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Breastfeeding education in the postpartum period.

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Breastfeeding Education in the Postpartum Period

by

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Signature DNP Project Chair	7/27/2020 Date
Signature DNP Project Committee Member	7/27/2020 Date
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Dedication

I would like to dedicate this work to my loving husband, John, and my parents, Beverly and Jay. Your support and encouragement have helped me strive to achieve this goal. I cannot thank you enough for the endless proof-reading of my manuscript and for listening to all of my practice presentations. Thank you for standing by me at all times as I have navigated this journey. I love you!

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Abstract

Breastmilk is the best source of nutrients for an infant, yet many mother-infant dyads do not sustain breastfeeding past initiation. Breastfeeding education and support offered to the mother-infant dyad in the postpartum period have the potential to increase maternal breastfeeding self-efficacy, and attribute to a longer duration of breastfeeding. The purpose of this Doctor of Nursing Practice (DNP) quality improvement project was to implement breastfeeding education and support in the postpartum period to mothers who have initiated and maintained breastfeeding by the time of the newborn well-child check, occurring at two to eight days postpartum. This project aimed to increase maternal breastfeeding self-efficacy upon completion of the intervention. The DNP project intervention included breastfeeding education and support provided by the DNP student, a certified lactation counselor (CLC), at the newborn well-child check and telephone consultations with further education and support at seven and 14 days postpartum. The impact of the intervention on maternal breastfeeding self-efficacy was measured utilizing Dr. Cindy-Lee Dennis' Breastfeeding Self-Efficacy-Short Form Scale.

Keywords: breastfeeding; postpartum; education; breastfeeding self-efficacy

Breastfeeding Education in the Postpartum Period

The American Academy of Pediatrics (AAP) (2020) and the World Health Organization (WHO) (2020) recommend exclusive breastfeeding until the age of six months old. Exclusive breastfeeding and exclusive breastmilk are defined as the infant only receiving breastmilk; no other food or drink should be introduced (WHO, 2020). Breastfeeding has demonstrated superiority over formula feeding for many reasons, most notably for providing antibody protection to the infant. According to the AAP (2012), breastfeeding an infant throughout the first year of life can decrease the risk of respiratory and gastrointestinal infections, sudden infant death syndrome, obesity, diabetes, and many more ailments. Breastfeeding also provides benefits to the mother, including decreasing ovarian and breast cancer risks, decreasing postpartum bleeding, and a swifter return to prepregnancy weight (Keister et al., 2008). Despite the various benefits of breastfeeding, many mothers do not continue breastfeeding past initiation (Healthy People 2020, 2020).

Infants who are bottle fed with formula have demonstrated augmented bottle emptying, poor self-regulation, and unnecessary weight gain late in infancy (AAP, 2012). This contributes to the increased risks of childhood illnesses, such as obesity, for the child has not established a healthy eating pattern from birth. Also, formula feeding negatively impacts the environment through additional air pollution caused by the manufacturing of formula and contributes to additional landfill waste (AAP, 2020).

Healthy People 2020 (HP 2020) has set targeted breastfeeding rates for the United States and each state. The goal for breastfeeding at six months in the United States is 60.6% of mother-infant dyads; however, the current rate of breastfeeding at six months of age is 43.5% of mother-infant dyads, and the current rate of breastfeeding at six months in Kentucky is 31.5% of mother-

infant dyads (HP 2020, 2020). The goal for breastfeeding at one year of age in the United States is 34.1% of mother-infant dyads, yet the current rate in the United States is 22.7% of mother-infant dyads and 22.8% of mother-infant dyads in Kentucky (HP 2020, 2020). Another goal of HP 2020 (2020) is to increase the proportion of infants in the United States exclusively breastfed through three months of age. The target rate is set at 46.2% of mother-infant dyads for the United States. The current rate in the United States is 33.6% of mother-infant dyads, and the current rate in the state of Kentucky is 28.9% of mother-infant dyads (HP 2020, 2020).

