


2018

# Educational Training of Staff Nurses for Evidence-Based Practice

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*Walden University*

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# Walden University

College of Health Sciences

This is to certify that the doctoral study by

Tina Theriaque

has been found to be complete and satisfactory in all respects,  
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2018

Abstract

Educational Training of Staff Nurses for Evidence-Based Practice

by

Tina Theriaque

MS, Walden University, 2014

BS, Walden University, 2012

Project Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Nursing Practice

Walden University

May 2018

## Abstract

Translating research into practice takes 10 to 20 years or more. Evidence-based practice (EBP) integration remains at 10% to 20%, despite recommendations requiring EBP-guided decisions. Up to 30% decreases in health care system spending, improved quality outcomes, and increased staff satisfaction result from EBP integration. Nurse leaders, who rate quality and safety as the highest priority but EBP as the lowest, are accountable for EBP enculturation; a desire to support bedside registered nurses in EBP exists, yet this EBP use knowledge gap supersedes this goal. The purpose of this project was to provide an EBP education program introducing the use of evidence to guide nursing practice. The project question addressed whether an education program for staff nurses on introduction to EBP would increase nursing staff perception of the value of EBP and their interest in implementing EBP. Knowles's theory of adult learning and the nursing process guided this project. The 36 participants completed the 16-question EBP Beliefs Scale before and after the education program on introduction to EBP. Results from the paired samples *t* tests showed there was a significant difference in each response on the survey, indicating an increased understanding of the fundamental value of EBP, as well as the participant's individual ability to implement EBP within clinical practice. The limited findings contribute to the existing body of knowledge, while positive social change implications include resolving public health and safety issues, reversing fiscal irresponsibility, and overcoming resistance to change, which is at the heart of implementing and enculturating EBP.

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## Dedication

I would like to dedicate this project in memory of my Grandmother Hazel Davis, who always encouraged me and told me I could do anything I set my mind on. I would also like to dedicate this project to my husband, Jason, and my kids, step kids, and grandkids, whom I love very much. Thank you for always being there for me and encouraging me to finish what I started. Finally, I want to dedicate this project to my parents, Jeral and Kathy Davis, who encouraged me to keep going and not worry about what others were doing, just to be true to myself.

## Acknowledgments

A special thank you to my project chair, Dr. Whitehead, who took me in during this process and assisted me to the end. A special thank you to the other committee members, Dr. Valdez and Dr. Wilson, for all your assistance and guidance during this journey. I also want to thank my nursing mentors, Jessica Kiehle-White, Kathy Degenstein-Gartman, and Teresa Strickland, for the continued support and belief in my work. My greatest appreciation goes to my husband, Jason, who continually encouraged me to move forward and finish no matter how difficult the journey became. Thank you all very much.

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## Section 1: Nature of the Project

### **Introduction**

Bringing evidence-based practice (EBP) to the patient's bedside care is a challenge for many staff nurses. According to the Institute of Medicine (IOM; 2009), medical professionals do not deliver care that patients need and may deliver care that patients do not require when those providers do not apply EBP. Per the IOM (2008, 2009), failure to implement EBP is a widespread issue in health care despite knowledge that outcomes improve when providers deliver care based on the most current and efficient evidence. Research has linked lack of EBP use in practice at the bedside to shortcomings in provider knowledge and accountability and inadequate support and coordination of care (Balakas, Sparks, Steurer, & Bryant, 2013; Black, Balneaves, Garossino, Puyat, & Qian, 2015; Brown, Johnson, & Appling, 2011; IOM, 2008, 2009).

### **Problem Statement**

Several barriers to the use of EBP have been identified in nursing, including but not limited to lack of knowledge about the research process, lack of knowledge and skills needed to critique research studies, colleagues who are not supportive of practice change, and lack of autonomy towards change (Aarons, Ehrhart, Farahnak, & Hurlburt, 2015; Alzayyat, 2014; Black et al., 2015).

### **Purpose Statement**

The project facility identified a gap in nursing practice related to utilization of evidence to guide practice decisions (chief nursing officer [CNO], personal communication, January 11, 2017). This DNP project may lead to improved patient

outcomes when nurses use EBP and could empower nurses by increasing their sense of confidence and autonomy when using and implementing EBP.

The purpose of this project was to provide an EBP education program introducing the use of evidence to guide nursing practice. The project question was as follows: Will an education program for staff nurses on introduction to EBP increase nursing staff perception of the value of EBP and their interest in implementing EBP?

### **Nature of Doctoral Project**

Registered nurses (RNs) currently employed full or part time in the intensive care unit (ICU) participated in an education program on EBP. The 16-item EBP Beliefs Scale (EBP-B) was administered before and after the training program (Melnyk, Fineout-Overholt, & Mays, 2008; Melnyk & Fineout-Overholt, 2011). Knowles's adult learning theory framework guided this project. The nursing process framework supported the integration of EBP concepts in planning and delivery of patient care.

### **Significance**

The stakeholders at the practicum site consisted of patients, families, RNs in the ICU, and nursing leadership. This EBP education promoted positive social change by assisting in the development of the nursing staff and promoting optimal patient outcomes (Aarons, Fettes, Sommerfeld, & Palinkas, 2012; Finotto, Carpanoni, Turrone, Camellini, & Mecugni, 2013). The results from this project guided nurse leaders to develop strategies to implement EBP within the facility and created a positive social change for this community by enhancing the knowledge and skills of nurses who provided care in

the practicum site (Scala, Price, & Day, 2016; Schifalacqua, Shepard, & Kelley, 2012; Stetler, Ritchie, Rycroft-Malone, & Charns, 2014).

### **Summary**

EBP is a problem-solving approach to clinical care that implements the use of current evidence from research studies, clinical expertise, and patient preferences. Fundamental to EBP is the nurse's ability to practice critical thinking, clinical judgment, and clinical synthesis (Melnyk, 2014; Melnyk & Fineout-Overholt, 2011; Melnyk, Fineout-Overholt, Gallagher-Ford, & Kaplan, 2012; White & Dudley-Brown, 2012). Therefore, the evolving path of EBP needs to continue in health care by nurses leading the way. According to Melnyk et al. (2008; Melnyk & Gallagher-Ford, 2014), their EBP-B survey showed how almost half of nurses were not familiar with EBP, only 27% were taught how to use the electronic database, most did not search databases such as CINAHL and Medline, and those who did search did not believe they had adequate searching skills. This DNP project provided the information necessary for the nursing administration to begin the process of implementing EBP in decision making in the ICU.

## Section 2: Background and Context

### **Introduction**

According to the CNO of the targeted facility, the use of evidence to guide practice was not a strong component in the planning of care (personal communication, January 12, 2017). Consequently, this lack of evidence-based decision making may not be reinforced within the facility. The practice focused question was the following: Will an education program for staff nurses on introduction to EBP increase nursing staff perception of the value of EBP and their interest in implementing EBP? The purpose of this DNP project was to provide an education program to educate the ICU nursing staff on how to apply EBP to their clinical practice.

### **Concepts, Models, and Theories**

The adult learning theory by Knowles (as cited in Kearsley, 2010) gave adults five characteristics to learning: (a) self-concept (b) experience, (c) readiness to learn, (d) orientation to learning, and (e) motivation to learn. According to Knowles in 1984, adult learning theory applies four principles to adult education:

- Adults need to be involved in the planning and evaluation of their instruction.
- Experience (including mistakes) provides the basis for learning activities.
- Adults are most interested in learning subjects that have immediate relevance to their jobs or personal life.
- Adult learning is problem-centered rather than content-oriented (Kearsley, 2010, pp 2).

Using the nursing process as the framework to guide this DNP project provided the basis of EBP education nurses need. All nurses are already familiar with the phases of the nursing process of assessment, diagnosis, planning, implementation, and evaluation (American Nurses Association [ANA], 2015, 2017). The education program connected the concepts of EBP to each stage of the nursing process. The program used the principles of adult learning to guide the teaching and learning process. Table 1 describes the link between adult learning theory, the nursing process model, and the EBP education program.



Table 1

*Relationship of Models to EBP Program*

Adult Learning Theory	Nursing Process	Education Program
Adults need to be involved in the planning and evaluation of their instruction.	Assessment	Synthesize evidence and determine recommendations for practice Demonstrate how to conduct a basic library search
Experience (including mistakes) provides the basis for learning activities.	Diagnosis	Discuss the importance of EBP
Adult learning is problem-centered rather than content-oriented.	Planning	Develop an answerable PICOT question Discuss the use of JHNEBP appraisal tool to identify the level and quality of evidence
Adults are most interested in learning subjects that have immediate relevance to their jobs or personal life.	Implementation	Describe the steps in the translation process
Adults need to be involved in the planning and evaluation of their instruction.	Evaluation	Synthesize evidence and determine recommendations for practice

The following terms defined this project:

*Evidence-based practice (EBP):* A process designed to support and inform clinical and administrative decision-making by combining (a) the best available scientific evidence with regulatory and accreditation requirements for practice, (b) individual clinical, staff, leadership, and management judgment and expertise, and (c) patient and staff preferences (Sigma Theta Tau International [STTI], 2008, Stevens, 2013).

