DNP PROJECT PROPOSAL

BREASTFEEDING EDUCATION AND THE BABY-FRIENDLY HOSPITAL INITIATIVE: A QUALITY IMPROVEMENT PROJECT

BY

ANDREA K. MAY

DR. RACHEL WALTZ – FACULTY ADVISOR

BALL STATE UNIVERSITY

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Appendix A and B will be replaced by actual evaluation tools and informed consent.
ABSTRACT

The purpose of this project is to provide support for the nursing staff to feel empowered and motivated to provide the breastfeeding patient with the support they need to have a positive breastfeeding experience for their baby and themselves. Adult Learning Theory and the Rosswurm and Larrabee Model for Evidence-based Practice will provide the framework for the project. A quasi-experimental study design will be used to evaluate if the implemented intervention will decrease barriers and improve nurses’ self-confidence in the promotion of exclusive breastfeeding and to supporting the mother’s decision to breastfeed her infant. The project will take place on the birthing center at Columbus Regional Hospital where approximately 120 infant deliveries occur monthly. The project director will distribute an anonymous pre-intervention survey to all nursing staff in the Birthing Center by email asking nurses to identify breastfeeding barriers that occur when a nurse is trying to assist and educate a breastfeeding mother and to rate their self-confidence in assisting mothers. The project director will recruit nursing staff for breastfeeding taskforce through face-to-face communication and email separately from the survey. The breastfeeding taskforce, led by the project director, will meet to review survey data and brainstorm how to address identified breastfeeding education and support barriers and will develop a written process to address these barriers. Three months following the implementation of the newly written process, the project director will distribute an anonymous post-intervention survey to all nursing staff by email containing the same questions that were included in the pre-intervention survey. The project director will analyze the pre and post intervention surveys to determine if there is a decrease in barriers and increased levels of self-confidence in the nurses’
ability to support other nurses and patients with breastfeeding. This information will be shared with the taskforce to decide if any revisions in the written process are needed.

**Introduction**

**Background knowledge**

The CDC has reported in its *Breastfeeding Report Card for the United States 2014*, that breastfeeding rates continue to rise in the United States, but breastfeeding does not continue for as long as recommended. Breastfeeding rates in 2011 as reported by the CDC were 79% of newborn infants started breastfeeding, but only 49% were still breastfed at six months and only 27% were still breastfed at twelve months. Breastfeeding rates for the state of Indiana for 2011 included 74.1% ever breastfed, 38.6% were breastfeeding at six months, 21.5% were breastfeeding at 12 months, 35.7% were exclusively breastfeeding at three months, and 18.1 were exclusively breastfeeding at six months.

The authors of “*Why mothers stop breastfeeding: Mothers’ self-reported reasons for stopping during the first year*” were determined to find why women stopped breastfeeding at various times during their infant’s first year. The authors analyzed self-reported data from 1323 mothers that participated in an infant feeding study by responding to mailed questionnaires at 2, 3, 4, 5, 6, 7, 9, 10, and 12 months after the birth of their child and were asked to rate the importance of 32 reasons for their decision to stop breastfeeding. The percentages of mothers who indicated that each reason was important in their decision to stop breastfeeding at various ages were compared and multiple logistic regression models were used to determine which socio-demographic differences were the most frequently cited reasons for discontinuing breastfeeding. Mothers
perceived that their infant was not satisfied by breast milk only and this reason was consistently one of the top three reasons for a mother to decide to discontinue breastfeeding her child regardless of the child’s age (43.5%-55.6%) and was more frequently found with Hispanic mothers and mothers with an annual household income of <350% of the federal poverty level. Mothers also were concerned about lactation and nutrition issues in the first 2 months of their child’s life cited this reason for stopping breastfeeding. Mothers claimed self-weaning reasons at the third month of breastfeeding for their discontinuation of breastfeeding with statements including the baby began to bite (31.7%), the baby lost interest in nursing or started weaning him/herself (47.3%), and breast milk alone did not satisfy my baby (43.5%). These were the top three reasons for discontinuing breastfeeding at less than or equal to nine months of age. This study found the major reasons why mothers stop breastfeeding at various times during their child’s first year of life should be examined by health professionals when assisting mothers with breastfeeding barriers and when attempting to focus breastfeeding interventions on issues that are prominent at each infant age (Li, Fein, Chen, & Grummer-Strawn, 2008).

Brand, Kothari, and Stark, (2011), found that many women encounter breastfeeding barriers even with a successful breastfeeding initiation, which may put these mothers and infants at a greater risk of encountering early breastfeeding cessation. This study’s goal was to look at data from a longitudinal study of postpartum depression to focus on factors that were related to very early discontinuation of breastfeeding, which occurred at 2 weeks postpartum and to identify women’s reasons for very early discontinuation of breastfeeding. The original study sample included 317 women, 239 (75.3%) initiated breastfeeding prior to hospital discharge. At two weeks postpartum, 30 (12.5%) of the 239 women who had initiated breastfeeding in the hospital
had discontinued breastfeeding. Factors associated with discontinuation of breastfeeding included racial or ethnic minority, having Medicaid insurance (rather than private insurance), being younger than 30 years old, being single and without a partner, and late prenatal care (after the first trimester). Reasons mothers reported for very early cessation of breastfeeding included that their breastmilk either did not come in or dried up, perceived baby preferred a bottle, and sore breasts or nipples. This study found that a perceived support system, personal or professional, was important upon initiation and for the duration of the breastfeeding period. Educating expectant and new mothers that are at risk for early discontinuation of breastfeeding due to encountering multiple breastfeeding barriers about the benefits of breastfeeding and supporting them in developing effective breastfeeding techniques/problem-solving skills will increase the duration of breastfeeding. Intervening early with a woman who is having difficulty breastfeeding may prevent breastfeeding discontinuation (Brand, Kothari, & Stark, 2011).

Breastfeeding initiation rates in the United States have increased over the last 11 years by 3.6%, but women that participate in the Women, Infants, and Children (WIC) program are almost 12% less likely to initiate breastfeeding when compared with the general population and will most likely discontinue breastfeeding before one year (Hedberg, 2013). Barriers to breastfeeding that were found in a systematic review using WIC and breastfeeding as search words through multiple databases included lack of support inside/outside the hospital, returning to work, practical issues, WIC-related issues, and social/cultural barriers. Predisposing factors to low breastfeeding rates included non-Hispanic ethnicity, obesity, depression, younger age, or lack of high school education. Interventions that were trialed with positive outcomes were peer counseling, improved communication between hospital lactation consultants and WIC staff,
breast pump programs, and a decrease in routine formula distribution in the hospital and by the WIC program. There is not a clear-cut reason why breastfeeding rates are low in the WIC population and more research is needed to find successful interventions with this population. Peer-counseling programs, prenatal/postpartum education, in-hospital breastfeeding support, and changing the focus of WIC from a formula distribution source to breastfeeding promotion are all possible solutions to encouraging breastfeeding with the WIC population.

Healthy People 2020 contains several objectives pertaining to breastfeeding including: to increase the proportion of infants that are breastfed (at six months and one year), increase the proportion of employers that have worksite lactation support programs, reduce the proportion of breastfed newborns who receive formula supplementation within the first two days of life, and increase the proportion of live births that occur in facilities that provide recommended care for lactating mothers and their babies. A program has been developed that addresses all of these Healthy People 2020 objectives named The Baby-Friendly Hospital Initiative. The Baby-Friendly Hospital Initiative (BFHI) was developed in 1991 by WHO and UNICEF. The focus of the BFHI is on “how healthcare providers can support breastfeeding and feeding practices which are major contributors to positive health outcomes for women and children (Breastfeeding Committee for Canada, 2014, p.26). The BFHI is based on The Ten Steps to Successful Breastfeeding. These “Ten Steps” are evidence-based practices that outline the minimum standard of care for newborn infants (Breastfeeding Committee for Canada, 2014). Facilities that provide maternity services/house a birthing center can choose to meet the BFHI standards and become designated as a BFHI facility by providing educational opportunities for staff and implementing the BFHI practice. The BFHI Ten Steps include:
1. have a written breastfeeding policy that is routinely communicated to all health care providers and volunteers

2. ensure all health care providers have knowledge and skills necessary to implement the breastfeeding policy

3. inform pregnant women and their families about the importance and process of breastfeeding

4. place babies in uninterrupted skin-to-skin contact with their mothers immediately following birth for at least an hour or until completion of the first feeding, or as long as the mother wishes

5. assist mothers to breastfeed and maintain lactation should they face challenges (including separation from infants)

6. support mothers to breastfeed and maintain lactation should they face challenges (including separation from infants)

7. support mothers to exclusively breastfeed for the first six months unless supplements are medically indicated

8. facilitate 24-hour rooming-in for all mother-infant dyads (mother and infants remain together), encourage baby-led or cue-based breastfeeding; encourage sustained breastfeeding beyond six months with appropriate complimentary foods

9. support mothers to feed and care for their breastfeeding babies without the use of artificial nipples or pacifiers

10. provide a seamless transition between the services provided by the hospital, community health services and peer support programs (Indian Health Service Health Education Program, 2012).
In the state of Indiana, 12.01% of live births occur in Baby Friendly Facilities compared to 7.79% in the United States, overall (CDC, 2014).