Continued education on breastfeeding through the postpartum period has the potential to sustain breastfeeding past initiation and provide mothers with the knowledge and support to continue this practice (Carlsen et al., 2013). This form of education can increase maternal breastfeeding self-efficacy or a mother's confidence in her ability to successfully breastfeed. A mother's breastfeeding self-efficacy can positively or negatively affect her breastfeeding experience and duration. Postpartum breastfeeding education and continued support are vital to the longevity of breastfeeding duration and maternal breastfeeding self-efficacy (Hinic, 2016; Ridgeway et al., 2016).

Problem Statement

Breastfeeding mothers during the postpartum period are not offered adequate breastfeeding education and support, resulting in decreased maternal breastfeeding self-efficacy and decreased breastfeeding duration.

Synthesis of the Literature

Breastfeeding success begins at the moment of birth. Immediate skin-to-skin contact and initiation of breastfeeding within one hour of birth can increase a mother's self-efficacy (Chan et al., 2016; Hinic, 2016; Koskinen et al., 2013). Formula supplementation should be avoided in

the inpatient and outpatient settings unless medically indicated, for this can negatively affect breastfeeding duration (Hinic, 2016). Following AAP and American Academy of Family Physicians (AAFP) guidelines after birth positively influences a mother's perception of her birthing experience, which can increase her self-efficacy and determination to breastfeed (Chan et al., 2016; Hinic, 2016; Koskinen et al. 2013).

Postpartum breastfeeding education should not follow a structured model; it must be fluid and geared towards the needs of the mother. Structured educational models, such as positioning and attachment education, have been shown to be detrimental to the longevity of breastfeeding duration (Ridgeway et al., 2016). An educational model such as this diminishes a mother's concerns and decreases her breastfeeding self-efficacy.

Postpartum breastfeeding education has been shown to increase maternal self-efficacy through developmentally appropriate and supportive education (Wambach et al., 2011). Education in the postpartum period can be delivered in various models: in-home visits, telephone consultations, or inpatient visits after childbirth. All of these methods were found to be beneficial to the mother-infant dyad, as long as the education did not follow a structured, rigid model (Carlsen et al., 2013; Ridgeway et al., 2016; Wambach et al., 2011).

The healthcare professional that provides the education should be supportive, address maternal concerns, and positively reinforce the mother's decision to practice breastfeeding (Carlsen et al., 2013; Ridgeway et al., 2016; Wambach et al., 2011). Each provider has the opportunity to increase maternal satisfaction and perceptions of breastfeeding and the ability to address any concerns; thus, increasing maternal breastfeeding self-efficacy (Carlsen et al., 2013; Ridgeway et al., 2016; Wambach et al., 2011).

Conceptual Framework

Hildegard Peplau's Theory of Interpersonal Relations focuses on creating interpersonal relations between the nurse and the patient. The formation of a relationship between the nurse and the patient creates a framework for understating the ailments of a patient. Through the establishment of a meaningful relationship with the patient, the nurse has the ability to empathize with the patient. A successful nurse-patient relationship is fundamental to nursing care (Peplau, 1989).

The orientation phase begins when the nurse introduces himself/herself to the patient. The nurse obtains pertinent information from the patient through history taking and assessment. The nurse will begin to understand the patient as a whole person within this phase. The patient and nurse enter into the orientation phase with preconceptions, but the nurse must assess the preconceptions within himself/herself and the patient, and make appropriate changes (Peplau, 1989).

The working phase follows, when the majority of the effort occurs in the nurse-patient relationship. The nurse must focus on the patient's reaction to their illness or dilemma, as well as their perception of the dilemma. Within this phase, the nurse offers assistance to the patient, while maintaining focus on the patient and his/her needs. The nurse provides appropriate education to the patient, in a manner that is best comprehended by the patient (Peplau, 1989).

The termination phase focuses on summarizing the encounter with the patient. Closure between the nurse and the patient is established, for time is limited within this interpersonal relationship (Peplau, 1989).

Application to Project

Table 1 demonstrates how Peplau's Theory of Interpersonal Relations was utilized in the Doctor of Nursing Practice (DNP) project.