*EBP beliefs:* An individual's self-assessment of their value of EBP, as well as their ability to implement EBP.

*EBP implementation:* An individual's self-assessment of their determination regarding their facilities current use of EBP.

*EBP101 course:* An introductory course based on the Johns Hopkins Nursing EBP (JHNEBP) model of EBP practice, evidence, and translation designed in a face-to-face, interactive modality, delivered in one 8-hour session or two 4-hour sessions (Appendix A). Objectives included (a) discuss the importance of EBP; (b) develop an answerable PICO question; (c) demonstrate how to conduct a basic library search; (d) discuss the use of JHNEBP appraisal tool to identify the level and quality of evidence; (e) demonstrate the use of the JHNEBP evidence assessment tools; (f) synthesize evidence and determine recommendations for practice; and (g) describe the steps in the translation process.

### **Relevance to Nursing Practice**

A comprehensive literature review was conducted for this DNP project. Table 2 depicts the online databases, nursing websites, and keywords used in the literature

review. Filters used to narrow the searches included peer-reviewed journals and academic journals and excluded physician only journals, clinical trials, simulation, and academic-only settings. The literature was summarized and graded according to the Johns Hopkins Nursing Evidence Level and Quality Guide (Johns Hopkins Medicine, 2017). This guide describes three levels of evidence and three quality guides for each level. Tables 3 and 4 summarizes this information (Johns Hopkins Medicine, 2017).

Table 2

*Literature Search Summary Table*

Online Databases	Nursing Websites	Keywords
CINAHL MEDLINE ProQuest Nursing & Allied Health Sources CINAHL & MEDLINE Simultaneous Searches Web of Science Ovid Nursing Journals Cochrane Database of Systemic Reviews Joanne Briggs Institute of EBP Database Google Scholar	American Association of Critical-Care Nurses (AACN) American Nurses Association (ANA), and Texas Nurses Association (TNA).	<i>Acute Care, Nursing, hospitals Evidence-based practice, barriers to EBP, EBP beliefs Education for EBP, training for EBP Leadership, nurse leaders, nurse managers Shared governance and EBP</i>

Table 3

*JHNEBP Evidence Level*

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Level I: Experimental study, randomized controlled trial (RCT)

A systemic review of RCTs, with or without meta-analysis

Level II: Quasi-experimental study

A systematic review of a combination of RCTs and quasi-experimental, or quasi-experimental studies only, with or without meta-analysis

Level III: Nonexperimental study

A systematic review of a combination of RCTs, quasi-experimental and nonexperimental studies, or nonexperimental studies only, with or without meta-analysis

Qualitative study or systematic review with or without a meta-synthesis

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*Note.* Adapted from *Johns Hopkins Nursing and Evidence-Based Practice Models and Tools*, by Johns Hopkins Hospital/The Johns Hopkins University, 2014. Retrieved from <https://www.ijhneducation.org/node/1535/done?sid=12327&token=75abadc52128047fb8255df87bf6ee82> (see Appendix B for permissions)

Table 4

*JHNEBP Quality Guide*


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A - High Quality: Consistent, generalizable results; sufficient sample size for the study design, adequate control: definitive conclusions; consistent recommendations based on a comprehensive literature review that includes thorough reference to scientific evidence. Articles of High Quality are given an A and included in the evidence.

B – Good Quality: Reasonably consistent results; sufficient sample size for the study design; some control, definitive conclusions; reasonably consistent recommendations based on a comprehensive literature review that includes some reference to scientific evidence. The article of Medium Quality is given a B and included in the evidence.

C – Low Quality or Major Flaws: Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn. If the quality of an article is given a C, then it is determined to be of low quality and is not included in the evidence.

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*Note.* Adapted from *Johns Hopkins Nursing and Evidence-Based Practice Models and Tools*, by Johns Hopkins Hospital/The Johns Hopkins University, 2014. Retrieved from <https://www.ijhneducation.org/node/1535/done?sid=12327&token=75abadc52128047fb8255df87bf6ee82> (See Appendix B for permissions)

**Historical Overview of EBP**

EBP is very active in the sciences and social work, and yet there have been significant delays between EBP findings and applying EBP to everyday nursing practice (Corcoran, 2007; Krom, Batten, & Bautista, 2010). The origins of EBP can be traced back to the 1970s and 1980s after the creation of Medicaid and Medicare in the 1960s to help improve access to health care in the United States (Dearholt & Dang, 2012; Yates, 2013). Until health care research became available, processes for basing clinical practice on evidence were haphazard; Dr. Archie Cochrane first brought the approach to attention in 1972 (Bliss-Holtz, 2007; Corcoran, 2007). Dr. Cochrane was a strong advocate for

using results from randomized controlled clinical trials (RCTs) and pointed out and criticized the medical profession for not practicing per the strength of existing evidence (Bliss-Holtz, 2007; Corcoran, 2007). Unfortunately for nursing, the lag of research and delivery into clinical practice based on outcomes continued into the new millennium (Bliss-Holtz, 2007; Corcoran, 2007).

### **Integration of EBP Into Health Care Practice**

Over the past decade, EBP has increased in importance regarding health care policy, practice, and education (Bradshaw, 2010; J. E. Wilkinson, Nutley, & Davies, 2011). EBP has become an important initiative. The IOM, the Joint Commission, and the American Nursing Credentialing Center have recognized the importance of using evidence in practice (Smith & Donze, 2009). According to the IOM (2010), providers can deliver care that is not needed and do not deliver care that is. The rationale for this gap in practice includes many barriers such as knowledge, skills, attitudes regarding research, resources, education, budgetary constraints, and time. A major barrier to overcome for most facilities is cultural beliefs amongst the nursing staff (Chang et al., 2013; Gallagher-Ford, 2014; IOM, 2011; Laibhen-Parker, 2014; Melnyk, 2016; Melnyk et al., 2016; Warren et al., 2016).

Despite the recommendations of applying EBP to nursing professionals clinical practice, there is still confusion and uncertainty for nurses, educators, and students concerning EBP (Stokke, Olsen, Espehaug, & Nortvedt, 2014; S. A. Wilkinson, Hinchliffe, Hough, & Chang, 2012; Yates, 2013). Authors of several quality improvement studies discussed how EBP educational training programs have helped

improve nurses' beliefs towards EBP. These quality improvement programs were successful in enhancing organizational culture and readiness for EBP (Hain & Haras, 2015; Thorsteinsson, 2013; Yackel, Short, Lewis, Breckenridge-Sproat, & Turner, 2013). Nurses participating in the EBP workshops strongly believed in the value of EBP but were not confident in their own knowledge and skills necessary to implement EBP within their clinical practice (Hain & Haras, 2015; Thorsteinsson, 2013; Yackel et al., 2013). Beliefs about the value of EBP were significantly higher after nursing staff attended EBP workshops; both RNs and advanced practice nurses showed higher beliefs; and, after the mean scores were totaled, the pre- and postsurvey results revealed how these nurses believed they could now implement EBP into practice (Hain & Haras, 2015; Thorsteinsson, 2013; Yackel et al., 2013).

Therefore, the importance of EBP in health care was substantiated, but barriers to the widespread use current research in health care remains. These organizational barriers include insufficient time to implement EBP, lack of access to research, and lack of awareness of available tools related to EBP education (Black et al., 2015; Chang & Levin, 2014; Kim, Brown, Fields, & Stitchler, 2009; Patelarou et al., 2013). The practicum site had experienced these similar barriers. This DNP project provided support in moving the facility towards implementing EBP in patient care by exploring nurses' beliefs in the practice of EBP before and after an education program.

### **Integration of EBP Into Nursing**

Since Melnyk et al. (2014) discussed the first set of essential EBP competencies for all practicing nurses including advanced practice nurses, published in *Worldviews on*

*Evidence-Based Nursing* in 2014, this publication has been downloaded over 13,000 times. This shows the great interest in EBP competencies, but this dissemination does not usually result in real-world changes (Melnyk, 2016). Therefore, dissemination of evidence needs to be taken forward by acting upon the evidence to help improve health care outcomes (Finotto et al., 2013; Melnyk & Gallagher-Ford, 2015). The purpose of EBP is to improve clinical care and patient outcomes by providing the best, most up-to-date care in the clinical setting. EBP is also important from the administration perspective, as EBP is a requirement for a facility to gain and maintain magnet status (Zaccagnini, 2014).

