I have the skills, but I am not too comfortable to get more involved. Maybe after a little more experience I would feel even more comfortable with implementation" (P15), and "Well, this is kind of tricky, you know. It depends on what the evidence bears out. If this evidence is in alignment with the policy, I am very comfortable implementing it. Otherwise, I would be very careful" (P19). Other responses were as follows:

> Not very high because I feel I need more. I would want somebody to back me up and have my manager to say, "That would be good, let's try this." I would not want to do it by myself but maybe if it was a group or unit project. (P04)

> I am not always sure if the policy is really based on evidence or if the evidence is really balanced or if the evidence was just selected to support a policy. Some of them are kind of strange, and you wonder, so that's when I hesitate. (P20)

IQ10: What Factors Influence Your Use and Decision Making About EBP?

Responses to IQ10 mostly addressed either patient safety or process improvements. Comments made involving patient safety were as follows: "I think the number 1 thing is safety for many patients, always wanting to, I mean you are not only protecting yourself but also the patient you are working [with]"(P01), "Well, I always want what's best for the patient" (P04), and "If I need a problem solved, lack of knowledge about something wanting to the right thing for my patients, wanting to do what's best for my patient" (P05). Other nurses said, "I guess it is patients' care, how will this affect the patient, if it going to really affect patient care, well then, yeah, we'll get it implemented" (P11), "Well, patient safety and I guess policy of the hospital because you do no harm and then you watch your own back and license" (P16) and "Well, if it beneficial to the patients and if the outcomes are better than just blindly following what has been done for years, that is a strong influencing factor" (P19). Another nurse said,

> My motivation for the patient, if I can do anything to make them feel better or to make their diagnosis and care better that is what it all about. I don't do it for me it is always about the patient. (P06).

Several nurses responded with comments having to do with general process improvements. For example, one nurse said, "When something is not working in the current process, then we have to look at something better and something that works better for everyone" (P09). Another nurse said, "A need for improvement, to challenge old

ideas. If you hear of any study, you may want to implement it where you are working" (13). Other nurses said, "That there is research done, that there is proof that that is better, that proving it is better, that research is behind it" (P14), and "Time saving, if it seems to be better for saving time, and if it is better for the patient and if the patient outcome is better" (P17).

IQ11: Would You Describe How Your Sense of Personal Responsibility Affects Your Use of EBP?

Responses to this question provided insight into the nurses' commitment to the well-being and safety of their patient and highlight the essence of nursing practice to take responsibility for one's actions and the patients in one's care. One nurse commented, "I think it goes back to my protectiveness. I am the big sister, and then being a Christian, giving the best possible care I can is very important to me in fulfilling my spiritual needs also" (P01). Another nurse remarked, "I am in a charge nurse position, so constantly, all day long, I have peers that I monitor. I feel quite [a] bit of responsibility that I am correct and accurate in my information, because they rely on me" (P02). Other nurses said, "I take everything to heart, if it affects the patient, it affects me, and they are my motivation to do everything" (P06), and "I guess I feel responsible for our patients here and I want them to get the best care possible and the evidence usually points that way, so there" (P11).

Another nurse said, "It makes this safer, being a patient advocate, following guidelines, not just following the "this is the way it had always been done," it makes the patient safer, and outcomes are actually safer and improved from doing that (EBP)" (P14). Another nurse said, "Since I have been exposed to EBP, I feel I do understand

EBP and other people don't understand it sometimes. So I am the one that has to show others" (P15). Another comment was, "I want to do the best for my patient, everybody should do their part and if you see something that is not right, you should say something" (P17). Additional comments made were as follows:

> For me, it goes back to that oath, when I stood up at graduation, I said the nursing oath, that I was going to [give] the best possible care of my patent, well, I truly believe that and I have the integrity to back that and I have to do EBP because that is the best practice to take care of my patients that I know how. (P08)
>
> My first responsibility is to my patient and I want to keep them safe so it is a huge part of nursing it is a big responsibility that is what our jobs is and that influences me to use EBP to keep our patients' safe. (P09)
>
> I think it is very important to be skilled in EBP and willing to implement it for your patients because you have a responsibility to give them the best care. Using EBP would be a definite way to provide them with the highest quality care. (P12)
>
> My personal responsibility is the right thing to do, the moral, ethical, right choice that can be something different for everybody, but what I try to remember that it is not about my morals or my ethics in my care. It is but, ultimately, it is what the patient wants. (P16)
>
> Well, I have a strong sense of personal responsibly since I am the patient advocate. I am the last line of defense and have to do what is best for my patients. So using the best evidence and including all the essential variables such as literature, common practice, and the patient's preference are very important to me. (P20)

There were also comments from nurses with a different perspective of their sense of personal responsibility to implement EBP. One nurse said, "I just follow the policy and what the plan is from the doctor and I follow, and I can trust the MD" (P07). Other comments were made as follows:

> I know it is part of my responsibility, but I just don't do it and I don't do it as often as I should. But I know it is part of our responsibility to make our patients feel better and give them quality care. (P04)
>
> At this point, I don't feel a whole lot of responsibility in my work setting. I feel it has a lot to do with the whole collaboration in our unit, but we have committees,

like an education committee, a protocol committee, and the specific committees that focus more on that. There are definitely ways to be involved but I don't feel a huge sense of responsibility. (P13)

IQ12: In What Ways Do You Believe EBP Can Improve Nursing Practice?

All of the nurses who responded to this question remarked that EBP can improve nursing practice. One nurse shared this comment about her experience with EBP in practice: "In many ways, it can make the nursing practice easier, smoother, safer for our patients, and overall make it easier for us" (P09). Another nurse said, "I can keep getting better as long as we keep collecting data and keep watching how it unfolds and we are paying attention to the results, keep collecting and trying to apply new pieces of information" (P16). Another nurse said, "I think it can strengthen the nursing role, it will bring more autonomy and more empowerment to the nurses if we are actively involved in continuously reviewing their practice and searching for new evidence" (P19).

Other nurses shared their experiences and examples for their practice as follows:

I think one of the big things we are always learning about are infection rates. I can't think of [a] study where it did not conclude that by doing this or that, the infection rate came down, so that is excellent. It is amazing how you can change one little thing and it changes so much. And it is worth investigating. (P01)

With the way health care changes, nurses try to stay in the same groove and just being able to be open and changing some new things that have been proven. As long as people are willing to implement EBP, it would make a positive impact on nursing practice. (P03)

It will help our quality of care and our patient outcomes. Maybe we will be more distinguished in the medical arena. We are not as well respected as other disciplines. I think it would help our level or respectability, give us a better image. (P04)

I think it is empowering for nurses if we have the evidence to back up the things that we do. I think that this is the way we can improve nursing and nursing practice, just improve communication and the use of all different sorts of health care providers together. It will elevate our standing in the medical community. (P08)

> I guess it is kind of obvious to me but maybe not to other people, it is a proven method that we have seen work. I hate to hear, "We have always done it this way," and I am fighting this every day. (P11)

> It can definitely ensure that you are doing the best thing for your patient, the most recent thing, not just the thing that has been used for 50 years and everybody does it. I would prefer to look at the evidence and not just juts use it because somebody said so. (P12)

> I think EBP is overall the best for the nurse and for the patient. Before, nurses were not highly considered and now with EBP, nurses are a part of interdisciplinary teams and we are more highly regarded. This is important since the nurse spends 80+% of the time with the patients. (P15)

IQ13: How Do You Envision You Will Use EBP in the Future?

In their responses to this question, many nurses focused on their practice and how they would use EBP. One nurse said, "I would continue to keep up with studies that come out in my specialty and just regular updated information. I would participate in EBP studies. I receive a lot of e-mails about interesting studies and information" (P03). Other nurses said, "Just basically what I just said, just improving every day, keeping up to date [with] what comes out, and share what is new, and I am really big on research" (P10), "Implement it into the documentation, as we discover new ways to do something and we can implement it into the care" (P11), and "I envision I will use that a lot; I guess that I would like to be a part of research studies. I would like to say that protocols in my practice will be based on evidence" (P13). Another nurse said, "All the way to get changes done. To get changes done based on the evidence. The data are what make a difference" (P15). One nurse said, "Things do change and they come up with better things for everything. Things change for the better and we will continue using EBP" (P18).

Other nurses remarked as follows:

> If it was easy, I would use it all the time. Nursing cannot always be based on common sense and what we have done so far; we need to add the latest information including treatments and therapies. It needs to be an easier thing to get at. I will continue to look for new information. (P05)

> I don't like to be a little bit more pushy about evidence-based practice, bringing it to the forefront, push it up the chain of command, use it in the committees. It would be great if some units could pilot new policies and review the evidence they are based on and then add the nurses' experiences and patient input to the mix to really balance the research to become EBP. (P19)

> I envision I will be using it all the time. There is always going to be changes and we will always have to be on our toes about the newest latest changes and you have to stay up to date with those things if you want to stay in the groove of nursing and medicine.(P09).

Comments from mentioned nurses' plans to continue their education and combine EBP in education and practice. Nurses said, "I'm hoping with going to school, it will teach me how to implement it more actively in practice. I just hope that it will become a part of everything that I do, once I learn more" (P17), and "Well, everything is EBP and it is the only experience I have. And if I go back to school, I will learn more about EBP and use it there" (P07). Examples of lengthier comments were as follows:

> I would eventually get my masters. That, so that is very research oriented, so I would be using EBP and probably be doing studies on my own, then I could take that information back to work and then use it there. (P12)

> If school pans out, I am hoping I will be using this knowledge for research and I will be part of the EBP. I am more into the aspect of producing research than implementing it. It is more fun investigating and conducting research than trying to implement it. (P04)

> I am hoping to go back to school to do research, because that is what I enjoy, so I am hoping that I will be able to use this all the time. I'd like to be a clinical nurse specialist and focus on research, especially in critical care. That is my area of expertise. That is what I am passionate about. Hopefully, I'll be the one doing the studies to prove the evidence and serve as a resource. (P08)

Nurses who focused on the role of a more independent nurse using EBP provided these comments:

> Hopefully, there will be more committees and more acceptance from administrators and supervisors where the policies will change and evolve and we [will] have a little more autonomy. Even the doctors, they have ideas but they are also limited. How fully the vision will change and there will be less constraints. (P16)

> I wish the nurses would have a stronger voice when it comes to incorporating EBP into policies and new processes. It seems that much of this comes from the top down and the nurses are expected to just blindly follow the rules, but then why learn all about evidence and about the new research and how combining new evidence with existing knowledge can strengthen nursing and patient outcomes? I would like to see more autonomy at the bedside and more research by nurses in the clinical arena, not just by educators, but really getting all nurses involved. (P20)

Interview Questions 14 through 18 relate to RQ4, *How do nurses describe the effect of leadership on the implementation of EBP?*

IQ14: When You Identify a Need to Make Changes in Practice Based on Evidence, What Is the Process to Change Practice?

In their answers to this question, all the participants indicted that there was a hierarchy or chain of command to be followed at their institution. Several nurses mentioned organizational hierarchy. One nurse said, "If it was presented to the doctor or manager, it would probably be well received. Policies could be changed, but I would have to go find the evidence and present it"(P05). Others said, "Going through the chain command" (P08), "Oh lord, you have to go all the way up the chain of command and start with the nurse manager" (P09), and "I am not sure, likely to go to the manager, educator, and even the ethics board. I am unsure of the actual process" (P14). Another nurse said, "Ah, just having the evidence, whether it is research articles or other material, just integrating that into one presentation, I guess, and then it goes to the manager and up the chain of command" (P10). One nurse said, "Identifying it verbally to somebody that has the ability to make that change, usually the educator and the manager" (P17). Another

nurse said, “I don’t personally know what the steps are. Whatever we base our care on and our protocol on, it is highly used in the community, so it is all well studied. So there are no new studies” (P18).