Table 1

Peplau's Theory of Interpersonal Relations: DNP Project Application

Peplau's Theory of Interpersonal Relations Phases	Orientation Phase	Working Phase	Termination Phase
Application to DNP Project	The orientation phase took place at the beginning of each newborn well-child check. The DNP student obtained a history from the breastfeeding mother. Maternal breastfeeding self-efficacy was measured. The mother was given an educational packet and provided additional education, as needed.	The working phase occurred as the DNP student offered breastfeeding education and support. The phone calls also focused on the mother's needs.	The termination phase occurred at the two-month well-child check, where closure with reiteration of the breastfeeding education and support occurred. Maternal breastfeeding self-efficacy was measured.

Purpose and Specific Aims

The purpose of this DNP quality improvement project was to implement breastfeeding education and support in the postpartum period to mothers who had initiated and maintained breastfeeding by the time of the newborn well-child check. The project aimed to increase maternal breastfeeding self-efficacy upon completion of the intervention.

Statement of the Intervention

A multi-faceted educational intervention took place, which included providing breastfeeding education packets to mothers who had established breastfeeding at the newborn well-child check and two telephone consultations in the postpartum period.

Setting and Organizational Assessment

This DNP project was conducted at a private pediatrics office located in the Midwest United States. This pediatrics office utilizes three locations throughout the region, yet only one location was involved in the project intervention. This practice serves a suburban area, seeing about 28,000 patients a year between the three locations. Patients at this practice range from newborn to 22 years old. Parental or guardian involvement in care is required until the patient reaches the age of 18 years. Private insurance, self-pay, and Medicaid are accepted at this practice. This practice consists of eight physicians and ancillary staff consisting of nurses, medical assistants, and office personnel.

Target Population

The target population was postpartum mothers and their infants who had initiated and maintained exclusive breastfeeding by the time of the newborn well-child check, approximately two to eight days after birth.

The inclusion criteria included a breastfeeding mother who was primiparous or multiparous and was 18 years or older. The mother must have initiated and maintained breastfeeding by the time of the newborn well-child check and expressed a desire to continue breastfeeding. The mother could supplement with feedings of expressed breast milk from a bottle. The infants were younger than eight days old, singleton infants, and free of congenital

malformations. The infants were term infants, defined as birth after 37 weeks zero days gestation and before 40 weeks and one-day gestation.

Mothers who had utilized formula supplementation before the newborn well-child check were excluded from the project. Breastfeeding mothers of two or more infants, mothers receiving chemotherapy, or who had been diagnosed with tuberculosis, venereal diseases, T-cell lymphotropic virus type one or two, human immunodeficiency virus, acquired immune deficiency syndrome, and/or had contraindications to breastfeeding were excluded. Mothers taking medications that are not safe in breastfeeding or using illicit drugs were excluded. Infants under the age of two days or over the age of eight days were excluded from the DNP project intervention. Infants with galactosemia, phenylketonuria, and/or other contraindications to breastfeeding were not included.

Ethics

This DNP project was submitted to the University of Louisville Institutional Review Board (IRB) for review as a quality improvement project. The project was approved by the University of Louisville IRB. The project was presented to the stakeholders of the pediatrics practice and approved by the agency. A statement of mutual agreement was signed by the stakeholders of the practice.

Methods

This project design employed a breastfeeding education and support program for the breastfeeding mother in the postpartum period to determine its effect on maternal breastfeeding self-efficacy. A pre-test and post-test, Breastfeeding Self-Efficacy Scale Short-Form Questionnaire (BSES-SF) (Appendix A) was used to evaluate breastfeeding self-efficacy.

Identification of Participants

The eligible mother-infant dyads were identified by the DNP student through a rolling recruitment process that occurred until ten mother-infant dyads were identified. At the beginning of each week during implementation, the DNP student contacted the project location's nursing supervisor to determine newborn appointments that were established. The DNP student then reviewed the hospital records provided by the nursing supervisor to determine if the mother had established breastfeeding. Mothers that had initiated and maintained breastfeeding by the time of the newborn well-child check were identified as potential participants of the project intervention. The DNP student then attended the newborn well-child check.

