Spring 2022

Evaluating the Impact of an Evidence Based Practice Education Program in a Nurse Residency Program on Evidence Based Practice Beliefs, Implementation and Competency

Amy Hu
California State University, Northern California Consortium Doctor of Nursing Practice

Evaluating the Impact of an Evidence Based Practice Education Program in a Nurse Residency Program on Evidence Based Practice Beliefs, Implementation and Competency

Amy Hu, MSN, RN, CCRN, CSC

Dr. Robin L. Whitney, PhD, RN

The Valley Foundation School of Nursing, San Jose State University

May 9, 2022

Evaluating the Impact of an Evidence Based Practice Education Program in a Nurse Residency Program on Evidence Based Practice Beliefs, Implementation and Competency

For organizations to ensure that they are providing safe and quality patient care, they must promote a culture of care based on Evidence Based Practice (EBP). To improve healthcare quality nurses must make care decisions based on the most current scientific evidence. In fact the Institute of Medicine set a goal that 90% of clinical decisions be evidence based by 2020 (Institute of Medicine, 2008). Unfortunately it can take up to 15-20 years for newly discovered treatments to be implemented into patient care (Institute of Medicine, 2001). Healthcare providers continue to base healthcare decisions on outdated practices derived from tradition or what they learned years ago in the academic setting (Melnyk et al., 2021).

Because nurses are the nation's largest healthcare profession, they have a front line view of patient care problems that need to be addressed (Friesen et al., 2017). Nurses are positioned to be leaders in identification and implementation of EBP to address those problems. Implementation of EBP can be challenging due to a process that can be viewed as complex and is reliant upon an organization that supports a culture of EBP (Melnyk & Fineout-Overholt, 2016; Saunders et al., 2016).

EBP Competency

Saunders et al. (2019) recommend that the focus should be on advancing healthcare professional's EBP competencies so that they will be able to consistently integrate best evidence into their daily work. Therefore understanding the principles of EBP and possessing the skills to perform the implementation process are essential competencies for nurses (Melnyk et al., 2018). Yet recent studies have demonstrated the nursing profession lacks essential EBP competency

(Melnyk et al., 2018; Melnyk & Fineout-Overholt, 2019). In a landmark study by Melnyk et al. (2018) 2,344 nurses from 19 hospitals or healthcare systems were asked to rate themselves on the 24 Essential EBP competencies for nursing (Melnyk et al., 2018). Not one of the nurses rated themselves competent in any of the 24 competencies.

Previous studies have found a positive correlation between attitudes and beliefs about EBP and the frequency of EBP implementation. In a study of 185 nurses conducted by Stokke et al. (2014) results found a positive correlation between the Evidence Based Practice Beliefs Scale and the Evidence Based Practice Implementation Scale indicating that the stronger the nurse's beliefs on the importance of EBP the more likely the nurse will be to report EBP implementation in their practice. A study by Melynk et al. (2018) found that higher EBP competency scores were positively associated with EBP beliefs (r=.66).

EBP and Nurse Residency Programs

The Quality and Safety Education for Nursing (QSEN) initiative, Institute of Medicine, and National Council of State Boards of Nursing all recommend implementation of EBP knowledge, skills and attitudes (i.e. competency) into Nurse Residency Programs in an effort to foster the spirit of inquiry and improve patient outcomes (Jackson, 2016). Nurse Residency Programs provide an opportunity to advance EBP education provided in the academic setting through application in the clinical setting (Hosking et al., 2016).

EBP Education Interventions

Studies have demonstrated that EBP education programs can increase EBP beliefs, implementation frequency and competency. In a longitudinal pre-experimental study conducted by Gallagher-Ford, et al. (2020) 400 program attendees of a 5-day EBP education program

completed five validated tools at 4 points over 12 months including the Evidence Based Practice Beliefs Scale, Evidence Based Practice Implementation Scale and Evidence Based Practice Competency Assessment. The study found a statistically significant improvement in EBP skills and competency over the 12 month period. A study of 30 nurse leaders participating in a 5-day EBP immersion education program found a statistically significant improvement in Evidence Based Practice Beliefs Scale, Evidence Based Practice Implementation Scale and Evidence Based Practice Competency Assessment over a 12 month period (Gorsuch et al., 2020).

A study of 17 nurses who were members of a multidisciplinary Standards of Care (SOC) committee in a 1,145 bed academic teaching hospital participated in an EBP Bundle education program over a 12 month period. After completion of the program participant's EBP competency scores improved in all categories and they expressed greater confidence in the EBP process and implementation of EBP projects (Bissett et al., 2016).

In a two group pre/posttest quasi-experimental study conducted by Spiva et al. (2017), a web-based EBP education program attended by 367 nurses and 66 EBP mentors from a five-hospital system found a statistically significant increase in nurse and nurse mentor's knowledge, skill and attitude level. In a pilot study conducted by Friesen et al. (2017) 57 nurses working in five separate units in five hospitals participated in a web-based EBP education program with EBP mentor support showing a statistically significant increase in the Evidence Based Practice Beliefs Scale.

AIM/Purpose

Nurses have a low level of EBP competency which is contributing to the delay of implementation of best practices in healthcare organizations (Saunders et al., 2019). The purpose

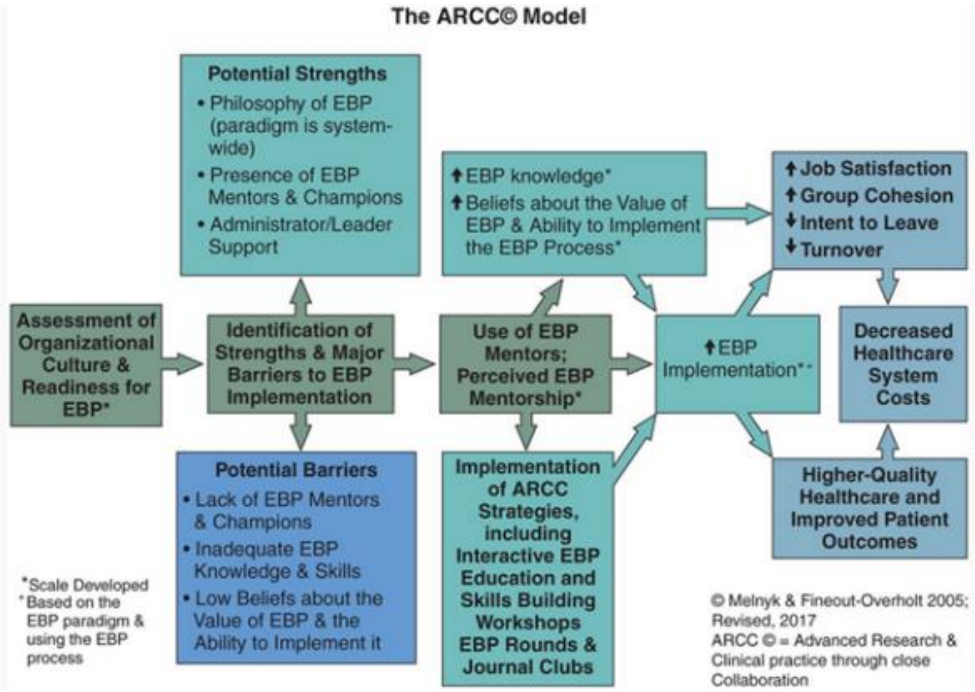
of this DNP project was to evaluate the impact of an EBP education program in a Nurse Residency Program on Nurse Resident's EBP beliefs, implementation and competency scores.

Conceptual Framework

The Advancing Research and Clinical Practice Through Close Collaboration (ARCC) model was used to guide this project. The ARCC model was first introduced in 1999 as a model to direct healthcare organizations in system level implementation and sustainability of EBP culture (see Figure 1) (Gallagher-Ford, 2020; Melnyk et al., 2019, 2021). The ARCC model provides organizations with a process to implement and sustain EBP practice in order to achieve improved patient and organization outcomes (Melnyk & Fineout-Overholt, 2019).

Figure 1

Advancing Research and Clinical Practice Through Close Collaboration (ARCC) Model



Organizational Culture and Readiness was assessed and provided a foundation of support for the DNP project. Identified strengths within the organization included nursing leadership support and the presence of EBP mentors and champions. The implementation of EBP education in the Nurse Residency Program aligns with the ARCC model. The EBP curriculum included interactive education through active application of knowledge and skills through EBP project implementation. An additional key strategy of this model is the use of EBP mentors who work with bedside clinicians on implementing EBP (Melnyk et al., 2017). The EBP mentors are advance practice nurses who have knowledge and skills in EBP implementation. The EBP education program for the Nurse Residency Program included an assigned EBP mentor to each nurse resident to support them through implementation of their EBP project.

Methods

Design

The EBP quality improvement project used a pre-test, post-test design to evaluate the impact of the EBP education program on nurse's EBP beliefs, implementation and competency scores.

Setting

The project took place at John Muir Health System, which is an 817 bed multihospital system serving Contra Costa County and surrounding areas. Both medical centers are Magnet designated and are recognized as preeminent centers for trauma, neurosciences, cardiovascular services, orthopedics, general surgery, and weight loss surgery.

Sampling

Participants for the DNP project were recruited from the March 2021 to March 2022 John Muir Health Nurse Residency Program (NRP). The NRP consisted of 26 nurse residents who were hired into positions for Med Surg, Step Down, Intensive Care, Emergency Department, and Operating Room. Qualifications for the NRP are that they have graduated from an accredited nursing program, have less than 6 months acute care experience and hold a CA nursing license. All Nurse Residents were invited to participate with no exclusion criteria. The EBP education program is part of the Nurse Residency Program and was provided to all Nurse Residents regardless of their participation in the project.

Measures

EBP beliefs were measured using the 16-item Evidence Based Practice Belief (EBPB) Scale. The scale measures the nurses' belief about the value of EBP and their confidence in being able to implement it in practice (see Appendix A) (Melnyk et al., 2008). The EBPB scale uses a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) with a total score ranging from none (16), marginal (32), some (48), moderate (64), and very strong beliefs (80). Higher scores are associated with stronger EBP beliefs. The Cronbach's alpha across multiple disciplines has been consistently above 0.80 for the EBPB scale (Melnyk & Fineout-Overholt, 2019).

The Evidence Based Practice Implementation (EBPI) Scale is an 18-item instrument that determines the number of times participants report participating in EBP over the past 8 weeks. Participants respond on a 5-point frequency scale. The sum of responses to all 18 items are evaluated with a range between 0 and 72. None is equal to 0 times in the past 8 weeks, 18 equal

to 1-3 times in the past 8 weeks, 36 equal to 4-5 times in the past 8 weeks, 54 equal to 6-8 times in the past 8 weeks, and 72 equal to greater than 8 times in the past 8 weeks. The Cronbach's alpha has been consistently above 0.85 (Melnyk & Fineout-Overholt, 2019) (see Appendix B).

