

NURSES' PERCEPTIONS OF THE IMPLEMENTATION OF EVIDENCE-BASED
PRACTICE IN CLINICAL SETTINGS

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ABSTRACT

RESEARCH PAPER: Nurses' Perceptions of Implementation of Evidence-Based Practice in Clinical Settings

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There continues to be a disconnection between research findings and their use in practice. Barriers exist in bringing evidence-based practice to clinical nursing. Barriers include a large volume of literature, lack of skills in use of research literature, perceived inadequate time to learn and/or use evidenced-based practice, and lack of administrative support. The purpose of this study is to identify nurses' perceptions regarding implementing evidenced-based practice. A convenience sample of 100 registered nurses will be drawn from 3 urban hospitals in central Indiana. This descriptive study is a replication of the Majid et al.'s study (2011). A self-administered survey questionnaire will be used to collect data about nurses' perceptions of the implementation of evidenced-based practice. Understanding nurses' perceptions will provide useful information for clinicians and nurse leaders as the focus for utilization of evidence-based practice continues.

CHAPTER I

Introduction

Evidence Based Practice (EBP) is the use of theory-derived research-based findings along with reliable forms of evidence in clinical decision-making. Evidence-based practice incorporates the meticulous use of research findings, the clinicians' experience, and patient preferences (Pintz, 2008). Historically, nurses have relied on 'expert' opinions of seasoned nurses in clinical decision-making (Benner, 1984; Benner, Tanner, & Chesla, 2009; Majid et al., 2011). However, these traditional ways of practicing may not only be outdated but unsafe (Pintz, 2008). Also, experienced-based knowledge may be associated with biased thinking that lead to errors (Schmidt & Brown, 2009). The EBP approach provides nurses with skills in using the literature and research evidence to maximize care.

Background and Significance

The roots of EBP can be traced to Archie Cochrane, a British physician, who worked to create a body of evidence, derived from randomized controlled trials, as the basis of medical school curriculums (Pintz, 2008). Haynes, Sackett, Scott, Rosenberg, and Langley (1996) outlined five steps physicians can use in utilizing EBP. These five steps included: asking clinical questions; looking for the best evidence; evaluating the evidence; deciding whether valid and important evidence can be applied; and evaluating

the progress. The nursing profession has embraced the initiation of EBP in healthcare. This has motivated many nurses to initiate research and apply research findings to improve clinical practice (Banning, 2004). This EBP movement has resulted in an increase in the number of clinical research studies being conducted. The inclusion of other disciplines beside nursing and medicine to use EBP along with the support of the US, United Kingdom, and Canada to translate research findings into practice has also increased the use of EBP (Pintz, 2008).

It has been noted in the last 30 years, the practice of nursing has been trending from relying on expert opinion to the application of clinical research. The goal of EBP is to analyze research, examine its clinical relevance, and integrate the findings into practice (Schmidt & Brown, 2009). The EBP approach utilizes empirical, verifiable and research-supported data that ensure nursing practice is based upon the scientific method (Pintz, 2008). It is important that EBP data is current, relevant and applicable, and take patient preferences in its application.

The use of EBP has significant implications for nursing practice. Nursing is a science and therefore it is essential to derive its knowledge from the findings of research. Scientific research is the standard by which sciences derive knowledge (Schmidt & Brown, 2009). Research findings define, explain, and identify phenomena fundamental to nursing care. Nursing practice serves as the source for research questions, while research serves as the foundation for current practice. Practice and research therefore exist in a circular continuum with one another (Schmidt & Brown, 2009). This reciprocal nature practice and research have led to the development of a disciplinary knowledge refining itself by answering the challenges presented. Evidence based practice that is supported by

sound research provides a scientific framework for the art of nursing (Schmidt & Brown, 2009).

Problem Statement

Newly graduated and less experienced nurses may perceive EBP to be useful, as they have recently learned in nursing curriculums (Bostrom, Ehrenberg, Gustavsson, & Wallin, 2009). However, 'expert' nurses may have difficulty translating evidence to practice because of their traditional way of thinking about practice and their use of methods that were successful in the past (Schmidt & Brown, 2009). Moreover, nurses may not have the skill or expertise how to obtain the research evidence from the literature or how to apply the evidence. Ultimately, nurses' beliefs regarding attitudes toward EBP will influence their use of EBP. Despite the benefits, barriers do exist which impede adopting EBP and its use.

Purpose of the Study

The purpose of this study is to examine nurses' perceptions of the implementation of EBP in clinical practice. The barriers to utilization of EBP will also be explored.

Research Questions

1. What are the perceptions of RNs regarding the implementation of EBP?
2. What are the barriers to the implementation of EBP?

Definition of terms

Evidence-based Practice

Evidence-based practice is an approach in which critically examined literature and research findings are used to provide nursing care that is safe and modern.