**Literature Review**

Helping to establish breastfeeding is an important aspect of the care provided by a birthing facility. The Baby-Friendly Hospital Initiative has been shown, through numerous studies, to support maternity care practices that significantly impact the initiation and duration of breastfeeding (MacEnroe, 2010). The BFHI provides the framework to help facilities make institutional changes necessary to assist mothers with achieving the goal of breastfeeding. The BFHI celebrate birthing facilities through quality improvement, recognition and award programs. The Ten Steps were developed by a team of global experts and consist of evidence-based practices that have been shown to increase breastfeeding initiation and duration (MacEnroe, 2010). To achieve BFHI designation, facilities must enter a process of registering with Baby-Friendly U.S.A., Inc., complete all of the requirements, and ultimately demonstrate during on-site assessment that they have correctly integrated all Ten Steps to Successful Breastfeeding into their practice for healthy newborns (MacEnroe, 2010). Baby-Friendly 4-D is a process that helps facilities implement the Baby-Friendly Process through Discovery, Development, Dissemination, and Designation. Once a facility is designated, recertification is every five years and is expected to maintain the high BFHI standards.

Although the benefits of BFHI have been supported by research and 256 U.S. hospitals currently have designation as Baby-Friendly Hospitals, obstetric nursing staff at these hospitals are not necessarily fully aware of the designation and what it means in terms of the care they are
to provide (Baby-Friendly U.S.A., 2012). Sadacharan, et al. (2012) conducted a study to determine whether maternity staff in U.S. hospitals could accurately describe their institution’s status with regard to BFHI certification. The study was performed from 2010-2011 in maternity hospitals across the United States. The authors of this study called these maternity hospitals and asked to be connected with the maternity service. The author/caller asked whomever answered the phone, “Is your hospital a Baby-Friendly hospital?” and the answer that the person gave on the phone was recorded. Two thousand, nine-hundred and seventy-four hospitals were called and answers were received regarding the Baby-Friendly stats of the hospital from 2851 respondents. There was a variety of knowledge levels noted as to what “Baby-Friendly” meant and the accuracy of the knowledge/answer given varied by the title of the person answering the phone at the maternity service. Lactation consultants were the most informed and most likely to answer the question accurately. This study found that even though the Baby-Friendly Hospital Initiative was established over 20 years ago, most U.S. maternity staff responding to a telephone survey, either incorrectly believed their hospital to be Baby-Friendly certified or were unaware of the meaning of Baby-Friendly.

A study was conducted by Weddig, Baker, and Auld in 2011 to assess variation in breastfeeding knowledge and practices of Registered Nurses in hospital women and family-care units and the informal and formal hospital policies related to the initiation and support of breastfeeding. This was a qualitative study that employed a focus group approach to collect the perceptions of hospital-based nurses regarding breastfeeding best practices. Eight state hospitals that were stratified by socioeconomic status and sized served as the settings to recruit participants that included 40 female Registered Nurses from labor and delivery, post-partum,
labor, delivery, recovery, and post-partum, and neonatal intensive care backgrounds. These nurses made up eight focus groups that found that a majority of nurses reported being knowledgeable of EBP related to breastfeeding initiation, but in non-BFHI settings the nurse’s knowledge was not based on current EBP and policies were not EBP based. A significant disparity between nurses’ intention to support breastfeeding and their knowledge suggested a need for education based on World Health Organization (WHO) Baby-Friendly standards for nurses at non-BFHI hospitals, a significant barrier to supporting breastfeeding is lack of hospital policy and inappropriate or outdated policy (Weddig, Baker, & Auld, 2011).

The authors of “Interventions in exclusive breastfeeding: A systematic review” discuss the significance of promoting and encouraging exclusive breastfeeding as acknowledged by WHO and UNICEF as a worldwide public health issue. Policies have been documented about the importance of facilitating breastfeeding support for women worldwide. A literature review was performed by the authors to examine ways to provide support mechanisms for breastfeeding mothers. Results found that focusing on peer support to encourage the initiation and maintenance of exclusive breastfeeding and consideration to any breastfeeding barriers, such as cultural and educational factors may have a significant impact on the initiation and maintenance of exclusive breastfeeding. Starting support groups, networks, or activities that aim to address this issue must consider these breastfeeding barriers first (Bevan & Brown, 2014).

The authors of “Closing the quality gap: promoting evidence-based breastfeeding care in the hospital” stated that evidence shows that the breastfeeding practices that are adopted by hospitals affect breastfeeding duration and exclusivity throughout the first year of life. In some hospitals there was inappropriate provision and promotion of infant formula and 24% of facilities reported
regularly giving formula supplements to more than half of all healthy, full-term infants, which is not in compliance with the Baby-Friendly Hospital Initiative standards. The BFHI standards and the Ten Steps can be used to measure the quality of breastfeeding care within a facility. The rate of in-hospital exclusive breastfeeding could also be used. Other means of measuring improvement in the quality of breastfeeding care include:

1. Education of hospital decision makers
2. Recognition of excellence (BFHI designation)
3. Oversight by accrediting organizations (for example: Joint Commission, etc.)
4. Public reporting of breastfeeding care quality indicators
5. Pay-for-performance incentives for financial compensation through payer sources for meeting quality standards
6. Regional collaboration with different hospital staff members to meet quality improvement goals.

All of these efforts along with support from facility leadership should assist in the support of the initiation and the duration of breastfeeding that will benefit mothers and their infants (Bartick, Stuebe, Shealy, Walker, & Grummer-Strawn, 2009).

**Local Problem**

Columbus Regional Health’s (CRH) Birthing Center is a 23 single-bed facility that cares for antepartum, labor and postpartum female patients and houses a Level 2 Nursery with a maximum capacity of 12 infants requiring specialized care that cannot be provided at the bedside. There are 53 nurses that provide patient care on this unit all of which are registered nurses except for
two licensed practical nurses. Three of the registered nurses are also Lactation Consultants, one is a nurse educator, one is a clinical nurse specialist (CNS) for the Women’s and Children’s service line who supports the nurses as a liaison with physicians and supports staff education, and one is the nurse manager. There are 15 OB technicians/ secretaries that fill these two roles interchangeably as required by the patient census. There are three physician’s practices that provide patient care for this Birthing Center including two OB/GYN practices and one family practice. There are approximately 120 infant deliveries at this facility on a monthly basis.

There is a PREPARE class that is offered to all expectant mothers that plan to deliver at CRH and the patient is required to register for this class by calling the hospital scheduling department. The usual time frame for the PREPARE class is around 36 weeks gestation and is a one-on-one appointment with a PREPARE registered nurse. Admission paperwork is completed, consents signed and education about what to expect during the patient’s labor and postpartum stay are covered during this appointment. The patient and their support person are then taken on a tour of the unit and questions are answered at this time. There is limited education provided during the PREPARE visit about the expectations for the infant to be in the room with the parents for the entire stay and about the small amounts of colostrum that are consumed initially by the infant and a visual aid is shown as to the size of the infant’s stomach to reassure the parents that the infant will receive enough nourishment from colostrum alone.

There are ample opportunities to provide breastfeeding and infant care education to expectant mothers prenatally, at the OB office, on-line, at a PREPARE visit, and through parenting classes, but often mothers do not take advantage of these options or do not seek prenatal care at all, avoiding any or all educational opportunities.
Often, mothers arrive at the Birthing Center with no or only minimal breastfeeding education. Many mothers either discontinue breastfeeding before discharge to the home environment or discontinue breastfeeding shortly after they are home due to frustration or lack of understanding that breastfeeding takes a lot of determination and hard work. There can be frustration during the hospital stay with the nursing staff and the mothers revolving around the fact that babies must breastfeed eight to twelve times in a 24-hour period. The breastfeeding experience works best for the nursing staff, the mother and the baby, if the baby is kept at the bedside with the mother so that the mother can learn the baby’s cues that he or she is hungry or ready to breastfeed. Mothers who did not receive adequate prenatal education about breastfeeding may not understand what they need to do to have a successful breastfeeding experience. The Birthing Center staff must have the knowledge skills and positive attitude to assist these mothers in their breastfeeding efforts.

The night-shift nursing staff of the Birthing Center has the additional challenge of not having access to the lactation consultants and often is faced with mothers that are tired, frustrated, and ready to discontinue the breastfeeding experience. These nurses need to feel empowered and motivated to help mothers through this difficult time in the breastfeeding process and provide them with the support and education they need to continue breastfeeding. The night-shift nurses need to support each other in the quest to keep the BFHI standards intact without the extra support that is available during the day-shift hours. Some of the nurses are very motivated about helping new mothers with breastfeeding and others not so much. This birthing center needs the buy-in of all of the nurses along with several “go-to” nurses that can provide a pseudo-lactation consultant support system for the night-shift nurses.
The Birthing Center received BFHI designation in August 2014. This is a feather in this Birthing Center’s cap and an asset to the community. There was a large amount of nursing education and hours of preparation to apply and receive a visit from the BFHI. The BFHI education that the staff nurses received was rather tedious and took place over at least a two year process leading to staff turnover and lapses in how the education took place for individual nurses. Now that the BFHI designation has been achieved, the motivation to keep the BFHI alive has started to diminish among the nurses. There needs to be a way to keep the staff nurses motivated to ensure that the birthing center population is receiving appropriate breastfeeding education to ensure a successful breastfeeding experience for the patient and the baby and to keep the staff nurses from becoming frustrated with the BFHI process. The BFHI designation requires a recertification process every five years and if the staff nurses remain motivated to keep BFHI process alive and well, the recertification process will be less cumbersome than the initial designation.

Intended Improvement

The purpose of this project is to improve the provision of standardized breastfeeding education, which includes criteria from the Ten Steps to Successful Breastfeeding and the Baby-Friendly Hospital Initiative, to all breastfeeding mothers delivering babies at the CRH Birthing Center. The birthing center nurses have all received initial BFHI education either with the original BFHI program certification several years ago or upon unit orientation for employees hired since. A survey of nursing staff will be used to help identify the current barriers that exist to implementing the standards and attitudes toward the use of the standards. A nurse task force will convene to review barriers and attitudes that are currently encountered in implementing the
BFHI standards. The task force will develop a written process for implementing the BFHI standards that includes attention to alleviating barriers and improving nursing staff self-confidence in ability to meet the standards. An educational program about the process including the components of reducing barriers and increasing self-confidence will be provided to all of the Birthing Center nursing staff at a monthly staff meeting scheduled after completion of the process.

This project will provide support for the nursing staff to feel empowered and motivated to provide the breastfeeding patient with the support they need to have a positive breastfeeding experience for their baby and themselves. Nursing staff will then feel motivated and empowered to promote exclusive breastfeeding and support the mother’s decision to breastfeed her infant for the first six months of the infant’s life which is the BFHI and American Academy of Pediatrics standard. After mothers have been discharged to the home environment, the hope is that breastfeeding will continue for at least six months. The goal of this project is to assure standardized breastfeeding education including criteria from the Ten Steps to Successful Breastfeeding and the Baby-Friendly Hospital Initiative is provided for all mothers at the Birthing Center. Standardized breastfeeding education will promote exclusive breastfeeding and support the mother’s decision to breastfeed her infant for the first six months of the infant’s life.

**Project Questions**

1. Will a nurse taskforce be able to use information on nursing staff perceived barriers and self-confidence levels regarding provision of BFHI breastfeeding education and support to
develop a written process that will increase the provision of breastfeeding education and support?

2. Will this written process result in a reduction in perceived barriers and increase in self-confidence of nurses toward the provision of breastfeeding education and support?

3. Will the use of the Rosswurm and Larrabee Evidence Based Practice (EBP) model facilitate the development of a solution/procedure to improve the nursing approach to breastfeeding barriers and to provide breastfeeding education?

**Outcome Objectives**

1. Within 2 months following the formation of a nurse-led breastfeeding education taskforce, there will be a written process defining when and how nurses will provide breastfeeding education and support that complies with BFHI.

2. Within 2 months following the implementation of the written process there will be a 30% decrease in nurses’ perceived barriers to providing breastfeeding education and support that complies with BFHI.

3. Within 2 months following the implementation of the written process there will be a 30% increase in nurses’ perceived self-confidence in providing breastfeeding education and support that complies with BFHI.

**Theoretical Framework**

Adult Learning Theory, which is also known as Andragogy, is a theory that was created by American educator Malcolm Knowles in 1980. Andragogy is defined as the method or
techniques used to teach adults or the art and science of helping adults learn (TEAL Center Staff, 2011). Knowles chose to separate the use of andragogy (adult learning) from pedagogy, which is the art and science of teaching children. Knowles explained that adult learning is an entirely different process than that of a child. Knowles determined that there is a set of assumptions about the adult learner that includes an adult learner moves from dependency to increasing self-directedness as he/she matures and can direct his/her own learning. As an adult learner, one can decide what he/she would like to learn and can choose which mode of education works best for him/her. An adult learner draws on his/her accumulated reservoir of life experiences to aid learning. An adult learner comes into a learning situation with a life full of experiences that will influence how and what he/she will learn. Some individuals will have no experience, while others will have a wealth of knowledge on a given subject. An adult learner is ready to learn when he/she assumes a new social or life role. An adult learner is problem-centered and wants to apply new learning immediately. Most individuals want to solve problems and when they have a new skill, he/she is ready to pursue the task. An adult learner is motivated to learn by internal rather than external factors (TEAL Center Staff, 2011). Knowles believed that adult educators needed to be able to set a cooperative climate for learning, assess the learner’s specific needs and interests, develop learning objectives based on the learner’s needs, interests, and skill levels, design sequential activities to achieve the objectives, work collaboratively with the learner to select methods, materials, and resources for instruction, and evaluate the quality of the learning experience and make adjustments, as needed while assessing the needs for further learning (TEAL Center Staff, 2011). Most adult/higher education programs/institutions incorporate these qualifications of Knowles’ Adult Learning Theory in the class/education framework.
“Adults need to know why they are learning something, learn by doing, are problem solvers and learn best when the subject is of immediate use” (TEAL Center Staff, 2011).

Adult learning theories are based on the premise that life experiences have an effect on what we want to learn and how we learn as adults. “Adult educational experiences should enhance personal growth and make it easier for adults to adapt to internal and external changes until the end of life” (The University of Queensland, 2010). Adult learning occurs in all of our lives on a daily basis be it in the classroom, on the job, or during our daily routines.

Adult Learning Theory is used in a large variety of career and job education situations to provide a means to develop and teach curriculum to a variety of audiences. Social work and healthcare are two of the careers that use Adult Learning Theory primarily for student and staff education. Adult Learning Theory provides a way of teaching adult learners in a way that accounts for the adult’s life experiences and prior educational experiences.

A gap between educational theory and practice can be bridged in a variety of real world situations that might be encountered in medical education settings. Kaufman (2003) used three different case studies using different adult learning strategies with participants in medical education situations to compare effectiveness. There were no numbers noted for the number of students involved. The study did not address if all participants encountered all three case studies. In one case study, the educator presents an “interactive lecture” on an anatomical system. A study guide was distributed to the students containing key points from the lecture and was accessible to the students during the lecture. The students understanding of the lecture contents was assessed by a show of hands during the lecture, students were allowed to ask questions, and
correct answers were given at this time. The learner was asked to research further learning needs on their own time as needed. The second case study allowed the educator to assign small groups of students to examine and submit two case studies describing clinical ethics issues in local hospitals. Background information for these ethical case studies was provided to the students using information found by the educator prior to the assignment. The small groups were allowed to work through the case studies together and ten present the case study findings to the whole class during a “debriefing session.” The third case study invited an educator to observe interactions between the learner/student and a patient with a “debriefing session” at the end of the day to allow for constructive criticism. The learner could then, with help from the educator, develop learning goals and address weaknesses in practice. These case studies showed how different learning situations can help individuals learn different information in different environments depending on the goals the individual wants to achieve. No case study was expressed as more effective than another.

In a study using both qualitative and quantitative measures, Carpenter-Aeby & Aeby (2013) evaluated the application of andragogy in a master’s level social work (MSW) class. There were twenty-four female in the assessment class of a first-year MSW program at a large state university located in the Southeast. All of these women were employed at a full or part-time job and ten women were single mothers. Each student’s learning style was anonymously assessed by using the Kiersey Temperament Sorter on the first day of class. The class discussed how to use the results of the assessment to learn how to incorporate instructional tools with andragogy design elements to be used for the learning experience of the entire group. Students were asked to complete a tool (qualitative/quantitative) to assess the course. Adult learning styles that were
assessed were Relational, Traditional, and Active on the assessment tools. The students rated responses on a 5-point Likert Scale with 5 being the most desired response. Qualitative responses were also given by the students. The students evaluated the class weekly, used self-grading sheets and created a portfolio for student self-direction. Students found that climate (mean of 4.79), planning (mean of 4.79), diagnosis of needs (mean of 4.67), formulation of objectives (mean of 4.75), design (mean of 4.67), and activities (mean of 4.87) were items students reported for course assessment. The final exam was an oral group exam. All of Knowles components for self-directed adult learning were used in this study (Carpenter-Aeby & Aeby, 2013).

A study by Ioune (2012) researched the educational needs of 18 nurses in an inpatient adolescent psychiatric ward in Japan. The educational needs of these nurses were attained by Nominal Group Techniques (NGT) needs analysis within an Adult Learning Theory Framework to identify needs that facilitated the fair and equal representation of the viewpoint of each individual. The nurses were divided into two equal groups with nurses of similar work experience. The researcher worked in the psychiatric ward, also. All of the nurses were asked “What areas of practice would you like to improve”. The groups compiled their answers and made a master “needs” list. Twenty-two areas for improvement were noted by the nurses. The top need for all was the need to have more knowledge of child and adolescent mental illness disorders. Learning needs to deal with families were second in rank and communication skills were the third need. These learning needs could then be approached by this facility to ensure the nurses were prepared to provide appropriate patient care. These results coincided with a similar study in the United Kingdom to care for their patients (Inoue, et. al., 2012).
Revising policies, procedures, and/or curriculum can be a difficult task if all disciplines do not work together. Every individual’s goals and interests can contribute to the framework and focus of the desired change. Motivation is the key to sustaining academic pursuits for the experienced nurse. There is a great need to use the Adult Learning Theory when approaching the changes in policies and procedures in the hospital setting in order to allow for greater flexibility in meeting individual learning needs and satisfaction with outcomes and quality improvement processes (Meeker, et al., 2003).

According to Gatti-Petito, et al. successful nursing educational outcomes begin with a solid foundation in learning theory. Adult learners are self-directed, experienced, and oriented and motivated to learn according to Knowles. The Knowles approach to adult learning uses experience, problem-solving, and a focus on topics of immediate value to motivate the adult learning need. A quality learning experience gives students an opportunity to provide feedback to the educator and for the educator to assess the student/learner’s performance. Learning throughout a nurse’s career with changes in technology and complex care can require her to encounter many situations where adult learning techniques will need to occur. Adult Learning Theory is the best approach to use when teaching these new techniques to the experienced adult learner. When the learner is encouraged and supported, provided with positive feedback, treated equitably, and evaluated consistently against standards, learning has been successful (Gatti-Petito, et al., 2013).

The purpose of this project is to facilitate standardized breastfeeding education and support, which includes criteria from the Ten Steps to Successful Breastfeeding and the Baby-Friendly
Hospital Initiative, for all breastfeeding mothers delivering babies at a local hospital’s birthing center.

The use of Adult Learning Theory/ Andragogy will be an important part of the planning, implementation, and outcome evaluation for this DNP project. The stages to complete in this project will include identification of key stakeholders, data collection from key stakeholders, compilation of desired educational information with timeframe, and implementation and evaluation of the process (Mitchell & Courtney, 2005). The staff nurses will first be surveyed as to their thoughts on what barriers exist with breastfeeding education. Facilitators, including the unit nurse educator, lactation consultants, and the Clinical Nurse Specialist, will be surveyed as to ways they feel that breastfeeding support is currently addressed on the birthing center by the nursing staff and themselves. A volunteer task force of staff nurses that are motivated to lead in the education of breastfeeding mothers will be formed. This nurse taskforce will meet to review the survey data on barriers to and confidence levels of staff nurses in providing breastfeeding education and support. They will brainstorm ideas on how is the best way to reduce barriers and increase self-confidence and develop a written process to address these issues. The ultimate goal is to provide breastfeeding support on all shifts for staff nurses and for the breastfeeding mothers. The instructional design model used by Ludlow, Gaudine, and Jacobs (2007) describes three stages of planning, implementation, and evaluation. The Adult Learning Theory is used to implement new knowledge through “active learning” and allowing nurses, to develop an excellent knowledge/ skill base to build their expertise, and to motivate the nurses to teach others. This will enhance the nurse’s belief/ confidence in her own skills (Ludlow, Gaudine, & Jacobs, 2007). The ALT supports these processes by stating that there is a need to assess the
learner’s specific needs and interests, design sequential activities to achieve objectives to work collaboratively with the learner to select methods, materials, and resources for instruction and to evaluate the quality of learning experiences, make adjustments, and assess further learning.

Within 2 months following the formation of a nurse-led breastfeeding education taskforce, there will be a written process defining how and when the nurses will provide breastfeeding education and support that is compliant with the Baby Friendly Hospital Initiative (BFHI). This task will be supported by the ALT assumptions that individuals are problem-centered and want to apply new learning, are motivated to learn by internal factors, and draw on his/her reservoir of life experiences to aid learning. This nurse taskforce will also use a cooperative climate for learning, be able to assess the learner’s specific needs and interests, be able to develop learning objectives based on the learner’s needs, interests, and skill levels, work collaboratively with the learner to select methods, materials, and resources, and to evaluate the quality of the learning experience.

Within 2 months following implementation of the written process, there will be a 30% decrease in nurse perceived barriers to providing breastfeeding education and support that complies with the BFHI. Adult Learning Theory will be used in this process by the nurse taskforce uniting to address the problems/barriers that exist with the lack of standardized breastfeeding education and by the taskforce nurses moving from a dependency role to an increased self-directed learning/teaching role. The taskforce nurses can also pool their nursing experiences and use this to address the perceived and actual breastfeeding education barriers.
Within 2 months following implementation of the written process there will be a 30% increase in nurses’ perceived self-confidence in providing breastfeeding education and support that complies with BFHI. ALT will allow the nurses to draw on their own nursing experiences, as well as, the experience of the other taskforce nurses. Working collectively as a taskforce will allow a united group to address the problem of lack of standardized/consistent breastfeeding education. The taskforce nurses will be nurses that are motivated to provide excellent education to other nurses and the patient population.

The Adult Learning Theory emphasizes the concept that adults bring a history of experience with them to the learning environment. Realizing this, forming a taskforce of nurses to decide which methods are preferred for providing standardized breastfeeding education to mothers will bring together a variety of nurses that have different levels of nursing experience. Many of these nurses have been nurses in other settings than the maternity/birthing center environment bringing another element to nursing experience. Brain-storming will be an important starting point, in order to see what all of the taskforce members feel are positive and negative aspects to various methods of educating new mothers about breastfeeding. Using the Adult Learning Theory, it is known that adult learners are internally self-directed and motivated, bring life experiences and knowledge to learning experiences, are goal-oriented, are relevancy oriented, are practical, and like to be respected. This being said, staff nurses and breastfeeding mothers are both bringing these assets with the when they have the desire to learn a task. Using these assets in a positive manner will set forth a plan that will ultimately decide how and when the best breastfeeding education should occur, as this is currently not a consistent practice. The ultimate goal is for
mothers to have the education and support to breastfeed their infant for a minimum span of six months after delivery.

Strengths of the Adult Learning Theory for use in this project include that adults will commit to learning when the goals and objectives are considered realistic and are important to them, need direct concrete experience in which they can apply their learning in a real work/world environment, need to receive feedback on their efforts, and opportunities must be built into professional development activities that allow the learner to practice learning and receive structured, helpful feedback. The transfer of learning for adults is not an automatic process and must be facilitated with follow-up support as needed in daily practice. Adult learners come to learning with a wide-range of previous experiences, knowledge, self-direction, interests, and competencies (Speck, 1994). These thoughts on Adult Learning Theory are positive ways that this theory can be used to support the formation of a nursing taskforce and an asset to developing ways to provide standardized education to breastfeeding mothers.

One weak area of the Adult Learning Theory is that adult learners want to be the origin of their own learning and will resist learning activities they believe are an attack on their competencies. This can be a difficult situation to encounter with the staff nurse or the breastfeeding mother. This is where using research and sound factual information will be necessary to have buy-in from nurses and mothers. Another weakness with the Adult Learning Theory can involve egos becoming involved. This is where a strong leader and a defined goal will play an important part in this project.
The Rosswurm and Larrabee Model for Evidence-based Practice provides nurses and health care professionals a guide through a systematic process for change to evidence-based practice (Rosswurm & Larrabee, 1999). The Rosswurm and Larrabee model is based on evidence-based practice, utilizing research, standardizing language, and change theory. There are six steps to this model.

Step one assesses the need for change in practice which includes collecting internal data and comparing it with external data. When a problem is indicated by the collection of this data, a team of stakeholders is usually formed in order to brainstorm ways to work through the problem. Benchmarking is used to compare the internal and external data to either support current practice or the need to change practice.

Step two assesses the need to define the problem by using standardized classification and by linking the problem with the classification of interventions and outcomes. By classifying systems, scientific concepts and organized knowledge can be used to facilitate communication between practitioners, provide standards for effectiveness/cost of care, and identify resources that are needed. Patient outcomes should be standardized in quality, cost effective, even if multiple providers deliver the patient’s healthcare.

Step 3 assesses synthesizing best evidence, which involves refining selected interventions and outcomes. Clinical judgment and contextual data are combined with the best research evidence. Reviewing research literature helps find desired outcomes and possible interventions to solve the problem. A literature review is performed in order to determine whether there is enough evidence to support making a change in the current practice.
Step 4 involves designing a change in practice. This step “synthesizes” best evidence, process variables, and/or care activities for a change in practice by using a protocol, procedure or standard. In this step, it may be best to use a pilot testing of a new protocol, procedure, or standard before making an organization-wide change in practice. Having stakeholders involved in designing and implementing a change in practice often makes the process better accepted by all involved.

Step 5 involves implementing and evaluating change in practice by implementing a pilot study with reinforcement of the practice change. After the practice change/protocol had been in use for a specific period of time, surveys should be administered to staff in order to evaluate quality improvement. Data from the surveys is analyzed and then interpreted to evaluate if the process change has resulted in the desired improvement. The decision to adapt, adopt, or reject the change is based on feedback from the staff involved, survey data, and recommendations from stakeholders.

Step 6 involves integrating and maintaining change in practice after results have been acquired from a change in practice. Change is more likely to be accepted by all involved if they are involved in the change process. Maintaining the change that has been implemented is ensured when staff is provided the resources to implement and monitor the process change and are rewarded for doing so (Rosswurm & Larrabee, 1999).

Hockenberry, Wilson, & Barrera found evidence that barriers exist to effective implementation of evidence-based practice, which include time, limited access to literature, lack of confidence in nursing staff’s ability to evaluate the literature and research, lack of interest in
using evidence-based practice, work environment that does not support or value EBP, inadequate resources for research, and limited ability/authority to change practice based on EBP/research findings. Many nurses find EBP intimidating due to their limited knowledge/experience with the research process. Yet, EBP has been found when effectively integrated into an institution’s nursing culture will lead to improved patient care and possibly promote job satisfaction (Hockenberry, et al., 2006). For EBP to be successfully implemented in an institution, nurses at all levels of practice/ backgrounds must be motivated to buy-in to the importance of EBP. Resources that are needed for EBP are availability of online search engines and journal access to nurses, time for implementation of EBP, and an organization that values the importance of EBP to direct patient care, education and training. Advanced practice nurses are an important resource for promoting EBP in any institution and should motivate promotion and implementation of EBP.

Pipe, Welik, Buchda, Hansen, & Martyn found that the Rosswurm and Larrabee Model for Evidence-based Practice was a model that for systemically asking a clinical question, searching the relevant literature, critically evaluating the evidence, and applying the results to the practice setting. The purpose of this study was to educate and mentor nurses in this process with the ultimate goal of enhancing professional nursing care. This study occurred in a 205 licensed bed hospital where an Evidence-based Nursing Practice Seminar was held. Seminar participants included staff nurses, nurse educators, team leaders and nursing leadership. Conclusions from this seminar included knowing the patient directly, knowing the patient through the family, and knowing that a change in status is not as expected, and that relevant literature has implications for clinical practice. Health care organizations need to create mechanisms to facilitate the process
of information translation from the literature to practice and the Rosswurm and Larrabee Model for Evidence-based Practice is a model that this process can be based on.

Reavy and Tavernier described a new model and process to implement evidence-based practice. The model builds on several concepts from the Iowa Model of Evidence-based Practice, the Stetler model, and Rosswurm and Larrabee’s model. An evidence-based practice project examined a model that emphasizes the importance and centrality of the staff nurse to guide the implementation of evidence-based practice. The staff nurse needs to take ownership of evidence-based practice since staff nurses are central to the process. Staff nurses observe, assess, ask questions, pass on ideas, and implement new knowledge into clinical practice. Questions, ideas, frustrations, and appreciations arise from staff nurses as they work with patients.

Communication is the thread that holds the evidence-based model together between the patient, staff nurse, and nurse researcher and communication must be multi-directional in nature. This project took place due to the recognition that the medical center’s nursing administrators needed to increase the use of evidence-based practice in patient care. A team was formed to implement an evidence-based practice model. Staff nurses (4), the clinical nurse specialist, and the nurse researcher were included. Meetings occurred in order for the team to identify a topic in which to apply the evidence-based practice process and the evidence-based practice model was followed to reach consensus on how to find a solution to a patient care problem. The team used the evidence-based practice model to create a plan on how to implement the change in patient care that they written into policy to the rest of the staff nurses. Near the end of the evidence-based practice project, a short-answer questionnaire was distributed to the team members. Responses found that the team members had increased confidence in using research findings, peer
leadership, individual and collective nursing voices, increased critical thinking skills in making clinical decisions, and validation of nursing practice (Reavy & Tavernier, 2008).

A merger of 4 different healthcare facilities brought different cultures and organizational challenges, especially in the view of the use evidence-based practice. New organizational priorities superseded those of the staff nurses, such as the promotion of evidence-based practice by nurses. Another barrier to the implementation of evidence-based practice was the limited access to research journals and other research resources within or close to the clinical areas of the hospitals. Most nurses lacked the training and skills in effective literature searching and critical appraisal. Communication with nursing staff across 4 sites was also problematic due to lack of a common electronic communication system and incomplete electronic address listings for nursing staff. Opportunities for change were identified:

- The nursing organization had identified EBP as a priority for planning and action.

- The EBN committee volunteers were well motivated to learn about EBP and effect change.

- The EBN committee viewed *Evidence-Based Nursing*, the journal, as an important resource for research dissemination.

A literature search was performed to look at EBP models. Five criteria for relevance to clinical nursing in tertiary care hospitals were established based on the health-care facility’s needs and those cited in the literature. Each EBP model was rated independently by four people and each criterion was scored on a 0-5 point scale. The preferred implementation model was selected based on the highest mean scores for the total rating for each model. The mean total rating score of the Rosswurm and Larrabee model was well above those of the other models. The analyses
enabled a clear decision to adopt the Rosswurm and Larrabee model. The EBN Committee made some adaptations to the framework to meet the needs of their healthcare facility. The model was used to focus the EBN’s committee’s work and to orient staff nurses to the EBP concept and the sequence of steps used to implement it. The model was incorporated into posters and pamphlets to reinforce EBP concepts. The EBN Committee at this facility strives to respond to the needs and capabilities of the nurses and the organization, apply important principles for closing the research gap, and use systematic and varied approaches to create change in practice (Mohide, E.A. & King, B., 2003).

The Rosswurm and Larrabee model will be instrumental in implementing this project as it will be used to facilitate the development of a solution/procedure to improve the nursing approach to breastfeeding barriers and to provide breastfeeding education. The step-by-step approach that this model presents provides an excellent framework for implementing any EBP process and/or change. The most important aspect of the Rosswurm and Larrabee model is including staff members in any process and/or change being implemented. Buy-in from staff is important to getting all staff members on board and motivated to make evidence-based practice changes.

Strengths of the Rosswurm and Larrabee model include an organized guide for nurses and other health professionals to change current practice to a practice based on evidence-based practice. The Rosswurm and Larrabee model is based on theoretical and research literature that is based on evidence-based practice. This model gives a step-by-step guide to implementing evidence-based practice. No weaknesses were noted regarding the Rosswurm and Larrabee model.
Project Design

Setting-

Columbus Regional Hospital (CRH) has a bed-capacity of 168 single beds or 240 double beds. The Birthing Center, where this project will occur has 23 single bed rooms and a Level 2 Nursery with a maximum capacity for 12 babies. Columbus Regional Health is a not-for-profit, regional health center/hospital in Columbus, Indiana. This health center/hospital serves a population from surrounding counties including Jackson, Jennings, and Johnson counties, as well as Bartholomew county, where the facility is located. Multiple payer sources are accepted by CRH, including private pay, a variety of Medicaid sources, Medicare, and private insurance. CRH provides care to all patients regardless of their ability to pay for services and approximately half of their patients are covered by Medicaid or Medicare. CRH owns multiple physician practices in Columbus and surrounding counties, as well as an outpatient surgery center, Prompt Med an urgent-care facility, and Well Connect which houses a drop-in clinic that also offers fitness, yoga and cooking classes for a nominal fee.

The Birthing Center serves a large portion of the expectant women in Bartholomew County and the surrounding area. CRH is the only hospital in this area that has a Level 2 Nursery that can care for any babies born with special care needs. An average of 120 infant deliveries occur at the CRH Birthing Center every month with some of those patients requiring transfer to other facilities for more complex care than can be provided at CRH. Antepartum patients are also cared for various pregnancy complications at this facility. The Birthing Center employs 55 nurses (all are registered nurses except for two licensed practical nurses) which includes a nurse
manager, Women’s and Children’s CNS, a nurse educator and 15 OB Techs/ secretaries that work these roles interchangeably. There are three physician practices that provide patient care for the Birthing Center’s patient population. These include two OB/GYN practices and one family practice. All of these practices are located in Columbus and one of the OB/GYN practices and the family practice are owned by CRH. Patient satisfaction is important to the Birthing Center and CRH in general. CRH is held to high standards by the residents of Columbus and is supported by a board of distinguished individuals within the community. The budget at CRH is kept transparent to the community and the hospital employees and CRH is operating within budget at this time. CRH donates many services to patients within the community through writing-off patient fees, discounted services, and donating services to the Volunteers in Medicine Clinic population.

**Population**

The target population for this project intervention is the staff nurses that work on the Birthing Center at CRH. Within this population will be nurses that are interested in volunteering to serve on a breastfeeding taskforce. The goal of the breastfeeding taskforce is to inspire other staff to make breastfeeding work for the population that is served by the Birthing Center. The plan is to send out an email survey to all of the Birthing Center staff to obtain information on ideas perceived barriers that currently exist to making breastfeeding work well for the staff and the patients and self-confidence in providing breastfeeding education and support. The data from this survey will be collected by the project director and will be presented to the breastfeeding task force. The plan is to have the breastfeeding taskforce brainstorm ideas and solutions to addressing these barriers in order to make the breastfeeding process and patient education a less
tedious process, especially at night when Lactation Consultants are not available as a resource. This breastfeeding taskforce will play an important role in forming a plan that will support the staff nurses in providing staff nurses and patients with breastfeeding and education support. Based upon a literature review, education and support of staff nurses and the patient population are an important part of successful breastfeeding. Ideally, the taskforce will be made up of at least six nurses with a variety of nursing experience. All nurses, including the nursing director, CNS, nurse manager, lactation consultants, and nurse educator will be surveyed before the taskforce is initiated, as to what the nurses’ feel are barriers to providing ultimate breastfeeding support for the nurses and the patient population. Nursing leadership will be kept informed of this project and the content thereof, but may choose to not actively participate in the project content.

**Intervention Plan**

The plan to build a breastfeeding taskforce is based on the perception that there is a lack of breastfeeding support for nurses providing patient care, especially on the night shift. During the day, there is at least one Lactation Consultant seven days a week. Unfortunately, there is no lactation support on the night shift. There is currently a Baby-Friendly Team that has met in order to reach the goal of obtaining the BFHI designation, but there has been no effort made by this group/team to provide support for the nurses providing direct patient care. This team looks more at the statistics of keeping the Birthing Center at the statistical goals to meet BFHI requirements. The breastfeeding taskforce is a grass-roots effort to help the staff nurses help and support each other. This support will ultimately provide strong support for the breastfeeding patient population. The Adult Learning Theory provides the framework that will allow for this
breastfeeding taskforce to work towards a process to provide appropriate staff nurse support for
themselves and the patient population. Rosswurm and Larrabee’s Model for EBP will guide the
project leader and task force in their work.

The Project Timeline

Summer 2015 (July) - The project director (PD) will:

- Develop the nursing staff survey.

- Obtain an agency agreement and support letter for project from appropriate leadership at CRH.

- Submit the IRB approval application to Ball State University IRB committee with the assistance
  of a faculty advisor.

- Apply for IRB approval from Columbus Regional Hospital.

Mid of August 2015- The PD will:

- Distribute the staff survey to leadership and birthing center staff by email.

Early September 2015-

- A breastfeeding taskforce will form, meet, and decide on appropriate convenient meeting times
  for the group.

September and October 2015-

- The P.D. will lead meetings of the breastfeeding taskforce to brainstorm and start the process
  of determining how breastfeeding barriers will be addressed in order to provide support for all
  staff nurses.
October/ November 2015-

-The P.D. will review literature pertinent to the evidence-based nursing practice used to address the breastfeeding barriers that are determined to be the focus of the breastfeeding taskforce. The Adult Learning Theory will be the theoretical/ conceptual framework used by the taskforce to determine how to implement any changes or reinforcements of the current and future breastfeeding process and procedures. The breastfeeding taskforce will plan to meet to form these processes and procedures on at least two more occasions during the end of October and the beginning of November.

Mid to late November 2015-

-The P.D. will present the written breastfeeding education and support process that has been developed by the taskforce for approval by leadership at the monthly mandatory staff meeting.

December 2015/ January 2016

-The P.D. will implement the written process that was developed by the breastfeeding taskforce.

Early February 2016

- Distribute a second survey to Birthing Center staff to assess for resolution of breastfeeding barriers and increased self-confidence I providing breastfeeding education and support.

Mid- February 2016-

-Task force will meet to review the aggregate data from the survey and plan for any process revisions.

End of February 2016 – April 2016-
The P.D. will complete the written form of this project data and will submit abstract to the appropriate entities.

**Ethical Issues**

This project only involves employees of CRH and does not involve the use of any confidential information. No patient information or chart review will be conducted in the project so HIPAA standards are not relevant. Patients will not be considered as participants in the project. Staff members that choose to participate in the survey requesting suggestions of breastfeeding barriers that are actual or perceived by the staff will be on a voluntary basis. The survey will be anonymous. The survey will be designed to include information that participation is voluntary, anonymous, and that completing and submitting indicates informed consent. Staff members that choose to become part of the breastfeeding taskforce will do so on a voluntary basis, also. The P.D. will ensure that all hours committed to this project will not be charged to CRH. It is not determined at this time if CRH will allow breastfeeding taskforce members to be paid taskforce duties. Data regarding breastfeeding barriers perceived by the staff will be collected by either survey or email only. Written support to implement the project at CRH will be obtained from the director of nursing. An agency agreement will be obtained. An IRB application will be submitted to Ball State University for approval prior to starting any aspect of the project.

**Study of Intervention**

The purpose of this project is to facilitate standardized breastfeeding education and support, which includes criteria from the Ten Steps to Successful Breastfeeding and the Baby-Friendly
Hospital Initiative, for all breastfeeding mothers delivering babies at the hospital’s birthing center. The goal of this project is twofold. First, identify breastfeeding education and support barriers that are encountered by CRH birthing center nursing staff, especially during night shift hours when support staff is minimal. Second, is to find solutions for these barriers that will allow nursing staff to better provide breastfeeding education and support and to feel more confident in this role. The solutions found through this project will help nursing staff to feel empowered to help each other when breastfeeding issues arise, especially during the night.

The project questions are:

1. Will a nurse taskforce be able to use information on nursing staff perceived barriers and self-confidence levels regarding provision of breastfeeding education and standards to develop a written process changes that will increase the provision of breastfeeding education and support?

2. Will this process result in a reduction in perceived barriers and increase in self-confidence of nurses toward the provision of breastfeeding education and support?

3. Will the use of the Rosswurm and Larrabee Evidence Based Practice (EBP) model facilitate the development of a solution/ procedure to improve the nursing approach to breastfeeding barriers and to provide breastfeeding education?

The outcome objectives for this project include:

1. Within 2 months following the formation of a nurse-led breastfeeding education taskforce, there will be a defined process as to when and how nurses will provide breastfeeding education and support that complies with BFHI.
2. Within 2 months following implementation of the process change there will be a 30% decrease in nurses’ perceived barriers to providing breastfeeding education and support that complies with BFHI.

3. Within 2 months following the implementation of the process change there will be a 30% increase in nurses’ perceived self-confidence in providing breastfeeding education and support that complies with BFHI.

The EBP model by Rosswurm and Larrabee is a process which guides nurses through a systematic process for the change to evidence-based practice. There are six phases for this model which include:

1. Assess the need for change in practice.
2. Link the problem with interventions and outcomes.
4. Design a change in practice.
5. Implement and evaluate the practice.
6. Integrate and maintain the practice change.

A quasi-experimental study design using a pre and post-test intervention survey will be used to measure effectiveness of the intervention in achieving the three desired outcomes of this project. A non-randomized convenience sample of CRH birthing center nursing staff will be used. This study design fits well with the Rosswurm and Larrabee EBP model that includes the step of evaluating the change in practice. The PD will distribute an anonymous pre-intervention survey to all birthing center staff via Qualtrics online evaluation software. After the
intervention, the PD will distribute an anonymous post-intervention survey via the same software.

Threats to internal validity with this study design includes controlling the environment, as history effect can influence what staff nurses perceive as breastfeeding barriers related to past success or failures with the breastfeeding process. Instrumentation may also be a threat to internal validity due to nursing staff gaining more insight from other nursing staff during the meetings of the breastfeeding taskforce.

External validity will be limited to other birthing centers with similar breastfeeding barriers that are encountered by their nursing staff and with similar support staff available on similar work shifts. The information from this project’s setting, process, intervention, and outcomes may not be generalizable to all other birthing centers and birthing center staff.

**Methods of Evaluation - Process Objectives**

These process objectives will be evaluated throughout this project to direct the project’s completion. The PD will maintain a log of completion dates and any revisions in process or dates. These objectives include the following:

<table>
<thead>
<tr>
<th>Process Objectives</th>
<th>Responsible Party</th>
<th>Participants</th>
<th>Date of Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop a staff survey. Submit IRB approval application to Ball State University IRB committee. Submit IRB approval application to CRH.</td>
<td>Project Director</td>
<td>Project Director and faculty advisor</td>
<td>Summer 2015- July</td>
</tr>
<tr>
<td>Distribute staff survey to birthing center nursing staff and leadership via email.</td>
<td>Project Director</td>
<td>CRH birthing center</td>
<td>Mid- August 2015</td>
</tr>
<tr>
<td>Task Description</td>
<td>Responsible Party</td>
<td>Task Contact</td>
<td>Timeframe</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
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<tr>
<td>Recruit volunteers to form a breastfeeding taskforce through email and face-to-face communication.</td>
<td>Project Director</td>
<td>Breastfeeding taskforce volunteers</td>
<td>Early September 2015</td>
</tr>
<tr>
<td>A breastfeeding taskforce will form, meet and decide on appropriate convenient meeting times for the group.</td>
<td>Project Director</td>
<td>Breastfeeding taskforce nurses</td>
<td>September and October 2015</td>
</tr>
<tr>
<td>Breastfeeding taskforce meetings will occur to brainstorm and start the process of determining how breastfeeding barriers will be addressed in order to provide support for all staff nurses.</td>
<td>Project Director</td>
<td>Breasftfeeding taskforce nurses</td>
<td>October and November 2015</td>
</tr>
<tr>
<td>A review of literature pertinent to the evidence-based nursing practice used to address the breastfeeding barriers that are determined to be the focus of the breastfeeding taskforce.</td>
<td>Project Director</td>
<td>Breasftfeeding taskforce nurses</td>
<td>October and November 2015</td>
</tr>
<tr>
<td>A written process outlining when and how nurses will provide breastfeeding education and support that complies with BFHI that has been developed by the taskforce will be presented to leadership and then to all birthing center staff at the monthly mandatory staff meeting.</td>
<td>Project Director</td>
<td>Nursing Leadership</td>
<td>Mid to late November 2015</td>
</tr>
<tr>
<td>Implementation of the process outlining when and how nurses will provide breastfeeding education and support that complies with BFHI that was developed by the breastfeeding taskforce.</td>
<td>Project Director</td>
<td>Breasftfeeding taskforce nurses</td>
<td>December 2015- January 2016</td>
</tr>
<tr>
<td>Distribute a second survey to birthing center staff to assess for resolution of breastfeeding barriers.</td>
<td>Project Director</td>
<td>Breasftfeeding taskforce nurses</td>
<td>Early February 2016</td>
</tr>
</tbody>
</table>
A task force meeting will occur to review the aggregate data from the survey and plan for any process revisions.

| Completion of the written form of this project data and will submit abstract to the appropriate entities. | Project Director | Breastfeeding taskforce members | Mid-February 2016 |

Methods of Evaluation - Outcome Objectives

This project will convene a taskforce committee that will use Rosswurm and Larrabee’s EBP model as well as adult learning theory to facilitate standardized breastfeeding education and support, which includes criteria from the Ten Steps to Successful Breastfeeding and the Baby-Friendly Hospital Initiative, for all breastfeeding mothers delivering babies at the hospital’s birthing center. To accomplish this, the committee will address barriers to providing breastfeeding education and support the nurses’ confidence levels in providing education and support for breastfeeding challenges that are encountered by the CRH birthing center nursing staff, especially at night, when less support staff is available. A new process and procedure will be written and implemented to address these breastfeeding education and support barriers and challenges based on the findings of the breastfeeding taskforce. The written process and procedure will serve as evidence of successful achievement of outcome objective 1.

At the completion of this project, it is anticipated that CRH birthing center staff nurses will report a decrease in perceived barriers to providing breastfeeding education and support and an improved level of confidence in the management of challenging breastfeeding situations. The
CRH birthing center nursing staff will receive an anonymous pre and post intervention survey developed by the PD that will include the same questions. The survey will ask, in general what the nurse feels are barriers that are encountered from a nursing perspective to breastfeeding. A question regarding the nurse’s confidence level with assisting patients with breastfeeding on a self-efficacy scale of 0 not comfortable to 100 very comfortable will be asked, as well as a question asking the nurse if she feels that she has enough knowledge to address breastfeeding barriers using a self-efficacy scale of 0 very little knowledge to 100 more than adequate knowledge. A question asking the nurse how satisfied she is with the support the nursing staff has for encountering breastfeeding barriers using a self-efficacy scale of 0 very little support to 100 more than adequate support will be included, also. These questions and others will be asked on both the pre and the post surveys sent to all nursing staff. The pre and post intervention survey results will provide data to evaluate changes in outcome objectives 2 and 3 for the project regarding perceived barriers and perceived confidence levels. A quasi-experimental pre-post survey design is appropriate to evaluating outcomes for a quality improvement project in one clinical setting.

Given the short time frame of the study, it will be difficult to evaluate the full impact of any changes resulting from implementation of the new process and procedure. It is important for the taskforce to continue to monitor barriers and confidence levels and to revise the process and procedure as needed. As well, the taskforce will want to look at strategies to sustain change in the long term. The PD and taskforce will pursue these ongoing endeavors as is in keeping with Rosswurm and Larrabee’s step 5: implement and evaluate the practice change and step 6: integrate and maintain the practice change.
An anonymous survey technique through Qualtrics will be used for the pre and post intervention survey administration to the nursing staff through the CRH email system. The Project Director will be the only individual with access to the survey data, which will be stored in a password protected computer and deleted within a year of the completion of this project. The survey instrument will be constructed by the P.D. for the use of this project only and will have no specific validity or reliability based on the subject matter being assessed. No patients or patient information will be used, so HIPAA compliance will be necessary for this project.

**Method of Data Analysis**

Breastfeeding barriers that are noted by staff will be qualitative in nature and will be collected in order to see what breastfeeding needs exist for staff pre-intervention and what barriers continue to exist post-intervention. The questions involving Bandura’s self-efficacy scale responses can be analyzed quantitatively by using a paired t-test to analyze this interval/ratio data included from the pre and post surveys of the nursing staff as the same number of staff will be surveyed for both situations. After the implementation of the process/procedure that the breastfeeding taskforce will collaborate to write, confidence in addressing breastfeeding barriers will improve among the CRH birthing center nursing staff. The sample size of the nursing staff will be approximately 50 nurses, if a majority of the nurses respond to the pre and post intervention surveys.
References


Mothers’ self-reported reasons for stopping during the first year. *Pediatrics*, 122(S69-76).


# Appendix A

## Outcomes Evaluation Tools Table

<table>
<thead>
<tr>
<th>List your Project Outcome Objectives</th>
<th>List Evaluation Tools You Plan to Use for Each Outcome</th>
<th>Rationale for Using Each Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Within 2 months following the formation of a nurse led breastfeeding education task force, there will be a written process as to when and how nurses will provide breastfeeding education and support that complies with BFHI.</td>
<td>Bandura’s self-efficacy model of self-confidence including an open-ended question regarding breastfeeding barriers and the other questions involving rating of the nurses’ self-confidence in breastfeeding education and support in a pre and post-test fashion</td>
<td>Bandura’s self-efficacy model gives the nursing staff a measurable and confidential way to express their confidence/comfort level in education and supporting other nurses with breastfeeding when faced with breastfeeding barriers.</td>
</tr>
<tr>
<td>2. Within 2 months following implementation of the written process, there will be a 30% decrease in nurses’ perceived barriers to providing breastfeeding education and support that complies with BFHI.</td>
<td>Bandura’s self-efficacy model gives the nursing staff a measurable and confidential way to express their confidence/comfort level in education and supporting other nurses with breastfeeding when faced with breastfeeding barriers.</td>
<td>Bandura’s self-efficacy model gives the nursing staff a measurable and confidential way to express their confidence/comfort level in education and supporting other nurses with breastfeeding when faced with breastfeeding barriers.</td>
</tr>
<tr>
<td>3. Within 2 months following the implementation of the written process, there will be a 30% increase in nurses’ perceived self-confidence in providing breastfeeding education and support that complies with BFHI.</td>
<td>Bandura’s self-efficacy model gives the nursing staff a measurable and confidential way to express their confidence/comfort level in education and supporting other nurses with breastfeeding when faced with breastfeeding barriers.</td>
<td>Bandura’s self-efficacy model gives the nursing staff a measurable and confidential way to express their confidence/comfort level in education and supporting other nurses with breastfeeding when faced with breastfeeding barriers.</td>
</tr>
</tbody>
</table>