The 24 Essential EBP Competencies for Practicing RNs and APNs have been widely used in clinical settings (Melnyk et al., 2014). The scale is broken down into the 13 essential competencies for practicing registered nurses and 11 competencies for advanced practice nurses (see Appendix C). The Essential EBP Competencies exhibit strong psychometric properties and their face and content validity have been confirmed by national EBP experts (Melnyk et al., 2014, 2018). In addition, the essential EBP competencies have been established as a standard of practice for nurses internationally. (Saunders et al., 2019). The nurse residents' EBP competencies were measured using the EBP competency scale (Melnyk et al., 2014). Participants were asked to report their level of competence on each of the 24 EBP competencies using a 4-point Likert scale: 1 (not at all competent), 2 (need improvement), 3 (competent), and 4 (highly competent) for a possible range of scores from 0 to 96. Face, content, and construct validity of the scale has been established, and the Cronbach's alpha has been reported at 0.98 (Melnyk et al., 2018).

Multiple studies have utilized the EBPB and EBPI scales and build on the body of evidence of validity and reliability of the instruments. In an early study on the scale conducted by Melnyk et al. (2008) 394 nurses who completed the EBPB and EBPI pre and post EBP education implementation demonstrated Cronbach's alpha was > .90 for each scale (Melnyk et al., 2008). A much larger study of 2,344 nurses showed a Cronbach's alpha of 0.89 for the EBPB scale and 0.96 for the EBPI scale (Melnyk et al., 2018). The EBPB and EBPI have also shown to

be reliable when used in international studies. In a study by Stokke et al. (2014) in which 356 Norwegian nurses completed the EBPB and EBPI scales Cronbach's alpha was 0.86 for the EBPB Scale and 0.85 for the EBPI Scale. Permission to use the EBP Competency Assessment Scale, EBPB scale and EBPI scale was obtained (see Appendix D).

A demographic survey was included which asked the nurse residents to provide data on age, ethnicity, highest nursing degree received and highest non-nursing degree received with the option to opt out and provide no response (see Appendix E). The outcome variables for this project are listed in Appendix F with operational definitions and calculations for each variable listed.

Planning and Procedures

Before implantation of the project a waiver was received from John Muir Health's Institutional Review Committee as the project is a quality improvement project and does not constitute human subjects research (Appendix G). Recruitment for the DNP project took place at the beginning of the August 4th, 2021 Nurse Residency Program seminar. A presentation to the nurse residents included a detailed overview of the project, the demographic questionnaire, the Evidence Based Practice Beliefs scale, Evidence Based Practice Implementation scale, and the Evidence Based Practice Competencies scale (see Appendix H). Residents were notified that participation in the pre and post measurement tools was voluntary. Participants are not identified in any reporting of results.

Prior to the August 4th Seminar, the Learning and Development IT Manager loaded demographic survey, EBPB scale, EBPI scale, and EBP Competency Assessment scale into Survey Monkey®. Each nurse resident was provided with a QR code to provide immediate

access to Survey Monkey®. Once the nurse resident accessed Survey Monkey® they read through an introduction that reviews the project purpose, measurement tools, confidentiality, and implied consent (see Appendix I). To ensure confidentiality participating nurse residents were asked to create and enter a unique 4 digit code. This code was used to match pre and post test results. Residents who chose not to participate were able to do so by not scanning the QR code.

The EBP education plan was built using the © John Hopkins Nursing Evidence Based Practice Model (JHEBPM) and provided curriculum outline (see Appendix J). Johns Hopkins provided permission to use the model, curriculum and tools (see Appendix K). The © JHNEBPM has been selected as John Muir Health's structured approach to research translation. The model was developed by the John Hopkins Hospital and School of Nursing to promote implantation of best practices (Dang et al., 2021)**.** JHNEBPM's Practice Question, Evidence, Translation (PET) process provides a solid process for EBP education and implementation (Friesen et al., 2017). The © JHNEBPM has been adopted by many organizations throughout the country. In a 2020 survey of Magnet designated hospitals across the United States, the JHNEBPM was one of the top two most frequently reported models in use (Speronki et al., 2020).

John Muir's Nurse Residency Program offers monthly 4-hour seminars to nurse residents on a variety of topics focused on QSEN core competencies. The EBP Education program began in month 5 of the Nurse Residency Program with introduction to EBP as guided by the ©JHNEBPM curriculum. Each monthly seminar built on the nurse resident's knowledge of EBP as they were mentored through the steps of completing an Evidence Based Practice Project with

guidance from an assigned EBP mentor. The timeline for the EBP education program and associated deliverables is outlined in Table 1.

Table 1
EBP Education Program Timeline using the ©JHNEBPM curriculum

Seminar - # Month	Date	Topic	Deliverables
Seminar – Month 5	August 4th	**Part I Evidence Based Practice Background** 1. Evidence-Based Practice: Context, Concerns, and Challenges 2. Critical Thinking and Evidence-Based Practice **Part II The Johns Hopkins Nursing Evidence-Based Practice Model** 1. The Johns Hopkins Nursing EBP Model and Process Overview **Part III Practice Question, Evidence, Translation (PET)** 1. The Practice Question 2. Evidence – Searching and Identifying	**Deliverables:** • Finalize EBP Project Topic • Draft PICO question development • Literature search key word terms • Bring 5 article to next seminar for appraisal

Seminar - Month 6	September 1st	**Part III Practice Question, Evidence, Translation (PET)** 3. Appraising	**Deliverables:** • Appraisal of Evidence • Revise and finalize PICO question • Identify interventions • Identify measurements
Seminar – Month 7	October 6th	**Part III Practice Question, Evidence, Translation (PET)** 4. The Practice Question 5. Evidence – Searching and Identifying 6. Appraising	**Deliverables:** • Finalize interventions • Finalize measurement tools **Start Project Implementation**
Seminar – Month 8	November 3rd	**Seminar work time: Data Collection and Outcome Evaluation**	Project Implementation and Data Collection
Seminar – Month 9	December 1st	**Seminar work time: Data Collection and Outcome Evaluation**	Project Implementation and Data Collection
Seminar – Month 10	January 5th, 2022	**Part III Practice Question, Evidence, Translation (PET)** 1. Translation and Dissemination	**Deliverables:** • Data collection and analysis • Poster and podium presentation development
Seminar – Month 11	February 2nd, 2022	**Part IV Infrastructure**	**Deliverables:** • Finalize poster and

		1. Creating a Supportive EBP Environment	podium presentation • Practice podium presentation – ready for graduation March 2022
Seminar – Month 12	March 2nd, 2022	**Graduation**	**Podium and Poster presentations**

Analysis

At completion of the 7-month EBP education curriculum on February 2nd nurse residents were once again provided with a QR code to provide immediate access to Survey Monkey®. Once the nurse resident accessed Survey Monkey® they again read through the introduction that reviews the project purpose and measurement tools. To ensure confidentiality, participating nurse residents were asked to enter their unique 4 digit code from the pre-intervention assessment. Nurse residents who chose not to participate did so by not scanning the QR code.

The demographic and pre and post survey data was uploaded into Intellectus for statistical analysis. All variables collected were analyzed using descriptive statistics. A paired t-test was used to examine the difference between the two sample means for the pre and post intervention data.

Risks

There were limited risks associated with this intervention. Regardless of enrollment in the DNP Project, nurse residents participated in the EBP Education Program and completed an Evidence Based Practice Project. Education was not withheld if a nurse resident chose not to participate in the project. Information collected from all participants was kept confidential and

maintained in a safe and secure environment, however there is always a potential risk of breach to confidentiality.

Benefits

While there was no benefit to participants, the knowledge gained could have increased EBP beliefs, EBP implementation frequency and EBP competency.

Costs

There were no costs required for nurse residents to participate in the EBP Education Program.

Payment

There was no additional payment to nurse residents, besides their hourly salary that they are paid for attending the Nurse Residency Program seminars.

Confidentiality

Survey Monkey® results were anonymous. Participants are not identified in any reporting of results. Respondents selected a unique 4 digit identification number that was used to match pre and post test results.

Results

Demographics

A total of 26 nurse residents completed the 7-month © John Hopkins Nursing Evidence Based Practice curriculum. Due to barriers in matching nurse resident's 4-digit unique identification code, the following demographic data includes only those residents who pre- and post-test scores were able to be correctly matched. The most frequently observed age was 25 to 34 (n = 12, 75%). The most frequently observed ethnicity was White (n = 7, 43.8%). The majority of respondents received their nursing degree through an Accelerated BSN program (n =

8, 50%) and 37.5% had a bachelor's degree in another discipline before entering nursing school (*n* = 6, 37.5%). Frequencies and percentages are presented in Table 2.

Table 2
Demographic Data for Nurse Residents, n=16

Variable	*n*	*%*
Age		
18 to 24	1	6.3
25 to 34	12	75.0
35 to 44	2	12.5
Declined to State	1	6.3
Ethnicity/Race		
White	7	43.8
Asian	4	25.0
Hispanic/Latino	3	18.8
Black/African-American	1	6.3
Declined to State	1	6.3
Nursing Degree		
Accelerated BSN	8	50.0
BSN	5	31.3
AND	2	12.5
Declined to State	1	6.3
Previous Nursing Degree		
None	7	43.8
Baccalaureate	6	37.5
AD	2	12.5
Declined to State	1	6.3

Note. Due to rounding errors, percentages may not equal 100%.

EBP Beliefs Scale

Results: EBP Beliefs Survey Pre and Post Scores

The mean EBP Beliefs score was 57.7 points in the pre-test and 63.0 points in the post-test. The increase in scores was statistically significant in a two-tailed paired samples t-tests ($t(12) = -3.43$, $p = .005$) (Table 3) (Figure 2).

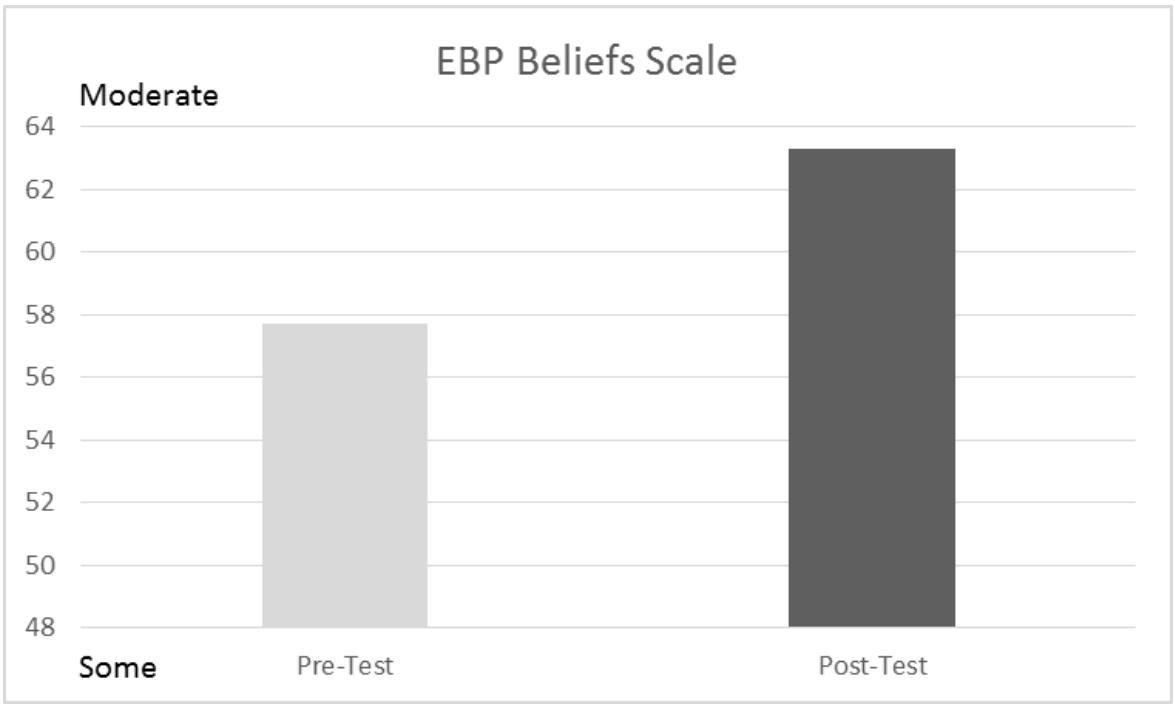
Table 3

Two-Tailed Paired Samples t-Test for the Difference Between Pre-Test and Post-Test EBP Beliefs Scale, n=13

Pre-Test Score		Post-Test Score		
M	*SD*	*M*	*SD*	*p*
57.7	7.6	63.3	5.3	.005

Figure 2

Means of Pre-Test and Post-Test EBP Beliefs Scale



Each of the 16 questions on the scare were examined to determine if there was statistically significant difference in pre- and post-test scores using two-tailed paired samples t-tests (Table 4).

Table 4

Two-Tailed Paired Samples t-Test for the Difference Between Pre-Test and Post-Test Average EBP Beliefs Scale Scores

	Pre-Test Average *Mean (Standard Deviation)*	Post-Test Average *Mean (Standard Deviation)*	*p*
Q1. I believe that EBP results in the best clinical care for patients.	4.5 (0.78)	4.3 (0.48)	.502
Q2. I am clear about the steps of EBP.	3 (0.82)	4.2 (0.44)	< .001
Q3. I am sure that I can implement EBP.	3.9 (0.55)	4.1 (0.38)	.040
Q4. I believe that critically appraising evidence is an important step in the EBP process.	4.2 (0.38)	4.4 (0.51)	.082
Q5. I am sure that evidence-based guidelines can improve clinical care.	4.3 (0.75)	4.3 (0.48)	1.00
Q6. I believe that I can search for the best evidence to answer clinical questions in a time efficient way.	3.7 (0.95)	4.1 (0.38)	.111
Q7. I believe that I can overcome barriers in implementing EBP.	3.6 (0.87)	3.9 (0.49)	.219
Q8. I am sure that I can implement EBP in a time efficient way.	3.5 (0.88)	3.7 (0.75)	.584
Q9. I am sure that implementing EBP will improve the care that I deliver to my patients.	4.3 (0.63)	4.2 (0.38)	.337
Q10. I am sure about how to measure the outcomes of clinical care.	3 (1.15)	4 (0.58)	< .001
Q11. I believe that EBP takes too much time.	2.9 (0.95)	3.1 (0.86)	.502
Q12. I am sure that I can access the best resources in order to implement EBP.	3.3 (0.95)	3.9 (0.69)	.089
Q13. I believe EBP is difficult.	3.1 (0.86)	2.9 (0.64)	.337
Q14. I know how to implement EBP sufficiently enough to make practice changes.	3.1 (1.04)	3.9 (0.55)	.011
Q15. I am confident about my ability to implement EBP where I work.	3.6 (1.04)	4.1 (0.64)	.139
Q16. I believe the care that I deliver is evidence-based.	3.8 (0.73)	4.2 (0.60)	.027

EBP Implementation Scale

The mean EBP Implementation score was 11.9 points in the pre-test and 27.4 points in the post-test. The increase in scores was statistically significant in a two-tailed paired samples t-tests ($t(13) = -7.29$, $p < .001$) (Table 5) (Figure 3).

Table 5
Two-Tailed Paired Samples t-Test for the Difference Between Pre-Test and Post-Test EBP Implementation Score, n=14

Pre-Test Sum		Post-Test Sum		
M	*SD*	*M*	*SD*	*p*
11.9	8.14	27.4	8.41	< .001

Each of the 18 questions on the scale were examined to determine if there was statistically significant difference in pre- and post-test scores using two-tailed paired samples t-tests (Table 6).

Figure 3
Means of Pre-Test and Post-Test EBP Implementation Scale

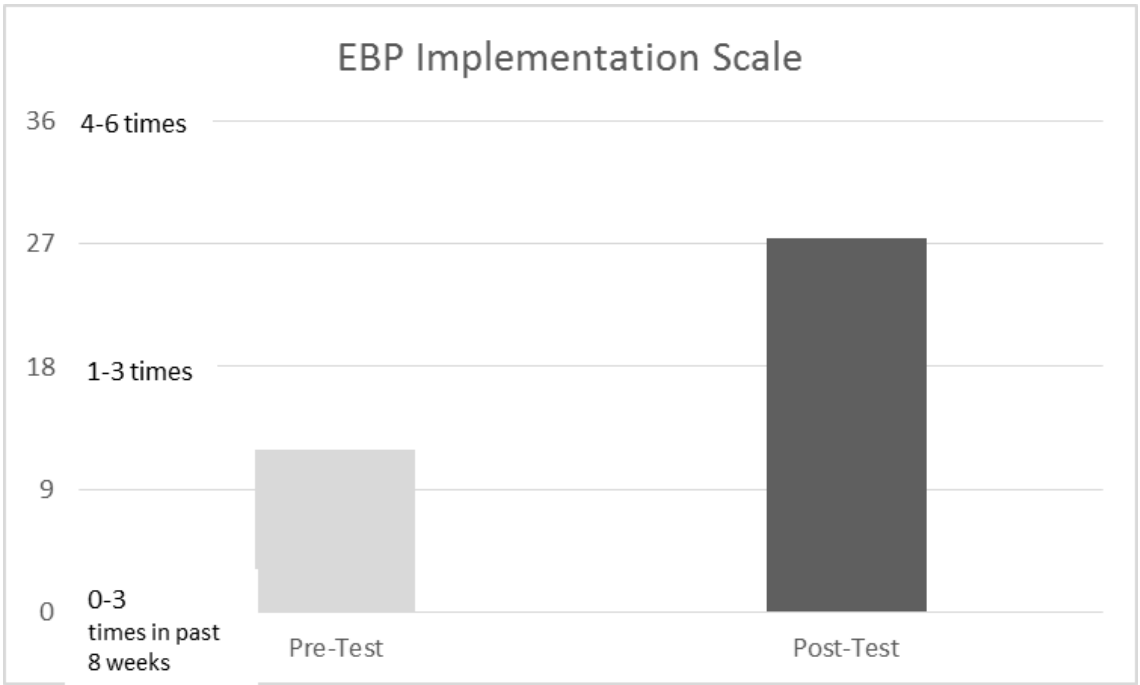


Table 6

Two-Tailed Paired Samples t-Test for the Difference between Pre-Test and Post-Test Average EBP Implementation Scale Scores

	Pre-Test Average *Mean (Standard Deviation)*	Post-Test Average *Mean (Standard Deviation)*	*P*
Q1. Used evidence to change my practice.	2 (1.41)	2.3 (1.07)	.470
Q2. Critically appraised evidence from a research study.	1.1 (1.29)	1.9 (1.27)	.077
Q3. Generated a PICO question about my practice.	0.2 (0.43)	1.4 (0.85)	< .001
Q4. Informally discussed evidence from a research study with a colleague.	0.9 (0.73)	2.4 (1.22)	< .001
Q5. Collected data on a clinical issue.	0.4 (0.65)	1.8 (1.05)	< .001
Q6. Shared evidence from a study or studies in the form of a report or presentation to more than 2 colleagues.	0.6 (0.63)	1.4 (0.94)	< .001
Q7. Evaluated the outcomes of practice change.	0.6 (0.65)	1.5 (0.65)	< .001
Q8. Shared an evidence-based guideline with a colleague	0.6 (0.63)	1.6 (1.02)	.013
Q9. Shared evidence from a research study with a patient/family member.	0.9 (0.92)	1.5 (1.02)	.071
Q10. Shared evidence from a research study with a multi-disciplinary team member.	0.5 (1.16)	1.4 (0.84)	.034
Q11. Read and critically appraised a clinical research study.	0.8 (1.31)	1.6 (1.08)	.047
Q12. Accessed the Cochrane database of systematic reviews.	0.1 (0.27)	0.6 (0.65)	.029
Q13. Accessed an evidence-based guideline.	0.9 (0.73)	1.3 (0.83)	.136
Q14. Used an evidence-based guideline or systematic review to change clinical practice where I work.	0.4 (0.50)	1.3 (0.83)	.004
Q15. Evaluated a care initiative by collecting patient outcome data.	0.5 (0.76)	1.1 (0.66)	.045

Q16. Shared the outcome data collected with colleagues.	0.2 (0.58)	1.1 (0.66)	< .001
Q17. Changed practice based on patient outcome data.	0.5 (0.76)	1.1 (0.73)	.055
Q18. Promoted the use of EBP to my colleagues.	0.5 (0.76)	1.9 (1.14)	< .001

EBP Competency Scale

The mean EBP Competency pre-test score was 47.5 in the pre-test and 68.5 in the post-test. The increase in scores was statistically significant in a two-tailed paired samples t-tests ($t(14) = -11.47$, $p < .001$) (Table 7).

Table 7

Two-Tailed Paired Samples t-Test for the Difference Between Pre-Test and Post-Test EBP Competency Scale Scores, n=15

Pre-Test		Post-Test		
M	*SD*	*M*	*SD*	*p*
47.5	10.03	68.5	8.05	< .001

Each of the 24 EBP Competency Scale questions were examined to determine if there was statistically significant difference in pre- and post-test average scores using two-tailed paired samples t-tests (Table 8).

Table 8

Two-Tailed Paired Samples t-Test for the Difference between Pre-Test and Post-Test Average EBP Competency Scale Scores

	Pre-Test Average *Mean (Standard Deviation)*	Post-Test Average *Mean (Standard Deviation)*	*p*
13 Essential Competencies for Practicing Registered Nurses			
Q1. Questions clinical practices for the purpose of improving the quality of care.	2.3 (0.59)	2.9 (0.46)	< .001
Q2. Describes clinical problems using internal evidence.*	2.3 (0.59)	2.8 (0.41)	.015
Q3. Participates in the formulation of clinical questions using PICOT* format.	1.9 (0.64)	2.9 (0.64)	< .001
Q4. Searches for external evidence* to answer focused clinical questions.	2.1 (0.52)	3.1 (0.35)	< .001
Q5. Participates in critical appraisal of preappraised evidence (such as clinical practice guidelines, evidence-based policies and procedures, and evidence syntheses).	1.8 (0.41)	2.9 (0.46)	< .001
Q6. Participates in the critical appraisal of published research studies to determine their strength and applicability to clinical practice.	1.9 (0.46)	2.7 (0.46)	< .001
7. Participates in the evaluation and synthesis of a body of evidence gathered to determine its' strength and applicability to clinical practice.	1.9 (0.52)	2.8 (0.56)	< .001
8. Collects practice data (e.g., individual patient data, quality improvement data) systematically as internal evidence for clinical decision making in the care of individuals, groups and populations.	1.7 (0.59)	3.2 (0.41)	< .001
9. Integrates evidence gathered from external and internal sources in order to plan evidence-based practice changes.	2.1 (0.46)	2.9 (0.59)	< .001
10. Implements practice changes based on evidence and clinical expertise and patient preferences to improve care processes and patient outcomes.	1.9 (0.46)	3 (0.65)	< .001
11. Evaluates outcomes of evidence-based decisions and practice changes for individuals, groups and	1.9 (0.46)	2.9 (0.46)	< .001

populations to determine best practices.			
12. Disseminates best practices supported by evidence to improve quality of care and patient outcomes.	2.1 (0.59)	2.9 (0.59)	< .001
13. Participates in strategies to sustain an evidence-based practice culture.	2 (0.53)	2.9 (0.52)	< .001
11 Essential Competencies for Advanced Practice Nurses			
14. Systematically conducts and exhaustive search for external evidence* to answer clinical questions. (external evidence*: evidence generated from research).	1.9 (0.70)	2.8 (0.56)	.003
15. Critically appraises relevant preappraised evidence (i.e., clinical guidelines, summaries, synopses, syntheses of relevant external evidence) and primary studies, including evaluation and synthesis.	1.8 (0.56)	2.7 (0.46)	< .001
16. Integrates a body of external evidence from nursing and related fields with internal evidence* in making decisions about patient care (internal evidence* = evidence generated internally within a clinical setting, such as patient assessment data, outcomes management, and quality improvement data).	1.9 (0.59)	2.9 (0.35)	< .001
17. Leads transdisciplinary teams in applying synthesized evidence to initiate clinical decisions and practice changes to improve the health of individuals, groups, and populations.	1.7 (0.49)	2.6 (0.74)	< .001
18. Generates internal evidence through outcomes management and EBP implementation projects for the purpose of integrating best practices.	1.7 (0.59)	3 (0.76)	< .001
19. Measures processes and outcomes of evidence-based clinical decisions.	1.9 (0.64)	2.7 (0.59)	< .001
20. Formulates evidence-based policies and procedures.	1.5 (0.52)	2.4 (0.74)	< .001
21. Participates in the generation of external evidence with other healthcare professionals.	1.7 (0.59)	2.7 (0.49)	< .001

22. Mentors others in evidence-based decision making and the EBP process.	1.7 (0.49)	2.5 (0.52)	< .001
23. Implements strategies to sustain an EBP culture.	1.9 (0.59)	3.1 (0.35)	< .001
24. Communicates best evidence to individuals, groups, colleagues, and policy makers.	1.9 (0.59)	2.9 (0.59)	< .001

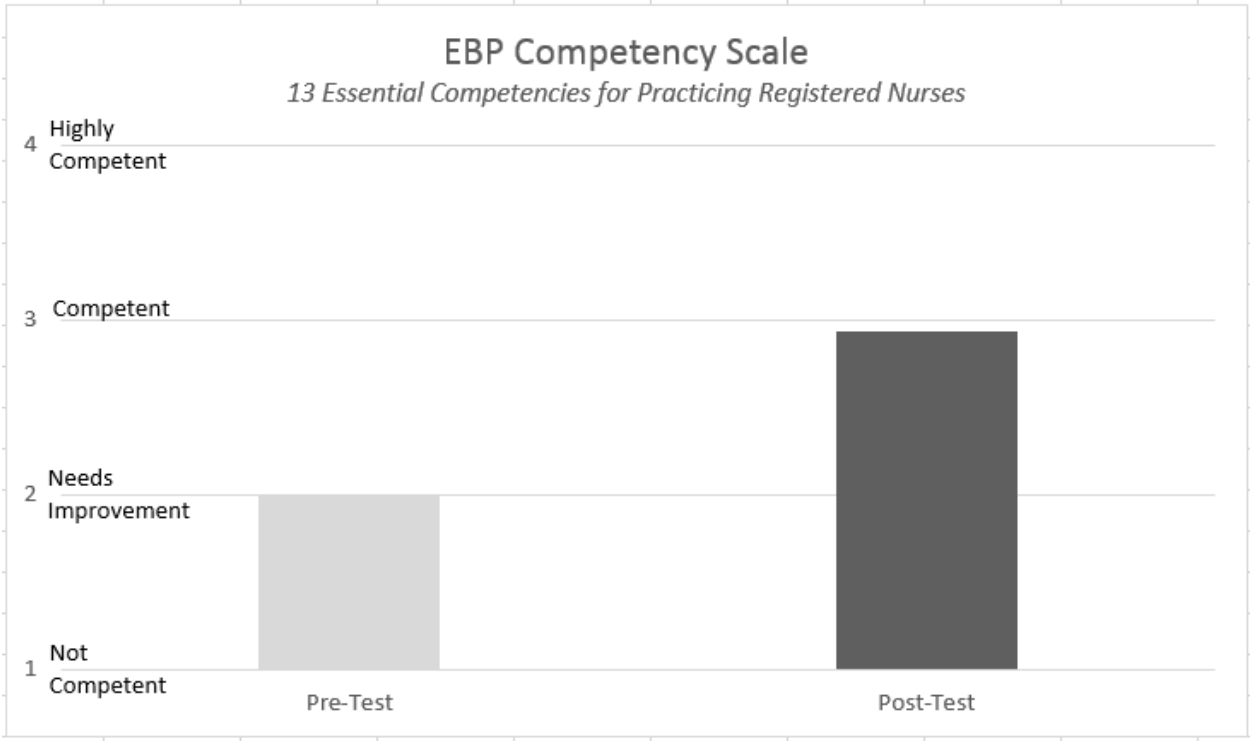
Additional analysis was conducted to determine if there was a statistically significant difference in pre- and post-test average scores for the 13 essential competencies for practicing registered nurses (Table 9) (Figure 4).

Table 9

Pre-Test Average		Post-Test Average		
M	*SD*	*M*	*SD*	*p*
1.99	0.39	2.93	0.34	< .001

Figure 4

Average of Pre-Test and Post-Test EBP Competency Scale Scores for the 13 Essential Competencies for Practicing Registered



Nurse Residents' EBP Projects

The cohort of 26 nurse residents split into teams to complete six separate EBP projects. All six groups were successfully guided through the steps of problem identification, PICOT development, literature research and appraisal, intervention identification, outcome evaluation and dissemination. At the end of the EBP curriculum all six groups reported their findings via oral and poster presentation to a large group of clinical nurses and nursing leadership. Their projects are listed in Table 9.

Table 9
Nurse Residents Evidence Based Practice Projects

Group	Project Title	Intervention	Outcome
Group 1: 3 Med Surg nurse residents	Falls: None are Harmless, Prevention is the Key	Implementation of Falls Prevention Tool: TIPS	• Increase to 39% compliance of tool use over three months • Decrease in patient falls in 2 out of 3 units
Group 2: 7 Med Surg nurse residents	Non-Pharmacological Pain Management	Implementation of Pain Brochure outlining alternatives to opiods	• Increased use of Pain Brochure • Increased use of alternative therapies for pain management
Group 3: 4 Step Down & 2 Med Surg nurse residents	CALI+ - A Communication Initiative to Improve CAN-RN Communication	Implementation of CALI+ communication tool; tool based on EBP	• Increased frequency in CNS receiving report from RN

			• Increased quality of report CAN-RN report • Increased team satisfaction and improved teamwork
Group 4: 4 ICU nurse residents	Implementing the ABCDEF ICU Liberation Bundle on Critical Care Patients	Implementation of the ABCDEF bundle daily checklist	• Decrease in total number ventilator hours from 197.9 hours to 151 hours • Increased knowledge of ABCDEF bundle and changes in practice
Group 5: 4 ED & 1 OR nurse residents	Vasopressers Through IVs: Nurse Driven Protocol	Development of Nurse Driven Protocol to standardize the practice for initiating and maintaining vasopressor infusing through peripheral IV.	• Increased knowledge and confidence in initiating vasopressors on patient's with peripheral IV
Group 6: 3 Med Surg Nurses	Patient Education in the Prevention of Hospital Acquired Pressure Injuries (HAPI)	Implementation of HAPI prevention patient education brochure	• Increased patient satisfaction • Unable to track quantitative data due to Covid surge

Discussion

In this quality improvement project, implementing the © John Hopkins Nursing Evidence Based Practice curriculum in John Muir Health's Nurse Residency program significantly improved Evidence Based Practice Beliefs, Implementation and Competency scores. There were improvements in the majority of EBP concepts measured, including improvements in all of the 24 EBP competencies. These findings add to a growing body of work demonstrating that EBP education is an effective approach to improving EBP beliefs, implementation skills and competencies among bedside nurses (Gallagher-Ford et al., 2020; Gorsuch et al., 2020; Melnyk et al., 2017; Storey et al., 2019).

Interestingly, nurse residents' pre-intervention EBP Beliefs scores were similar or even higher than those of experienced clinical nurses in previous studies (Gallagher-Ford et al., 2020; Gorsuch et al., 2020; Melnyk et al., 2017; Warren et al., 2016). This comparison indicates that nurse residents may enter Nurse Residency programs with elevated EBP Beliefs scores which is an opportunity for organizations to continue to grow new graduate nurses' EBP Beliefs through continuing EBP education in the clinical setting. A possible contributing factor to elevated EBP Beliefs scores at the beginning of the program could be that a majority of respondents graduated from an Accelerated BSN program and another 37.5% with a bachelor's degree in another discipline. These nurse residents were likely to have been exposed to research and EBP curriculum in their previous programs. This finding suggests that pre-licensure curriculum is effective at laying a foundation for developing positive beliefs about EBP.

Nurse residents reported improvements in each of the three scales related to understanding the steps of EBP implementation and confidence in implementing EBP at the

bedside as well as sharing best practices with colleagues. Monthly curriculum was reinforced with application of knowledge and skills through work on the nurse's EBP projects. Through completion of an EBP project nurse residents were able to use evidence at the patient and systems level to impact care. In addition, nurse residents reported themselves as competent in implementing strategies to sustain an EBP culture. This finding is significant as building this foundation in nurse residents could play a key role in integrating EBP into the organizational culture.

In Melnyk et al.'s (2018) study of 2,344 experienced nurses, none reported them themselves competent in any of the 24 EBP competencies. The fact that the nurse residents in our study reported themselves as competent in 5 of the 24 competencies at the end of the program indicates that even this modest investment in developing EBP skills contributes substantially towards enabling new nurses to integrate best evidence into their daily work. In addition, nurse residents reported an average competency rating of 2.9 in the 13 essential competencies for practicing registered nurses, just shy of an overall rating of competent. This suggests that Nurse Residency programs could provide organizations an opportunity to build a foundation of EBP competency in their nursing workforce.

The ARCC model is a proven framework to increase EBP utilization into the organizational culture and implementing EBP curriculum in Nurse Residency programs aligns with the ARCC model. Implementation of interactive EBP curriculum and skills building through completion of an EBP project demonstrated an increase in all three EBP measurements. In addition, nurse residents' success in implementing EBP projects can be attributed to support through assigned EBP mentors which is identified as a critical component of the ARCC model

(Tucker at al., 2021). Increasing nurse residents' EBP beliefs, implementation skills and competency is a key strategy to implement and sustain EBP practice in order to achieve improved clinician, patient and organization outcomes.

Implications for Practice

Incorporating the © John Hopkins Evidence Based Practice Nursing curriculum into Nurse Residency programs is effective in increasing EBP beliefs, implementation frequency and competency and can be a key strategy for organizations to develop a strong EBP culture and competency in their workforce. Nurse Residency programs provide an opportunity to build upon EBP beliefs and competencies that are introduced in the academic setting. The nursing profession has been tasked with building EBP competencies for clinical nurses, and incorporating EBP curriculum in pre and post-licensure curriculum is vital.

Adoption of the © John Hopkins Nursing Evidence Based Practice Model and curriculum provides tools and resources to guide educators in the application of EBP in Nurse Residency programs. In addition, guiding nurse residents through completion of a unit based EBP project and demonstrating patient outcomes enables nurses to understand their work in relation to EBP. It is important to consider whether new graduate nurses have reached their potential for classroom EBP education upon entry to the Nurse Residency program (Serfass & Hagedorn, 2018). In a study by Lam et al. (2020) students emphasize the importance of developing coursework that focuses on intentional development of EBP competence. Combination of EBP didactic with practical application via nurse residents completing an EBP project could have contributed to the success of improved scores in all three scales, specifically around understanding the steps of EBP and confidence in implementation at the bedside. Therefore

organizations could consider incorporating EBP project implementation into their EBP curriculum to enhance competency development. The EBP Beliefs, Implementation and Competency scales are validated tools that can be used by organizations to evaluate the effectiveness of EBP curriculum in Nurse Residency programs.

There are limited studies on the effectiveness of EBP education in Nurse Residency programs (Bane, 2021; Hosking et al., 2016; Mick, 2014). Future studies should include the testing of interventions specific to newly graduated nurse's EBP competencies including effectiveness of curriculum. In addition, it is recommended that a core set of EBP competencies be established so that pre and post-licensure curriculum be designed that is applicable through transition to practice, from student nurse, new graduate nurse and experienced bedside clinician.

Limitations

A limitation of this project was the small sample size due to the inability to match unique 4 digit identifiers for all respondents. The EBP Beliefs, Implementation and Competency scales are all self-reported scales which could be underestimated or overestimated. The instruments measure participants self-reported views about EBP and may not reflect their actual EBP abilities. A surge in Covid patients during the nurse resident's EBP project implementation time frame may have influenced nurse residents EBP scale scores. Although the outcomes represent the experiences of one cohort of a Nurse Residency program, results may not be generalizable to external Nurse Residency programs.

Conclusion

This quality improvement project found that incorporating EBP education into a Nurse Residency program is effective in increasing nurse resident's EBP beliefs, implementation

frequency, and competencies and it is recommended that organizations continue to support EBP education in these programs. © John Hopkins Nursing Evidence Based Practice Model and curriculum is a standardized education plan that educators can use to provide Nurse Residents with EBP education. Implementation of EBP curriculum in Nurse Residency programs is in alignment with the ARCC model. The EBP Beliefs, Implementation and Competency scales are validated tools that can be used by organizations to evaluate the effectiveness of EBP curriculum in Nurse Residency programs. Organizations that are questioning whether to implement or continue EBP education in their Nurse Residency programs can consider EBP education as a key strategy to incorporate evidence based practice into the culture of their organization and to develop a nursing workforce that is competent in evidence based care.

References

Bane. (2021). Beliefs About Evidence-Based Practice Among New Graduate Nurses. ProQuest Dissertations Publishing.

Bissett, Kim M, Cvach, Maria, & White, Kathleen M. (2016). Improving Competence and Confidence With Evidence-Based Practice Among Nurses: Outcomes of a Quality Improvement Project. *Journal for Nurses in Professional Development*, 32(5), 248–255. https://doi.org/10.1097/NND.0000000000000293

Dang, D., Dearholt, S., Bissett, K., Ascenzi, J., & Whalen, M. (2022). *Johns Hopkins evidence-based practice for nurses and healthcare professionals: Model and guidelines.* 4th ed. Sigma Theta Tau International

Friesen, Mary Ann, Brady, Joni M, Milligan, Renee, & Christensen, Patricia. (2017). Findings From a Pilot Study: Bringing Evidence-Based Practice to the Bedside. *Worldviews on Evidence-Based Nursing*, 14(1), 22–34. https://doi.org/10.1111/wvn.12195

Gallagher-Ford, Lynn, Koshy Thomas, Bindu, Connor, Linda, Sinnott, Loraine T, & Melnyk, Bernadette Mazurek. (2020). The Effects of an Intensive Evidence-Based Practice Educational and Skills Building Program on EBP Competency and Attributes. *Worldviews on Evidence-Based Nursing*, 17(1), 71–81. https://doi.org/10.1111/wvn.12397

Gorsuch, Col Penelope F, Gallagher Ford, Lynn, Koshy Thomas, Bindu, Melnyk, Bernadette Mazurek, & Connor, Linda. (2020). Impact of a Formal Educational Skill-Building Program Based on the ARCC Model to Enhance Evidence-Based Practice Competency in

Nurse Teams. *Worldviews on Evidence-Based Nursing*, 17(4), 258–268. https://doi.org/10.1111/wvn.12463

Hosking, Janet, Knox, Katie, Forman, Jeana, Montgomery, Lou Ann, Valde, Jill Gaffney, & Cullen, Laura. (2016). Evidence Into Practice: Leading New Graduate Nurses to Evidence-Based Practice Through a Nurse Residency Program. *Journal of Perianesthesia Nursing*, 31(3), 260–265. https://doi.org/10.1016/j.jopan.2016.02.006

Institute of Medicine. Committee on Quality of Health Care in America. (2001). *Crossing the quality chasm: a new health system for the 21st century*. National Academy Press.

Institute of Medicine, Institute of Medicine, & McClellan, Mark B. (2008). *Evidence-based medicine and the changing nature of health care: 2007 IOM annual meeting summary*. The National Academies Press.

Jackson, Nichole. (2016). Incorporating Evidence-Based Practice Learning Into a Nurse Residency Program: Are New Graduates Ready to Apply Evidence at the Bedside? *The Journal of Nursing Administration*, 46(5), 278–283. https://doi.org/10.1097/NNA.0000000000000343

Lam, Schubert, C. F., & Herron, E. K. (2020). Evidence-Based Practice Competence in Nursing Students Preparing to Transition to Practice. *Worldviews on Evidence-Based Nursing*, 17(6), 418–426. https://doi.org/10.1111/wvn.12479

Melnyk, Tan, A., Hsieh, A. P., & Gallagher-Ford, L. (2021). Evidence-Based Practice Culture and Mentorship Predict EBP Implementation, Nurse Job Satisfaction, and Intent to Stay: Support for the ARCC© Model. *Worldviews on Evidence-Based Nursing*, 18(4), 272–281. https://doi.org/10.1111/wvn.12524

Melnyk, B. M., & Fineout-Overholt, E. (2019). *Evidence-based practice in nursing & healthcare: A guide to best practice*, 4th ed. Philadelphia, PA: Wolters Kluwer/Lippincott, Williams & Wilkins.

Melnyk, B. M., Gallagher-Ford, L., Zellefrow, C., Tucker, S., Thomas, B., Sinnott, L. T., & Tan, A. (2018). The first U.S. study on nurses' evidence-based practice competencies indicates major deficits that threaten healthcare quality, safety, and patient outcomes. *Worldviews on Evidence-Based Nursing*, *15*(1), 16–25. https ://doi.org/10.1111/wvn.12269

Melnyk, B. M., Fineout-Overholt, E., Giggle, M., & Choy, K. (2017). A test of the ARCC© Model improves implementation of evidence-based practice, healthcare culture, and patient outcomes. *Worldviews on Evidence-Based Nursing*, *14*(1), 5–9. https ://doi.org/10.1111/wvn.12189

Melnyk, Bernadette Mazurek, Gallagher-Ford, Lynn, Long, Lisa English, & Fineout-Overholt, Ellen. (2014). The Establishment of Evidence-Based Practice Competencies for Practicing Registered Nurses and Advanced Practice Nurses in Real-World Clinical Settings: Proficiencies to Improve Healthcare Quality, Reliability, Patient Outcomes, and Costs. *Worldviews on Evidence-Based Nursing*, 11(1), 5–15. https://doi.org/10.1111/wvn.12021

Melnyk, Bernadette Mazurek, Fineout-Overholt, Ellen, & Mays, Mary Z. (2008). The Evidence-Based Practice Beliefs and Implementation Scales: Psychometric Properties of Two New Instruments. *Worldviews on Evidence-Based Nursing*, 5(4), 208–216. https://doi.org/10.1111/j.1741-6787.2008.00126.x

Mick, JoAnn. (2014). Nurse Interns' Experience With Participation in the Evidence-Based Practice Project Requirement of a Nursing Internship Program. *Nurse Educator*, 39(2), 54–55. https://doi.org/10.1097/NNE.0000000000000017

Saunders, Hannele, Gallagher-Ford, Lynn, Kvist, Tarja, & Vehviläinen-Julkunen, Katri. (2019). Practicing Healthcare Professionals' Evidence-Based Practice Competencies: An Overview of Systematic Reviews. *Worldviews on Evidence-Based Nursing*, 16(3), 176–185. https://doi.org/10.1111/wvn.12363

Saunders, Hannele, Gallagher-Ford, Lynn, & Vehviläinen-Julkunen, Katri. (2019). Endorsement and Validation of the Essential Evidence-Based Practice Competencies for Practicing Nurses in Finland: An Argument Delphi Study. *Worldviews on Evidence-Based Nursing*, 16(4), 281–288. https://doi.org/10.1111/wvn.12377

Stokke, Kjersti, Olsen, Nina R, Espehaug, Birgitte, & Nortvedt, Monica W. (2014). Evidence based practice beliefs and implementation among nurses: a cross-sectional study. *BMC Nursing*, 13(1), 8–8. https://doi.org/10.1186/1472-6955-13-8

Storey, Wagnes, L., LaMothe, J., Pittman, J., Cohee, A., & Newhouse, R. (2019). Building Evidence-Based Nursing Practice Capacity in a Large Statewide Health System: A Multimodal Approach. *The Journal of Nursing Administration*, 49(4), 208–214. https://doi.org/10.1097/NNA.0000000000000739

Speroni, Karen Gabel, McLaughlin, Maureen Kirkpatrick, & Friesen, Mary Ann. (2020). Use of Evidence-based Practice Models and Research Findings in Magnet-Designated Hospitals Across the United States: National Survey Results. *Worldviews on Evidence-Based Nursing*, 17(2), 98–107. https://doi.org/10.1111/wvn.12428

Spiva, Hart, P. L., Patrick, S., Waggoner, J., Jackson, C., & Threatt, J. L. (2017). Effectiveness of an Evidence-Based Practice Nurse Mentor Training Program: EBP Nurse Mentor Program. *Worldviews on Evidence-Based Nursing*, 14(3), 183–191. https://doi.org/10.1111/wvn.12219

Tucker, McNett, M., Mazurek Melnyk, B., Hanrahan, K., Hunter, S. C., Kim, B., Cullen, L., & Kitson, A. (2021). Implementation Science: Application of Evidence-Based Practice Models to Improve Healthcare Quality. *Worldviews on Evidence-Based Nursing*, 18(2), 76–84. https://doi.org/10.1111/wvn.12495

Warren, Montgomery, K. L., & Friedmann, E. (2016). Three-Year Pre-Post Analysis of EBP Integration in a Magnet-Designated Community Hospital. *Worldviews on Evidence-Based Nursing*, 13(1), 50–58. https://doi.org/10.1111/wvn.12148

Appendix A

EBP Beliefs Scale (EBPB) (Melnyk et al., 2008)

EBP Beliefs Scale

Below are 16 statements about evidence-based practice (EBP). Please circle the number that best describes your agreement or disagreement with each statement. There are no right or wrong answers.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. I believe that EBP results in the best clinical care for patients.	1	2	3	4	5
2. I am clear about the steps of EBP.	1	2	3	4	5
3. I am sure that I can implement EBP.	1	2	3	4	5
4I believe that critically appraising evidence is an important step in the EBP process.	1	2	3	4	5
5. I am sure that evidence-based guidelines can improve clinical care	1	2	3	4	5
6. I believe that I can search for the best evidence to answer clinical questions in a time efficient way.	1	2	3	4	5
7. I believe that I can overcome barriers in implementing EBP.	1	2	3	4	5
8. I am sure that I can implement EBP in a time efficient way.	1	2	3	4	5
9. I am sure that implementing EBP will improve the care that I deliver to my patients.	1	2	3	4	5
10. I am sure about how to measure the outcomes of clinical care.	1	2	3	4	5
11. I believe that EBP takes too much time.	1	2	3	4	5
12. I am sure that I can access the best resources in order to implement EBP.	1	2	3	4	5
13. I believe EBP is difficult.	1	2	3	4	5
14. I know how to implement EBP sufficiently enough to make practice changes.	1	2	3	4	5
15. I am confident about my ability to implement EBP where I work.	1	2	3	4	5
16. I believe the care that I deliver is evidence-based.	1	2	3	4	5

 Validity of this scale has been established and Cronbach's alphas have been $\geq$.85 across various samples.

Appendix B

EBP Implementation Scale (EBPI) (Melnyk et al., 2008)

EBP Implementation Scale

Below are 18 questions about evidence-based practice (EBP). Some healthcare providers do some of these things more often than other healthcare providers. There is no certain frequency in which you should be performing these tasks. Please answer each question by circling the number that best describes **how often each item has applied to you in the past 8 weeks**.

In the **past 8 weeks**, I have:

	0 times	1-3 times	4-5 times	6-8 times	>8 times
1. Used evidence to change my practice.	0	1	2	3	4
2. Critically appraised evidence from a research study.	0	1	2	3	4
3. Generated a PICO question about my practice.	0	1	2	3	4
4. Informally discussed evidence from a research study with a colleague.	0	1	2	3	4
5. Collected data on a clinical issue.	0	1	2	3	4
6. Shared evidence from a study or studies in the form of a report or presentation to more than 2 colleagues.	0	1	2	3	4
7. Evaluated the outcomes of practice change...	0	1	2	3	4
8. Shared an evidence-based guideline with a colleague.	0	1	2	3	4
9. Shared evidence from a research study with a patient/family member.	0	1	2	3	4
10. Shared evidence from a research study with a multi-disciplinary team member.	0	1	2	3	4
11. Read and critically appraised a clinical research study.	0	1	2	3	4
12. Accessed the Cochrane database of systematic reviews.	0	1	2	3	4
13. Accessed an evidence-based guideline.	0	1	2	3	4
14. Used an evidence-based guideline or systematic review to change clinical practice where I work.	0	1	2	3	4
15. Evaluated a care initiative by collecting patient outcome data.	0	1	2	3	4
16 Shared the outcome data collected with colleagues.	0	1	2	3	4
17. Changed practice based on patient outcome data.	0	1	2	3	4
18. Promoted the use of EBP to my colleagues.	0	1	2	3	4

 Validity of this scale has been established and Cronbach's alphas have been ≥.85 across various samples.

Appendix C

Evidence Based Practice 24 Essential Competencies (Melnyk et al., 2014)

The Evidence-Based Practice Competencies Scale for Practicing Registered Professional Nurses

Please identify your level of competence for each of the EBP competencies using the following 4-point Likert rating scale:
(1=Not Competent | 2=Need Improvement |3=Competent | 4=Highly Competent)

Competency	Not Competent 1	Need Improvement 2	Competent 3	Highly Competent 4
Competency 1: Questions clinical practices for the purpose of improving the quality of care.	○	○	○	○
Competency 2: Describes clinical problems using internal evidence* (*internal evidence = evidence generated internally within a clinical setting, such as patient assessment, outcomes management, and quality improvement data).	○	○	○	○
Competency 3: Participates in the formulation of clinical questions using PICO(T)** format (**PICO(T) = Patient population; Intervention or area of Interest; Comparison intervention or group; Outcome; Time).	○	○	○	○
Competency 4: Searches for external evidence*** to answer focused clinical questions (***external evidence = evidence generated from research).	○	○	○	○
Competency 5: Participates in critical appraisal of pre-appraised evidence**** (such as; clinical guidelines, evidence-based policies & procedures, and evidence summaries & syntheses).	○	○	○	○
Competency 6: Participates in critical appraisal of published research studies to determine their strength and applicability to clinical practice.	○	○	○	○
Competency 7: Participates in the evaluation and synthesis of a body of evidence gathered to determine its' strength and applicability to clinical practice.	○	○	○	○
Competency 8: Collects practice data (e.g., individual patient data, quality improvement data) systematically as internal evidence for clinical decision making in the care of individuals, groups and populations.	○	○	○	○
Competency 9: Integrates evidence gathered from external and internal sources in order to plan evidence-based practice changes.	○	○	○	○
Competency 10: Implements practice changes based on evidence, clinical expertise and patient preferences to improve care processes and patient outcomes.	○	○	○	○
Competency 11: Evaluates outcomes of evidence-based decisions and practice changes for individuals, groups and populations to determine best practices.	○	○	○	○
Competency 12: Disseminates best practices supported by evidence to improve quality of care and patient outcomes.	○	○	○	○
Competency 13: Participates in strategies to sustain an evidence-based practice culture.	○	○	○	○

Appendix D

Permission to use EBP Competency Scale, EBP Beliefs Scale and EBP Implementation Scale

TB

Thomas, Bindu <thomas.3279@osu.edu>
Mon 7/12/2021 11:18 AM
To: Amy Hu

EBP Beliefs Scale - 2018.... 84 KB

EBP Competencies Scale ... 77 KB

3 attachments (297 KB) Download all Save all to OneDrive - John Muir Health

Caution: This email originated outside JMH. DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Amy,
Thank you for the completed signed form. Attached is a copy of the scale(s) and a description of the scale(s) requested is below. Please treat this email as permission to use the scale as requested in the application. Look forward to hearing from you post the end date for your project about your sample description, findings and the Cronbach alpha information for our scales.

EBP Beliefs Scale. **EBPB**
This is a 16-item Likert-type scale ranging from 1= (strongly disagree) to 5= (strongly agree). Sample items include, I am clear about the steps in EBP, and I am sure that I can implement EBP. Higher summed scores indicate stronger EBP beliefs.

The scale has established face, content, and construct validity with internal consistency reliabilities above 0.85 (Melnyk et al., 2008).
Melnyk, B. M., Fineout-Overholt, E., & Mays, M. Z. (2008). The evidence-based practice beliefs and implementation scales: psychometric properties of two new instruments. *Worldviews on evidence-based nursing, 5*(4), 208–216. https://doi.org/10.1111/j.1741-6787.2008.00126.x

EBP Implementation Scale.EBPI
Participants respond to 18-item Likert-type scale items by answering how often in the last eight weeks they have performed specific EBP tasks, including (a) generated a PICO (Population, Intervention, Comparison, and Outcome) question about their practice, (b) used evidence to change their clinical practice, and (c) shared outcome data collected with colleagues. Higher summed scores indicate greater implementation of EBP.
The scale has established face, content, and construct validity with internal consistency reliabilities above 0.85 (Melnyk et al., 2008).

Melnyk, B. M., Fineout-Overholt, E., & Mays, M. Z. (2008). The evidence-based practice beliefs and implementation scales: psychometric properties of two new instruments. *Worldviews on evidence-based nursing, 5*(4), 208–216. https://doi.org/10.1111/j.1741-6787.2008.00126.x

EBP Competencies Scale.
The EBP competencies are measured using an EBP competency self-assessment scale. The EBP competencies include 13 essential competencies for practicing registered nurses and an additional 11 competencies for advanced practice nurses. The scale has established face, content, and construct validity with internal consistency reliabilities of 0.98 (Melnyk et al., 2018).
Melnyk, B. M., Gallagher-Ford, L., Zellefrow, C., Tucker, S., Thomas, B., Sinnott, L. T., & Tan, A. (2018). The First U.S. Study on Nurses' Evidence-Based Practice Competencies Indicates Major Deficits That Threaten Healthcare Quality, Safety, and Patient Outcomes. *Worldviews on evidence-based nursing, 15*(1), 16–25. https://doi.org/10.1111/wvn.12269

Thank you.
Bindu

Bindu Thomas, M.Ed., MS
Technology & Research Coordinator

Helene Fuld Health Trust National Institute for
Evidence-based Practice in Nursing and Healthcare
The Ohio State University College of Nursing
Cell: 480-241-7709 | Direct: 614.688.1166

Appendix E

Demographic Survey – Nurse Residents

Choose Not to Answer ☐

Age in Years: *

- ○ 17 or younger
- ○ 18 to 24
- ○ 25 to 34
- ○ 35 to 44
- ○ 45 to 54
- ○ 55 to 64
- ○ 65 to 74
- ○ 75 or older

Ethnicity (select one)

- ○ African American
- ○ Asian
- ○ Caucasian/White
- ○ Hispanic or Latino
- ○ American Indian or Native Alaskan
- ○ Pacif ic Islander or Native Hawaiian
- ○ Two or More Races
- ○ Unknown/Other

Degree Received (select one): *

- ○ Accelerated BSN
- ○ ADN
- ○ BA in Nursing
- ○ BS
- ○ BSN
- ○ Diploma
- ○ Masters
- ○ MSN (CNL)
- ○ Other - Write In (Required) _____

Previous Non-nursing Degree (select one): *

- ○ AD
- ○ Baccalaureate
- ○ Master
- ○ Doctorate
- ○ None

Appendix F

Variable Name	Operational Definition	*Aggregate or Individual Data	Independent or Dependent	Level of Measurement
Age	• 1 - 100	**Individual**	**Independent**	**Numeric**
Gender	• Female • Male • Non-binary • Other/prefer not to answer	**Individual**	**Independent**	**Nominal**
Ethnicity	• African American • American Indian or Native Alaskan • Asian • Pacific Islander or Native Hawaiian • Caucasian/White • Two or More Races • Hispanic or Latino • Unknown/Other	**Individual**	**Independent**	**Nominal**
Highest Nursing Degree Received	• Diploma • AND/ASN • Accelerated BSN • BSN • Masters • MSN (CNL) • Other (specify below):	**Individual**	**Independent**	**Nominal**
Highest Non-Nursing Degree Received	• Associates Degree • BA/BS • Masters • PhD • Other (specify below):	**Individual**	**Independent**	**Nominal**
EBP Competency	24 EBP Competencies with self-scoring on	**Individual**	**Dependent**	**Interval**

Self-Assessment Scale	Likert Scale (1-4) with score minimum 0 to maximum 96.			
Evidence Based Practice Beliefs Scale Score (Mean)	Score minimum 16 to maximum of 80.	**Individual**	**Dependent**	**Interval**
Evidence Based Practice Implementation Scale Score (Mean)	Score minimum 0 to maximum of 70.	**Individual**	**Dependent**	**Interval**

Appendix G

John Muir IRB Waiver/Approval

JOHN MUIR HEALTH

July 29, 2021

Amy Hu, MSN, RN

Re:	**REVIEW OF QUALITY IMPROVEMENT/DNP PROJECT IRC# 21-07-01**
Project Title:	Evaluating the Effectiveness of an Evidence Based Practice Education Program in a Nurse Residency Program on Evidence Based Practice Competency, Beliefs and Implementation
Items Reviewed:	New Study Questionnaire/Protocol, DNP Project Proposal dated July 28, Implied Consent and Survey Links

Dear Principal Investigator:

Thank you for your submission regarding the above-captioned Quality Improvement Project (QIP). On behalf of the John Muir Health Institutional Review Committee (IRC), I have reviewed your submission materials and note the following:
The purpose and overall goal of this project is to improve nurse leaders' knowledge and confidence in managing disasters that impact the acute care setting. A short on-demand webinar has been created in Knowledge Center, using evidenced-based and expert content on disaster management interventions in the acute care setting. Additionally, the webinar will include guiding principles of nurse leadership behaviors in disaster management. To assess the impact of the evidenced-based educational intervention, nurse subjects' perceived knowledge and confidence in disaster management will be measured prior to and at the completion of the on-demand webinar. Participants for the DNP project will be recruited from the 2021/2022 John Muir Health Nurse Residency Program (NRP). Nurse subjects will complete a pre-survey, webinar, and post-survey.

The project will be implemented to improve care at JMH and Nurse Residents are required to attend the 4 hour seminars as part of the Nurse Residency Program. Survey Monkey® results will be anonymous. Participants will not be identified in any reporting of results. Respondents will select a unique 4-digit identification number, which will be used to match pre and post test results. That unique identifying number will be removed by the IT Program Manager before providing results to the Principal Investigator. Data will not include any patient or subject specific identifiers.

The primary use of the aggregate data and QI outcomes will be to disseminate information about evidence-based practice and improvement at JMH. Per the materials submitted, the primary purpose of the project is a Quality Improvement project and not research involving human subjects. *This project was undertaken as a Quality Improvement Initiative at John Muir Health, and as such was not formally supervised by the Institutional Review Committee per their policies.* Any posters, abstracts, publications or outcomes reporting resulting from the project as submitted is deemed Quality Improvement reporting of a QI project.

The secondary purpose will be to use the data and outcomes as part of the San Jose State University Doctorate in the Nursing Practice (DNP) Program. Beth Browder, on behalf of the Steering Committee confirms that 1. the QIP study aligns with the operational plans of the hospital to implement as part of the Nursing Residency Program. 2. This training modules will be implemented enterprise-wide regardless of investigator's project, which was confirmed by the nursing management. 3. The source data provided to the researcher will not include patient or subject identifiers and investigator will not have a hand in the de-identification process of the source data. 4. Any source data and/or reports/conclusions provided to SJSU will be aggregated data and not include patient or subject identifiers.

The IRC determined that the secondary use of data from the QIP involves survey responses from nursing staff that has been de-identified by JMH IT staff not involved in the QIP. The IRC has determined the secondary use of QIP data does not constitute human subjects research because individuals participating in the project are not known." If any modifications are made to this project, please submit for additional review. Thank you for your cooperation.

Sincerely,

DocuSigned by Christine Terbijhe

Christine Terbijhe | I approve this document 07/30/2021 | 6:06 PM PDT

Christine Terbijhe
Administrator, JMH Institutional Review Committee

DocuSign

Certificate Of Completion

Envelope Id: DAEF914166F34E1980FE5CD94EB3A061
Subject: Please DocuSign: I-exp Evaluating EBP Education Program.doc
Source Envelope:
Document Pages: 1
Certificate Pages: 1
AutoNav: Enabled
EnvelopeId Stamping: Disabled
Time Zone: (UTC-08:00) Pacific Time (US & Canada)

Signatures: 1
Initials: 0

Status: Completed

Envelope Originator:
Christine Terbijhe
2700 Grant Street
Suite 102
Concord, CA 94520
christine@irbmanagement.com
IP Address: 38.133.97.237

Record Tracking

Status: Original
7/30/2021 6:03:49 PM

Holder: Christine Terbijhe
christine@irbmanagement.com

Location: DocuSign

Signer Events	Signature	Timestamp
Christine Terbijhe christine@irbmanagement.com Security Level: Email, Account Authentication (Required)	Christine Terbijhe Signature Adoption: Pre-selected Style Signature ID: 0DB0787D-A381-48AF-BB0D-BF4E003FA4AA Using IP Address: 38.133.97.237 With Signing Authentication via DocuSign password With Signing Reasons (on each tab): I approve this document	Sent: 7/30/2021 6:05:48 PM Viewed: 7/30/2021 6:05:54 PM Signed: 7/30/2021 6:06:15 PM
Electronic Record and Signature Disclosure: Not Offered via DocuSign		
In Person Signer Events	**Signature**	**Timestamp**
Editor Delivery Events	**Status**	**Timestamp**
Agent Delivery Events	**Status**	**Timestamp**
Intermediary Delivery Events	**Status**	**Timestamp**
Certified Delivery Events	**Status**	**Timestamp**
Carbon Copy Events	**Status**	**Timestamp**
Witness Events	**Signature**	**Timestamp**
Notary Events	**Signature**	**Timestamp**

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	7/30/2021 6:05:48 PM
Certified Delivered	Security Checked	7/30/2021 6:05:54 PM
Signing Complete	Security Checked	7/30/2021 6:06:15 PM
Completed	Security Checked	7/30/2021 6:06:15 PM
Payment Events	**Status**	**Timestamps**

SJSU IRB Exclusion Worksheet

EVALUATING THE IMPACT OF AN EVIDENCE BASED PRACTICE PROGRAM IN A NURSE RESIDENCY PROGRAM

SJSU IRB Exclusion Decision Tool: Does My Project Need IRB Review?

Instructions: Use this decision tool to determine whether a complete application needs to be submitted for your proposed project to the Institutional Review Board. This worksheet is designed to help investigators find out whether their project constitutes human subjects research, according to the definitions provided by the federal regulations for the protection of human subjects. This worksheet is NOT designed to determine whether a research project involving human subjects is exempt. Exclusion and Exemption are not the same thing. Please fill out the information in the exact prescribed order to ensure accuracy.
Students: Complete this worksheet in the exact prescribed order with your faculty supervisor.
All: Retain this worksheet for your records. A copy of this worksheet does not need to be submitted to the IRB office. IRB office staff will not confirm your decision.

Completed By: Amy Hu

Date: 06/21/21

Signature of Faculty Supervisor (if applicable): _____

Date: _____

Project Title: Evaluating the Impact of an Evidence Based Practice Education Program in a Nurse Residency Program on Evidence Based Practice Competency, Beliefs and Implementation

Does It Meet the Federal Definition of "Research"?

1. Is your project a *systematic investigation*, including research development, testing, and evaluation?

A ***systematic investigation*** refers to a strategy of study involving a methodical procedure or plan that is theoretically grounded, specifies a focused and well-defined research problem or question, is informed by the empirical findings of others, is analytically robust, and provides a detailed and complete description of data collection methods. A study that is systematic allows conclusions to be drawn from the results. Although some qualitative research projects may not have specific aims or hypotheses at the outset, these may still be systematic investigations if their purpose is to compare results to other assessments or to draw conclusions.

☐ Yes, or Not Sure? Continue to question #2.

☑ No → STOP. Submission of an IRB application is not required even if you answer yes to

Appendix H

Nurse Residency Program Seminar 5 – DNP Project Presentation

Problem

- The Institute of Medicine established a goal that 90% of clinical decisions be evidence based by 2020 (Institute of Medicine, 2008).
- Lag time in EBP implementation 15-20 years.
- Nursing is largest group of healthcare providers.
- Positioned to be leaders in EBP implementation.

Problem

- EBP can be difficult to implement – processes, culture and organizational structure.
- Recommendation on advancing healthcare professional's EBP competencies.
- EBP competencies enable nurses to consistently integrate best evidence into their daily work.

Problem

- The Quality and Safety Education for Nursing (QSEN) initiative, Institute of Medicine, and National Council of State Boards of Nursing all recommend implementation of EBP knowledge, skills and attitudes (Jackson, 2016).
- Nurse Residency Programs provide an opportunity to reinforce EBP education provided in the academic setting through application to the practice setting (Hosking et al., 2016).

John Hopkins Nursing EBP Education Model

JHNEBPM

- The John Hopkins Nursing Evidence Based Practice Model was developed by the John Hopkins Hospital and School of Nursing to promote incorporation of EBP.
- JHNEBPM's Practice Question, Evidence, Translation (PET) process provides a concrete structure for EBP education (Friesen et al., 2017).

JHNEBPM

- In a 2020 survey of Magnet designated hospitals across the United States, the JHNEBPM was one of the top two most frequently reported models in use (Speronki et al., 2020).
- Adopted as John Muir Health's EBP Model.