Nurses who had contemplated the prospect offered these responses:

> So first, you have to identify your need, the finding, all the information you can, and then coming up with ways you can change it, and then you have to implement it. And then evaluate, of course. We go through the manager and then to the committee. (P01)

> It was more about education, the patients and staff, and giving them rationales. It would start with my manager and we would take it to QI [Quality Improvement] and we would have meetings with our medical director and he is very open because we are working with the patients and experience firsthand what the patient needs, he is very open to suggestions that we have. Whether it is a new process that we did things or a new medication or a new policy, he likes us to approach it from an education side and provide the evidence to back up the suggested changes. (P02)

> Well, in my field, if it is related to just our areas, we can just change practice ourselves. We don’t have a chain of command to go through. We can just implement the necessary changes. We are a small place. We discuss it amongst ourselves. (P03)

> Well, we question it; we look at literature, at our solutions. Instead of it being this way, what other ways could we do it? Through research, we could see what would be the best option and then try it in practice and see if it is better than what we currently have. I would have to go through the manager, then through the committee. It would probably be a lengthy process. (P04)

> It is a chain of command. I have to go to the assistant manager, then the manager, the legal department, the committee, and the educators, and so on. It may take a year and a half. And you don’t get the time to do [it] and you managers don’t encourage you to do it. (P06)

> Take it to the committees. We do an informal discussion first, I talk to my boss, and I’ll talk to the directors and nurses on the floor and, if it is worth changing, then will take it through the process. (P11)

> In my current work, we have to go though, of course, our manager, educators, you know, that sort of thing, and our protocols are in collaboration with our physicians, and we have to get it approved by our hospital. I have not actually

> done that, but I know that that is the process, it goes through policy committees. (P13)
>
> There has to be a policy. So you have to write a policy and the medical directors review it and they may approve. If not, they bring you in and they ask questions and review it with you and they make suggestions and I can defend the reasons. (P15)
>
> Well, it all goes to the manager, then they may or may not pass it up the chain of command until it finally filters down again to the policy committee, and they may develop a new policy that is hopefully still based on the initially identified evidence. (P19)
>
> It is long process. It starts with identifying a need, finding evidence, and then presenting it to the director, and then it goes from there up the chain, maybe then it becomes a change and comes back down as new policy or a change in policy. But so far, that has not been my experience. Usually all the information is given to the director and then I don't know what happens to it. (P20)

IQ15: To What Extent Do You Rely on Clinical Leaders to Implement EBP?

In response to this question, some participants indicated that they relied on more experienced peers to implement EBP:

> On our unit, it is kind of funny because we have the very young nurses and the older ones that treat us like their kids, in a nice way. They are very supportive and they are definitely the kind of nurses that want to see us grow. (P01)
>
> With me being new to the OR, I rely on the more seasoned nurse a lot. They are part of the operating room organization and they get magazines and stuff like that and they hand them off to me and, like, "You should read this," so I actually rely a lot on all my coworkers. (P14)

Other participants remarked that they relied on clinical and administrative leaders to implement EBP. One nurse said, "We have the CNO and directors that do come to us with stuff that they'd like to see done, but it is up to us to get it done" (P11). Another nurse said, "The administrators and educators provide information and have a huge responsibility and even though the initiative to disseminate information is not often taken it should be" (P05). Another nurse said, "Like, our CNSs (certified nurse specialists), I

rely on them. It is their role. They should keep up to speed and keep us informed and that is, they go to a nurse if I have questions" (P09).

Other nurses commented at greater length, as follows:

> I think I rely on them a lot. They are the ones that say, "Okay, let's do this study or let's figure this out." They are the ringleaders to get everybody involved. I think we do rely on them a lot. (P12)

> We rely a lot on them, especially our education department and even management, kind of, to set the standard, to set the bar. But where I work, we have nurse practitioners but they don't participate. The ones that work with me are not doing or sharing any research. We don't have any clinical nurse specialists in my unit but they would probably be really big on that, so in my unit is, it's mostly the educators. (P13)

> I think of a clinical leader that [*sic*] is willing to take that supportive step and not necessarily the one with the title, but in order to make change happen, it is 100% reliance on the leaders that have the power to be in agreement with it and then designate it, so we rely completely on the leaders. (P17)

> Well, that is all we have. We have no access to the Internet or databases with literature. I have to look it at home or access my school library account. So every change comes from above and suggestions for change from the nurses are received with mixed messages. (P20)

> A lot! I think without them, it would not happen. We just get new policies. They just tell us and we have to just sign a sheet with a PowerPoint and they tell us what is going to change, but there is no rationale or evidence. It just takes, like, 2 minutes and we are educated. Or they do education online; we watch a PowerPoint and take a quiz. I don't like the way they do it, I just know how to check some boxes, not the principle. It must be for a reason, but they do not share the background or evidence behind changes. (P04)

> That's a huge one! We always have our nursing meeting each month and we have big lists of complaints and how we can improve and how we can make things different and our lives easier. So that's how we present it and the manager's work on it and bring back solutions or they bring their own issues and solutions. (P07)

IQ16: How Would You Describe the Facility, Staffing, and Financial Support to Make Autonomous EBP Decisions?

Nurses' responses to this question indicated wide disparities in support from the healthcare facilities where they worked. Some nurses expressed they receive all the

support they need. One nurse said, “There would be financial and equipment, and managerial support” (P05). Another nurse said, “I work for . . . and we always have a new thing. We just a couple of weeks ago got the . . ., and we get everything we want” (P07). Another nurse said, “Well, we were shocked at the many things we have access to and they roll out stuff. The funding is not a big issue; if they think it is something that [we] need, we can get it” (P09).

Other nurses’ comments indicated they worked for organizations that offer less support. These nurses said, “They don’t offer anything. There is no funding to get experienced nurses, and because it is all about profit they don’t invest any money in what the nurses need” (06), and “We may have manager support but sometimes not funding support. The managers state, ‘That would be a great idea, but where we are going to get the money to implement it?’” (P10). Nurses also replied, ““No autonomous decisions” (P16), and “There are no autonomous decisions” (P17).

One nurse hedged her answer as follows: “I am not entirely sure how that works. I would go to my educator. I know they have a budget for it, but I don’t know how much and how that works” (P13). Another nurse said, “You have to really prove your point. There is no real autonomous decision; everything has to go up the chain of command and committees” (P 15). Other comments indicated final decisions rest with the organization if cost is a factor, but sometimes EBP prevails:

> Financially, the economy is rely hurting them. They are getting tighter about overtime and extra shifts, but as far as EBP, they are pretty good. I can remember a study that included interviewing our patients and the managers supported that. They are very accommodating with EBP and research. (P01)
>
> Well, they are very open to my suggestions. There is not so much time to invest in new changes and ideas because we have very little free time. But the ideas are

supported and if it does not cost much and [it] is not a big change, they are open to it. (P02)

I would probably get support, but not financial, just because I have seen the financial cuts that I have seen and they are constantly nagging us to clock in [and] out on time and not a minute too soon, to save money. It is never ending. So I know that there would not be financial support, but maybe emotional support. (P04)

Terrible! You know part of it is the government taking away money for Medicare and Medicaid and the staffing is awful. Nobody has the time, we barely have the time to do the nursing care, let alone the time and energy do anything extra and look for evidence. (P08)

Autonomous, they support it. If they got evidence to back it up, the administration is not going to fight them for it. It would be good if it fits within the policies and if it benefits the patient, and I have not seen anybody balks at anything like that. If it is something bigger, they would have to go through the committee. If it is reasonable, it would go through. (P11)

There are no autonomous decisions. It is pretty rigid. We have autonomy within the policy. We have very strict protocols, but the leaders are open to change. They would be open if it would benefit the patients. I feel like we [have] done little changes that are not specified by the policy to make things better. Financially, we would have to get approval. It is pretty rigid. (P18)

There is no such thing as an autonomous EBP decision even if it is within the policy. It is very difficult to make any changes, no matter what the literature and solid evidence indicates because everything is tightly regulated by policies. If staffing or finances are involved, there is no chance, as it is turned down before the evidence is even considered. Everything is about profit, not about evidence. (P19)

I have not seen that there is monetary or staffing support for EBP changes. The money is only available to the higher ups that decide on ways to monitor the staff. Unfortunately, EBP and the input of nurses and patients does not seem to be a priority, even though the director states that there is an open-door policy and every idea is considered and welcomed, the response and action does not match the rhetoric. (P20)

IQ17: How Are Your Opinions Regarding the Use of EBP Received by Your Leaders?

Nurses' responses to this question indicated little middle ground. One nurse said, "They are really receptive" (P11). Another nurse said, "I think it is very well received by

my leaders. They are open to it" (P12). Other nurses said, "They are open and respectful, they have a positive outlook on it" (P18), "The manager is pretty nice and open to say why we are doing this, and she would be honest, and she would be open to new ideas" (P04), and "They are open armed, open handed. They are receptive" (P14). Other nurses said, "They are very supportive. Sometimes it just takes a little time. They are busy [and] we have meetings with our doctors but it takes little time, just as with anything" (P17), and "It is received very well. They are supportive" (P05).

Other nurses commented as follows:

> They are very open minded and they are on top of things. . . . They use the best and the latest and . . . staff is happy. They are always happy to develop something that makes the staff happy. (P07)

> I would say our leaders are definitely open to EBP and best deals and they are thankful if we mention something that we need to change or revamp and improve, so it may not necessarily change right away, but they definitely want our opinion as the nurses at the bedside. (P13)

> I think that they are valued because we are directly involved in patient care because the leaders that are managers, they have been removed from the bedsides and out of the practice for a few years, so for the most part, I have not even [seen] a lot of kickback to the staff nurses. When there is [a] suggestion, they will look into it and if it's not exactly what the nurse recommends and suggests, they may come up with an alternative, but for the most part they are pretty responsive to our suggestions. (P09)

Other responses indicated there is sometimes less than full support. One nurse said, "The director is supportive. She wants us to go for everything we want to improve, everything based on EBP. Now once it goes above her, it may not be so well received" (P15). Another nurse said, "There are mixed opinions. There are those older folks that don't want to change anything and, of course, the younger ones that are all about it" (P10).

Other nurses' comments indicated awareness of the total lack of support for EBP from leaders. One nurse said simply, "They don't care. It is all about the bottom line. How fast can you get patients in and out and make money" (P06). Another nurse said, "Even though they say we can come to them and tell them if there are new ideas or changes that we should consider, their actions clearly indicate that they are not interested" (P19). Another nurse said, "They may say they have an open-door policy and they listen to every suggestion, but often they are not really interested or do not forward any ideas or concerns" (P20).

Some nurses indicated there was no support but they understood why that lack of support might be the case:

> I guess depending on how much work it is going to entail on them and to change to things that we do throughout the day. Usually if I can see direct benefit for the patient with the correct education and information, I eventually will be received. Maybe it also depends on the issue that I want to address and change. (P02)

> I get a lot of, "Okay, yeah. that seem like great idea," but nobody takes it any further than that. Oh, that is a nice pat on your shoulder. That is kind of discouraging. A lot of it is that there is no means to do it. (P08)

IQ18: What Opportunities to Strengthen Your EBP Skills Are Provided by Your Employer?

Nurses' responses to this question indicated finances and technology were sometimes obstacles or advantages as far as opportunities to strengthen EBP skills were concerned. One nurse said, "We do have in-services and they include EBP. They give us access to the Internet, but it is so difficult to get information" (P05). Another nurse said, "The time to [do] new things during down time and some tuition reimbursement" (P06). Another nurse said, "Oh, a lot. We [are] able to go to any nursing conference and they pay for it. We have in-house education and free CEUs (continuing education units) and

funded outside courses. They offer a lot of opportunities" (P09). Other nurses said, "My manager is always giving us articles to read and giving us different projects to investigate, and we get free continuing nursing education (CNE)" (P10), "We got a website for free CNEs and we can do our courses online" (P11), and "We have an education committee on our unit and we do a lot of classes. We also get some free CNEs" (P13).