Perceptions of the implementation of EBP

Perceptions of the implementation of EBP are defined as nurses' beliefs about and attitudes toward EBP. The perceptions of RNs will be measured by a modified Majid et al. (2011) questionnaire.

Barriers to the Implementation of EBP

Barriers to the implementation of EBP are deterrents to apply it. These barriers could be related to the nurses' experience, the environment, resources, and lack of administrative support. The barriers will be measured by Majid et al. (2011) modified questionnaire.

Limitations

This study is limited by the small sample size. Another limitation is that data will be collected from one Midwestern state. Additionally participants may not respond honestly for fear of identifying their attitudes and beliefs regarding EBP.

Assumptions

1. Evidence-based practice leads to efficient and effective patient care.
2. Registered nurses have the ability learn to adopt and utilize EBP.
3. Participants will provide honest responses.

Summary

Evidence-based practice represents the culmination of research-supported evidence, clinical expertise and patient preferences. Adopting EBP is important to the profession of nursing because it provides current research-supported best practice that has been shown to improve patient outcomes. The transition from relying on 'expert' opinions to research-supported data is essential to support the continuing

transformation of nursing as a scientific discipline. There are several barriers, which exist in preventing the profession of nursing to transition from the use of ‘traditional’ methods to research-supported approaches to practice. . Examining nurses’ opinions of EBP, barriers to its implementation, and methods of overcoming these barriers are fundamental actions that may bring EBP into everyday nursing practice.

CHAPTER II

Review of the Literature

Introduction

The nursing profession is in the process of moving away from relying on the ‘expert opinions’ of seasoned nurses to using evidenced-based practice (EBP) research to guide practice. In the last thirty years, a significant amount of research has focused on this transition. A number of barriers exist in utilizing this research to direct every-day patient care. These barriers include the lack of knowledge of EBP, lack of time to learn EBP, poor literature review skills, and lack of support from hospital management.

The purpose of this project is to examine nurses’ perceptions regarding the implementation of EPB. This project partially replicates Majid et al.’s study (2011) to examine the perceptions of Registered Nurses (RNs) regarding the implementation of EBP.

Research questions for this study are:

1. What are the perceptions of RNs related to implementation of Evidenced-Based Practice?
2. What are the barriers to implementation of Evidenced-Based Practice?

The literature review section consists of selected research articles that explore the beliefs and attitudes regarding EBP and factors preventing the utilization of these

practices. This chapter will conclude with a review of research on how EBP can be effectively incorporated into patient care Majid et al. (2011) examined nurses' perceptions and implementation of EBP in nurses' clinical decision-making by a self-administered questionnaire developed by the authors. The authors examined the nurses' attitudes, beliefs, and understanding of EBP. The authors also explored the perceived barriers to the implementation of EBP. The population targeted for the study was registered nurses working in two public hospitals in Singapore. There were a total of 2100 questionnaires distributed. With a high return rate of 70.8%, the sample consisted of 1,486 nurses respondents. These respondents held various types of nursing degrees ranging from diplomas in nursing to master degrees. A large percentage of the nurses (82.7%) had not participated in any specific training on implementing EBP (Majid et al., 2011).

Five statements were used to examine beliefs and attitudes toward using EBP in everyday practice. Sixty-four percent of nurses either disagreed or strongly disagreed with the statement about preferring to use traditional methods verses newer methods of patient care. Over half of the respondents did not mind if others questioned their clinical practices based on traditional methods. Fifty-two percent disagreed that most research articles are not relevant to daily practice. Overall, most nurses had a positive view toward EBP and implementation.

Majid et al. (2011) used nine statements measured by a 5-point semantic differential scale to measure nurses' perceived self-efficacy of EBP skills. The authors found nurses believed they were able to identify clinical problems. However, nurses believed their ability to generate well-formulated questions from clinical problems were

lower (Majid et al., 2011). Nurses with higher professional qualifications were more likely to have better self-perceived ability to undertake EBP activities. Similarly, there was a significant difference among different self-perceived ability and participation in EBP training. Those nurses who had previously attended an EBP class were likely to feel more competent in implementing EBP (Majid et al., 2011).

The authors found the participants reported there were several supporting factors in adopting EBP. It was found adequate training and available time were the most important factors in adopting EBP. It was also found that support from mentors and nursing management for training and access was important in adopting EBP (Majid et al., 2011).

The authors found nurses reported the biggest barrier to adopting EBP was the lack of time at work to search and read articles (Majid et al., 2010). Nurses with higher education tended to have fewer barriers than nurses with lower education (Majid et al., 2011). It was found that nurses who attended EBP training and those with higher nursing qualifications tended to have less barriers to adopting EBP.