JHNEBPM

Seminar - # Month	Date	Topic
Seminar – Month 5	August 4th	**Part I Evidence Based Practice Background** 1. Evidence-Based Practice: Context, Concerns, and Challenges 2. Critical Thinking and Evidence-Based Practice **Part II The Johns Hopkins Nursing Evidence-Based Practice Model** 1. The Johns Hopkins Nursing EBP Model and Process Overview

JHNEBPM

Seminar - Month 6	September 1st	**Part III Practice Question, Evidence, Translation (PET)** 1. The Practice Question 2. Evidence – Searching and Identifying 3. Appraising
Seminar – Month 7	October 6th	**Part III Practice Question, Evidence, Translation (PET)** 4. The Practice Question 5. Evidence – Searching and Identifying 6. Appraising **Start Project Implementation**
Seminar – Month 8	November 3rd	**Project Implementation and Data Collection**
Seminar – Month 9	December 1st	**Project Implementation and Data Collection**

JHNEBPM

Seminar – Month 10	January 5th	**Part III Practice Question, Evidence, Translation (PET)** 1. Translation and Dissemination
Seminar – Month 11	February 2nd	**Part IV Infrastructure** 1. Creating a Supportive EBP Environment

Measures

Demographic Data

- Demographic survey:
  - Age
  - Ethnicity
  - Highest nursing degree received
  - Highest non-nursing degree received

24 Essential EBP Competencies for Practicing RNs

- The 24 Essential EBP Competencies for Practicing RNs and APNs have been widely used in clinical settings (Melnyk et al., 2014).
- The EBP competencies are further broken down to include 13 essential competencies for practicing registered nurses and 11 competencies for advanced practice nurses.
- 4-point Likert scale: 1 (not at all competent), 2 (need improvement), 3 (competent), and 4 (highly competent) for a possible range of scores from 0 to 96.
- Cronbach's alpha has been reported at 0.98 (Melnyk et al., 2018).

Evidence Based Practice Belief Scale (EBPB)

- 16- item questionnaire
- Designed to measure a clinician's belief about the value of EBP (Melnyk et al., 2008).
- 5 point Likert scale range from 1 (strongly disagree) to 5 (strongly agree) on each of the items.
- A total score of the EBPB ranges from none (16), marginal (32), some (48), moderate (64), and very strong beliefs (80)
- Cronbach's alpha consistently above 0.80 (Melnyk & Fineout-Overholt, 2019).

Evidence Based Practice Implementation Scale (EBPI)

- 18-item questionnaire
- Records the frequency that participants have used EBP over the past 8 weeks
- 5-point frequency scale
- Adding up all 18 items with a range between 0 and 72
- The Cronbach's alpha consistently above 0.85 (Melnyk & Fineout-Overholt, 2019)

Participation

- Participation is completely voluntary
- Declining to participate in the surveys will not effect you EBP Project
- All Residents will receive EBP education and complete an EBP project regardless of participating in surveys
- All results will be confidential – not able to identify answers with Resident
- Choose a unique 4-digit identification code for the pre and post test
- Answers do not reflect on your performance in the program
- Data results may be used in future publication

Questions?

References

- Friesen, Mary Ann, Brady, Joni M, Milligan, Renee, & Christensen, Patricia. (2017). Findings From a Pilot Study: Bringing Evidence-Based Practice to the Bedside. *Worldviews on Evidence-Based Nursing*, 14(1), 22–34. https://doi.org/10.1111/wvn.12195
- Gallagher-Ford, Lynn, Koshy Thomas, Bindu, Connor, Linda, Sinnott, Loraine T, & Melnyk, Bernadette Mazurek. (2020). The Effects of an Intensive Evidence-Based Practice Educational and Skills Building Program on EBP Competency and Attributes. *Worldviews on Evidence-Based Nursing*, 17(1), 71–81. https://doi.org/10.1111/wvn.12397
- Gorsuch, Col Penelope F, Gallagher Ford, Lynn, Koshy Thomas, Bindu, Melnyk, Bernadette Mazurek, & Connor, Linda. (2020). Impact of a Formal Educational Skill-Building Program Based on the ARCC Model to Enhance Evidence-Based Practice Competency in Nurse Teams. *Worldviews on Evidence-Based Nursing*, 17(4), 258–268. https://doi.org/10.1111/wvn.12463
- Hosking, Janet, Knox, Katie, Forman, Jeana, Montgomery, Lou Ann, Valde, Jill Gaffney, & Cullen, Laura. (2016). Evidence Into Practice: Leading New Graduate Nurses to Evidence-Based Practice Through a Nurse Residency Program. *Journal of Perianesthesia Nursing*, 31(3), 260–265. https://doi.org/10.1016/j.jopan.2016.02.006
- Institute of Medicine. Committee on Quality of Health Care in America. (2001). *Crossing the quality chasm: a new health system for the 21st century*. National Academy Press.
- Institute of Medicine, Institute of Medicine, & McClellan, Mark B. (2008). *Evidence-based medicine and the changing nature of health care: 2007 IOM annual meeting summary*. The National Academies Press.
- Melnyk, B. M., & Fineout-Overholt, E. (2019). *Evidence-based practice in nursing & healthcare: A guide to best practice*, 4th ed. Philadelphia, PA: Wolters Kluwer/Lippincott, Williams & Wilkins.
- Melnyk, B. M., Gallagher-Ford, L., Zellefrow, C., Tucker, S., Thomas, B., Sinnott, L. T., & Tan, A. (2018). The first U.S. study on nurses' evidence-based practice competencies indicates major deficits that threaten healthcare quality, safety, and patient outcomes. *Worldviews on Evidence-Based Nursing, 15*(1), 16–25. https ://doi.org/10.1111/wvn.12269

References

- Melnyk, B. M., Fineout-Overholt, E., Giggle, M., & Choy, K. (2017). A test of the ARCC© Model improves implementation of evidence-based practice, healthcare culture, and patient outcomes. *Worldviews on Evidence-Based Nursing*, *14*(1), 5–9. https ://doi.org/10.1111/wvn.12189
- Melnyk, Bernadette Mazurek, Gallagher-Ford, Lynn, Long, Lisa English, & Fineout-Overholt, Ellen. (2014). The Establishment of Evidence-Based Practice Competencies for Practicing Registered Nurses and Advanced Practice Nurses in Real-World Clinical Settings: Proficiencies to Improve Healthcare Quality, Reliability, Patient Outcomes, and Costs. *Worldviews on Evidence-Based Nursing*, 11(1), 5–15. https://doi.org/10.1111/wvn.12021
- Melnyk, Bernadette Mazurek, Fineout-Overholt, Ellen, & Mays, Mary Z. (2008). The Evidence-Based Practice Beliefs and Implementation Scales: Psychometric Properties of Two New Instruments. *Worldviews on Evidence-Based Nursing*, 5(4), 208–216. https://doi.org/10.1111/j.1741-6787.2008.00126.x
- Saunders, Hannele, Gallagher-Ford, Lynn, Kvist, Tarja, & Vehviläinen-Julkunen, Katri. (2019). Practicing Healthcare Professionals' Evidence-Based Practice Competencies: An Overview of Systematic Reviews. *Worldviews on Evidence-Based Nursing*, 16(3), 176–185. https://doi.org/10.1111/wvn.12363
- Saunders, Hannele, Gallagher-Ford, Lynn, & Vehviläinen-Julkunen, Katri. (2019). Endorsement and Validation of the Essential Evidence-Based Practice Competencies for Practicing Nurses in Finland: An Argument Delphi Study. *Worldviews on Evidence-Based Nursing*, 16(4), 281–288. https://doi.org/10.1111/wvn.12377

Appendix I

Implied Consent Template

Title of Project: Evaluating the Impact of an Evidence Based Practice Education Program in a Nurse Residency Program on Evidence Based Practice Competency, Beliefs and Implementation

Nurse Residents:
Thank you for your willingness to participate in my DNP Project! Integration of Evidence Based Practice (EBP) into the culture of healthcare organizations is essential to provide safe, quality patient care. Nurses are positioned to be leaders in identification and implementation of EBP to address those problems. Nurse Residency Programs provide an opportunity to reinforce EBP education provided in the academic setting through application to the practice setting.

Purpose: The purpose of this DNP project is to evaluate the impact of an EBP education program in the Nurse Residency Program by evaluating pre and post intervention scores on Nurse Resident's self-reported EBP Competencies, Beliefs and Implementation scores.

Procedures: The EBP Education program will start in month 5 of the Nurse Residency Program with introduction to EBP as guided by the John Hopkins Nursing Evidence Based Practice curriculum. Each monthly seminar will build on the Nurse Resident's knowledge of EBP as they are mentored through the process of completing an Evidence Based Practice Project with guidance from an assigned EBP mentor.

Confidentiality: Please note, the survey responses are confidential and anonymous; however, in order to compare outcomes you will be asked to enter a unique 4-digit code of your choice at the end of each survey (i.e. last 4 of your mobile or last 4 of your social security). Please remember to use the same code for each survey.

Consent to participate: Completion of the pre-survey and post-survey indicates that you are voluntarily consenting to participate in this project.

Appendix J

John Hopkins Nurse Evidence Based Practice Model Curriculum

Textbook Table of Content

Textbook
Dang, D., & Dearholt, S. (2017). Johns Hopkins Nursing Evidence-Based Practice: Model and Guidelines (3rd ed.). Indianapolis, IN: Sigma Theta Tau International.

Appendix K

Johns Hopkins Nursing Model
Evidence-Based Practice Curriculum
Using the JHN EBP Model and Tools

Welcome to the Evidence-Based Practice Curriculum Guide

As educators, we recognize the importance of teaching the concepts and processes of Evidence-Based Practice (EBP). We also realize the important role faculty play in instilling a spirit of inquiry that will compel students to incorporate EBP into their daily practice. Our desire in creating this curriculum is to assist you in strengthening your students' competence with EBP – not only fundamental knowledge of the process but also practical, real-world application. Planting the seed of inquiry and laying a solid EBP foundation positions students to provide exemplary, evidence-based care while playing an instrumental role in the EBP culture of any organization.

This course is broken down into seven lessons following the format of the textbook. There is no timeline for this curriculum. Complete each part at the pace that best fits your students- recognizing some skills or concepts may take longer to appreciate than others.

This course contains:

- Required readings- to introduce EBP concepts
- Suggested readings- to deepen students' understanding
- Classroom content
  - PowerPoint slides which align with textbook
  - EBP experiences: Interviews with EBP experts
  - EBP exemplars: Podcasts, videos, EBP examples
- Online EBP course content- **if used by your institution*
- Online EBP knowledge checks- **if used by your institution*
- Tasks/Assignments- to put the students' knowledge into action.

You are free to supplement your teaching with any additional readings or references. This curriculum is simply a means to assist you in teaching your evidence-based practice course as efficiently and as robustly as possible.

Let us know how we can help!

Sincerely,
Johns Hopkins Nursing Center for Evidence Based Practice