Other nurses' commented as follows:

> Actually they do [a] really good job with that, actually. When I had reached my clinical hours, I had not even realized that. My manager came to me and stated, "We want you go to the . . . class because you have the clinical hours and we will pay for the classes and we pay for the test. (P01)

> They offer CNEs that we can choose, and actually they had an EBP conference downtown last year, that I could have gone to but I did not. They offer money for continuing education. I think implementation of EBP takes a culture change, and everybody has to be on board all the time. It takes a lot of time and that change in mindset. It takes more effort on everybody's part. Hopefully people will get into that change. (P17)

> We do get material, they put EBP pieces in the center of the break room or on a bulletin board. Our education director prints stuff to read, and we have to sign off that we have read it. Sometimes we get free CNEs. (P18)

Comments from some nurses indicated there is little to no support for advancing skills on EBP. Nurses said, "None. Unless you want to work extra on the committee, that is the only option" (P04), "Zero, *nada*, nothing. I mean, everything you have to do yourself" (P 14), and "There are no opportunities. We have to find our own sources to continue our learning and stay up to date" (P20). Finally, one nurse said,

> We have in-services, but they focus more on skills and following the new policies. EBP is not actually encouraged, even though the words are used often. The key is to follow the policy. There is also money available to take CNEs and bring back the information, so each nurse can choose to take CNEs that includes EBP. (P19)

Themes

The rich descriptions of the lived experiences of recent BSN graduates working in urban hospitals in a southern state show different factors that contributed to the nurses' use of EBP. Key themes identified in their comments revolve around decision-making processes related to the translation of educational information into practice, personal perspectives, and opportunities for application in the workplace. The major themes identified include expectation of change, providing the best care to the patient, limited autonomy due to policy constraints, applying a foundation of knowledge, and skill to implement EBP.

Change

All participants indicated that they were ready for change, they were expecting changes to be a continuous process in nursing, that only change and willingness to change will support EBP, and that they saw change as a positive factor that will strengthen nursing through EBP. The participants interjected change as an active and positive force to accompany EBP in response to every one of the 18 interview questions. Nurses' comments included 132 references to change. Examples of these comments are as follows. "It is amazing how you can change one little thing and it changes so much. And it is worth investigating" (P01), "So first you have to identify your need, the finding all the information you can and then coming up with ways you can change it and then you have to implement it" (P01), and "I make changes based on research that I have read and found, so I can use it a lot" (P10). Other comments included "There is new evidence every day that comes out and we change our practice" (P01), "After I look at the evidence, if the educator presents information, I would feel comfortable to implement

new particle or change my practice" (P12), and "It gives nurses [a] sense in research, a sense of respect. As far as the patients, of course, they benefit from the changing practices. It helps you work more in collaboration with the physicians as well" (P11). Nurses also said, "To get changes done based on the evidence. The data are what make a difference" (P15), and "I think that it needs to be backed up with every new change. It needs to be backed up with evidence because people want to know why we change" (P15). One final example is as follows:

> I think implementation of EBP takes a culture change, and everybody has to be on board all the time. It takes a lot of time and that change in mindset. It takes more effort on everybody's part. Hopefully, people will get into that change. (P17)

Providing the Best Care to the Patient

Seventeen of the 20 participants commented that one of the key experiences and motivations to implement EBP was to provide the patient with the best available care. There were 100 references to providing the best care for the patient in the nurses' responses to multiple interview questions. Nurses said, "You learn a lot about research and EBP and the best possible way to do things, and that influences my practice" (P10), "Of course, as a nurse, I want to do the best practice for my patients, the best evidence that we can find to make our protocols and our procedures" (P13), and "I like to [do] the best for my patients" (P15). Other nurses said, "Time saving, if it seems to be better for saving time, and if it is better for the patient and if the patient outcome is better" (15), "Well, if it beneficial to the patients and if the outcomes are better than just blindly following what has been done for years, that is a strong influencing factor" (19), and "Even though finding evidence could lead to finding an even better way to do things, my

knowing and learning about EBP in school has encouraged me to always look for new information and to keep on learning" (P20).

Comments made by other nurses were as follows:

> A specific example? Being trained to look for EBP. Our patients are definitely better off because I tend to seek out research that speaks to a certain part of my practice. I think this helps our patients to have the best interventions and care. (P12)

> Well, I have strong sense of personal responsibly since I am the patient advocate; I am the last line of defense and have to do what is best for my patients. So using the best evidence and including all the essential variables such as literature, common practice, and patients' preference are very important to me. (P20)

> My motivation for the patient, if I can do anything to make them feel better or to make their diagnosis and care better, that is what it all about. I don't do it for me. It is always about the patient. (P6)

Limited Autonomy due to Policy Constraints

Seventeen of the 20 participants made 84 references indicating that it was difficult to implement EBP because of policy constraints. Only six participants indicated that policies were restraining their use of EBP and directly linked this constraint to a perception of lack of time to find new evidence or fact-check new policies. Nurses said, "You have to really prove your point. There is no real autonomous decision; everything has to go up the chain of command and committees" (P15), "No autonomous decision, maybe [elsewhere] . . . , but not in a hospital" (P16), and "There are no autonomous decisions. Everyone has to be on exactly the same page, even the littlest change is noticed" (P17).

Other nurses made similar comments:

> Hopefully, there will be more committees and more acceptance from administrator and supervisor where the policies will change and evolve and we [will] have a little more autonomy. Even the doctors, they have ideas but they are

> also limited. How fully the vision will change and there will be less constraints. (P15)
>
> There is no such thing as an autonomous EBP decision. Even if it is within the policy, it is very difficult to make any changes, no matter what the literature and solid evidence indicates because everything is tightly regulated by policies. If staffing or finance are involved, there is no chance, as it is turned down before the evidence is even considered. Everything is about profit, not about evidence. (P19)

Applying a Foundation of Knowledge and Skill to Implement EBP

Seventeen of the 20 participants remarked that their education provided them with a foundation of knowledge and skill that they applied in their practice. Responses to the interview questions included 160 references that indicated knowledge and experience gained during education influenced and contributed to the nurses' current perceived skill and comfort with implementing EBP. Nurses said, "A need for improvement, to challenge old ideas, if you hear of any study, you may want to implement it where you are working (P13), and "I don't have a problem implementing it, because I know that there is evidence and someone has done the research and found that this better. And that why policies and procedures get changed" (P14). Other nurses said, "But if you are not educated in EBP, how you can say there is better way than these old ideas, that research and evidence shows" (P15), and "Maybe with an educator or in a group environment, I would participate in changes or a study about EBP to see if changes are necessary" (P12). Another nurse said, "I can keep getting better as long as we keep collecting data and keep watching how it unfolds and we are paying attention to the results, keep collecting and trying to apply new pieces of information" (P16).

Comments from other nurses included the following statements:

> I have been taught that encouraging nurses to look for proof of what they're doing this the right thing to do and that it encourages them to find evidence or proof that

> maybe this is not the best thing or maybe there could be some changes made and they could try them and see if they have better outcomes that way. (P19)

> During school with my research class, we did EBP practice and we did a lot of research projects and got to experience a lot of EBP-based things. I think I do it a lot more now than I did in school. That was the basics and now I really implement it. I feel like I use EBP lot more now, I learned about it school and I apply it now. (P10)

> Even though I am novice nurse and novice in my filed I have not so much experience but I implement stuff all the time and I research the background and information and then implement it. So I do a lot of reach and use EBP. I am not up the level that the more experienced nurses are but I use EBP nursing an all the time. (P9)

Summary

Findings of the phenomenological reduction and exploration of the collected data were presented in this chapter. The purpose of this study was reiterated, answers to the research questions were presented, and these responses were supplemented by demographic information of the participants. Data collection was reviewed and analyses reviewed, including combined human insight and software organizational capacity to allow the essential themes to reveal themselves. The results of the semistructured interviews of 20 recent BSN graduates practicing in urban hospitals in a southern state were presented. Major themes identified in participants' responses included expectation of change, providing the best care to the patient, limited autonomy due to policy constraints, applying a foundation of knowledge, and skill to implement EBP.

CHAPTER 5. RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this phenomenological study was to explore the level of knowledge of EBP among RNs who have joined the profession within the last 5 years. Since 2001, the topic of EBP has been reinforced in nursing education through lectures and clinical courses. Despite the increased attention paid by instructors of nursing programs to providing instruction of EBP, there is no research available on how these changes are reflected in the practice of nurses who have recently graduated. The little published information available is focused on a wide range of nurses in practice, or only advanced practice nurses, or nurses who participated in additional education courses, but none of the published studies address how recently graduated nurses experience EBP. None of these studies describe the influence of environment and education on EBP and whether, with increased quantity and quality of EBP content, recently graduated nurses use more EBP in their practice.

Because EBP is a complex process that requires repeated exposure to the tasks of information collection, evaluation, and decision making, it is not reasonable to assume how any one aspect of EBP, when used in practice, could be related to a specific educational intervention. Many factors shape the decision-making processes of a nurse in practice and these factors must be explored, including how nurses experience the EBP process. Because it is reasonable to surmise their recent nursing education strongly influences new BSN graduates, they are the population that can best provide insight into the use of EBP as reflected in the new educational changes. The experiences of seasoned

nurses reflect continuing education provided by employers and individual pursuits. By learning how EBP is experienced based on current educational practices and clinical work environments, information can be gained that can be used to further strengthen nurses' and work environments to promote the integration of EBP in everyday nursing practice.

Methods and Procedures

The qualitative method with a phenomenological design was chosen for this study because it was appropriate to interpret the experiences and roles of nurses who, based on their having completed nursing programs in the past 5 years, should be knowledgeable and use the best evidence when caring for patients. Creswell (2008) indicated that the qualitative research method allows the researcher to explore participants' views and focus on individual lived experiences to assess meaning. The phenomenological design increases understanding of participants' thought processes and, in the completed study, the experiences of the participant nurses regarding their use of EBP (Moustakas, 1994; Vishnevsky & Beanlands, 2004). Because EBP is a complex process that includes decision making, a phenomenological approach was appropriate because using it allowed consideration of the whole human being, not solely his or her behavior (Speziale & Carpenter, 2007). The desire to understand the commonality in human experience of a phenomenon (Speziale & Carpenter, 2007) and the essence of the experience (Merriam, 2009) made the choice of a phenomenological design the best fit for this study.

After receiving Capella University IRB approval for the study, nurses who had graduated from a BSN program within the last 5 years and were, at the time of the study, practicing in an urban hospital in a southern state were solicited for participation in the

study. Twenty nurses who met the inclusion criteria consented to participate and were interviewed. To explore their experiences in great depth, a semistructured interview process with an interview protocol was used. With each participant's permission, these one-on-one interviews were audio-recorded and each interview was transcribed immediately after conclusion of the interview, then allowed the participants to review his or her transcript and indicate any needed changes or additions. It has been recommended that prolonged engagement, journaling, and participant feedback will improve the rigor of the qualitative study (Creswell, 2011; Guba & Lincoln, 1994; Lincoln & Guba, 1985). Once the transcripts were complete, only each participant's randomly assigned number remained and any identifying data was removed.

Data were analyzed through reduction and exploration. As recommended by Moustakas (1994), a modified van Kaam method was used to collect a list of meanings and experiences specific to a group of participants. Optimal use of the storage capacity and functionality of QSR International NVivo® 9.0 software allowed for data organization during the reduction and analysis process that enabled identification of themes in the participants' responses.

Major Findings

The results presented in Chapter 4 indicate four major themes experienced by recent BSN graduates working in urban hospitals in a southern state: expectation of change, providing the best care to the patient, limited autonomy due to policy constraints, and applying a foundation of knowledge and skill to implement EBP. All participants indicated a readiness for change based on their nursing program. They expected change to be a continuous process in nursing and that only change and willingness to change will

support EBP. These newly minted RNs saw change as a positive factor that will strengthen nursing through EBP. The participants interjected change as an active and positive force to accompany EBP in response to every one of the 18 interview questions.