The lack of EBP training was reported to be the most likely barrier to adopting EBP (Majid et al., 2011). The most important desired areas of EBP training were recognizing clinical issues for implementing and knowing what EBP is. Training in EBP was also important to the respondents to learn EBP (Majid et al., 2011). It was found that nurses with previous EBP training and who had more education and clinical experience were more likely find EBP useful.

Majid et al. (2011) concluded that there was a positive view among nurses regarding EBP. However the study revealed several institutional and personal barriers

preventing nurses from adopting EBP. Lack of time and lack of EBP training were identified as the most important factors inhibiting implementing EBP (Madjid et al., 2011).

Insufficient data exist that examine the extent of new RNs use of EBP in clinical settings. Bostrom et al. (2009) conducted a national survey of RNs (2 years into practice) regarding the application of EBP. The authors also examined if different clinical settings affected the application of EBP. The population of this study was a nation-wide cross-sectional sampled of registered nurses who had graduated two years previously. Of the 987 respondents used for the study, 89% were women. Seventy-four percent worked in hospitals, 12% in elder care, 10% psychiatric care, and 4% in primary care (Bostrom et al., 2009).

This study was part of the Longitudinal Analyses of Nursing Education (LANE) research that consisted of three cohorts of nursing students from 26 Swedish universities and colleges that provide undergraduate nursing education (Bostrom et al., 2009). A Six-item instrument was used to measure the extent of EBP use. Each item represented a step in the use of EBP. The first item measured nurses' self-reported ability to formulate research questions by searching research based information. The second and third items measures the nurses' ability to seek knowledge using databases and other information sources. The fourth item measured the nurses' ability to critically evaluate and collect knowledge. The last two items measured the nurses' ability to use and evaluate research information (Bostrom et al., 2009).

A statistical program named the Statistical Package for the Social Sciences (SPSS) 16.0 was used to analyze the data to describe the extent of EBP use. The

respondents' extent of use of EBP was measured using a four point response format with 1=to a very low extent to 4=to a very high to extent. The data were collected from four different clinical settings consisting of acute care, elder care, psychiatric care and primary care.

The Chi-square test was used for analysis of the difference in the application of EBP between the four subgroups of RNs. The authors found no significant differences in the first two items between the measured subgroups. There was a statistically significant higher percentage of RNs in elder care that applied the four remaining EBP items (Bostrom et al., 2009). Results also showed that formulating questions for seeking research-based knowledge and searching databases were completed by only one-fifth (1/5th) of the respondents. The authors found 50% of the respondents used other sources of information for identifying relevant research knowledge. One-third of the RNs appraised the content of articles and other reviews in addition to changing and evaluating clinical practice. The results of this study are similar to previous studies showing the limited use of EBP. Although, students are taught that EBP is fundamental to practice, the authors found the RNs did not use it completely (Bostrom et al., 2009)

Adib-Hajbaghery (2007) examined the perceptions of Iranian nurses regarding the meaning of EBP and factors influencing its use. Grounded theory methodology was used to conduct this research. A total of 21 RNs with more than five years of nursing experience and working full time comprised the sample of this study. Open-ended questions were used to permit participants to express their opinions, perceptions, and experiences with EBP (Adib-Hajbaghery, 2007). Nurses were asked what directed nursing patient care and their own opinion of EBP (Adib-Hajbaghery, 2007).

Observation of nurse interactions was conducted in medical, surgical, emergency, and coronary care units. Observations of the nurses' interactions with patients and coworkers were combined with informal questions regarding views on actions and the reasoning for them. Nurses were asked to describe the sources that directed patient care as well as instances where scientific evidence was intergraded in that care (Adib-Hajbaghery, 2007).

Simple descriptive analysis was used to describe the characteristics of the participants. The participants were categorized by sex, level of education, and nursing position. A constant comparative method was used to analyze the interviews and observations. Data analysis was performed at the same time as the collection of interview information. Notes regarding the interviews were made regarding the nurses' tone, common themes, and the nature of the data immediately after in-service and this interpretation helped support the next interview. Content validity was validated with member checking audit trials.

It was found that nurses were unfamiliar with the concept of EBP but reported EBP was the correct scientific method of answering patient needs (Adib-Hajbaghery, 2007). Nurses reported their past experiences of patient situations created the empirical and theoretical knowledge they used to direct care. The participants reported that research helps perform scientific care, however EBP use is minimal in the performance of traditional care (Adib-Hajbaghery, 2007). Most nurses in the study viewed nursing care stemmed from physician orders and not nursing research or best practice knowledge.