### **Nurses' Beliefs in EBP**

The IOM's (2011) report emphasized how important EBP is for interprofessional teams to use to assist in improving patient outcomes. Hain and Haras (2015) and the IOM stressed the need for EBP education for all nursing staff to be able to provide the safest nursing care. Nurses have agreed with the positive outcomes of EBP but felt their implementation abilities are weak. Nurses' ability to adapt to EBP practice has remained limited because nurses believe even though they are familiar with EBP and its value for patient care, their knowledge of EBP activities is lacking (Eaton, Meins, Mitchell, Voss, & Doorenbos, 2015; Thorsteinsson & Sveinsdottir, 2014). Nurses' clinical decisions, central to nursing practice, will influence their patients' health well-being directly along with the outcomes of care (Eaton et al., 2015; Haggman-Laitila, Mattila, & Milinder, 2016; Hain & Haras, 2015; Thorsteinsson & Sveinsdottir, 2014).



Studies within the literature review demonstrated that many nurses lack the knowledge and skills needed to integrate EBP into their practice. A survey conducted by Finotto et al. (2013) revealed 58% of the nurses sampled did not seek evidence to support the practice, 82% had never used the hospital library, and 76% of nurse participants had never done a search on CINAHL or Medline. Also, nurses' knowledge relied solely on books, and this experience is not enough to develop critical thinking and decision-making skills for nursing students (Finotto et al., 2013). Nurses value implemented EBP and seek structured education and guidance to help improve with EBP but feel they face too many barriers such as (a) shortage of time, (b) EBP knowledge, (c) access to evidence, and (d) possible resistance from their colleagues or managers (Eaton et al., 2015; Finotto et al., 2013; Hines, Ramsbotham & Ceyer, 2016).

Several large quantitative studies indicated transformational leadership characteristics revealed using a shared vision of leading by example. These were effective studies in that they revealed nurses need to lead by being an example, mentoring, sharing decision-making, and showing respect. Also, when these leadership skills were present, EBP beliefs and cultural readiness for EBP implementation increased and provided positive social change (Aarons et al., 2012; Levin, Fineout-Overholt, Melnyk, Barnes, & Vetter, 2011; Melnyk, 2016; Melnyk & Gallagher-Ford, 2014; Patelarou et al., 2013; STTI, 2008; Stetler et al., 2014; J. E. Wilkinson et al., 2011).

Among the 60 articles researched, 33 showed cross-sectional surveys with a few having quasi-experimental designs. These studies were done to determine how much EBP nurses use in practice. Most studies were conducted in America, with the exception of

three in Europe and six in Asia. The authors discussed several limitations in the area of nurses using research in their daily practice. Many nurses reported that they did not have the education or skills needed to critique studies (Aarons et al., 2012; Levin et al., 2011; Melnyk, 2016; Melnyk & Gallagher-Ford, 2014; Patelarou et al., 2013; STTI, 2008; Stetler et al., 2014; J. E. Wilkinson et al., 2011; Zaccagnini, 2014).

In their cross-sectional descriptive study, White-Williams et al. (2013) discussed the use, knowledge, and attitudes towards EBP with nursing staff. Data collected came from 593 nurses, White-Williams et al. used the advancing research and clinical practice through close collaboration model for the framework. Nurses completed a 15-item survey and the Evidence-Based Practice Questionnaire. The statistical analysis showed Cronbach's alpha was 0.87; for the Practice, Attitude, and Knowledge/skills subscales 0.85, 0.79, and 0.91. These results showed that 96% of the nurses stated they were aware of EBP and the Research Council. Average scores were higher on the Attitude subscales, followed by the Knowledge/Skills and Practice subscales. White-Williams et al. concluded that education levels and leadership status have a positive relationship with EBP implementation.

Therefore, even though EBP is critical for improving the effectiveness and efficiency of patient care, findings have continued to support the fact that nurses do not routinely rely on evidence in practice. Nursing leaders can increase EBP implementation and integration by providing educational opportunities (Aarons et al., 2012; Levin et al., 2011; Melnyk, 2016; Melnyk & Gallagher-Ford, 2014; Patelarou et al., 2013; STTI, 2008; Stetler et al., 2014; J. E. Wilkinson et al., 2011).

Table 5 summarizes the literature review using the Johns Hopkins Evidence Level and Quality Guide described in Tables 3 and 4 (Johns Hopkins Medicine, 2017).

Table 5

*Literature Summary*

Level	Number of Articles	Quality
Level I	10	A= 33
Level II	25	B= 27
Level III	25	C= 0

**Local Background and Context**

The practicum site had been a 205-bed hospital accredited by the Joint Commission and certified as a Level II trauma center, certified chest pain center, and a certified primary stroke care center. The facility had been located in the southwest United States and serves five surrounding counties.

The doctoral project had been focused in the ICU area of this facility within this practicum site. There were 20 to 30 RNs and three nurse leaders in the ICU area who participated. The use of evidence to guide practice was not a strong component in planning care in this facility (CNO, personal communication, January 11, 2017). Consequently, an education program was developed to help local nursing staff understand and apply EBP.

**Role of the DNP Student**

I have practiced nursing for 23 years. I have realized how using evidence in practice can result in better outcomes for patients, their families, and the nursing staff.

The purpose of this project was to provide an education program introducing the use of evidence to guide nursing practice. The project question was the following: Will an education program for staff nurses on introduction to EBP increase their perception of the value of EBP and their interest in implementing EBP?

### **Summary**

Integrating EBP into staff nurses' clinical practice is all about providing safe patient care and better outcomes. Lack of knowledge translation into care is not new, but according to Melnyk (2016), members of the nursing profession cannot continue to ignore EBP because they will see a continuing decline in the quality of care and outcomes. This DNP project addressed this gap in practice and provided an educational solution.

### Section 3: Collection and Analysis of Evidence

#### **Introduction**

Nurses' skills and knowledge with the implementation of EBP can be improved if nursing staff have the necessary education, which had been the proposal for this DNP project. Research showed how continual implementation of EBP produces the best results in patient outcomes (Melnyk et al., 2004). Many barriers exist when it comes to implementing EBP, such as (a) lack of knowledge, (b) no assets to retrieve needed research, (c) loss of skills needed to evaluate the research, and (d) lack of support from administration to implement EBP at the bedside (Wilson et al., 2015).

#### **Practice-Focused Question**

At the current facility, EBP had not been taught within the orientation process (CNO, personal communication, January 12, 2017). The purpose of this project was to provide an education program introducing the use of evidence to guide nursing practice. A gap in nursing practice identified by the CNO revealed that staff nurses were not using evidence to guide their practice (personal communication, January 11, 2017). The project question was this: Will an education program for staff nurses on introduction to EBP increase their perception of the value of EBP and their interest in implementing EBP?

This approach aligned with the practice-focused question. At the practicum site, nurses did not have the EBP beliefs and knowledge to apply to their clinical practice. Also, the result of patient satisfaction surveys along with the facilities 5-star rating results from Medicare (2017) revealed how this EBP educational program was needed but was not currently in progress.

## **Sources of Evidence**

The project question addressed whether an education program for staff nurses on introduction to EBP would increase their perception of the value of EBP and their interest in implementing EBP. A survey assessing nurses' beliefs about EBP was administered before and after an education program (Appendix C).

The pre- and postsurvey used the EBP-B (Appendix C). The EBP-B is a 16-item, 1-5 Likert scored self-assessment to measure if the nurse accepts the fundamental value of EBP, as well as their individual ability to implement EBP within their clinical practice (Melnik et al., 2008). This EBP-B is a reliable and valid instrument used in many projects with highly accurate results (Hauck, Winsett, & Kuric, 2013; Melnik et al., 2008; Melnik et al., 2016; Stokke et al., 2014; Warren et al., 2016; S. A. Wilkinson et al., 2012; Yackel et al., 2013).

## **Evidence Generated for the Doctoral Project**

### **Participants**

The participants for this project were 36 RNs from the practicum site's ICU. The 16-item EBP-B was administered before and after an education program (Appendices A and C) on the fundamentals of EBP. Dr. Bernadette Melnik was contacted on May 5, 2017 (Appendix B) for permission to use this instrument.

### **Procedures**

The ICU RNs were sent the 16-item EBP-B via Survey Monkey before and after the education program (Appendix A). Knowles's adult learning theory framework and the nursing process were the frameworks for this program (Table 1). The literature review

conducted on EBP education and the findings assisted in the development of an EBP educational program (Kim et al., 2009). According to Melnyk et al. (2016), to change EBP beliefs and attitudes nurses need appropriate knowledge and skills to facilitate change.

The education program followed the guidelines in the DNP Manual for an Education Program (Appendix D). The staff educational program included a well-developed framework for effective adult learning and a course evaluation. Key stakeholders were included in all phases of this project.

Approval was obtained from Walden University Institutional Review Board (IRB; Approval Number 01-03-18-0334546). The survey was sent electronically via survey monkey to the ICU RNs' e-mail addresses at the practicum site. The educational program was conducted at the internship site within a conference room with RNs from the ICU only. The pre- and postsurveys were anonymous and were collected and coded by me. No identifiable information was collected or shared during this project. IRB approval was requested from Walden University to implement this DNP project. The survey items on the EBP-B scale utilizes a Likert range from 1 to 5 with 1 indicating *strongly disagree* and a scale of 5 indicating *strongly agree* (Appendix C).