Seventeen of the 20 participants commented that one of the key experiences and motivations to implement EBP was to provide the patient with the best available care. Seventeen participants indicated that it was difficult to implement EBP because of policy constraints in response to multiple questions. Only six participants indicated that policies were restraining their use of EBP and directly linked this obstacle to a perception of lack of time to find new evidence or fact-check new policies. Seventeen participants remarked that their education provided them with a foundation of knowledge and skill that they applied in their practice. Knowledge and experience gained during education was reported to have positively influenced and contributed to the nurse's current perceived skill and comfort to implement EBP.

Discussion

The complexity of EBP required an equally complex theoretical framework to guide this study. The PARIHS framework was chosen to best support the search for answers to the question of how well professional nursing education programs prepare nursing students to practice nursing using EBP because it allowed for the exploration of nurses' experiences and continuous change of their practice based on the evidence from current research (Helfrich et al., 2009). Rycroft-Malone et al. (2002) suggested the key subelements in the PARIHS framework include research, clinical experience, patients' experience, leadership, culture, evaluation, purpose, and role match with skills and attributes of the facilitator. Because the PARIHS framework allows for a complex view

of EBP, it was ideally suited to serve as a lens through which to observe and describe the experiences of recently graduated RNs and their use of EBP. Elements of the PARIHS framework were linked to the research questions and subelements within each of these elements were represented, to varying degrees, in participants' responses. These connections warrant discussion.

RQ1. How Well Do BSN Recent Graduates Perceive Professional Nursing Education Programs Prepare Them to Practice Nursing Using EBP?

Responses to RQ1 indicate that 100% of the participants believed they were well prepared to use EBP as an integral part of their nursing practice. Many nurses stated that they had developed an interest in EBP and understand the process of EBP. They think about and explore new evidence to include in their practice, based on preparation provided by their educational experience.

Several nurses elaborated on how learning about researching and applying it to their clinical experience during their education sparked an interest in EBP:

> We had to find a project of an issue that we see a lot and do some research on it. We were doing it on wound vacs and the dressing changes. . . . It was enjoyable and I liked it, even though I did not think that I would like it, and that triggered a little interest in EBP and to continue my education. (P04)

> The one thing nursing school taught me was to think outside the box and always do research and look up information and bring in new resources, and go above and beyond and make suggestions, whether the suggestion is welcome or not. (P06)

> The program that I went to, we were required to do a couple of small research projects. I think that understanding the process made the whole idea of looking up research and integrating it into practice less intimidating for me. I try to be proactive, and I subscribe to the nursing journals, and I like to read and maybe incorporate that with my practice. (P08)

Two of the main themes that emerged, expectation of change and applying a foundation of knowledge and skill to implement EBP, indicate that recent BSN graduates

feel well prepared to practice nursing using EBP. This self-confidence extends to nurses' preparedness to recognize and evaluate the subelements of evidence essential to the PARIHS framework: research evidence, clinical experience, and context evaluation.

The findings of this study that recent BSN graduates perceive professional nursing education programs prepare them well to practice nursing using EBP extends the findings presented by Stone and Rowles (2007), who described how nursing students completed a research utilization project that supported the staff at the students' clinical rotation site relative to building knowledge and practice with EBP. Missal et al. (2010) described a partnership between a university and a healthcare organization, the intent of which was to teach research from the standpoint of EBP, and concluded the 3-year project increased student understanding of the EBP process in practice and the participating nurses contributed to a culture that embraced EBP.

The present study shows that active EBP education in lecture and clinical settings encourages nurses to retain and apply this knowledge to their clinical practice after graduation. It also indicates that new nurses who were well educated regarding EBP expected a culture of change because they were aware new evidence is always emerging. This finding adds to previous studies, which found that improved education in EBP increased knowledge, understanding, and better preparation of nurses for their clinical rotations, and extends these previous studies by investigating the impact of recently graduated nurses' EBP preparation into practice.

Although Levin et al. (2009) perceived benefits from their new practice model, assessment of students after the curriculum and teaching strategies were changed was not completed. Kim et al. (2009) determined that the educational program followed by 208

senior nursing students yielded an increase in EBP knowledge and use in the classroom, but not how that knowledge carried over into graduates' practice. Heye and Stevens (2009) described how they used new resources to teach EBP in a BSN program, as well as how gaps in student knowledge and skills were assessed, and concluded that their new project was an effective learning strategy, but not the effect of that learning strategy on nurses' practice. Aronson et al.'s (2007) study demonstrated that students who were introduced to EBP early in their nursing program were better prepared for their clinical experiences, but not how that preparation was applied in practice.

Brown et al.'s (2010) study was an investigation of predictors of knowledge, attitudes, and future use of EBP by nursing students, but not actual use of EBP by practicing nurses. Findings of the present study indicate that Brown et al.'s prediction of future use held true. Stronger EBP education in nursing curricula correlated with an increase in knowledge, attitude, and future use of EBP in recently graduated nurses' practices. Perhaps even more importantly, these recently graduated nurses' confidence in their clinical decision-making ability was a positive predictor for knowledge, use, and future use of EBP.

Because previous studies did not contain a qualitative component, only the variables chosen by researchers of those studies could be considered. This study used a qualitative approach, the benefit of which was that the study was not limited by any expectations. Unexpected new themes emerged, such as the expectation for change, that support the continuous use of EBP in the workplace built on a foundation of strong EBP education.

RQ2. What Is Recent BSN Graduates' Perceived Level of Skill to Implement EBP in an Urban Hospital in a Southern State?

Results of responses to RQ2 indicate that 85% of the participants perceived their strengths included knowledge to evaluate evidence and preparedness for change that enhanced their skill to implement EBP. One participant expressed how her awareness and understanding of EBP supports her decision to implement it:

> One of my strengths is that I know how to evaluate the evidence and that I would do so before implementing new research into my practice. I would evaluate it and make sure that the study could also fit culturally. (P03)

Two participants indicted that, after examining the evidence, they feel comfortable and skilled to implement EBP: "After I look at the evidence, if the educator presents information, I would feel comfortable to implement new practice or change my practice" (P12), and "Just knowing that whatever intervention that I am doing, that there is evidence behind it and the intervention works and that there is back-up" (P07). Many participants shared that implementing EBP was rooted in wanting do the best for their patient and base their care on evidence:

> Of course as a nurse, I want to do the best practice for my patients, the best evidence that we can find to make our protocols and our procedures. This is not only going to benefit us, you know, as interventions. It is also going to benefit the patients as well. (P13)

Two of the main themes that emerged from this study, providing the best care to the patient, and applying a foundation of knowledge and skill to implement EBP, were found in answers to this research question. Most participants reported feeling skilled to implement EBP based on their educational preparation if the evidence can be examined prior to implementation and if the reason to implement it is to improve patient care. The findings that recent BSN graduates' perceived level of skill to implement EBP in an

urban hospital in a southern state was strong and indicates that these nurses are prepared to recognize and evaluate the subelements essential to the PARIHS framework. In particular, the evidence subelements of research evidence, clinical experience, patient preference and experience, and local experience were clearly considered as the participants described their skills to implement EBP.

The current study shows that recent BSN graduates employed in urban hospitals in a southern state are aware of their strengths and weaknesses regarding EBP implementation. The reasons to implement EBP included understanding of EBP principles, and close examination of the evidence and the strongest driving force was to provide the best care for the patient, based on the best available evince. These findings align well with previous studies that found increased understanding and appreciation of EBP can increase the likelihood of EBP implementation. Özdemir and Akdemir (2009) found that nurses' use of research findings to implement EBP indicated increases in experience and appreciation of evidence were linked to increased implementation of EBP. Contrary to the findings of Özdemir and Akdemir (2009), in which two thirds of the participants indicated that their nursing curriculum research courses were unsatisfying because of limited opportunities to practice, insufficient content, inadequate amount and quality of instructions, and perceived insufficient preparation to implement EBP, the participants in the present study indicated that the basic knowledge and understanding gained in their BSN nursing education supported their confidence and skill to implement EBP.

Prior et al. (2010) found education contributed to the success of EBP implementation in New Zealand nurses. Thiel and Ghosh (2008) studied the readiness for

EBP of hospital nurses and found evidence of barriers, with a majority (72.5%) of RNs indicating their main source of information came from their peers, pointing to a significant need for information literacy support. Lack of EBP education was also noted as a concern and indicated a need for additional information about the education status relative to EBP use by recent nursing graduates. The recent BSN graduates who participated in the present study indicated having received educational support for the knowledge and comfort to implement EBP. Finding and evaluating research was a high priority with all participants in the present study and barriers that prevented them from doing so were largely organizational, not educational.

Previous studies reported there are many barriers to nurses' implementation of EBP. Recurring themes include resistance to change, lack of time, lack of organizational support, and lack of Internet access, often in combination with lack of information literacy and lack of EBP preparation during nurses' education. Brown et al. (2009) identified lack of time and lack of nursing autonomy as the main organizational barriers that prevented them nurses identifying and implementing EBP. Chang et al. (2010) indicated that organizational and educational barriers, such as lack of authority to implement change, difficulty understanding statistical analyses, uncertainty of the evaluation process of research, and lack of knowledgeable peers, were the main obstacles to implementation of EBP. Contrary to these findings, the present study indicates nurses are comfortable finding and evaluating research and implementing them to strengthen their EBP, but the organizational barrier of lack of autonomy in the implementation process was a problem. Details of that issue are addressed in the discussion of RQ4, later in this chapter.

Findings of the present study stand in stark contrast to those reported by Pravikoff et al. (2005), who identified barriers such as not valuing research in practice, not understanding electronic databases, and having difficulty accessing research material. Participants of the present study valued research and even expected the constancy of endless change in a continuously renewing body of research. The participants in this study reported feeling comfortable using electronic databases. Some even indicated that their facilities were ill prepared to meet their needs of continued electronic access to current databases or at least the Internet.

RQ3. What Is the Experience and Meaning of EBP for Recent BSN Graduates in an Urban Hospital in a Southern State?

In their responses to RQ3, nurses introspectively evaluated what EBP meant to them in their practice. Eighty-five percent of the participants indicated that doing the right and best thing for their patients was an incentive to actively include EBP in their practice every day. Two representative comments are as follows.

> For me, it goes back to that oath, when I stood up at graduation, I said the nursing oath that I was going to [take] the best possible care of my patent. Well, I truly believe that and I have the integrity to back that [up] and I have to do EBP because that is the best practice to take care of my patients that I know how. (P08)

> I think it is very important to be skilled in EBP and willing to implement it for your patients because you have a responsibility to give them the best care. Using EBP would be a definite way to provide them with the highest quality care. (P12)

One nurse expressed her sentiments succinctly: "I guess I feel responsible for our patients here and I want them to get the best care possible and the evidence usually points that way, so there" (P11).

Two of the main themes identified in the present study emerged in the answers to this question: expectation of change and providing the best care to the patient. These

themes and nurses answers to this question indicate that these nurses are prepared to recognize and evaluate the elements essential to the PARIHS framework. The evidence subelements of research evidence, clinical experience, patient preference and experience, and local experience were clearly considered as the participants described experience and meaning of EBP.

Interestingly enough, a search of current literature revealed no studies that indicated nurses implement EBP because of a sense of personal responsibility; in the present study, nurses demonstrated this concern when they spoke about both their sense of personal responsibility and accountability, and their responsibility for providing the best care for the patient. Some studies focused on nurses' attitudes towards EBP that may have included some aspects of the desire to do the best thing for the patient. For example, Larrabee et al. (2007) evaluated an EBP program to gather insights into nurses' attitudes and participation surrounding EBP and related activities; they found higher attitude scores were associated with increased knowledge about available support services, and increasingly positive attitudes were reported in nurses who participated in research-related activities. The findings reported by Larrabee et al. supported those by Melnyk et al. (2004), which indicated that a positive attitude towards research utilization could enhance participation in EBP-related activities.