The lack of professional knowledge and clinical practice were found to be barriers to EBP implementation. Although nurses had a positive view of EBP, they viewed

clinical experience and past knowledge as factors that direct care. Nurses reported having little or no research knowledge. It was also noted that the participants' viewed patient load, heavy workloads and insufficient staffing inhibited the implementation of EBP. The participants in this study viewed nursing care as being task-orientated. Additionally, nurses in this study believed they did not have the power to implement EBP. Nurses reported physician orders not nursing research-directed clinical practice (Adib-Hajbaghery, 2007). The author also found the lack of managerial support to be a significant barrier to the implementation of EBP.

Waters, Crisp, Rychetnik, and Barratt, (2009) examined the knowledge and attitudes of pre- & post- registration nurses regarding EBP. The authors mailed 1134 surveys to final year nursing students in South Wales with a 23 % (257) response rate. Surveys were also mailed to 677 working nurses of whom 126 (21%) responded. These post-registration nurses were comprised of both hospitals trained and university prepared nurses (Waters et al., 2009). The knowledge and attitudes of the pre- and post-registration regarding EBP were attained from anonymous self-complete surveys (Waters et al., 2009).

The authors measured attitudes of EBP on a 10-point scale. Participant self-rated skills were measured utilizing a five-point scale. Analysis of Variance Analysis (AVONA) was used to determine significant differences among the overall means of the three self-rating scores among participants. Among the sample of registered nurses over half of these working nurses received their training in a hospital program while the rest were university prepared (Waters et al., 2009). A majority of the undergraduate students

80% were under the age of 40 and over a quarter had some sort of nurse/nurse aid experience.

The research questions addressed the attitudes, knowledge, and extent EBP was used among pre- and post- registration nurses. The authors also examined the respondent's self-reported ability to apply evidence into practice.

Waters et al. (2009) found nurses generally had a positive and welcoming attitude toward EBP. Pre-registration students were significantly more likely than the hospital trained nurses, to believe their peers would be welcoming to EBP (Waters et al., 2009). Students were significantly more likely to believe EBP was useful but they were less likely to believe its implementation would be time consuming (Waters et al., 2009). Both pre and post- registration nurses believed clinical practice was based on the use of EBP. Both working nurses and students believed guidelines would be the most appropriate method in implementing EBP (Waters et al., 2009).

Waters et al. (2009) found the vast majority (91%) of students reported having used literature to research a topic but only 74 % claimed to have had training for it. Under half of the hospitals- trained nurses reported receiving EBP training. While over half of university-trained working nurses reported as receiving some training (Waters et al., 2009).

Both groups believed critical appraisal was important for EBP but had low confidence in the ability of using it. Seventy percent of nursing students reported they had critically appraised literary sources and more than half were familiar with appraisal checklists (Waters et al., 2009). About half of post-registration nurses remember receiving critically appraised education. Only, twenty percent of hospital trained and 26

% of university hospital trained hospital and university trained nurses were familiar with using critical appraisal (Waters et al., 2009)

The authors reported ANOVA results demonstrated a significant difference ($p=0.0$) between pre and post-registration nurses with self-rating skills of literature searching skills. Pre-registration nurses had significantly higher mean scores for multiple variables than post-registration nurses. There was no significant difference between hospital-trained and university prepared nurses with the self-rating of literature searching skills.

Similarly, ANOVA results demonstrated that there was a significant difference ($p=0.0$) between pre and post-registration nurses with self-rating of critical appraisal skills of EBP. Pre-registration nurses had significantly higher mean scores for multiple variables than post-registration nurses (Waters et al., 2009). There was no significant difference between hospital-trained and university prepared nurses regarding their self-rating of critical appraisal skills. Both pre and post-registration nurses believed their ability to translate evidence into practice was effective. It was found that pre-registration nurses were significantly more likely than post-registration nurses (both groups) to have access to advice, training in literature searching skills, and time to conduct literature searches (Waters et al., 2009).

This study also found there was a positive attitude toward nursing students and working nurses (hospital and university-trained). The authors found most of the respondents welcomed the use of EBP, but respondents reported low confidence and compliance in its implementation. Waters et al. (2009) did not intend to compare hospital versus university-trained nurses for this study. The sample was drawn from this mixed

group to represent the current workforce in Australia. Rather the study results demonstrate that the application of EBP elements into nursing were inadequate for the study's population (Waters et al., 2009).

Sherriff, Wallis, and Chaboyer (2007) examined how an EBP educational program affected attitudes, perceptions, knowledge, and skills of RNs. The population of the study was senior nurses in leadership and educational positions employed in a Health Service District in southeast Queensland consisting of a total of 1500 nurses. A total of 59 respondents attended the program and were invited to participate in the study. The educational program was comprised of a workshop and a supplementary handbook. The handbook measured current views on the effectiveness of EBP. Using a self-administered questionnaire, data were collected at three different times during the study. The first was immediately before, 1-week, and then 3 months after the workshop (Sherriff et al., 2007). The workshop attempted to make staff aware of the organizational research they could access to engage in EBP (Sherriff et al., 2007).

The questionnaire consisted of 38 items that measured: beliefs toward the availability of EBP support, belief in its value for patient care, self-evaluated research evaluation skills, clinical usefulness of findings, and the knowledge and time devoted to EBP and research skills (Sherriff et al., 2007). The Statistical Package for the Social Sciences 12.0.1 was the statistical program to analyze the data. Visual and numerical summaries were used to describe the sample's demographic information (Sherriff et al., 2007). ANOVA was used to measure the changes in the sample's attitude toward EBP over time (Sherriff et al., 2007).

Before beginning the workshop, the nurses were asked to examine their own practice. The nurses expressed a positive opinion toward their ability to implement EBP, its availability, support for its use, value for patient care, clinical usefulness, and adequate time to perform it (Sherriff et al., 2007). However, respondents did not feel they had adequate skills in finding literature or evaluating it. Respondents also believed they did not have knowledge of research jargon including statistics (Sherriff et al., 2007).

The workshop consisted of four components. The first was a didactic session introducing the principles of EBP. The second consisted of an interactive session for developing research questions using PICO (Population, Intervention, Counter-intervention, Outcomes). Next, library staff provided information with searching data strategies followed by hands on experience. And finally, an interactive session discussed critical literature appraisal and data abstraction (Sherriff et al., 2007).

Sherriff et al. (2007) found a significant change in the nurses' perceptions of organizational support in learning EBP ($p = 0.0060$) and their self-perceived skills in locating and appraising research ($P < 0.0001$). However, there was no significant change in the respondents view on the availability of time to conduct research (Sherriff et al. (2007).

This study suggests organization and managerial support for the use of EBP can significantly increase nurses' confidence in its use. The study also suggests hospital supported workshop programs can increase nurses' self-perceived ability to locate and evaluate research material. Institutional education can be a means to create positive perceptions of the knowledge and belief in the skills for locating and evaluating research. These findings are congruent with prior research regarding the grounding of evidence for patient care among senior nurses.

McCloskey (2008) conducted a study exploring the effect of education, experience, and position of nurses in the perception of the availability of resources for, attitudes toward, and support of research use in practice. The population of this study survey included nurses in five hospitals within a corporate hospital system within a large metropolitan area on the east coast (McCloskey, 2008). The author surveyed the sample with a descriptive quantitative questionnaire consisting of 46 items divided into four subscales: attitude, support, incorporation into practice and degree to which the nurses incorporate EBP into practice (McCloskey, 2008).

It was noted that of the 2500 surveys mailed, 270 (11%) were completed. Of the respondents, the average age was 43 with 17 years of experience. The respondents consisted of nurses with experience ranging from 1-26+ years, holding Associates, Baccalaureate, or a Masters degree. A 46-item Likert scale was used to measure nurses' attitudes toward EBP.

McCloskey (2008) utilized Roger's diffusion of innovation theory to describe how organizations disseminate researching findings into practice. Roger's theory proposes there are five stages for the dissemination of knowledge. The first stage requires the adopter to be aware of the innovation. Next, the adopter is persuaded the change is a favorable one. Then a decision is made as to whether to proceed with the change. If the innovation is adopted, the adopter then implements the innovation (McCloskey, 2008). And finally, the decision is made whether to continue or discontinue the change. There are several characteristics of individuals (adopters) that can affect the diffusion and utilization of knowledge. The characteristics include education, attitude toward change, and ones' status in the organization.

Using a one-way ANOVA, the authors differentiated the demographic data to determine if the level of education, position and years of experience affected the perceptions of nurses answering the 46 items. There were no significant differences found in any of the subscales based on years of nursing experience. However, there was a significant difference in attitude, support, use, and availability of research between masters' prepared nurses versus baccalaureate nurses. Also, the author found a significant difference between baccalaureate and associate degree nurses in all four subscales. Nurses in management positions significantly differed with staff nurses in attitude, support, use and availability of research. Finally, the author found there was a significant difference between advanced nurse practice nurses and staff nurses in attitude, support of and use of research findings (McCloskey, 2008).

The study also found education and position of nurses affect perceptions of nurses towards research. Nurses with master's degrees had a more positive attitude towards research. Applying Rogers' theory to these findings implies that early adopters such as nurses with advanced degrees and management positions may be the early adopters of change in an organization's use of research findings in practice (McCloskey, 2008).

Johansson, Fogelberg-Dahm, and Wadensten (2010) examined the importance of education and leadership in the use of EBP. The goal of the study was explore the correlation between the years of nursing experience and use of EBP. The study also explored if an EBP education course for head nurses affected its use.

The population surveyed for this study consisted of 168 head nurses employed at two hospitals in Sweden; one university hospital and one county hospital. The two

hospitals had a total patient population count of 1187 patient beds. The total amount of respondents was 99, yielding a 59% return rate.

A web-based questionnaire consisting of 26 items aimed to explore head nurses attitudes toward the use of EBP and activities associated with staff utilization of research findings. An 11-point Likert scale ranging from strongly disagree to completely agree measured most of the survey's items.

The researchers also examined the effect of a 15-week educational evidenced based practice course had on EBP attitudes among nurses with leadership roles. Of the 168 questionnaire respondents, 70 nurses (42%) participated in the course.

Johansson et al. (2010) found the majority of head nurses had positive attitudes toward EBP. However, the study results indicated head nurses do not have the time to study research articles and that was rare for head these nurses to discuss article findings with staff. Similarly the authors found about only half of the head nurses stated they discussed findings with other head nurses. A large number of the respondents agreed that staff nurses do not have the time to search or study researching findings. However, a majority of the respondents believed they encouraged their employees to read and use EBP. The study found more experienced head nurses perceived greater utility in the use of research utilization. Additionally it was found that nurses with more experience believed they had more time to read and use research at work. However, there was not a statistically significant relationship between the use of EBP and years of experience as a head nurses.

The authors did not find a relationship between the effects of the authors' EBP course on the attitudes or the self-reported use of EBP. All but one nurse who participated

in the EBP course stated they had previous education regarding EBP. Nurses, who had received prior EBP training, including scientific methodology, were significantly more likely to perform research related activities than those who had not had previous EBP training. The authors concluded these nurses with previous EBP experience had a more positive view of EBP and were more likely to participate in the EBP course.

The authors also found that nurses who perceived their management stressing the importance of EBP had a more positive view of EBP and incorporated EBP in units. The authors concluded that EBP education for head nurses is one important factor in EBP utilization. Emphasis placed on EBP by management and its use by the staff nurse may increase the use of EBP.

Rolfe, Segrott, and Jordan (2008) examined whether the confusion and contradictions found in the literature regarding EBP are reflected by equal confusion and differences among staff nurses. The authors used a cross-sectional survey followed by interviews and focus group discussions to explore this study questions.

In this study registered nurses and midwives in a single UK National Health Service, totaling 2438, were asked to complete a questionnaire placed in hospital nursing stations during September and October of 2006. Only 218 (8.9 %) responded yielding a very low response rate, which the authors concluded does not form a basis for statistical generalization of the findings beyond the respondents (Rolfe et al., 2008). Likert-type scale was used in the analysis of the data. SPSS Version 13 was used to analyze the data from the questionnaires. Two independent researchers entered the data and discrepancies were checked and reconciled by using SPSS Data Builders software (Rolfe et al., 2008). The demographic data of the respondents was explored with bivariate analyses along with

a logistic regression model to accommodate confounding variables. These variables included number of qualified years, history of attending any EBP study day, and whether the respondents held a Bachelors degree or current or the last completed clinical grade (Rolfe et al., 2008).

Three types of inconsistencies were found with the respondents' views regarding EBP: discrepancies between the respondents view of EBP and what is expressed in the literature, discrepancies between the different respondents concerning the EBP's nature, and mutually contradictory views held by the respondents (Rolfe et al., 2008).

The study revealed that there remains confusion in the definition of EBP and how different types of evidence should be applied in practice. Respondents reported 'national guidelines', past experience, local policies and patients were the most common influences on daily practice. It was reported that qualitative and quantitative (including randomized controlled studies) were the least influential sources of 'evidence' for practice. Eighty-seven percent of the respondents reported their 'own clinical experience' influenced their practice 'most of the time' or 'always' (Rolfe et al., 2008).

The authors stated previous research emphasized research findings as being at the top and 'expert' opinions at the bottom of the hierarchy of evidence sources for practice. However, the respondents in this study reported own experiences as being at the top and research findings having the least effect on everyday practice. Rolfe et al. (2008) reported there could be several reasons for these findings. First, practitioners simply do not have the time to search or read research findings. Practitioners prefer findings to be discovered translated by others who can then bring the evidence to be used in practice. Also, the

authors reported nurses are likely encouraged to follow the experience of seasoned nurses because it is present and more abundant than research findings (Rolfe et al., 2008).

Rolfe et al. (2008) stated that the literature is inconsistent regarding the ways of selecting and applying evidence into practice. The respondents' responses to contradictory statements, as to how evidence should be applied, reflected the confusion found in the literature. Half of the respondents agreed that both different types of evidence should be weighted according to what is considered most important and all evidence should be weighted equally. This association was statistically significant ($P = 0.04$). Twenty-two percent agreed that all types of evidence should be given equal consideration and greater preference should be given to published findings. This association was also statistically significant ($P = 0.001$) (Rolfe et al., 2008).