### **Analysis and Synthesis**

Survey Monkey software provided HIPAA compliance for all surveys, data, and protected the data furnished by the ICU RNs (Survey Monkey, 2016). Also, the data analysis and synthesis were coded by a statistician using a two-sample *t* test with the *p*-

value set at or equal to 0.05 for the analyses. Any missing information will be placed as limitations on this DNP project.

### **Summary**

An EBP beliefs educational program was conducted at the practicum site. Pre- and posteducation data were collected and analyzed to evaluate the efficacy of the education program in improving staff nurse knowledge and confidence in using EBP. Sources of evidence came from an extensive literature review search. The participants for this project were 36 RNs from the practicum site's ICU. Survey Monkey was used to collect data from the pre- and postsurveys sent to the RNs' facility e-mails. Statistical analysis was conducted on all data collected, and feedback was obtained after education program of EBP101 had been implemented, assisting in strengthening the data found in the literature review (Hines et al., 2016). Section 4 reveals the findings and implications of this project. Recommendations will be discussed along with the strengths and limitations of the project.



## Section 4: Findings and Recommendations

### **Introduction**

Several barriers to the use of EBP have been identified in nursing, including but not limited to lack of knowledge about the research process, lack of knowledge and skills needed to critique research studies, colleagues who are not supportive of practice change, and lack of autonomy towards change (Aarons et al., 2015; Alzayyat, 2014; Black et al., 2015). According to the CNO of the targeted facility, the use of evidence to guide practice had not been a strong component in the planning of care (personal communication, January 12, 2017). Consequently, this lack of evidence-based decision making was not being reinforced within the facility. The practice-focused question addressed whether an education program for staff nurses on introduction to EBP would increase nursing staff perception of the value of EBP and their interest in implementing EBP. The purpose of this DNP project had been to provide an education program to educate the ICU nursing staff on how to apply EBP to their clinical practice.

A survey assessing nurses' beliefs about EBP was administered before and after an education program (Appendix C). The pre- and postsurvey used the EBP-B (Appendix C). The EBP-B is a 16-item, 1-5 Likert scored self-assessment to measure if the nurse accepts the fundamental value of EBP, as well as their individual ability to implement EBP within their clinical practice (Melnik et al., 2008). This EBP-B is a reliable and valid instrument used in many projects with highly accurate results (Hauck et al., 2013; Melnyk et al., 2008; Melnyk et al., 2016; Stokke et al., 2014; Warren et al., 2016; S. A. Wilkinson et al., 2012; Yackel et al., 2013).

Evidence had been obtained over a 3-year time span by researching databases of CINAHL, MEDLINE, ProQuest Nursing & Allied Health Sources, CINAHL & MEDLINE Simultaneous Searches, Ovid Nursing Journals, Cochrane Database of Systemic Reviews, Joanne Briggs Institute of EBP Database, and Google Scholar (see Table 2). Overall, 60 articles were included in as evidence for the final critical appraisal. This literature had been summarized and graded according to the Johns Hopkins Evidence Level and Quality Guide. This guide describes three levels of evidence and three quality guides for each level. Tables 3 and 4 summarize this information (Johns Hopkins Medicine, 2017). Four categories of evidence were revealed from the literature review that supported this DNP project: (a) transformational leadership is needed, (b) educational intervention programs, (c) an administrative approach is needed to continue the educational program for EBP use at the bedside, and (d) very strategic planning needed for all. Therefore, the project was implemented with the pretest survey (Appendix C), the EBP101 educational class (Appendix A), then the posttest survey (Appendix C).

The survey data were analyzed using a two-sample *t* test, with a *p*-value set  $\geq 0.05$ . The sample size was 36 RNs working in the facilities ICU department. The data analysis and synthesis of findings are discussed in the next section.

### **Findings and Implications**

Thirty-six ICU RNs completed the EBP-B prior to the education program via Survey Monkey. The EBP101 class course had been given at the facility on several different days and times to accompany all the nurses' work schedules. The posttest EBP-B was again administered to the participants. The EBP-B results before and after the

course were compared using a  $t$  test. The  $p$ -value was set at  $\geq 0.05$  for all analyses. SPSS was used to complete the analysis.

The pre- and postsurveys examined whether the nurses bought into the value of EBP with the 16 questions. This survey showed an aggregate score from 16 to 80. The higher the score, the more positive the nurses' EBP beliefs were, with the score of 60 showing a baseline of belief in the value of EBP. Tables 6 and 7 show the results of the two-sample  $t$  test for equality of means. There was a significant difference in all the questions between the pre- and postsurvey administration.

Table 6

*EBP-B Pre- and Postsurvey Results*

EBP-B Survey Questions with Statistically Significant Increase					
Question	Intervention Groups		Intervention Groups		<i>P</i> Value
	Pre <i>n</i> (% <i>N</i> )	Post <i>N</i> (% <i>N</i> )	Pre Mean ( <i>SD</i> )	Post Mean ( <i>SD</i> )	
I believe that EBP results in the best clinical care for patients	36 (98.9%)	24 (86.5%)	3.16 (1.69)	4.76 (2.98)	0.014
I am sure that I can implement EBP.	36 (98.9%)	24 (86.5%)	4.38 (0.55)	4.71 (0.49)	0.038
I am clear about the steps of EBP	36 (98.9%)	24 (86.5%)	4.80 (1.19)	5.00 (0.00)	0.024
I believe that critically appraising evidence is an important step in the EBP process	36 (98.9%)	24 (86.5%)	4.38 (0.51)	5.00 (0.00)	0.034
I am sure that evidence-based guidelines can improve clinical care	36 (98.6%)	24 (86.5%)	2.78 (0.96)	4.87 (0.77)	0.026

*(table continues)*

EBP-B Survey Questions with Statistically Significant Increase					
Question	Intervention Groups		Intervention Groups		<i>P</i> Value
	Pre <i>n</i> (% <i>N</i> )	Post <i>N</i> (% <i>N</i> )	Pre Mean ( <i>SD</i> )	Post Mean ( <i>SD</i> )	
I believe that I can search for the best evidence to answer clinical questions in a time efficient way	36 (98.9%)	24 (86.5%)	4.18 (1.89)	5.00 (0.00)	0.034
I believe that I can overcome barriers to implementing EBP	36 (98.9%)	24 (86.5%)	4.78 (1.45)	5.00 (0.00)	0.024
I am sure that I can implement in a time efficient way	36 (98.9%)	24 (86.5%)	4.44 (0.09)	5.00 (0.00)	0.024
I am sure that implementing EBP will improve the care that I deliver to my patients	36 (98.9%)	24 (86.5%)	4.78 (1.87)	5.00 (0.00)	0.024
I am sure about how to measure the outcomes of clinical care	36 (98.9%)	24 (86.5%)	3.33 (1.78)	5.00 (0.00)	0.024

*(table continues)*

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 EBP-B Survey Questions with Statistically Significant Increase
 

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Question	Intervention Groups		Intervention Groups		<i>P</i> Value
	Pre <i>n</i> (% <i>N</i> )	Post <i>N</i> (% <i>N</i> )	Pre Mean ( <i>SD</i> )	Post Mean ( <i>SD</i> )	
I believe that EBP takes too much time	36 (98.9%)	24 (86.5%)	3.78 (0.51)	5.00 (0.00)	0.038
I am sure that I can access the best resources to implement EBP	36 (98.9%)	24 (86.5%)	4.38 (0.65)	5.00 (0.00)	0.024

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 (table continues)

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 EBP-B Survey Questions with Statistically Significant Increase
 

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Question	Intervention Groups		Intervention Groups		<i>P</i> Value
	Pre <i>n</i> (% <i>N</i> )	Post <i>N</i> (% <i>N</i> )	Pre Mean ( <i>SD</i> )	Post Mean ( <i>SD</i> )	
I believe EBP is difficult	36 (98.9%)	24 (86.5%)	4.38 (0.65)	5.00 (0.00)	0.024
I know how to implement EBP sufficiently enough to make practice changes	36 (98.9%)	24 (86.5%)	4.88 (0.34)	4.87 (0.06)	0.036
I am confident about my ability to implement EBP where I work	36 (98.9%)	24 (86.5%)	4.46 (1.68)	4.36 (0.76)	0.038
I believe the care that I deliver is evidence- based	36 (98.9%)	24 (86.5%)	4.86 (1.04)	5.00 (0.00)	0.028

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Table 7

*Pre- and Postintervention Group Survey Data Comparison*

Survey	Intervention Groups		Intervention Groups		<i>t</i> ( <i>df</i> )	<i>p</i> -value
	Pre <i>n</i>	Post <i>n</i> (% <i>N</i> )	Pre Mean ( <i>SD</i> )	Post Mean ( <i>SD</i> )		
EBP-B	36	24	54.4 (8.3)	78.0 (6.0)	-1.188	0.356

**Unanticipated Outcomes**

The average age of the groups had been 38 and the years of experience averaged 4.6 years. Most of the participants were enrolled in online classes to further their nursing education. This included the participating nurse managers working towards their master's degrees. Therefore, exposure to knowledge of the importance of EBP was identified by the participants, but even though they had identified understanding the importance of using EBP, the participants identified how they had not been implementing EBP in practice.