Considering the skill to evaluate pertinent evidence and applying that evidence to their current practice was not indicated as a barrier or weakness in the present study. The participants reported they felt well prepared to evaluate research and expected to continue to look for new evidence and always improve their practice as they strive to provide the best care to their patients. These findings stand in glaring contrast to previous studies that

found information literacy to be a significant barrier to the implementation of EBP. Courey et al. (2006) found that although participating nurses' literacy skill improved after completing an information literacy course, these nurses indicated they did not feel the need for information literacy in their profession. Jacobs et al. (2003) found the addition of computer literacy components to their master's degree nursing program strengthened the nurses' foundation for EBP. It is reasonable to assume that the recent BSN graduates received enhanced information literacy courses during their education and graduated ready to access information in their practice. The perception that EBP can improve nursing practice and that nurses expect to use EBP in all settings in the future was not mentioned in the literature. As the answers to this research question show, it is possible that because of the enhanced EBP preparation and advances in EBP curriculum, recent BSN graduates embody a culture of change and EBP as an integral component of nursing practice.

RQ4. How Do Nurses Describe the Effect of Leadership on the Implementation of EBP?

In their answers to RQ4, participating nurses were able to ponder the impact of leaders of their units and organizations. Eighty-five percent of the participants expressed mixed feelings of being supported by their leaders but also constrained by policies to autonomously implement EBP. Comments by a few nurses indicate more obstacles than encouragements to implementation of EBP.

Several nurses spoke about financial issues having an adverse impact on their ability to implement EBP. One nurse said,

> There are no autonomous decisions. It is pretty rigid; we have autonomy within the policy. We have very strict protocols, but the leaders are open to change. They

> would be open if it would benefit the patients. I feel like we [have] done little changes that are not specified by the policy to make things better. Financially, we would have to get approval. It is pretty rigid. (P18)

Another nurse expressed similar sentiments when she said, "We may have manager support but sometimes not funding support. The managers state, 'That would be a great idea, but where we are going to get the money to implement it?'" (P10). Yet another nurse commented on the hierarchy of the organization as being an obstacle to implementing EBP: "You have to really prove your point there is no real autonomous decision; everything has to go up the chain of command and through committees" (P15). Another nurse simply stated, "There are no autonomous decisions" (P17).

One nurse explained the lack of autonomy in making EBP decisions as follows:

> There is no such thing as an autonomous EBP decision. Even if it is within the policy, it is very difficult to make any changes, no matter what the literature and solid evidence indicates because everything is tightly regulated by policies. If staffing or finances are involved, there is no chance, as it is turned down before the evidence is even considered. Everything is about profit, not about evidence. (P19).

Four of the main themes that emerged, expectation of change, limited autonomy due to policy constraints, applying a foundation of knowledge, and skill to implement EBP were prevalent in the answers to this question that addressed the effects of leadership on EBP implementation. This concentration of positive themes indicates that participating nurses are prepared to recognize and evaluate the elements essential to the PARIHS framework of research, evidence, and clinical experience, and the context elements of culture, leadership and evaluation, as well as facilitation subelements including characteristics of the facilitator, role clarity, and leadership style.

Most participants felt well prepared to use EBP, knowledgeable to evaluate new research, and expected new evidence as a continuous change process to be part of their

nursing practice. The nurses remarked on feeling limited in their ability to implement EBP by a lack of autonomy because every nursing action was tightly regulated by policy. In some cases, this lack of autonomy was deemed acceptable because the policy was well supported by current evidence and frequently updated, easily accessible, and included electronic links to the supporting research. In other cases, the nurses with supportive and responsive leaders who encouraged identification of problems and found ways to incorporate solutions in the form of policy change found this obstacle to be a mitigating factor in their application of EBP.

The matter of addressing lack of autonomy, as reported by nurses in the present study, is similar to that found by Boström et al. (2007), whose study participants described a positive attitude towards research, practice-related research, access to research, and managerial support as factors associated with increased research use, which is essential to implement EBP. Participants of the present study who indicated research utilization also reported support from their managers to implement EBP, as well as better access to research at their workplace. Gale and Schaffer (2009) indicated that a lack of time, lack of staff, and inappropriate equipment or supplies were the main barriers to implementing EBP, and participants in the present study shared similar experiences, adding the problem of lack of funding. Each of the participants in the present study who expressed concerns of lack of time, staff, supply, and funding shared the same employer. These same participants reported positive aspects of their situations, indicating that nurses were well respected and their recommendations regarding EBP were taken seriously and acted upon.

An interesting contrast between the present study and those represented in the literature is that the recent BSN graduates were well versed in research evaluation and expected EBP to be part of their practice, thus bringing a culture of positive anticipation of change to support EBP in nursing to their work environment. Hockenberry et al. (2009), Pierson and Schuelke (2009), and Steurer (2010) described the efforts made at their respective healthcare facilities to include an EBP educational element in support of a changing culture to embrace EBP in practice, a move expected to help practicing nurses increase their skills in applying EBP. According to the participants in the present study, the culture to embrace EBP already exist in recent BSN graduates; adding educational opportunities to sustain this positive perspective and include all nurses may represent two sides of the same coin.

Previous studies indicated that CNSs felt expectations of sole responsibility for disseminating EBP knowledge and encouraging EBP implementation. CNSs' roles may not be clearly defined, and multiple expectations and limited time lead to limited ability to support EBP implementation and propagation. Profetto-McGrath et al. (2010), who reported factors influencing CNS access, utilization, and dissemination of research were time and assistance/support from others, concluded that new networking methods might help CNSs to improve collaboration relative to EBP. A need for organizational support was evident because CNSs reported feeling torn between their multiple roles of being at the bedside and being at the computer terminal. Tuite and George (2010) discussed CNSs' important role in EBP implementation, remarking that CNSs seemed to be the sole initiators of change and the ones who developed new protocols and education tools. Although valuable collaboration between administration, physicians, and nurses existed,

the nurse educators and staff nurses seemed to assume the role of consumers who support the cause and implement the newly developed practice rather than collaborative peers.

These previous finding stand in contrast to the general findings of the present study, in which CNSs and clinical educators served as mentors and resources to nurses who are well versed and expect EBP as part of their nursing practice. In some cases, CNSs or clinical educators were seen as leaders to be approached if change was needed or new information had to be considered and added into existing policies. Recent BSN graduates do expect a collaborative role with the nurse educators and CNSs, but the nurses at the bedside—not the nurse educators and CNSs—are the initiators of change. Because institutional structures often curtail EBP implementation autonomy, nurses at the bedside are dependent on clinical educators and managers to respond to their identified problems and proposed solutions.

Conclusion

Efforts have been made to include EBP education in every nursing curriculum, according the ICN (2007), the NCSBN (as cited in Spector, 2007), and the AACN (2008), all of which agreed that inclusion of this topic would contribute to improved nursing care and better patient outcomes. It was unclear, based on the available empirical research, how recent nursing graduates demonstrate knowledge, engagement in practice, and attitudes and perceptions regarding EBP. Findings from the present study support the conclusion that recent BSN graduates working in urban hospitals in a southern state are well prepared to use EBP in the workplace.

RQ1. How Well Do BSN Recent Graduates Perceive Professional Nursing Education Programs Prepare Them to Practice Nursing Using EBP?

According to responses to RQ1, 100% of the participants believed that they are well prepared to use EBP as an integral part of their nursing practice. Nurses expressed that they have developed an interest in EBP and understand the process, as well as think about and explore new evidence to include into their practice, all based on their educational preparation. All of the participants offered suggestions to improve nursing education for future students, and linking the lecture content to the clinical was a recurring suggestion, as was a strong research class that allowed for nurses to explore topics in which they have interest. Overall, it appears that increased attention to EBP education in recent years has been effective and should continue to be strengthened.

RQ2. What Is Recent BSN Graduates' Perceived Level of Skill to Implement EBP in an Urban Hospital in a Southern State?

Answers to RQ2 indicate that 85% of study participants perceived their strengths include knowledge to evaluate evidence and that preparedness for change strengthened their skill to implement EBP. These positive findings are undermined by comments about inadequate time to investigate new evidence and organizational hurdles. It is possible that, despite a strong educational foundation, these nurses will eventually give up their enthusiasm for change and their search for evidence if they keep encountering organizational roadblocks. Several nurses mentioned assisting senior nurses in finding evidence, indicating that there is a need for continued education of nurses with less EBP preparedness.

RQ3. What Is the Experience and Meaning of EBP for Recent BSN Graduates in an Urban Hospital in a Southern State?

Most participants indicated that doing the right and best thing for the patients was a big incentive to actively include EBP in their daily practice. They said including EBP was a choice that they made every day to best care of their patients. This finding may be the most encouraging validation that nurses truly recognize the importance of the patient and are willing to change and seek the best available evidence to provide the best possible care for their patient.

RQ4. How Do Nurses Describe the Effect of Leadership on the Implementation of EBP?

Most study participants reported feeling supported by their leaders. Their suggestions were welcomed and, in many cases, taken seriously and evaluated for implementation feasibility after administrative and committee approval. Just as many participants, however, indicted that they could not autonomously implement EBP because their practice was tightly regulated by policy.

Organizational support or restructuring of the change process to include new evidence into the active policy may be essential if nurses who are knowledgeable in EBP are expected to continue implementing it. As studies by Profetto-McGrath et al. (2010) and Tuite and George (2010) showed, CNSs and nurse educators cannot keep up with the demands of disseminating ever-emerging new evidence and a collaboration with nurses active at the bedside, such as the recent BSN nurses who participated in this study, could help to maintain currency with new research and strengthen the role of BSN nurses to allow them to practice what they have learned. A shift in the hierarchical structure that

evaluates and approved policy changes and incorporation of EBP may be necessary to keep pace with these rapid changes and allow BSN nurses to be more involved.

Some participants indicated they had positive managerial, financial, and equipment support, so some institutions heeded the recommendation made by Koehn and Lehman (2006) that a systematic plan to change the institutional culture be made. As reported by participants in the present study, some hospitals have a culture that actively supports EBP and recent graduates perpetuate this positive change, while in other facilities, recent graduates felt limited support and at time alone as they chose to implement EBP.

The overall conclusion that adds new information to the existing knowledge is that recent BSN graduates in urban hospitals in a southern state believe their education has prepared them well to use EBP in their workplace. They support change and choose EBP every day because they feel a sense of personal responsibility to provide the best possible care to their patients. They feel skilled to implement EBP and many report having supportive leadership, but autonomous EBP decisions by nurses in hospitals are limited because nursing practice is tightly regulated by policy and current organizational structures rely on a chain of command in which changes are slow to happen.

Recommendations for Practice

Nursing programs, nursing educators, and nursing education leaders, should continue to strengthen existing courses and participate in curriculum development to strengthen EBP content and link it with clinical experiences for nursing students to understand or implement and thereby better prepare future graduates for their new role in practice. Based on the findings form this study, recent graduates felt well prepared to use

EBP; however, many have indicated that a stronger clinical connection would be beneficial for future nurses and help to bridge the practice gap between nursing education and practice regarding EBP use upon graduation. Adding a stronger clinical connection is important for students to build the practical knowledge and experience with EBP (Levin et al., 2010; Moch & Cronje, 2010; Stone & Rowles, 2007; Thiel & Ghosh (2008). Based on the present study active collaboration of educational institutions and health care facilities could facilitate this process. Changes could take many forms, including curriculum changes, inclusion of precepted elective clinical courses, allowing nursing educators and clinical educators to develop joint educational offerings that will benefit current staff, and participating students (Aronson et al., 2007; Missal et al., 2010; Oh et al., 2010; Pennington et al., 2010).