Respondents reported clinical reflection, the experience of colleagues, and intuition as being the most common sources of evidence that drive practice. Empirical data such as journals and databases were among the least used sources of evidence reported by the respondents. Less than a quarter of the respondents believed research findings take precedence over other forms of information such as expert opinions. This is in line with Benner's Theory in which nurses consult the 'intuition' of experienced nurses over published literature as sources of information (Rolfe et al., 2008).

The authors summarized that the research of EBP over the past 15 years has not been effective in reaching practitioners. They concluded that the inability of this research to be synthesized in a manner that can be used in everyday practice prevents the translation of EBP from research to practice (Rolfe et al., 2008).

Summary

The variables most examined were attitudes, perceptions, and the extent of knowledge of EBP among the surveyed nurses. A cross-sectional design was the most commonly used design. In all studies, the researcher(s) chose a population (nurses of various experience and educational backgrounds), and selected a sample within that population. The samples ranged from newly graduate nurses to nursing leaders. Samples were mostly described by years of experience, education, and the type of unit where they worked.

Six of the eight studies used questionnaires to explore the research variables. Abid-Hajbaghery (2007) used taped interviews and observations rather than surveys. The Bostrom et al. (2009) study used a four-point response format for measuring the extent of applying EBP in practice. Majid et al. (2011) and Waters et al. (2009) used a questionnaire to measure nurses' attitudes toward EBP, knowledge of EBP, and the self-perceived ability to perform literature review. Bostrom et al. (2009) also examined if the type of unit where newly graduate nurses had an effect on the perception and implementation of EBP. Johansson et al. (2010) explored if experience or position (i.e. head nurse) are related to perceptions and implementations of EBP. Hajbaghery (2007) took a broader view and explored how nurses in Iran defined EBP and the factors that inhibited from implementing EBP.

Most of the authors agreed that nurses had a positive and welcoming attitude toward EBP. Yet, relying on expert opinions rather than EBP was the most common way nurses learn how to practice nursing. Most also agreed that although there was much literature regarding EBP, most of the surveyed nurses either did not know of current

evidence-based practices nor did they have the time or support to implement those practices. Rolfe et al. (2008) took a more critical view and reported that there is confusion among researchers on how to define EBP and there is no consensus on how to synthesize these research findings and translate them for everyday use.

Most authors agree that nursing and hospital management need to make a greater effort in bringing EBP to the bedside side. Time must be provided for nurses to learn about EBP and how to find relevant literature. Two studies created an EBP class and found it was successful in improving knowledge of EBP. Most of the studies reviewed revealed that there simply is little time for most nurses to perform literature searches. This leads to the conclusion that it is important nurse leaders find ways to encourage the use of EBP.

More research needs to be performed on how to bring EBP to the bedside. These studies explored nurses' attitudes of EBP but did not give concrete strategies for bringing EBP to the bedside nurse. Education of nurses should not stop upon graduation. More emphasis must be placed on continuing education and bringing current 'research supported' practices to nurses. If nursing is to be considered a profession, it must continually develop and maintain and utilize evidence-based research for clinical practice. This knowledge based should be re-enforced and updated on a regular basis. It is important of nurse researchers and nursing leadership to find creative ways to keep nurses aware of new research supported practices. Finding and sustaining evidence-based practices propels nursing to being an independent profession able to support its professional practice with the latest evidence and research.

Chapter III

Methods and Procedures

Introduction

Despite an influx of literature supporting EBP use, the implementation of EBP remains elusive to practicing nurses. Barriers to the implementation have been identified. The EBP is the conscious use of evidence-supported data in practice. It's of paramount importance because it transforms nursing from an opinion-driven 'handed-down' set of skills to a scientific practice supported by the best available data. Significant efforts are being exerted to bring EBP to the bedside. However, there are several barriers that prevent the full utilization of EBP. It is important to understand what nurses know and how they believe about EBP and the factors that prevent its utilization. This chapter includes information about the population, sample and protection of human subjects, procedures, data measurement tools, and design of the study.

The purpose of this study is to examine nurses' perceptions of and barriers to the implementation of EBP. This study is a partial replication of Majid et al. (2011) study.

Research Questions

The Research questions for this study are the following:

1. What are the perceptions of RNs related to implementation of Evidence-based practice?

2. What are the barriers to implementation of Evidenced-based practice?

Population, Setting and Setting

The population of this study will include RNs employed in three academic hospitals in Indianapolis. The anticipated sample will consist of 100 nurses currently working full or part time in these three hospitals. Inclusion criteria will include all RNs who agree to participate, those who are employed full or part or full time, and those who are baccalaureate, or associate prepared bedside nurses. All RNs from the 3 academic hospital inpatients units will be invited to participate. Exclusion criteria for this study will be PRN nurses, nurses in leadership positions, nurses in administration and nurse educators.

Urban center academic hospitals have been chosen to recruit participants due to their relationship with an academic research university. It was hypothesized that nurses employed at these hospitals could be considered representative of the target population of nurses employed in academic hospitals. The representativeness is limited since the sample contains only Indiana nurses. Other academic hospitals throughout the country may have varying factors that affect attitudes toward implementation of EBP.

Protection of Human Subjects

The study will be submitted for approval to the Ball State University Institutional Review Board (IRB). The study will also be submitted to the Ethics Committee of IU Health Research for approval. All participants will receive a copy of the study information letter explaining the study and the name and phone number of the researcher if there are questions about the study or the questionnaire. The study information letter will explain subjects' rights and that participants may withdraw from the study at any

time without any penalty from their institution supervisor or administrator. The participants will be informed that completion of the survey questionnaire will be acknowledgement of consent to participate in the study. The study is voluntary and the questionnaires are anonymous. The study will adhere to the ethical considerations of the participating institutions. At this time the researcher believes that no perceptible risk have been identified through participation in this study. The researcher also believes that participation in this study may provide participants an opportunity to become more aware of their own attitudes and beliefs regarding Evidenced-based practice.

Procedures

After receiving permission from the university and health system, the project will be introduced to upper level nursing management at each hospital for approval. Study exclusion and inclusion criteria will be presented to leadership and administration. Copies of the study questionnaire will be supplied to nurse managers of all the inpatient units in the three hospitals. All full-time and part-time RNs working during a 2-week data collection period will be invited to participate in the study. With the help of middle level management, the researcher will give participants full disclosure regarding the nature and purpose of study and the anonymity of their survey. The survey questionnaire will be handed to middle level managers who will distribute them to potential participants along with the cover letter and consent form and information on where to place the completed survey. A slotted, locked deposit box-only accessed by the researcher will be placed on each included floor of the hospitals for RN participants to place the completed survey

Research Design

This study is a non-experimental, with correlational and predictive design. This study will describe the findings, examine the relationship between variables and predict the implementation of EBP.

Instrumentation, Reliability and Validity

The two instruments to be utilized for data collection for this study were adopted from the Majid et al. (2011) study. The Majid et al. (2011) study is divided into three sections. The first section collects demographic information. The second include nurses' beliefs and attitudes toward implementing EBP and identified barriers to its implementation. The third section focused on information sources that nurses may identify and use in their clinical practice. This current study will use the demographic characteristics section, beliefs and attitudes toward implementing EBP, and the barriers to implementation of EBP. The survey portion regarding frequency of different sources of information as identified by RNs will not be used in this study.

The questionnaire pattern that focuses on "Nurses' Beliefs and Attitudes toward EBP" section is constructed on a 5-point Likert scale that ranges from strongly agree (5) to strongly disagree (1). There are five statements in the beliefs scale. Scores could range between five and twenty-five. The second component in the questionnaire is "Barriers to Adopting EBP (Majid et al., 2011). Majid et al. (2011) identified nine barriers to which participants respond on a 5-point Likert scale that ranges from strongly agree (5) to strongly disagree as (1). Scores could range from 9 to 45.

The questionnaire to be adopted for this study from the Majid et al. (2011) study was reviewed by nursing managers, nurse researchers, RNs, and lecturers for content

validity from content experts. Additionally the authors reported pilot testing of questionnaire and further refinement of content was also incorporated. Cronbach's alpha was used to identify reliability of the questionnaire. Cronbach's alpha results revealed a range from 0.681 to 0.954 for the different subscale (Majid et al., 2011).

Measures of Data Analysis

Similar to Majid et al.'s Adopting Evidenced-Based Practice in Clinical Decision Making: Nurses' Perceptions, Knowledge and Barriers (2011), the demographic characteristics of the study will include information on professional education; job title description; length of clinical experience; specific work area; and training in EBP. Descriptive statistics will be obtained on these demographic variables such as means, standard deviations, medians, and modes. Also, descriptive statistics of analyses will be used to examine findings from the two variables of the study nurses' beliefs and attitudes toward EBP and barriers to adopting EBP. Correlation and multiple regression will be used to examine relationships among the variables and to predict attitudes and barriers to EBP.

Summary

In this chapter, the methods and procedures to be used for this study are presented. The specific variables examined will be beliefs and attitudes toward and barriers to adopting EBP. A descriptive correlational study will be used with the anticipated sample of 100 registered nurses. Data will be collected with the use of the Majid et al. (2011) questionnaire. The study will attempt to validate previous findings while providing insight into what nurse leaders can do to mitigate the barriers that exist in implementing EBP. This is a replication of the Majid et al. (2011) study.

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