**Implications**

Due to the results of this EBP educational program, the CNO and the chief executive officer of the facility decided to make a new position. This new position will be an EBP nurse educator. This nurse will continue the EBP101 class along with the pre- and postsurveys about EBP beliefs and continue the discussion of the importance and significance of EBP and its impact on patient care and outcomes. Continued current evidence related to understanding and implementation of EBP will be taught for all new hires and will be required on all nurses' yearly competencies. The positive social change



for this facility will be the change in the culture towards using evidence to define practice. As the literature revealed, EBP cannot be implemented if there is no culture for EBP at the facility. Per Melnyk et al. (2016), this must begin with the leaders and administration. Using the adult learning theory and applying the nursing process (see Table 1) when educating the nurses on EBP showed to be a very supportive process. Educating the nurses on how to use the PICO question during the EBP101 class helped bring about culture change. The nurse leaders learned new ways to implement change and the ICU nurses were very satisfied with their new clinical skills now that they understand and know how to implement EBP at the bedside.

The facility will benefit from this culture of change by increasing safety, quality of care, and fiscally by increasing third payer reimbursements. Also, by decreasing staff turnover rates and increasing system-wide program studies, the community will have a positive social change through better quality of care and outcomes. All this will be due to the education program teaching how to promote safe, quality care at the front lines of clinical practice, all on the platform of EBP. The facility was successful at overcoming change, which assisted in cultural change. Even though it may take up to 20 years to translate research into practice, this project revealed how nurses learned and understood the importance of integrating EBP into their practice (Brown et al, 2011; Melnyk, 2014). To be able to implement change in this health care facility the EBP101 educational program provided a positive social change for this community.

### **Recommendations**

Based upon the findings from this educational program, this facility has already taken into consideration a similar project. With careful planning by the nursing leaders and administration, the newly hired EBP educational nurse will be able to produce similar results. This will help produce acceptance of change management and transformational leadership. As Tables 6 and 7 indicated statistical significance after the EBP101 course, these same objectives should be followed: (a) discuss the importance of EBP; (b) develop an answerable PICO question; (c) demonstrate how to conduct a basic library search; (d) discuss the use of JHNEBP appraisal tool to identify the level and quality of evidence; (e) demonstrate the use of the JHNEBP evidence appraisal tools; (f) synthesize evidence and determine recommendations for practice; and (g) describe the steps in the translation process (Johns Hopkins Hospital/The Johns Hopkins University, 2014).

Lastly, the education intervention cannot be the end of this project. The new EBP educator will need to have continued support and mentoring, and planned EBP activities must continue to be part of this project implementation. Follow-up on future EBP projects needs to be made during the nursing leaders' shared governance quarterly meetings to keep the continued evolution of EBP. This project started with expectations of assisting the nurse leaders within their shared governance meetings. EBP was discussed and a strategic plan was made to start an EBP educational program. Now the facility has an EBP change protocol that has been accepted and included in the educational department.

### **Strengths and Limitations of the Project**

While the EBP educational project had significant findings, this was a one-time class that was limited in size, so this in and of itself is a limitation. The strength of the project is within the results, which has been put into motion at the facility. The administration will work with the CNO and other nurse leaders to apply this project to a new required educational competency, which must be taken yearly. The administration will also hire an EBP nurse educator to teach this educational project to all new hires along with the yearly competencies. Finally, the scores showed statistical significance of the nurses moving towards EBP integration into their culture and belief systems.

Also, the nurses who took the educational course provided anonymous evaluations. Even though the group was small, there was a consensus that the participants have a new vision and attitude for EBP and want to move towards an integration and enculturation for EBP at this facility and in their own nursing practice. This project could not have taken off without the buy-in from the stakeholders. Administration, the CNO, and the nurse leaders within the shared governance program who were all very supportive and agreed there was a need for this type of project at their facility. In addition, using the Johns Hopkins Nursing EBP101 course helped make this project successful; it was also the evidence from the literature review that made a great impression on the nurses as well. Finally, incorporating transformational leadership skills within this educational project showed to help in the improvement of beliefs, use, and EBP enculturation (Melnik & Gallagher-Ford, 2014; Patelarou et al., 2013; Stetler et al., 2014; Warren et al., 2016).

## Section 5: Dissemination Plan

### **Dissemination**

This DNP project has had great implications at the facility, and it has and will continue to assist nurses in their EBP beliefs and change the culture for a positive social change. Additional educational classes are being planned at the facility and I have agreed to assist and answer questions as needed. The facility's stakeholders had a full buy-in and are planning to reproduce all educational material used, including the Johns Hopkins Nursing EBP101 course (after granted permissions), my PowerPoint presentation (Appendix E), handouts, and the literature review outcomes.

The facility is part of a large corporation. The CNO has stated the dissemination of this DNP project will be discussed at her next corporate meeting. Therefore, an oral presentation is being planned to possibly share with other facilities within this network. Even though nurse leaders will be the main audience, the goal is to direct the project's dissemination towards nurses who conduct acute care. This is to assist these nurses to become empowered in their EBP beliefs and culture. Also, publications are being planned for this project, but for dissemination purposes, the best venues will be oral presentations.

### **Analysis of Self**

This DNP project experience has assisted me in growing in more ways than I ever expected. I have grown tremendously in my professional roles and earned respect from many supervisors, managers, and professional cohorts. I have moved farther in my career and professional goals than I ever expected. Even though this DNP project was concerning the importance of implementing EBP at the bedside, I learned just how

important the AACN (2006) DNP Essentials needed to be within my project and my professional career. All advanced practice roles for nurses, whether formal or informal nurse leaders, have used these essentials to grow in the areas of knowledge, skills, and cultural beliefs to help advance health care needs. These needs are of vital importance in the areas of innovation, evidence, conceptual frameworks, political advocacy, social accountability, economic wisdom, improved use of technology, and better-organized systems to deliver better quality care and outcomes (Conrad & O'Dell, 2014; Zaccagnini, 2014).

While I am ready to complete this project and journey, I realize I can have a future role in the current company where I am employed. The future of health care has moved towards managed care organizations, in which I am employed currently as a field case manager. I am looking to advance in my current company after completion of this project. I feel the completion of this DNP project has improved and enriched my skills in the form of analytical thinking, innovative vision, and transformational leadership. This DNP project taught me that I can not only participate in but make change a reality and assist in improving health care outcomes.

### **Summary**

Nurses are the life of all facilities they work in; their clinical skills and attitudes are very important to care provided, and this care is of the utmost importance for the life of the company. The communities served by these facilities deserve the best care, improved outcomes, and quality along with safety. Although nurse leaders may be aware of this knowledge, not all of them are aware of the importance of EBP implementation at

the bedside. EBP is part of the scope and standards of practice for nurses in all fields (ANA, 2015, 2016). According to the IOM (2008), a goal has been set for EBP integration into all clinical decision making by the year 2020. This leaves the question of why EBP has remained a disconnect for many health care facilities.

This DNP project addresses and answers this question along with a gap in practice at the facility with an educational program. This EBP educational program had been aimed directly at the acute care nurse but also the nurse leaders who work in this facility that is one of many health care facilities within a larger corporate system. The project consisted of a pre- and posttest with an EBP101 class presented in between to help answer the project question: Will an education program for staff nurses on introduction to EBP increase nursing staff perception of the value of EBP and their interest in implementing EBP? Accordingly, the use of evidence to guide practice was not a strong component in the planning of care at the facility and consequently, this lack of evidence-based decision making was not reinforced. Therefore, the EBP educational project did determine if a change in culture and EBP beliefs could help guide the nurses' clinical skills.

Even though the sample size was small, the data were overwhelmingly significant statistically. The significance was noted with specific questions from the surveys that showed the need for learning and understanding the EBP process, the value of EBP within nursing practice, and disseminating the evidence. This success brought forth an enculturation of activities such as implementing this EBP educational program within the orientation process and yearly competencies. Also, the facility will hire an EBP nurse

manager to continue to implement this EBP educational program and to assist in furthering this project at this facility and at other facilities from this same corporation. This will ensure the EBP change made at the facility is sustained. This will also ensure continued education, change, and improved belief systems and will provide safe, quality care with better outcomes for the patients.