Morris and Maynard (2007) highlighted the importance of computer literacy and computer access. This study supports their findings that access to computers with appropriate databases is essential and recommends that recently graduated nurses should be provided extended access to electronic school library services to encourage continued review of evidence and knowledge expansion.

Nurses who come to recognize, based on the findings of this study and self-reflection, certain shortcomings in their own use of EBP might benefit from additional education to increase their understanding of EBP and how it can be used in practice. A new finding unique to this study was that recent graduates expected changes, were prepared to adapt to a never-ending stream of new evidence, and supported the use of EBP to provide the best care for their patients. Leufer and Cleary-Holdforth (2009) came closest to this finding when their participants recognized that application of EBP resulted

in the best care for the patients. Unfortunately the responses, toward providing EBP care to their patients, were neutral. The nurses of this study were well-educated, proactive, and could serve as supporters of educational programs that should be implemented to update nursing staff who did not have the benefit of strong EBP content during their education. Post licensure and continuing education regarding EBP was fond to be beneficial in improving quality of care (McConnell et al., 2009; Mills et al., 2009; Prior et al., 2010). Because the recently graduated nurses in this study are open to change and actively identifying issues in practice and using EBP they would be ideal change agents and could support the continued education in EBP in their practice environment. Gerrish et al. (2008) indicated that junior nurses in England felt disenfranchised, and Hannes et al. (2007) reported that nurses felt a lack of respect. Collaboration between recent graduates and seasoned nurses could help build stronger intergenerational relationships and enhance EBP knowledge and implementation. A possibility to consider would be a partnership process that allows new nurses to mentor seasoned nurses in EBP and seasoned nurses to mentor new nurses in the practical skills and clinical expertise, along with respect for patient preferences this collaboration could result in increased use of EBP. Ecoff (2009) and Wallen et al. (2010) found that mentoring increased the use of EBP. Hockenberry et al. (2009), Pierson and Schuelke (2009), and Steurer (2010) described the efforts taken at their respective healthcare facilities to include an EBP educational element in support of a changing culture to embrace EBP in practice. Koehn and Lehman (2008) found that hospital based continuing education was beneficial for nurses that did not receive the current EBP education.

On the basis of knowledge gathered from this study, health care institutions should find ways to allow nurses to use EBP in practice. As many nurses reported, policy often restricts EBP implementation. Each organization should find ways to give recent nursing graduates a stronger voice in policy changes and organizational restructuring to support a sustained process of EBP implementation. Koehn and Lehman (2008) concluded each institution should conduct its own assessment to determine the support needed by its staff to become successful users and implementers of EBP. McSherry et al. (2006) decided that organizations need to enable and empower nurses to practice using EBP. Recent graduates' positive personal responsibility towards their patients and willingness to be a part of the continued change process that accompanies EBP is beneficial to any health care organization.

Recommendations for Future Research

New and additional information based on the insights, perceptions, and experiences of recently graduated nurses must be continuously explored to gain insight into the changing preparation to use EBP. It is recommended that the current study should be replicated in different regions of the nation to account for variances in education and practice environments. While a few participants were educated in different states, there were no apparent differences in the responses related to education based on the place of education. This should be studied as each state has unique rules that govern nursing and nursing education.

In this study some consistent variations could be noted based on the practice environment. This perspective was not investigated further because it exceeded the scope of this study and would have required a larger sample. A larger sample is recommended

to conduct a comparative study between the uses of EBP of recent graduates practicing in different hospitals. This could provide insights into organizational barriers and facilitators, and clinically based educational practices that influence the use of EBP.

A longitudinal study is recommended to explore how the nurses of this study, or a replication of this study, progress and utilize EBP. Because of their openness to change and readiness to implement EBP it would add to the exiting knowledge to learn how their perspective develops as they become the seasoned nurses and their practice roles change, adding to the repository of research regarding EBP use.

Further studies using random sampling are recommended to assess whether the findings of this study can be generalized to a greater number of recent graduate nurses. In such studies trends, relationships, and correlation can be identified (Creswell, 2008).

Summary

The purpose of this phenomenological study was to explore the level of knowledge of evidence-based practice (EBP) among registered nurses (RNs) who have joined the profession within the last 5 years.

Because EBP is a complex process that requires repeated exposure to the tasks of information collection, evaluation, and decision making, it is not reasonable to assume how any one aspect of EBP, when used in practice, could be related to a specific educational intervention. The PARIHS framework was chosen to provide the appropriate lens through which to discover the experiences of nurses and their use of EBP.

Results based on interviews of 20 recent BSN graduates working in urban hospitals in a southern state revealed four major themes: (a) expectation of change, (b)

providing the best care to the patient, (c) limited autonomy due to policy constraints, and (d) applying a foundation of knowledge and skill to implement EBP.

The findings indicate a readiness for change in recent graduates. They expected changes to be a continuous process in nursing, and that they saw change as a positive factor that will strengthen nursing through EBP. Motivation to implement EBP was to provide the best available care. Difficulty to implement EBP because of policy constraints was of concern. Education provided the recent graduates with a foundation of knowledge and skill that they applied in their practice. Knowledge and experience gained during education was reported to have positively influenced and contributed to the nurse's current perceived skill and comfort to implement EBP.

Recommendations for nursing programs, nursing educators, and nursing education leaders based on these findings include continued strengthening of current courses, participation in curriculum development to enhance EBP content, and linking curriculum with clinical experiences to better prepare future graduates to use EBP in practice. As many nurses reported, their ability to implement EBP is policy-restricted. Recent graduates expect changes and are prepared to adapt to new evidence and support the use of EBP to provide optimal patient care. Each organization must find ways to allow recent nursing graduates a stronger voice and input in policy changes and organizational restructuring that will support sustained EBP implementation.

Further studies to replicate this study in different regions are recommended. Larger samples to investigate the uses of EBP of recent graduates practicing in different hospitals cloud reveal organizational barriers and facilitators would provide follow up to this study. A longitudinal study to discern how the nurses of this study, or a replication of

this study, progress and utilize EBP will add to the repository of research regarding EBP use. Further studies using random sampling are recommended to assess whether the findings of this study can be generalized to a greater number of recent graduate nurses. Nurses are ready for change and willing and interested to implement EBP as they strive to provide the best care possible for their patients.

REFERENCES

Adib-Hajbaghery, M. (2007). Factors facilitating and inhibiting evidence-based nursing in Iran. *Journal of Advanced Nursing, 58,* 566-575. doi: 10.1111/j.1365-2648.2007.04253.x

Adib-Hajbaghery, M. (2009). Evidence-based practice: Iranian nurses' perceptions. *Worldviews on Evidence-Based Nursing, 6,* 93-101. doi: 10.1111/j.1741-6787.2009.00149.x

Aita, M., Richter, M.-C., & Héon, M. (2007). Illuminating the processes of knowledge transfer in nursing. *Worldviews on Evidence-Based Nursing, 4,* 146-155. doi: 10.1111/j.1741-6787.2007.00087.x

American Association of Colleges of Nursing (AACN). (1998). *The essentials of baccalaureate education for professional nursing practice.* Retrieved from www.aacn.nche.edu/education/pdf/BaccEssentials98.pdf

American Association of Colleges of Nursing (AACN). (2008). *The essentials of baccalaureate education for professional nursing practice.* Retrieved from http://www.aacn.nche.edu/education/bacessn.htm

American Nurses Association. (n.d.). *Nursing education*. Retrieved March 7, 2011, from http://www.nursingworld.org/EspeciallyForYou/StudentNurses/Education.aspx

Annells, M. (1996). Hermeneutic phenomenology: Philosophical perspectives and current use in nursing research. *Journal of Advanced Nursing, 23,* 705-713. doi: 10.1111/j.1365-2648.1996.tb00041.x

Annells, M. (2006). Triangulation of qualitative approaches: Hermeneutic phenomenology and grounded theory. *Journal of Advanced Nursing, 56,* 55-61. doi: 10.1111/j.1365-2648.2006.03979.x

Aronson, B. S., Rebeschi, L. M., & Killion, S. W. (2007). Enhancing evidence bases for interventions in a baccalaureate program. *Nursing Education Perspectives, 28,* 257-262. doi: 10.1043/1536-5026(2007)28[257:EEBFII]2.0.CO;2

Bahtsevani, C., Willman, A., Khalaf, A., & Östman, M. (2008). Developing an instrument for evaluating implementation of clinical practice guidelines: A test-retest study. *Journal of Evaluation in Clinical Practice, 14,* 839-846. doi: 10.1111/j.1365-2753.2007.00916.x

Banning, M. (2005). Conceptions of evidence, evidence-based medicine, evidence-based practice and their use in nursing: Independent nurse prescribers' views. *Journal of Clinical Nursing, 14,* 411-417. doi: 10.1111/j.1365-2702.2004.01086.x

Beck, C. T. (2007). Exemplar: Teetering on the edge: A continually emerging theory of postpartum depression. In P. L. Munhall (Ed.), *Nursing research: A qualitative perspective* (4th ed., pp. 273-292). Sudbury. MA: Jones & Bartlett.

Beck, C.T., Keddy, B. A., & Cohen, M. Z. (1994). Reliability and validity issues in phenomenological research. *Western Journal of Nursing & Research, 16,* 254-267. doi: 10.1177/019394599401600303

Boström, A.-M., Wallin, L., & Nordström, G. (2007). Evidence-based practice and determinants of research use in elderly care in Sweden. *Journal of Evaluation in Clinical Practice, 13,* 665-673. doi: 10.1111/j.1365-2753.2007.00807.x

Bradley, P., Nordheim, L., De La Harpe, D., Innvær, S., & Thompson, C. (2005). A systematic review of qualitative literature on educational interventions for evidence-based practice. *Learning in Health and Social Care, 4,* 89-109. doi: 10.1111/j.1473-6861.2005.00095.x

Brown, C. E., Kim, S. C., Stichler, J. F., & Fields, W. (2010). Predictors of knowledge, attitudes, use and future use of evidence-based practice among baccalaureate nursing students at two universities. *Nurse Education Today, 30,* 521-527. doi: 10.1016/j.nedt.2009.10.021

Brown, C. E., Wickline, M. A., Ecoff, L., & Glaser, D. (2009). Nursing practice, knowledge, attitudes and perceived barriers to evidence-based practice at an academic medical center. *Journal of Advanced Nursing, 65,* 371-381. doi: 10.1111/j.1365-2648.2008.04878.x

Burns, N., & Grove, S. K. (2007). *Understanding nursing research: Building an evidence-based practice* (4th ed.). St. Louis, MO: Saunders Elsevier.

Callister, L. C., Matsumura, G., Lookinland, S., Mangum, S., & Loucks, C.(2005). Inquiry in baccalaureate nursing education: Fostering evidence-based practice. *Journal of Nursing Education, 44*(2), 59-64. Retrieved from http://www.slackjournals.com/jne

Carrazzone, D. (2009). *Educational strategies for advancing evidence based practice: Providing best patient care* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3357451)

Chang, H. C., Russell, C., & Jones, M. K. (2010). Implementing evidence-based practice in Taiwanese nursing homes: Attitudes and perceived barriers and facilitators. *Journal of Gerontological Nursing, 36*(1), 41-48. doi: 10.3928/00989134-20091204-04

Chiu, Y.-W., Weng, Y.-H., Lo, H.-L., Hsu, C.-C., Shih, Y.-H., & Kuo, K. N. (2010). Comparison of evidence-based practice between physicians and nurses: A national survey of regional hospitals in Taiwan. *Journal of Continuing Education in the Health Professions, 30,* 132-138. doi: 10.1002/chp.20070

The Cochrane Collaboration. (2012). *History.* Retrieved from http://www.cochrane.org/about-us/history

Coomarasamy, A., & Khan, K. S. (2004). What is the evidence that postgraduate teaching in evidence based medicine changes anything? A systematic review. *British Medical Journal, 329,* 1017-1019. doi: 10.1136/bmj.329.7473.1017

Courey, T., Benson-Soros, J., Deemer, K. & Zeller, R. A. (2006). The missing link: Information literacy and evidence-based practice as a new challenge for nurse educators. *Nursing Education Perspectives, 27,* 320-323. doi: 10.1043/1536-5026(2006)027[0320:TMLILA]2.0.CO;2

Creswell, J. W. (2008). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W. (2011). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Upper Saddle River, NJ: Pearson.