---

### Complete the following tables that correspond with the evaluation tools you plan to use

#### Questionnaires – Pre and Post Intervention

<table>
<thead>
<tr>
<th>What You are Planning to Assess</th>
<th>Yes or No</th>
<th>If yes, list the specific content that should be covered in the questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you want to assess changes in knowledge?</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Yes/No</td>
<td>Response</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>--------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Do you want to assess changes in attitudes?</td>
<td>yes</td>
<td>The content covered in the questionnaire will address the nurses’ level of confidence in assisting patients and other nursing staff with breastfeeding.</td>
</tr>
<tr>
<td>Do you want to assess changes in intent to perform a particular behavior?</td>
<td>yes</td>
<td>I want to assess changes in the intent to perform the task of breastfeeding education and support among nursing staff before and after the implementation of a process change. The questionnaire will include content regarding the staff’s willingness to help and support other nurses with addressing breastfeeding barriers.</td>
</tr>
<tr>
<td>Do you want to assess changes in satisfaction with care?</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>Do you want to assess something else? - explain</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>How will your questionnaire fit with your project theoretical/conceptual model framework?</td>
<td>/</td>
<td>The Adult Learning Theory is based on the premise that adults bring a history of knowledge and different ways of learning with them to any situation. Rosswurm and Larrabee model uses evidence-based learning as its premise.</td>
</tr>
</tbody>
</table>
The Baby Friendly Hospital Initiative provides an evidence-based framework to base breastfeeding education upon. This being noted, Bandura’s Self-Efficacy Model allows the respondents to a questionnaire to rate their level of confidence with a task according to the respondents own opinion. This provides an anonymous way for individuals to express their confidence or lack thereof in performing tasks that may very important in their work environment. According to Bandura, self-efficacy theory distinguishes between the source of the data and the level of the phenomenon being measured, i.e. individual perception versus individual/group efficacy.

| How do you plan to disseminate the questionnaire? | I plan to disseminate the questionnaire anonymously through the Columbus Regional Health email system. |
| Are you planning to use an existing questionnaire? If yes answer these questions – What is the source of the questionnaire? Is there any reliability/validity information? Are you planning to use the entire questionnaire or only some of the questions? | Unfortunately, an existing questionnaire does not exist for this particular subject matter. |

Provide 5 questions with response sets you plan to include in your questionnaire.

1. What do you find to be breastfeeding barriers that you encounter when you work with breastfeeding mothers and their babies (ex. Patient knowledge or lack of knowledge of breastfeeding, sleepy babies, physical problems the mother or baby are experiencing, etc.)?
2. Please rate how confident you feel that you can assist a breastfeeding mother with the following tasks. Please rate your degree of confidence by recording a number from 0- cannot do this task at all- 50- moderately can do or 100- highly certain I can do this task.

- getting baby to latch on to the breast (0-100)
- provide mother with education on what to do when her baby will not latch on to the breast (0-100)
- assist a mother with expressing milk from her breast (0-100)
- providing mother with education on how to express milk from her breast (0-100)
- explaining how often a mother should breastfeed her baby (0-100)
- explaining whether breastfeeding is successful to a mother (ex. Number of voids and stools in a 24 hour period) (0-100)
- knowing what to do when the baby will not latch on the breast or breastfeed (0-100)
- providing support to a mother that wants to supplement with formula (0-100)
- providing support to a mother that no longer wants to breastfeed (0-100)

3. How confident are you in asking other nursing staff for help with a patient that is having breastfeeding difficulty (0-100)?

4. How confident do you feel in helping other nursing staff with their breastfeeding mothers that are encountering barriers (0-100)?

5. How often do you wait for a lactation consultant to provide help with your breastfeeding mother (0- never, 50- sometimes, 100- most of the time)?

<table>
<thead>
<tr>
<th>What You are Planning to Assess</th>
<th>Yes or No</th>
<th>If yes, list the specific content that should be addressed in the chart audit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you want to assess changes in healthcare provider behaviors?</td>
<td></td>
<td>I will not be using chart audits for my intervention.</td>
</tr>
<tr>
<td>Do you want to assess changes in patient outcomes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you want to assess something else? Explain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Do you need to include demographic information on patients as part of your assessment? | | ///
| Chart Audit Process | Provide Answer and Rationale | |
| How will you choose which charts to audit? | | |
| How will you choose the number of charts and time span of when patients were seen for pre and post intervention audit? | | |
| Who in the clinical setting is responsible for monitoring HIPAA compliance? | | |
| How will you access the charts for your audit? | | |

Chart Audits – Pre and Post Intervention

Other Evaluation Tools / Instruments / Methods

<table>
<thead>
<tr>
<th>What You Are Planning to Assess</th>
<th>Provide Answer and Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question</td>
<td>Answer</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>What tool/instrument/method are you planning to use?</td>
<td>There will not be any other evaluation tools/ instruments/ methods used in this project.</td>
</tr>
<tr>
<td>What information do you want to obtain and from whom? List specific content.</td>
<td></td>
</tr>
<tr>
<td>How will this information apply to the evaluation of your project outcomes?</td>
<td></td>
</tr>
<tr>
<td>How will this information fit with your project theoretical/conceptual model framework?</td>
<td></td>
</tr>
<tr>
<td>How do you plan to disseminate or implement this tool/instrument/method?</td>
<td></td>
</tr>
</tbody>
</table>
**Informed Consent Table**

<table>
<thead>
<tr>
<th>Heading</th>
<th>Content (Use Exact Wording)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Title</td>
<td>Breastfeeding Education and the Baby-Friendly Hospital Initiative: A Quality Improvement Project</td>
<td></td>
</tr>
<tr>
<td>Project Purpose and Rationale</td>
<td>The purpose of this quality improvement project is to facilitate standardized breastfeeding education and support for all breastfeeding mothers delivering babies at the Columbus Regional Hospital (CRH) birthing center. The nurse-led task force will convene to develop an improved process to include criteria from the Ten Steps to Successful Breastfeeding and the Baby-Friendly Hospital Initiative, for all breastfeeding mothers delivering babies at the hospital’s birthing center.</td>
<td></td>
</tr>
<tr>
<td>Inclusion/Exclusion Criteria</td>
<td>Because you are a staff nurse employed by the birthing center at CRH you are invited to complete two anonymous online surveys. The first survey will provide information to the task force regarding current breastfeeding barriers and your self-confidence in helping patients to accomplish breastfeeding skills and supporting co-workers with breastfeeding assistance. The second survey will provide feedback on the effectiveness of the new process. You are eligible to participate in these surveys if you are at least 18 years of age.</td>
<td></td>
</tr>
</tbody>
</table>
| **Participation Procedures and Duration** | Your participation in the surveys will be anonymous. No personal identifying data will be included. If you choose to participate please complete the initial survey online by the date requested. You can access the initial survey by clicking on the survey link in this email. It will take approximately 15 minutes to complete the survey. Submitting the survey indicates that you have consented to participate.

The second survey will be available 3 months after the new process for breastfeeding and support has been implemented. An email with the link to this survey and the due date will be sent to all staff nurses. It will take approximately 15 minutes to complete the second survey. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Audio or Video Recordings (if applicable)</strong></td>
<td>There will be no audio or video recordings with this project.</td>
</tr>
<tr>
<td><strong>Disclosure of Alternative Procedures (procedure for those who do not participate)</strong></td>
<td>You do not have to participate in completing the surveys. If you decide not to participate, you will still have access to the new process developed by the task force.</td>
</tr>
<tr>
<td><strong>Data Confidentiality or Anonymity</strong></td>
<td>All data for the surveys will be stored in a password protected computer system to which only the Project Director will have access. No personal identifying data will be collected.</td>
</tr>
<tr>
<td>Section</td>
<td>Details</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Storage of Data (include data retention)</td>
<td>All data will be stored in a password protected computer system and will be destroyed one-year following the completion of this project. Only the Project Director will have access to the data.</td>
</tr>
<tr>
<td>Risks or Discomforts</td>
<td>There are no anticipated risks or discomforts related to completion of the two surveys.</td>
</tr>
<tr>
<td>Who to Contact if Experience any Negative Effects from Participation</td>
<td>Not applicable to this project.</td>
</tr>
<tr>
<td>Benefits (only direct benefits to participant)</td>
<td>There will be no direct benefits to you for participating in this project. However, you may find personal satisfaction in helping to improve the process for breastfeeding education and support.</td>
</tr>
<tr>
<td>Voluntary Participation Statement</td>
<td>Your participation is voluntary. You may choose to not participate in the surveys without any penalty or prejudice from the Project Director. Please direct any questions about the surveys to the Project Director.</td>
</tr>
<tr>
<td>IRB Contact Information</td>
<td>If you have questions about your rights as a research subject, you may contact the following: Ball State University IRB at Director, Office of Research Integrity, Ball State University Muncie, Indiana 47306</td>
</tr>
</tbody>
</table>
Consenting Statement /Signatory Area

Consent will be given by the nursing staff at CRH by their choice to answer the pre and post intervention survey questions distributed by the Project Director.

<table>
<thead>
<tr>
<th>Project Director and Faculty Advisor Contact Information</th>
<th>Andrea May- Project Director</th>
<th>Dr. Beth Kelsey- Director DNP Program</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Redacted</td>
<td>Ball State University</td>
</tr>
<tr>
<td></td>
<td>Redacted</td>
<td>Personal Information</td>
</tr>
<tr>
<td></td>
<td>Redacted</td>
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