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## Appendix A: Educational Intervention Course (EBP101) Agenda

**An Introduction to Evidence-based Practice: A Participatory Workshop - Part I**

7:30 am – 8:00 am	<b>Registration</b>
8:00 am – 8:20 am	<b>Opening Remarks</b> <i>Entity Chief Nursing Officer</i>
8:20 am – 8:40 am	<b>Introduction to Evidence-Based Practice (EBP)</b> <b>T. Theriaque DNP(c), MSN(Leadership), RN-BC</b> <i>Walden University Doctor of Nursing Practice Candidate</i> Definition of EBP Importance of EBP
8:40 am – 9:25 am	<b>Guidelines for Implementation – T. Theriaque DNP(c), MSN (Leadership) RN-BC</b> Adult Learning Theory by Malcolm Knowles Steps in the Adult Learning Theory process Answerable question Complete the PICO form for today's question
9:25 am – 9:40 am	<b>Break</b>
9:40 am - 10:40 am	<b>Searching for Evidence via The Nursing Process (a robust framework to guide research) T. Theriaque</b> Basic literature search Evidence resources All library resources Databases
10:40 am – 11:50 pm	<b>Appraising Evidence – T. Theriaque</b> Different types of evidence (Research and Non-research) Adult Learning Theory and The Nursing Process, to assist in the learning process.
11:50 pm – 12:00	<b>Program Wrap-up</b> <b>Chief Nursing Officer</b> <b>T. Theriaque, DNP(c), MSN(Leadership), RN-BC</b> Homework assignment: Review assigned articles using the Hopkins tools prior to
class	

## An Introduction to Evidence-based Practice: A Participatory Workshop - Part II

7:30 am – 8:00 am	<b>Registration</b>
8:00 am – 8:45 am	<b>Appraising the Evidence</b> <b>T. Theriaque MSN(Leadership), RN-BC</b> <b><i>Entity Chief Nursing Officer</i></b> All participant systematic review appraisal using adult learning tools.
8:45 am – 9:15 am	<b>Appraising the Evidence (cont.)</b> Small group breakout appraisal assigned articles Individual Evidence Table
9:15 am – 9:30 am	<b>Break</b>
9:30 am – 10:15 am	<b>Appraising the Evidence (cont.)</b> Full group completion of Individual Evidence Table
10:15 am - 10:45 am	<b>Summarizing the Evidence – T. Theriaque</b> Overall Evidence Summary Table Recommendations for practice
10:45 am – 11:45 am	<b>Translation: Moving Evidence to the Bedside</b> <b><i>T. Theriaque and Entity CNO</i></b> Fit, feasibility, and appropriateness of recommendation for translation Translation pathway Barriers and facilitators to implementation of an EBP project
11:45 am – 12:00 pm	<b>Program Wrap-up -T. Theriaque and Entity CNO</b> Evaluation completion by participants

## Appendix B: JHNEBP Model and Tools

Thank you for your submission. We are happy to give you permission to use the JHEBP model and tool in adherence to our legal terms mentioned noted below:

- You may not modify the model or the tools without written approval from Johns Hopkins.
- All reference to source forms should include “©The Johns Hopkins Hospital/The Johns Hopkins University.”
- The tools may not be used for commercial purposes without special permission.
- If interested in commercial use or discussing changes to the tool, please email [ijhn@jhmi.edu](mailto:ijhn@jhmi.edu).

Click **HERE** to access the zipped file of the tools.

Please note: If you choose to use the Johns Hopkins Nursing Evidence-Based Practice Model and Tools in any other way, another form will need to be submitted.

You might also be interested in our online course about our model/tools. It is an engaging online experience, containing interactive elements, self-checks, instructional videos, and demonstrations of how to put EBP into use. The course follows the EBP process from beginning to end and provides guidance to the learner on how to proceed, using the tools that are part of the Johns Hopkins Nursing EBP model. [Take a sneak peek of the course.](#)

Click **here** for more information about our online course. Group rates available, email [ijhn@jhmi.edu](mailto:ijhn@jhmi.edu) to inquire.

Do you prefer hands-on learning? We are offering a 5-day intensive Boot Camp where you will learn and master the entire EBP process from beginning to end. Take advantage of our retreat-type setting to focus on your project, collaborate with peers, and get the expertise and assistance from our faculty.

## Appendix C: EBP-B Pre &amp; Post Surveys

Using Likert Scale of 1-5 please respond to the following statements.

1 = strongly disagree; 2 = disagree, 3 = neutral; 4 = agree; 5 = strongly agree

I believe that EBP results in the best clinical care for patients.

I am clear about the steps of EBP.

I am sure that I can implement EBP.

I believe that critically appraising evidence is an important step in the EBP process.

I am sure that evidence-based guidelines can improve clinical care.

I believe that I can search for the best evidence to answer clinical questions in a time efficient way

I believe that I can overcome barriers to implementing EBP.

I am sure that I can implement in a time efficient way.

I am sure that implementing EBP will improve the care that I deliver to my patients. 7

I am sure how to measure the outcomes of clinical care.

I believe that EBP takes too much time.

I am sure that I can access the best resources in order to implement EBP.

I believe EBP is difficult.

I know how to implement EBP sufficiently enough to make practice changes.

I am confident about my ability to implement EBP where I work. `

I believe the care that I deliver is evidence-based.

## Appendix D: Principles of Staff Education per DNP Manual

### **Principles of Staff Education**

- The program must include a well-developed framework for effective programming and evaluation for the adult learners within the context of the setting.
- The evaluation must be planned and should be formative or iterative in nature, with ongoing evaluation occurring throughout the planning stages.
- Key stakeholders should be included in the process.
- A process for summative or impact evaluation must be included that demonstrates outcomes related to the identified Staff Education program objectives.
- The evaluation should identify the programs impact on social change as an outcome.

### **Definition of Staff Education Projects**

Staff education may include nurse residencies, orientation, in-service education, and continuing education of professional staff. **Walden requires that a partner organization oversee the staff education activities.**

Programs may be multi-disciplinary in nature, meaning that other professional healthcare clinicians may attend and benefit from the content. Staff education is usually developed to meet a need identified by an organization or clinical practice setting to improve patient care, achieve standards of practice or to meet regulatory guidelines.

It is important to understand the expectations for accomplishing a Staff Education Project in the context of the DNP Scholarly Project. Scholarly Projects related to Staff Education are aligned with the DNP Essentials.

### **Purpose of Staff Education**

For the DNP Nurse, Staff Education is often used to help inform and improve knowledge and skills related to best clinical practice.

### **Steps for Developing a Staff Education Project Using the Nursing Process**

#### **Planning:**

- Analysis of need and establish the criteria for the Staff Education program using available existing data from the site, literature, or theoretical support.
- Develop PICO practice focused question/s

- Discuss needs and staff education program goals with organizational leadership (via informal conversation rather than survey/interview)
- Obtain a commitment to support from organizational leadership
- Formulate specific learning objectives
- Research the literature for relevant teaching materials or content that address the program goals.
- Plan or Develop the Staff Education program, including the content and the delivery strategy using appropriate instructional methods and theoretical framework (teaching/learning, adult education, and nursing theories)
  - *Follow a systematic process for development of the education that includes appropriate pretesting of any newly developed material with identified stakeholders and end-users.*
- Verify the Staff Education program plan with organizational leadership and end-users via formative or iterative review (via anonymous questionnaires)
- Revise the Staff Education program plan based on a formative or iterative review
- Present the revised Staff Education Program to organizational leadership and end-users/key stakeholders and discuss to validate content and ensure usability
- Secure resources to implement the Staff Education program
- Finalize development of the Staff Education program including a second anonymous questionnaire review with organizational leadership and end-users

**Implementation:**

- Support the organization in the recruitment of staff for the education program, unless the program is required by the organization.
- Support the organization in the implementation of the planned Staff Education program
- Request evaluation from Staff Education program participants

**Evaluation:**

- Have the participants complete a summative or impact evaluation of their learning based on an anonymous online questionnaire that is directly related to the identified learning objectives.
- When possible, it is recommended that the student apply for, and receive approval for continuing education credits from an approved provider.
- Determine the effectiveness of the Staff Education program through analysis of the

summative or impact evaluation.