Cronje, R. J., & Moch, S. D. (2010). Part III. Reenvisioning undergraduate nursing students as opinion leaders to diffuse evidence-based practice in clinical settings. *Journal of Professional Nursing, 26,* 23-28. doi: 10.1016/ j.profnurs.2009.03.002

Crotty, M. (1996). *Phenomenology and nursing research*. Melbourne, Australia: Churchill Livingstone.

Doran, D. M., Haynes, R. B., Kushniruk, A., Straus, S., Grimshaw, J., Hall, L. M., . . . Jedras, D. (2010). Supporting evidence-based practice for nurses through information technologies. *Worldviews on Evidence-Based Nursing, 7*, 4-15. doi: 10.1111/j.1741-6787.2009.00179.x

Ecoff, L. A. (2009). *An educational initiative to promote evidence-based practice* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3368212)

Estrada, N. A. (2007). *Learning organizations and evidence-based practice by RNs* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3267824)

Estrada, N. A. (2009). Exploring perceptions of a learning organization by RNs and relationship to EBP beliefs and implementation in the acute care setting. *Worldviews on Evidence-Based Nursing, 6,* 200-209. doi: 10.1111/j.1741-6787.2009.00161.x

Fitzgerald, L., Ferlie, E., Wood, M., & Hawkins, C. (2002). Interlocking interactions, the diffusion of innovations in health care. *Human Relations, 55,* 1429-1449. doi: 10.1177/001872602128782213

Gale, B. V. P., & Schaffer, M. A. (2009). Organizational readiness for evidence-based practice. *Journal of Nursing Administration, 39,* 91-97. doi: 10.1097/ NNA.0b013e318195a48d

Gerrish, K., Ashworth, P., Lacey, A., & Bailey, J. (2008). Developing evidence-based practice: Experiences of senior and junior clinical nurses. *Journal of Advanced Nursing, 62,* 62-73. doi: 10.1111/j.1365-2648.2007.04579.x

Gerrish, K., & Clayton, J. (2004). Promoting evidence-based practice: An organizational approach. *Journal of Nursing Management, 12,* 114-123. doi: 10.1111/j.1365-2834.2004.00454.x

Gherardi, S. (with Nicolini, D.). (2006). *Organizational knowledge: The texture of workplace learning*. Malden, MA: Wiley-Blackwell.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* Chicago, IL: Aldine.

Guba, E. G., & Lincoln, Y. S. (1994). Comparing paradigms in qualitative research. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage.

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods, 18,* 59-82. doi: 10.1177/1525822X05279903

Hamill, C., & Sinclair H. (2010). Bracketing—practical considerations in Husserlian phenomenological research. *Nurse Researcher, 17*(2), 16-24. Retrieved from http://nurseresearcher.rcnpublishing.co.uk/

Hannes, K., Vandersmissen, J., De Blaeser, L., Peeters, G., Goedhuys, J., & Aertgeerts, B. (2007). Barriers to evidence-based nursing: A focus group study. *Journal of Advanced Nursing, 60,* 162-171. doi: 10.1111/j.1365-2648.2007.04389.x

Hart, P., Eaton, L., Buckner, M., Morrow, B. N., Barrett, D. T., Fraser, D. D., . . . Sharrer, R. L. (2008). Effectiveness of a computer-based educational program on nurses' knowledge, attitude, and skill level related to evidence-based practice. *Worldviews on Evidence-Based Nursing, 5,* 75-84. doi: 10.1111/j.1741-6787.2008.00123.x

Hegel, G. W. F. (1977). *Phenomenology of spirit* (A. V. Miller, Trans.). London, England: Oxford University Press.

Helfrich, C. D., Li, Y.-F., Sharp, N. D., & Sales, A. E. (2009). Organizational readiness to change assessment (ORCA): Development of an instrument based on the Promoting Action on Research in Health Services (PARIHS) framework. *Implementation Science, 4*(38), 1-13. doi: 10.1186/1748-5908-4-38

Heye, M. L., & Stevens, K. R. (2009). Educational innovations. Using new resources to teach evidence-based practice. *Journal of Nursing Education, 48,* 334-339. doi: 10.3928/01484834-20090515-06

Hockenberry, M., Brown, T., Walden, M., & Barrera, P. (2009). Teaching evidence-based practice skills in a hospital. *Journal of Continuing Education in Nursing, 40,* 28-32. Retrieved from http://www.slackjournals.com/jcen

Husserl, E. (1962). The thesis of the natural standpoint and its suspension. In W. Barrett & H. D. Aiken (Eds.), *Philosophy in the twentieth century: An anthology* (Vol. 3, pp. 171-178). New York, NY: Random House.

Institute of Medicine (IOM). (2001). *Crossing the quality chasm: A new health system for the 21st century*. Washington, DC: National Academy Press.

International Council of Nurses (ICN). (2007). *ICN position statement on nursing research*. Retrieved from http://www.icn.ch/images/stories/documents/publications/position_statements/B05_Nsg_Research.pdf

Jacobs, S. K., Rosenfeld, P. & Haber, J. (2003). Information literacy as the foundation for evidence-based practice in graduate nursing education: A curriculum-integrated approach. *Journal of Professional Nursing, 19,* 320-328. doi: 10.1016/S8755-7223(03)00097-8

Johansson, B., Fogelberg-Dahm, M., & Wadensten, B. (2010). Evidence-based practice: The importance of education and leadership. *Journal of Nursing Management, 18,* 70-77. doi: 10.1111/j.1365-2834.2009.01060.x

Kenny, D. J., Richard, M. L., Ceniceros, X., & Blaize, K. (2010).Collaborating across services to advance evidence-based nursing practice. *Nursing Research, 59*(Suppl. 1), S11-S21. doi: 10.1097/NNR.0b013e3181c3c011

Kim, S. C., Brown, C. E., Fields, W., & Stichler, J. F. (2009). Evidence-based practice-focused interactive teaching strategy: A controlled study. *Journal of Advanced Nursing, 65,* 1218-1227. doi: 10.1111/j.1365-2648.2009.04975.x

Koch, T. (1995). Interpretive approaches in nursing research: The influence of Husserl and Heidegger. *Journal of Advanced Nursing, 21,* 827-836. doi: 10.1046/j.1365-2648.1995.21050827.x

Koehn, M. L., & Lehman, K. (2008). Nurses' perceptions of evidence-based nursing practice. *Journal of Advanced Nursing, 62,* 209-215. doi: 10.1111/j.1365-2648.2007.04589.x

Larrabee, J. H., Sions, J., Fanning, M., Withrow, M. L., & Ferretti, A. (2007). Evaluation of a program to increase evidence-based practice change. *Journal of Nursing Administration, 37,* 302-310. doi: 10.1097/01.NNA.0000277715.41758.7b

LeVasseur, J. J. (2003). The problem of bracketing in phenomenology. *Qualitative Health Research, 13,* 408-420. doi: 10.1177/1049732302250337

Leufer, T., & Cleary-Holdforth, J. (2009). Advancing evidence-based practice through nurse education. *CARE, 1*(1), 3-14. Retrieved from http://www.gcu.ac.uk/care/

Levin, R. F. (2010). Integrating evidence-based practice with educational theory in clinical practice for nurse practitioners: bridging the theory practice gap. *Research and Theory for Nursing Practice, 24,* 213-216. doi: 10.1891/1541-6577.24.4.213

Levin, R. F., Keefer, J. M., Marren, J., Vetter, M., Lauder, B., & Sobolewski, S. (2010). Evidence-based practice improvement: Merging 2 paradigms. *Journal of Nursing Care Quality, 25,* 117-126. doi: 10.1097/NCQ.0b013e3181b5f19f

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.

Maggs-Rapport, F. (2001). "Best research practice": In pursuit of methodological rigour. *Journal of Advanced Nursing, 35,* 373-383. doi: 10.1046/j.1365-2648.2001.01853.x

Marchionni, C., & Ritchie, J. (2008). Organizational factors that support the implementation of a nursing best practice guideline. *Journal of Nursing Management, 16,* 266-274. doi: 10.1111/j.1365-2834.2007.00775.x

Mascola, A. J. (2008). Guided mentorship in evidence-based medicine for psychiatry: A pilot cohort study supporting a promising method of real-time clinical instruction. *Academic Psychiatry, 32,* 475-483. doi: 10.1176/appi.ap.32.6.475

McCluskey, A., & Lovarini, M. (2005). Providing education on evidence-based practice improved knowledge but did not change behaviour: A before and after study. *BMC Medical Education, 5*(40), 1-12. doi: 10.1186/1472-6920-5-40

McConnell, E. S., Lekan, D., Bunn, M., Egerton, E., Corazzini, K. N., Hendrix, C. D., & Bailey, D. E., Jr. (2009). Teaching evidence-based nursing practice in geriatric care settings: The Geriatric Nursing Innovations Through Education Institute. *Journal of Gerontological Nursing, 35*(4), 26-33. Retrieved from http://www.slackjournals.com/jgn

McSherry, R., Artley, A., & Holloran, J. (2006). Research awareness: An important factor for evidence based practice?. *Worldviews on Evidence Based Practice, 3,* 103-115. doi: 10.1111/j.1741-6787.2006.00059.x

Melnyk, B. M., Fineout-Overholt, E., Feinstein, N. F., Li, H., Small, L., Wilcox, L., & Kraus, R. (2004). Nurses' perceived knowledge, beliefs, skills, and needs regarding evidence-based practice: Implications for accelerating the paradigm shift. *Worldviews on Evidence-Based Nursing, 1,* 185-193. doi: 10.1111/j.1524-475X.2004.04024.x

Melnyk, B. M., Fineout-Overholt, E., & Mays, M. Z. (2008). The evidence-based practice beliefs and implementation scales: Psychometric properties of two new instruments. *Worldviews on Evidence-Based Nursing, 5,* 208-216. doi: 10.1111/j.1741-6787.2008.00126.x

Merleau-Ponty, M. (2002). *Phenomenology of perception* (2nd ed.). London, England: Routledge.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Wiley.

Miller, L. L., Ward, D., & Young, H. M. (2010). Evidence-based practices in nursing. *Generations, 34*(1), 72-77. Retrieved from http://www.asaging.org/publications

Mills, J., Field, J., & Cant, R. (2009). The place of knowledge and evidence in the context of Australian general practice nursing. *Worldviews on Evidence-Based Nursing, 6,* 219-228. doi: 10.1111/j.1741-6787.2009.00163.x

Milner, M., Estabrooks, C. A., & Myrick, F. (2006). Research utilization and clinical nurse educators: A systematic review. *Journal of Evaluation in Clinical Practice, 12,* 639-655. doi: 10.1111/j.1365-2753.2006.00632.x

Missal, B., Schafer, B. K., Halm, M. A., & Schaffer, M. A. (2010). A university and health care organization partnership to prepare nurses for evidence-based practice. *Journal of Nursing Education, 40,* 455-461. doi: 10.3928/01484834-20100430-06

Mitton, C., Adair, C. E., McKenzie, E., Patten, S. B., & Perry, B. W. (2007). Knowledge transfer and exchange: Review and synthesis of the literature. *Milbank Quarterly, 85,* 729-768. doi: 10.1111/j.1468-0009.2007.00506.x

Moch, S. D., & Cronje, R. J. (2010). Part II. Empowering grassroots evidence-based practice: A curricular model to foster undergraduate student-enabled practice change. *Journal Of Professional Nursing, 26,* 14-22. doi: 10.1016/ j.profnurs.2009.03.003

Moch, S. D., Cronje, R. J., & Branson, J. (2010). Part 1. Undergraduate nursing evidence-based practice education: Envisioning the role of students. *Journal of Professional Nursing, 26,* 5-13. doi: 10.1016/j.profnurs.2009.01.015

Morris, J., & Maynard, V. (2007). The value of an evidence based practice module to skill development. *Nurse Education Today, 27,* 534-541. doi: 10.1016/j.nedt.2006.08.022

Morse, J. M. (1994). Designing funded qualitative research. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 220-235). Thousand Oaks, CA: Sage.

Morse, J. M., & Field, P. A. (1995). *Nursing research: The application of qualitative approaches* (2nd ed.). Cheltenham, England: Nelson Thornes.

Moustakas, C. E. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.

Munroe, D., Duffy, P., & Fisher, C. (2008). Research for practice. Nurse knowledge, skills, and attitudes related to evidence-based practice: Before and after organizational supports. *Medsurg Nursing, 17,* 55-60. Retrieved from http://www.medsurgnursing.net/

National Council of State Boards of Nursing (NCSBN). (n.d.). *Nurse licensure compact*. Retrieved March 7, 2011, from https://www.ncsbn.org/nlc.htm

NVivo (Version 9.0) [Computer software]. Cambridge, MA: QSR International.

Oh, E. G., Kim, S., Kim, S. S., Kim, S., Cho, E. Y., Yoo, J.-S., . . . Lee, H. (2010). Integrating evidence-based practice into RN-to-BSN clinical nursing education. *Journal of Nursing Education, 49,* 387-392. doi: 10.3928/01484834-20100331-02

Osborne, J. W. (1994). Some similarities and differences among phenomenological and other methods of psychological qualitative research. *Canadian Psychology, 35,* 167-189. doi: 10.1037/0708-5591.35.2.167

Özdemir, L., & Akdemir, N. (2009). Turkish nurses' utilization of research evidence in clinical practice and influencing factors. *International Nursing Review, 56,* 319-325. doi: 10.1111/j.1466-7657.2009.00707.x

Palmer, M. A. (2010). *The role of attitudes, individual innovativeness, and organizational support for innovation in evidence-based practice implementation* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3412259)

Parahoo, K. (2006). *Nursing research: Principles, process and issues* (2nd ed.). Basingstoke, England: Palgrave Macmillan.

Pennington, K., Moscatel, S., Dacar, S., & Johnson, C. (2010). EBP partnerships: Building bridges between education and practice. *Nursing Management, 41*(4), 19-23. doi: 10.1097/01.NUMA.0000370873.25348.ec

Penz, K. L., & Bassendowski, S. L. (2006). Evidence-based nursing in clinical practice: Implications for nurse educators. *Journal of Continuing Education in Nursing, 37,* 250-254. Retrieved from http://www.jcenonline.com/

Phillips, J. M., Heitschmidt, M., Joyce, M. B., Staneva, I., Zemansky, P., Francisco, M. A., . . . Kranzer, S. F. (2006). Where's the evidence? An innovative approach to teaching staff about evidence-based practice. *Journal for Nurses in Staff Development, 22,* 296-301. doi: 10.1097/00124645-200611000-00005

Pierson, M. A., & Schuelke, S. A. (2009). Strengthening the use of evidence-based practice: Development of an independent study packet. *Journal of Continuing Education in Nursing, 40,* 171-176.Retrieved from http://www.slackjournals.com/jcen

Policy for Protection of Human Research Subjects, 45 C.F.R. § 46.102 (2009).

Pravikoff, D. S., Tanner, A. B., & Pierce, S. T. (2005). Readiness of U.S. nurses for evidence-based practice: Many don't understand or value research and have had little to no training to help them find evidence on which to base their practice. *American Journal of Nursing, 105*(9), 40-51. doi: 10.1097/00000446-200509000-00025

Prior, P., Wilkinson, J., & Neville, S. (2010). Practice nurse use of evidence in clinical practice: a descriptive study. *Nursing Praxis in New Zealand, 26*(2), 14-25. Retrieved from http://www.nursingpraxisnz.org.nz/np_home.htm

Professional Nursing Education Program Rule, 29 Tex Reg 12190, § 215.2 (2005).

Profetto-McGrath, J., Negrin, K. A., Hugo, K., & Smith, K. B. (2010). Clinical nurse specialists' approaches in selecting and using evidence to improve practice. *Worldviews on Evidence-Based Nursing, 7,* 36-50. doi: 10.1111/j.1741-6787.2009.00164.x

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York, NY: Free Press.

Rolfe, G., Segrott, J., & Jordan, S. (2008). Tensions and contradictions in nurses' perspectives of evidence-based practice. *Journal of Nursing Management, 16,* 440-451. doi: 10.1111/j.1365-2834.2008.00864.x

Rubin, A., & Parrish, D. (2007). Challenges to the future of evidence-based practice in social work education. *Journal of Social Work Education, 43,* 405-428. doi: 10.5175/JSWE.2007.200600612

Rycroft-Malone, J., Harvey, G., Seers, K., Kitson, A., McCormack, B., & Titchen, A. (2004). An exploration of the factors that influence the implementation of evidence into practice. *Journal of Clinical Nursing, 13,* 913-924. doi: 10.1111/j.1365-2702.2004.01007.x

Sackett, D. L., Rosenberg, W. M. C., Gray, M. J. A., Haynes, R. B., & Richardson, W. S. (1996). Evidence based medicine: What it is and what it isn't. *British Medical Journal, 312,* 71-72.Retrieved from http://www.bmj.com/

Sadala, M. L. A., & Adorno, R. de C. F. (2002). Phenomenology as a method to the experience lived: A perspective from Husserl and Merleau Ponty's thought. *Journal of Advanced Nursing, 37,* 282-293. doi: 10.1046/j.1365-2648.2002.02071.x

Sandelowski, M. (1998). The call to experts in qualitative research. *Research in Nursing and Health, 21,* 467-471. doi: 10.1002/(SICI)1098-240X(199810)21:5<467::AID-NUR9>3.3.CO;2-X

Sandelowski, M. (2002). Reembodying qualitative research. *Qualitative Health Research, 12,* 104-115. doi: 10.1177/1049732302012001008

Satterfield, J. M., Spring, B., Brownson, R. C., Mullen, E. J., Newhouse, R. P., Walker, B. B., & Whitlock, E. P. (2009). Toward a transdisciplinary model of evidence-based practice. *Milbank Quarterly, 87,* 368-390. doi: 10.1111/j.1468-0009.2009.00561.x

Spector, N. (2007). *Evidence-based health care in nursing regulation*. Retrieved from https://www.ncsbn.org/Evidence_based_HC_Nsg_Regulation_updated_5_07_with_name.pdf

Speziale, H. J. S., & Carpenter, D. R. (2007). *Qualitative research in nursing* (4th ed., rev.). Philadelphia, PA: Lippincott Williams & Wilkins.

Steurer, L. M. (2010). An evidence-based practice scholars program: One institution's journey toward excellence. *The Journal of Continuing Education in Nursing, 41,* 139-143. doi: 10.3928/00220124-20100224-04

Stone, C., & Rowles, C. J. (2007). Nursing students can help support evidence-based practice on clinical nursing units. *Journal of Nursing Management, 15,* 367-370. doi: 10.1111/j.1365-2834.2007.00713.x

Strauss, A., L., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques* (17th ed.). Newbury Park, CA: Sage

Thiel, L., & Ghosh, Y. (2008). Determining registered nurses' readiness for evidence-based practice. *Worldviews on Evidence-Based Nursing, 5,* 182-192. doi: 10.1111/ j.1741-6787.2008.00137.x

Tolson, D., Booth, J., & Lowndes, A. (2008). Achieving evidence-based nursing practice: Impact of the Caledonian Development Model. *Journal of Nursing Management, 16,* 682-691. doi: 10.1111/j.1365-2834.2008.00889.x

Tuite, P. K., & George, E. L. (2010). The role of the clinical nurse specialist in facilitating evidence-based practice within a university. *Critical Care Nursing Quarterly, 33,* 117-125. doi: 10.1097/CNQ.0b013e3181d9138c

Van Manen, M. (1997). *Researching lived experience: Human science for an action sensitive pedagogy* (2nd ed.). London, ON, Canada: Althouse Press.

Varnell, G., Haas, B., Duke, G., & Hudson, K. (2008). Effect of an educational intervention on attitudes toward and implementation of evidence-based practice. *Worldviews on Evidence-Based Nursing, 5,* 172-181. doi: 10.1111/j.1741-6787.2008.00124.x

Vishnevsky, T., & Beanlands, H. (2004). Qualitative research. *Nephrology Nursing Journal, 31,* 234-238. Retrieved from http://www.annanurse.org/

Walker, W. (2011). Hermeneutic inquiry: Insights into the process of interviewing. *Nurse Researcher, 18*(2), 19-27. Retrieved from http://nurseresearcher.rcnpublishing.co.uk/

Wallen, G. R. Mitchell, S. A., Melnyk, B., Fineout-Overholt, E., Miller-Davis, C. Yates, J., & Hastings, C. (2010). Implementing evidence-based practice: Effectiveness of a structured multifaceted mentorship programme. *Journal of Advanced Nursing, 66,* 2761-2771. doi: 10.1111/j.1365-2648.2010.05442.x

Waters, D., Crisp, J., Rychetnik, L., & Barratt, A. (2009). The Australian experience of nurses' preparedness for evidence-based practice. *Journal of Nursing Management, 17,* 510-518. doi: 10.1111/j.1365-2834.2009.00997.x

West, C. P., & McDonald, F. S. (2008). Evaluation of a longitudinal medical school evidence-based medicine curriculum: A pilot study. *Journal of General Internal Medicine, 23,* 1057-1059. doi: 10.1007/s11606-008-0625-x

Zlotnik, J. L. (2007). Evidence-based practice and social work education: A view from Washington. *Research on Social Work Practice, 17,* 625-629. doi: 10.1177/1049731507300168

APPENDIX A . INTERVIEW QUESTIONS

The following interview questions were researcher-developed based on the reviewed literature, to answer the research questions.

The primary research question and associated interview subquestions guiding the interviews follow.

What are the lived experiences of recent BSN graduates regarding EBP use in the workplace?

RQ1. How well do BSN recent graduates perceive professional nursing education programs prepare them to practice nursing using EBP?

IQ1: Are there any issues in your practice that you have identified and found or would like to find solutions through EBP?

IQ2: How did your experience in nursing school influence you to integrate evidence that you have looked up?

IQ3: How has your education prepared you to continuously reevaluate your practice and incorporate EBP?

IQ4: What changes would you make in nursing education to prepare future students better to use EBP?

IQ5: What opportunities did you have during your education to practice different aspects of EBP?

RQ2. What is recent BSN graduates' perceived level of skill to implement EBP in an urban hospital in a Southern State?

IQ6: How would you rate your skill to implement EBP?

IQ7: What do you perceive to be your strengths to implement EBP?

IQ8: What do you perceive to be your weaknesses to implement EBP?

RQ3. What is the experience and meaning of EBP for recent BSN graduates in an urban hospital in a Southern State?

IQ9: What is your comfort level in implementing EBP?

IQ10: What factors influence your use and decision making about EBP?

IQ11: Would you describe how your sense of personal responsibility affects your use of EBP?

IQ12: In what ways do you believe EBP can improve nursing practice?

IQ13: How do you envision you will use EBP in the future?

RQ4. How do nurses describe the effect of leadership on the implementation of EBP?

IQ14: When you identify a need to make changes in practice based on evidence, what is the process to change practice?

IQ15: To what extent do you rely on clinical leaders to implement EBP?

IQ16: How would you describe the facility, staffing, and financial support to make autonomous EBP decisions?

IQ17: How are your opinions regarding the use of EBP received by your leaders?

IQ18: What opportunities to strengthen your EBP skills are provided by your employer?