Implementation Process

The project implementation began during the newborn well-child check when an educational packet on breastfeeding was provided to the breastfeeding mother by the DNP student. At this visit, the breastfeeding mother completed the pre-test BSES-SF Questionnaire. The mother's contact information was verified by the DNP student from the fee slip utilized during the well-child check. Demographic data were collected at this initial consultation. The educational packet consisted of *Your Guide to Breastfeeding* created by The Office of Women's Health and a list of local resources to help with breastfeeding difficulties (Appendix B). The DNP student, who is a certified lactation counselor (CLC), educated the mother on signs that the infant is getting enough milk, the size of an infant's stomach, the frequency of feedings, expectations for urination and stools, and the fundamentals of a good latch (Appendix C). The DNP student informed the mother that additional telephone consultation would occur in the following postpartum weeks, particularly at day seven and day 14 postpartum.

The DNP student contacted the mother at seven days postpartum to offer telephone consultation consisting of breastfeeding education and support. This interval of time was crucial, as mothers often terminate breastfeeding at ten days postpartum (WHO, 2020). At this point, the DNP student assessed how breastfeeding the infant was progressing and assessed if the mother had any health needs. The DNP student provided appropriate consultation. Education at this phone call consisted of appropriate feeding cues, infant led breastfeeding, the five breastfeeding holds, and changes in the breastmilk at this point (Appendix D). If there were any concerns addressed that could not be resolved over the phone, then the DNP student referred the breastfeeding mother to the local resources listed in the breastfeeding packet.

A second telephone consultation at 14 days postpartum was also implemented, providing additional support for the breastfeeding mother. During this telephone consultation, the DNP student once again assessed how breastfeeding the infant was progressing. Concerns of the mother were addressed. Once again, if there were any issues addressed that could not be resolved over the phone, then the DNP student referred the breastfeeding mother to the local resources listed in the breastfeeding packet. Education at this telephone consultation consisted of the composition of breastmilk, the use of vitamin D supplementation, utilization of a breast pump, and proper breastmilk storage and thawing (Appendix E).

A post-test of the BSES-SF was administered during the two-month well-child check, which determined the effect of the breastfeeding education and support on the mother's breastfeeding self-efficacy. This post-test was placed on the infant's chart by the DNP student, once the two-month well-child check was scheduled. The questionnaire was distributed and collected by the nursing staff and then placed in a locked drawer located in the nursing

supervisor's office. Each nursing staff employee was individually educated on this process of administration and collection of the BSES-SF by the DNP student.

Data Collection

Demographic data collection occurred at the beginning of the DNP project implementation and the newborn well-child check. The ages of the mother and infant were obtained before the well-child visit. The race and ethnicity of the mother and infant were also collected. The number of living children the mother has was recorded at the newborn well-child check, along with the birth order of the infant involved in the project intervention. Additional demographic data included: any previous breastfeeding experience, relationship status of the mother, family members residing in the household, highest level of maternal education, and maternal exposure to breastfeeding in the past. Outcome data were collected from the pre-test and post-test delivered at the beginning and end of the project intervention via the BSES-SF. The pre-test BSES-SF was administered at the newborn well-child check, allowing for the collection process of outcome data to begin at this visit. The post-test BSES-SF was administered at the two-month well-child check.

Data Stewardship

Data collection containing sensitive patient information followed the Health Insurance Portability and Accountability Act (HIPPA) guidelines. The DNP student also followed the office's policies and procedures throughout the entire project. Lastly, the DNP student followed the policies and guidelines of the University of Louisville, School of Nursing.

When possible, data collection contained de-identifying information, allowing for anonymity and confidentiality to be preserved. Paper copies of both de-identifying information and sensitive, identifiable data were stored in a locked drawer, located in the nursing supervisor's

office. Electronic data, both sensitive and insensitive, were stored on an encrypted USB drive. While all of the data was stored in the same locations, de-identifying data was kept in a separate folder than the sensitive information. Information was not accessible to anyone but the DNP student conducting the project.

Measures and Instruments

Outcome data were collected from the pre-test and post-test delivered at the beginning and end of the project intervention. Breastfeeding self-efficacy is defined by Dr. Cindy Lee-Dennis (2010) as the mother's confidence in her ability to breastfeed. Breastfeeding self-efficacy predicts whether a mother will choose to breastfeed or not, the effort she will expend on breastfeeding, whether the mother will have self-enhancing or self-deterring behaviors, and how the mother will emotionally respond to the challenges of breastfeeding (Dennis, 2010). The BSES-SF, created by Dr. Cindy Lee-Dennis (2010), is comprised of 14 items formatted with a five-point Likert-type scale. Each item on the Likert-type scale range from *not at all confident* (1) to *always confident* (5). Total summative scores for the BSES-SF range from 14 to 70, with a higher score of 70 indicating high breastfeeding self-efficacy and a lower score of 14 indicating low breastfeeding self-efficacy. Cronbach's Alpha Coefficient in samples of pregnant women and postpartum mothers utilizing the BSES-SF ranged from 0.91 to 0.92 (Brandão et al., 2018; Gerhardsson et al., 2014). Construct validity of the instrument was supported by factor analysis (Kaiser-Meyer-Olkin measure of 0.94), indicating the validity of the instrument (Brandão et al., 2018).

Results

The descriptive statistics of the sample population revealed mother-infant dyads ranging from ages 25 to 39, with a mean age of 31.30, as illustrated in Table 2. Majority of the mother-

infant dyads identified themselves as White (*n*=9; 90%), while another mother-infant dyad identified themselves as Hispanic (*n*=1; 10%). All of the mothers in the project had completed undergraduate degrees (*n*=6; 60%) or graduate degrees (*n*=4; 40%), as demonstrated in Table 3. Every mother within the sample population was married (*n*=10; 100%). A small number of the mothers had previous breastfeeding experience (*n*=4; 40%), while the majority had previous breastfeeding exposure (*n*=7; 70%).

Table 2

Sociodemographic Characteristics

Variable	N	Mean	SD	Minimum	Maximum
Age	10	31.30	4.165	25.0	39.0

Table 3

Frequency of Highest Education Levels of Participants

Educational Status	Frequency	Percent
Some High School	0	0
High School Graduate	0	0
Some Undergraduate College	0	0
Undergraduate College Graduate	6	60
Some Graduate School	0	0
Graduate School Graduate	4	40
Total	10	100

Ten mother-infant dyads completed the pre-test and post-test. The data were analyzed using the computer program Statistical Package for the Social Sciences (SPSS), Version 26.0. A paired t-test (Table 4) was conducted to evaluate the impact of the intervention on the total summative scores on the BSES-SF. The mothers' total BSES-SF increased significantly from the pre-test (49.50 $\pm$ 10.014) to the post-test (61.00 $\pm$ 7.846), $t(9)=5.745$, $p=0.015$. The mean increase in total BSES-SF scores was 11.50 with a 95% confidence interval ranging from 6.973 to 16.027. The magnitude of effect was large ($\eta^2=0.786$).

Table 4

Paired T-Test Comparison of Total BSES – SF Scores Before and After Educational and Supportive Intervention

BSES-SF Total Score	Mean $\pm$ SD	t	df	p
Before (Pre-Test) (n=10)	49.50 $\pm$ 10.014	5.746	9	0.015
After (Post-Test) (n=10)	61.00 $\pm$ 7.846	5.746	9	0.015

Discussion

Interpretation

The results indicated that the intervention was statistically significant in causing an increase in maternal breastfeeding self-efficacy. Providing breastfeeding education and support in the postpartum period enhanced breastfeeding confidence in this population of mothers. This educational and supportive intervention allowed mothers to have their concerns addressed at frequent intervals as questions arose, while also enhancing their knowledge on breastfeeding practices.

This implementation is highly applicable to settings that encounter the mother-infant dyad in the early postpartum period, such as outpatient obstetrics and pediatrics offices. This DNP project was created to be feasible so that staff members in outpatient settings, such as clinicians and registered nurses, can continually offer breastfeeding education and support for the breastfeeding mother in the postpartum period. The educational material and telephone consultation scripts have been provided to the pediatrics office utilized in the intervention for use on a long-term basis, allowing for easy accessibility to the educational materials.

Limitations

A limitation encountered during project implementation and data collection occurred with two of the mother-infant dyads. After completion of the educational intervention but before administration of the post-test, two mother-infant dyads had ceased latching to the breast and were providing expressed breastmilk via a bottle. This made it difficult for them to answer the post-test BSES-SF, and there could have been recall bias associated with their responses. A second limitation encountered included the desire of the mother to receive postpartum educational interventions. Some mothers did not seem to listen as the educational script was explained, or some were busy with their newborn and other children. This did make the education difficult to deliver in some instances, as the attention of the mother is crucial to increase breastfeeding self-efficacy.

Conclusion

This DNP quality improvement project utilized a postpartum breastfeeding education and support intervention to affect maternal breastfeeding self-efficacy. Ten mother-infant dyads were enrolled in the project that took place in an outpatient pediatrics office. The intervention consisted of lactation education and support at the newborn well-child check, seven days

postpartum, and 14 days postpartum. Such an intervention increased the total BSES-SF scores, indicating an increase in the mother's breastfeeding confidence.

Sustainability

The stakeholders were invested in the project and desire to offer breastfeeding support for mothers of newborn infants. The project was designed to be integrated into practice and the goal is to increase maternal breastfeeding self-efficacy. For the implementation to be continued, the healthcare providers will continue to identify breastfeeding mothers at newborn well-child checks, as this practice is already in place. When a breastfeeding mother is identified, the healthcare provider will provide her with the educational material developed to implement the DNP project. Lastly, the telephone triage nurses and lactation counselor will follow-up with the breastfeeding mother via telephone consultations.

Implications for Future Practice

The practice implications identified indicate that postpartum breastfeeding education positively influences breastfeeding self-efficacy. While often antepartum educational classes do exist for mothers who desire to breastfeed, there are few educational interventions available for mothers in the postpartum period. Healthcare providers must continue to provide breastfeeding education from the moment of birth through several months of infancy. The mother-infant dyad benefits from education in all settings, such as inpatient hospitals, outpatient settings, in-home visits, or telephone consultations. Healthcare providers should utilize a setting that is comfortable for the mother and infant, for example during infant well-child checks, telephone consultations, or in-home visits. Healthcare providers educating breastfeeding mothers must offer supportive education and reassurance. The use of such educational models in obstetrics and pediatrics practices will help to increase maternal breastfeeding self-efficacy.

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Appendix A

Breastfeeding Self-Efficacy Scale – Short Form by Dr. Cindy-Lee Dennis

Name: _____

Please circle the appropriate response for you as it regards to the statement. A response of 1 indicates not at all confident and a response of 5 indicates always confident.

1.) I can always determine that my baby is getting enough milk.

1	2	3	4	5
Not at all confident				Always confident

2.) I can always successfully cope with breastfeeding like I have with other challenging tasks.

1	2	3	4	5
Not at all confident				Always confident

3.) I can always breastfeed my baby without using formula as a supplement.

1	2	3	4	5
Not at all confident				Always confident

4.) I can always ensure that my baby is properly latched on for the whole feeding.

1	2	3	4	5
Not at all confident				Always confident

5.) I can always manage the breastfeeding situation to my satisfaction.

1	2	3	4	5
Not at all confident				Always confident

6.) I can always manage to breastfeed even if my baby is crying.

1	2	3	4	5
Not at all confident				Always confident

7.) I can always keep wanting to breastfeed.

1	2	3	4	5
Not at all confident				Always confident

8.) I can always comfortably breastfeed with my family members present.

1	2	3	4	5
Not at all confident				Always confident

9.) I can always be satisfied with my breastfeeding experience.

1	2	3	4	5
Not at all confident				Always confident

10.) I can always deal with the fact that breastfeeding can be time-consuming.

1	2	3	4	5
Not at all confident				Always confident

11.) I can always finish feeding my baby on one breast before switching to the other breast.

1	2	3	4	5
Not at all confident				Always confident

12.) I can always continue to breastfeed my baby for every feeding.

1	2	3	4	5
Not at all confident				Always confident

13.) I can always manage to keep up with my baby's breastfeeding demands.

1	2	3	4	5
Not at all confident				Always confident

14.) I can always tell when my baby is finished breastfeeding.

1	2	3	4	5
Not at all confident				Always confident

Appendix B

Local Resources for Breastfeeding Mothers

Certified Lactation Counselor (CLC) at Pediatric Care of Kentucky
Location: Pediatric Care of Kentucky,
20 Medical Village Drive, Suite 102,
Edgewood, KY 41017
Contact: (859) 341-7500 ext. 30

Certified Lactation Consultants at St. Elizabeth Hospital
Location: St. Elizabeth Hospital: The Family Birth Place,
1 Medical Village Drive,
Edgewood, KY 41017
Contact: (859) 301-2631

Cincinnati Children's Hospital Medical Center – Center for Breastfeeding Medicine
Location: Cincinnati Children's Hospital Medical Center
3333 Burnet Avenue
Cincinnati, OH 45229
Website: www.cincinnatichildrens.org/breastfeeding

La Leche League of Northern Kentucky
Location: St. Elizabeth Hospital,
1 Medical Village Drive,
Edgewood, KY 41017
Website: www.lllofkytn.org/northern-ky
Website: www.facebook.com/LLLofNKY

Breastfeeding Peer Counseling for Mothers of Women, Infant, and Children (WIC)
Contact: (859) 363-2113

Northern Kentucky Health Department
Website: www.nkyhealth.org/breastfeed

Appendix C

Newborn Well-Child Check Teaching Script

Hello, my name is Kiersten Proctor, and I am a Doctor of Nursing Practice (DNP) student with the University of Louisville. I am also a certified lactation counselor (CLC). As a part of my doctoral studies, I am conducting a clinical intervention centered around breastfeeding. For this intervention, I am providing education to breastfeeding mothers at your child's pediatrician office and via telephone consultation.

At this newborn visit, I will be providing you with some basic information about breastfeeding and helpful tips regarding breastfeeding.

First, we will begin with signs that your baby is getting enough milk. When the baby is beginning to feed, you will probably notice that his/her hands are clenched into a fist. This is a sign of hunger. As the feeding progresses and the baby becomes more satisfied, you will notice that your baby's hands begin to relax. This is a sign of satiety. Another cue that your infant has received enough milk is noted in their behavior after feeding. Your baby should appear relaxed and quiet. You should not notice any signs of hunger, such as rooting, bringing his/her hands to the face, or crying. If you notice these cues, it is likely that your baby is still hungry. This is an appropriate time to feed the baby on the other breast. The frequency of your baby's urination and stools also offers some insight. Your baby should urinate about six times or more a day, and stool about three times or more a day.

It is also important to know the size of your baby's stomach. As a newborn at birth, your baby's stomach is about the size of a hazelnut. This means that your baby's stomach can hold one to two teaspoons. By day 10, your baby's stomach will grow to the size of a walnut. This

means your baby's stomach can hold two ounces. Because the baby's stomach is so small, he/she will feed more frequently. You should feed your baby about every two hours.

Lastly, we will discuss signs of a good latch during breastfeeding. When your baby is breastfeeding, it should not be painful; you should only feel slight tugging. Your baby's body should be turned to face you, in a "tummy to tummy" position. Your baby's nose and chin should be close to your breast. Your baby should have an asymmetric latch. This means that your baby's mouth should be off-center when latched. You should also be able to hear or see your baby swallow while breastfeeding. If you notice any issues with your latch, break the latch by inserting a clean finger into the side of the baby's cheek. Then, you can try to latch again. It may take several attempts to get a good latch.

Do you have any questions for me?

I will be contacting you via telephone at seven days and 14 days postpartum.

Appendix D

Seven Days Postpartum Telephone Consultation Teaching Script

Hello, this is Kiersten Proctor, and I am a Doctor of Nursing Practice (DNP) student with the University of Louisville. How is breastfeeding your baby progressing? Are there any health needs that I can assist you or your baby with?

Let's begin with a few more tips about breastfeeding. First, let us discuss feeding cues that your baby will demonstrate. The best time to offer a feeding is when you notice your baby is asleep, demonstrating rapid eye movement (REM). If you notice this, it is an appropriate time to pick up your baby and place him/her skin-to-skin on your chest. Next, you will notice your baby is in a state called quiet, awake. This is when your baby will be quietly looking around. This is another appropriate time to offer a feeding to your infant. Next, your baby will enter the stage of active, awake; this is when your baby will demonstrate cues such as rooting and/or sucking of his/her hands. These are later feeding cues, but still an appropriate time to offer a feeding. Lastly, your baby may demonstrate crying or irritability. At this point in time, it may be difficult to attempt a good latch. If this occurs, calm your baby through soothing and skin-to-skin contact. Once your baby has calmed, this is another appropriate time to offer a feeding. Through utilization of these feeding cues, you are participating in infant led breastfeeding.

Next, let's discuss the various breastfeeding holds. It may help if you turn to page 17 of *Your Guide to Breastfeeding* magazine. The first hold is the football hold, where you hold your baby at your side with his/her head at the level of your nipple. You then can support the baby's head and body with the palm of your hand and forearm. The next hold is the cross-cradle hold. You hold your baby across your body opposite the breast you are utilizing; using your forearm and palm of your hand to support the baby. Next is the cradle hold. Hold your baby with his/her

head on your forearm and have your baby's body face you. Next is the laid-back hold. This is where you lie back on a pillow and position your baby on top of you on your chest. Your infant will initiate the latch to feed; do not force a latch. Lastly, the side-lying position is another hold. Lie on your side and have your baby face you at the level of your breast. Ensure your baby is close to your body to initiate a latch.

The last point I would like to talk about today are the changes in your breastmilk. At seven days postpartum, you should have mature milk. This means your milk will appear white. If there is still some yellow to gold color in your milk, that is not worrisome. You should notice a change in the next few days.

Do you have any questions for me?

I will be contacting you again via telephone at 14 days postpartum.

Appendix E

Fourteen Days Postpartum Telephone Consultation Teaching Script

Hello, this is Kiersten Proctor, and I am a Doctor of Nursing Practice (DNP) student with the University of Louisville. How is breastfeeding your baby progressing? Are there any health needs that I can assist you or your baby with?

Let's begin discussing the composition of your breastmilk. Your breastmilk is constantly changing based on the needs of your baby. At times, your breastmilk contains more fat content than water content, and at other times, your breastmilk contains more water content than fat content. So, you may notice at times your volume of milk changes. Do not let this discourage you, for the milk is most likely to be higher in fat despite the lower volume.

Vitamin D supplementation is important for breastfed babies, as they do not receive this nutrient through your breastmilk. You can purchase vitamin D drops from your local grocery store in the baby aisle or ask your pediatrician for samples of drops. You should give your baby one dropper, equivalent to one milliliter, a day. You can either place this into your baby's mouth via the dropper or place the drops on your nipple prior to breastfeeding.

Using a breast pump can help with storage of breastmilk for times when you are not with your baby. Begin by stimulating your nipples through massage; this encourages the let-down reflex. Then place the pump on your breast. When pumping, ensure that it is not uncomfortable, and that the suction is not too strong. If you are going to pump, ensure that you pump between five and 20 minutes. Longer sessions can decrease milk production. You can pump both breasts at the same time. You can pump in between feeds, or during a regular feeding interval.

Lastly, I would like to review proper storage of breastmilk and thawing. Pages 41 through 43 in *Your Guide to Breastfeeding* magazine may be helpful. Ensure that you label the

breastmilk with the date and time it was collected. You can refrigerate or freeze your breastmilk. Be sure that you place the milk towards the back of the refrigerator or freezer. Milk can remain in the refrigerator for three days and in the freezer for three to six months. When thawing your breastmilk to feed to your baby, place the breastmilk bag in a cup filled with lukewarm to warm water. Allow the breastmilk to sit in the water until completely thawed. The water may need to be changed in order to facilitate further thawing.

Do you have any questions for me?