- *Interpret results/determining the applicability of results for the organization and for social change*
- *Outline the procedures used to assure the integrity of the evidence, including approaches to managing outliers and missing information.*
- *Describe analysis procedures used in the doctoral project to address the practice-focused question(s) (e.g., coding, statistical analyses, etc.).*
- Communicate the results and recommendations to organizational leadership and program stakeholders
  - *Includes a systematic presentation, and synthesis, of the findings of the education offering. Documents an assessment of the findings that includes an appropriate methodology for the education program delivered.*

Present findings through DNP final project following DNP template and Checklist



## Appendix E: EBP Beliefs Educational Program

### EBP BELIEFS

Educational Training of Staff Nurses for Evidenced-Based Practice

by

Tina Theriaque MSN, RN

Walden University Doctor of Nursing Practice Program

June 20, 2017



### EBP BELIEFS

Per IOM (2009), care needed is not delivered

Care that is required are provided

Healthcare professionals fail to provide most current evidence

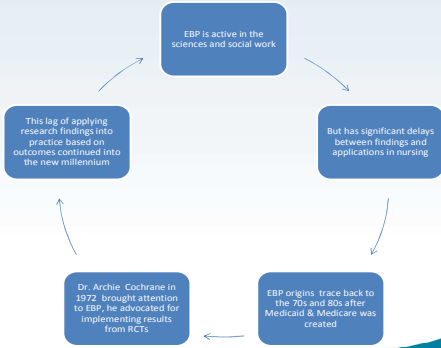
Failure linked to shortcomings in provider knowledge

Accountability is inadequate, little support and coordination of care

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### EBP BELIEFS CONTINUED



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### EBP BELIEFS CONTINUED

- Several barriers preventing nurses from using EBP:
  - Knowledge and Skills
- Attitudes regarding:
  - Research, Resources, Education, Budgetary Constraints and Time
- Some major barriers amongst nursing staff:
  - Cultural Beliefs

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### JOHN HOPKINS NURSING EBP MODEL

Will Include:	<ul style="list-style-type: none"> <li>• What is EBP?</li> </ul>
Examples of:	<ul style="list-style-type: none"> <li>• Practice Problem, Question,</li> <li>• And Project Planning</li> </ul>
Then, Appraising the Evidence to:	<ul style="list-style-type: none"> <li>• Summarize the Evidence,</li> <li>• And finally, Translation</li> </ul>

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### EBP CONSIDERS INTERNAL AND EXTERNAL FACTORS

EBP Integrated in hospital practice:  
Internal Factors

➔

➔

- Culture, Environment, Equipment/Supplies, Staffing & Standards

Influence Positive Patient Outcomes:  
External Factors

➔

➔

- Accreditation, Legislation, Quality Measures, Regulations & Standards

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### EBP CONSIDERS INTERNAL AND EXTERNAL FACTORS CONTINUED...

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## EBP.....WHY NOW???



Always Delays in Implementing New Knowledge



Decreasing Growth of New Knowledge



Decline in Best Care Knowledge

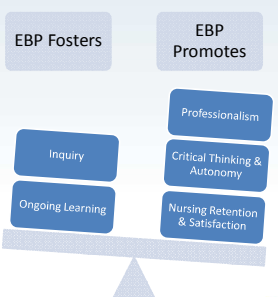


Consumer Pressure for Better Care


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## EBP SHOULD BE A "CORE" COMPETENCY FOR ALL NURSING LEADERS



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## TENENTS OF EBP'S ORIGINS

Nursing is a Science and a Profession


Nursing Practice Needs to be Based on Best Available Evidence

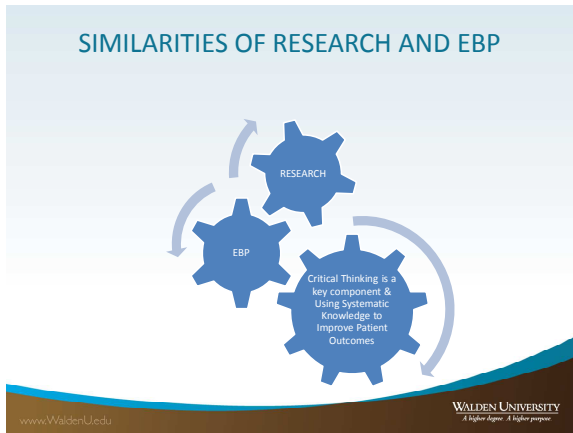
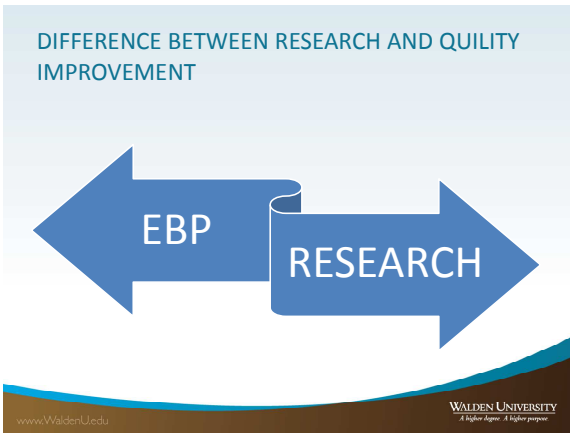
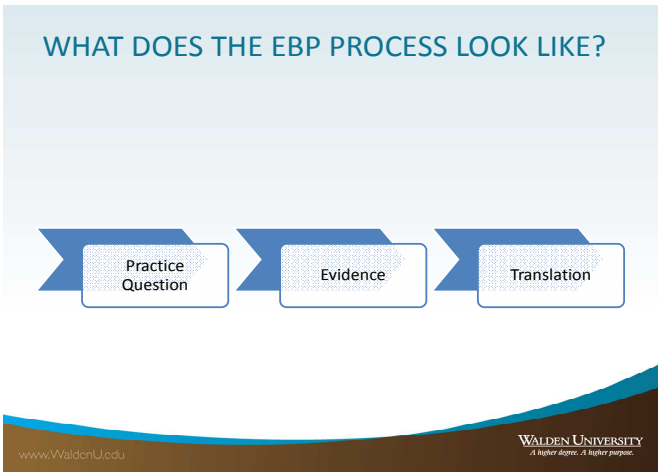
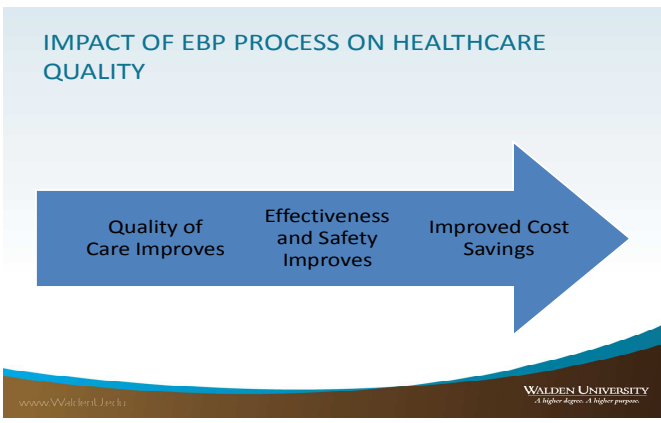
A Hierarchy of Evidence Exists

Research Findings Should be Translated Into Practice

Nursing Values Efficiency and Effectiveness

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## EXAMPLES OF NON-RESEARCH EVIDENCE

The preference of patients such as patient satisfaction scores, patient comments or focus groups.

Clinical Expertise- a specialized knowledge and skills clinicians gain.....

by working consistently with specific patient populations.

## RESEARCH



### RESEARCH AND QI

Research

A systematic investigation, including research development, testing, and evaluation designed to develop or contribute to knowledge.

QI

A process by which individuals work together to improve processes and systems with the intention to improve outcomes.

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### RESEARCH, QI, EBP

Research	QI	EBP
<ul style="list-style-type: none"> <li>Discovers new knowledge for broad application</li> <li>Uses scientific methods</li> </ul>	<ul style="list-style-type: none"> <li>Improves systems or processes within an organization</li> <li>Uses the Plan-Do-Study-Act (PDSA) methods</li> </ul>	<ul style="list-style-type: none"> <li>Translates evidence into practice</li> <li>Uses PET process: Practice Question, Evidence, Translation</li> </ul>

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### EBP BELIEFS AND WAYS TO IMPROVE

QI programs can enhance readiness for EBP

+

Nurses who participate in EBP workshops

→

Showed higher beliefs in RNs & APNs on how they believed they could now implement EBP into practice

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## IMPORTANCE OF HEALTHCARE

In conclusion, it is very important for nurses to be able to differentiate among these 3 forms of inquiry.

Research, QI, and EBP

This will assist nurses to use EBP appropriately and positively influence the care provided based on the best evidence.

## Examples of PICO Questions

For the newborn population, does the use of resuscitation education reduce the risk of future risk of neonatal mortality compared with no special training?

Population: Newborns

Intervention: Resuscitation Education

Comparison: No special resuscitation training

Outcome: Improved rate of neonatal mortality

Time Frame: Two years

## Examples of PICO Questions Cont.

For hospitalized adult patients, does the use of a central line checklist and/or bundle compared to not using a checklist and/or bundle reduce the risk of central line associated bloodstream infections when inserting central lines?

Population: Adult Patients in the ICU

Intervention: Central line checklist/bundle kit

Comparison: when not using a central line checklist/bundle kit

Outcome: reduce the risk of infection

Time: upon insertions in three months

### Examples of PICO Questions Cont.

For nurses, would the use of specific Venous Thromboembolism (VTE) education and risk assessment tools increase compliance with VTE quality Measures, compared to current practices?

Population: Nursing staff  
 Intervention: VTE education and risk assessment tools  
 Comparison: Current compliance of current practices  
 Outcomes: Increased compliance with VTE core measures, increases knowledge of VTE, decreases incidence of VTE in patient population  
 Time Frame: 3 months

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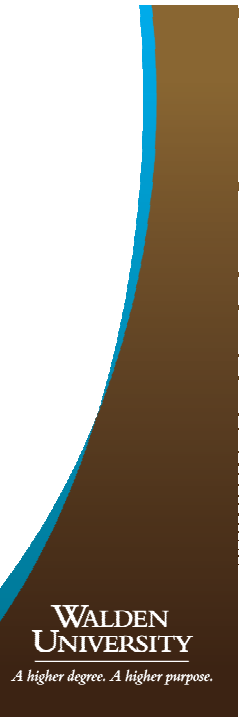
## JOHN HOPKINS NURSING EVIDENCE-BASED PRACTICE QUESTION, EVIDENCE, AND TRANSLATION (PET)

1. What is the problem and why is it important?
  
2. What is the current practice?
  
3. What is the focus of the problem?  

Clinical
 Educational
 Administrative
  
4. How was the problem identified? (Check all that apply)  

<input type="checkbox"/> Safety/risk management concerns <input type="checkbox"/> Quality concerns (efficiency, effectiveness, timeliness, equity, patient-centeredness) <input type="checkbox"/> Unsatisfactory patient, staff, or organizational outcomes <input type="checkbox"/> Variations in practice within the setting	<input type="checkbox"/> Variations in practice compared with external organizations <input type="checkbox"/> Evidence validation for current practice <input type="checkbox"/> Financial concerns
---	--
  
5. What is the scope of the problem?  

Individual
 Population
 Institution/system





## JOHN HOPKINS NURSING EVIDENCE-BASED PRACTICE QUESTION, EVIDENCE, AND TRANSLATION (PET) CONT.

6. What are the PICO components?

P – (Patient, population, problem):

I – (Intervention):

C – (Comparison with other interventions, if applicable):

O – (Outcomes that include metrics for evaluating results):

7. Initial EBP question:

8. List possible search terms, databases to search, and search strategies:

9. What evidence must be gathered? (Check all that apply)

<input type="checkbox"/> Literature search	<input type="checkbox"/> Patient/family preferences
<input type="checkbox"/> Standards (regulatory, professional, community)	<input type="checkbox"/> Clinical expertise
<input type="checkbox"/> Guidelines	<input type="checkbox"/> Organizational data
<input type="checkbox"/> Expert opinion	

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## JOHN HOPKINS NURSING EVIDENCE-BASED PRACTICE QUESTION, EVIDENCE, AND TRANSLATION (PET) CONT.

Directions for Use of the Question Development Tool

**Purpose:** This form is used to develop an answerable question and to guide the team in the evidence search process. The question, search terms and strategy, and sources of evidence can be revised as the EBP team refines the EBP project focus.

**What is the problem and why is it important?** Indicate why the project was undertaken. What led the team to seek evidence? Make sure the problem statement defines the actual problem and does not include a solution statement.

**What is the current practice?** Define the current practice as it relates to the problem.

**What is the focus of the problem?** Is the problem a clinical concern (e.g., preventing blood stream infections); an educational concern (e.g., discharge teaching for patients); or an administrative concern (e.g., safety of 12-hour nursing shifts)?

**How was the problem identified?** Check the statements that describe how the problem was identified.

**What is the scope of the problem?** Does the problem look at an individual (e.g., clinician, patient, family member); a population (e.g., adult cardiac patients, recovery room nurses); or an institution/system (e.g., patient transportation, patient or staff satisfaction)?

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## JOHN HOPKINS NURSING EVIDENCE-BASED PRACTICE QUESTION, EVIDENCE, AND TRANSLATION (PET) CONT.

### What are the PICO components?

**P** (patient, population, problem) e.g., age, sex, setting, ethnicity, condition, disease, type of patient, or population

**I** (intervention) e.g., treatment, medications, education, diagnostic tests or best practice(s)

**C** (comparison with other interventions or current practice) may not be applicable if your question is looking for best practice.

**O** (outcome) stated in measurable terms, expected outcomes based on the intervention identified, e.g., decrease in fall rate, decrease in length of stay, increase in patient satisfaction.

**Initial EBP Question.** A starting question that can be refined and adjusted as the team searches through the literature.

**List possible search terms.** Using PICO components and the initial EBP question, list relevant terms to begin the evidence search.

Terms can be added or adjusted as the evidence search continues. Document the search terms, strategy, and databases searched in sufficient detail for replication.

**What evidence must be gathered?** Check the types of evidence the team will gather based on the PICO and initial EBP question.

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## Appendix F: Site Approval Documentation for Staff Education Doctoral Project

**Partner Site Contact Information:****Date: 3/2/2018 to 3/14/2018**

The doctoral student, Tina Theriaque RN, MSN, is involved in Staff Education that will be conducted under the auspices of our organization. The student is approved to collect formative and summative evaluation data via anonymous staff questionnaires and is also approved to analyze internal, de-identified site records that I deem appropriate to release for the student's doctoral project. This approval to use our organization's data pertains only to this doctoral project and not to the student's future scholarly projects or research (which would need a separate request for approval).

I understand that, as per DNP program requirements, the student will publish a scholarly report of this Staff Development Project in ProQuest as a doctoral capstone (with the site and individual identifiers withheld), as per the following ethical standards: a. In all reports (including drafts shared with peers and faculty members), the student is required to maintain confidentiality by removing names and key pieces of evidence/data that might disclose the organization's identity or an individual's identity or inappropriately divulge proprietary details. If the organization itself wishes to publicize the findings of this project, that will be the organization's judgment call. b. The student will be responsible for complying with our organization's policies and requirements regarding

data collection (including the need for the site IRB review/approval, if applicable). c. Via a Consent Form for Anonymous Questionnaires, the student will describe to staff members how the data will be used in the doctoral project and how the stakeholders' autonomy and privacy will be protected.

I confirm that I am authorized to approve these activities in this setting.

Signed,

A solid black rectangular box used to redact the signature of the authorized person.

The practicum site does not have its own IRB; therefore, the facility will accept and abide by Walden University's IRB guidelines.

### Appendix G: Consent Form for Anonymous Questionnaires

To be given to the staff member prior to collecting questionnaire responses—note that obtaining a “consent signature” is not appropriate for this type of questionnaire and providing respondents with anonymity is required.

You are invited to take part in an evaluation for the staff education doctoral project that I am conducting.

Questionnaire Procedures: If you agree to take part, I will be asking you to provide your responses anonymously, to help reduce bias and any sort of pressure to respond a certain way. Staff members’ questionnaire responses will be analyzed as part of my doctoral project, along with any archival data, reports, and documents that the organization’s leadership deems fit to share.

Voluntary Nature of the Project: This project is voluntary. If you decide to join the project now, you can still change your mind later.

Risks and Benefits of Being in the Project: Being in this project would not pose any risks beyond those of typical daily professional activities. This project’s aim is to provide data and insights to support the organization’s success.

Privacy: I might know that you completed a questionnaire, but I will not know who provided which responses. Any reports, presentations, or publications related to this study will share general patterns from the data, without sharing the identities of individual respondents or partner organization(s). The questionnaire data will be kept for a period of at least 5 years, as required by my university.

Contacts and Questions: If you want to talk privately about your rights in relation to this project, you can call my university's Advocate via the phone number xxx-xxx-xxxx.

Walden University's ethics approval number for this study is 01-03-18-0334546.

Before you start the questionnaire, please share any questions or concerns you might have.



## Appendix H: Continuing Education Activity Evaluation Form

Activity Title: EBP 101 Pre-and Post-Survey and The EBP Beliefs Educational Program

As a learner please assist in the evaluation of this presentation. Please circle the number beside each statement that best reflects the extent of your agreement. Thank you for your time and participation.

1 = strongly disagree; 2 = disagree, 3 = neutral; 4 = agree; 5 = strongly agree

Content	Strongly Disagree	1	2	3	4	5	Strongly Agree
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1. The content was interesting to me.....	1	2	3	4	5	
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2. The content extended my knowledge of the topic.....	1	2	3	4	5	
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3. The content was consistent with the objectives.....	1	2	3	4	5	
--	---	---	---	---	---	--

4. The content was related to my job.....	1	2	3	4	5	
---	---	---	---	---	---	--

5. Objectives were consistent with purpose/goals of activity.....	1	2	3	4	5	
---	---	---	---	---	---	--

### Setting

1. The room was conducive to learning.....	1	2	3	4	5	
--	---	---	---	---	---	--

2. The learning environment stimulated idea exchange.....	1	2	3	4	5	
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3. The facility was appropriate for the activity.....	1	2	3	4	5	
---	---	---	---	---	---	--

### Faculty/Presenter Effectiveness:

1. The presentation was clear and to the point.....	1	2	3	4	5	
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2. The presenter demonstrated mastery of the topic.....	1	2	3	4	5	
---	---	---	---	---	---	--

3. The method used to present the material held my attention.....	1	2	3	4	5	
---	---	---	---	---	---	--

4. The presenter was responsive to participant concerns.....	1	2	3	4	5	
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### Instructional Methods

1. The instructional material was well organized.....	1	2	3	4	5	
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2. The instructional methods illustrated the concepts well..... 1 2 3 4 5
3. The handout materials given are likely to be used as a  
future reference..... 1 2 3 4 5
4. The teaching strategies were appropriate for the activity..... 1 2 3 4 5

Comments: