3-24-2017

Best Practices to Increase Breastfeeding Self-Efficacy in Breastfeeding Mothers

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Best Practices to Increase Breastfeeding Self-Efficacy in Breastfeeding Mothers

by

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Bachelor of Science in Nursing, University of Iowa, 2000

An Independent Study

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Master of Science

Grand Forks, North Dakota

March

2017

PERMISSION

Title: Best Practices to Increase Breastfeeding Self-Efficacy in Breastfeeding Mothers

Department: Nursing

Degree: Master of Science

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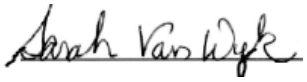
Signature 

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Abstract

Breastfeeding self-efficacy is a factor in the care of breastfeeding women that should be better understood among healthcare workers. It is important to understand breastfeeding self-efficacy and seek out interventions that will increase a woman's breastfeeding self-efficacy. As a result, breastfeeding initiation, duration and the choice to breastfeeding exclusively will be increased.

This study uses a literature review to review the best evidence based research related to breastfeeding self-efficacy and interventions that impact it. CINAHL and PubMed databases were used through the University of North Dakota Harley E. French Library. Fifteen articles were chosen to be included in the literature review.

As a result of this study it was found that breastfeeding self-efficacy should be considered prenatally, during the postpartum hospital stay, and after the mother returns home. It is important to understand that factors such as introducing formula can negatively impact breastfeeding self-efficacy. It is also important to understand that support from a mother's partner, breastfeeding experts and interventions such as telephone calls and home visits can positively impact breastfeeding self-efficacy.

It is important that nurses working with pregnant women assess a mother's breastfeeding self-efficacy prenatally, while in the hospital after giving birth, and as the mother returns home. Interventions should be designed to meet the needs of these mothers and to support the best possible outcomes for mother and baby.

The product created for this project is a power point that can be used as an educational training tool for care providers working with breastfeeding women. It will be presented to the Healthy Families Staff at Community Health Partners in Sioux County, Iowa.

Best Practices to Increase Breastfeeding Self-Efficacy in Breastfeeding Mothers

Breastfeeding is an important yet vulnerable time for a mother and her infant. There can be unanticipated challenges that create stress for the breastfeeding mother. The breastfeeding mother needs to feel empowered and confident as she faces these challenges. The first action step included in the United States Surgeon General's call to action for supporting breastfeeding women within the United States makes it clear that mothers must be given the support that is necessary to breastfeed their infant (Mass, 2011). Breastfeeding confidence, or self-efficacy, must be recognized as a key role in providing this support.

According to the preliminary data for 2015 from National Vital Statistics, there were 3,977,745 births in 2015 in the United States (Hamilton, Martin & Osterman, 2016). It is recommended that infants receive only breastmilk for the first six months of their lives, and that the mother continues to breastfeed for a year or longer once solids are introduced (American Academy of Pediatrics, n. d.). Although 79% of mothers who have recently given birth initially choose to breastfeed their infants, when the infant is six months old only 19% are still exclusively breastfeeding (Center for Disease Control and Prevention, 2015). Breastfeeding confidence, or self-efficacy, is a recognized modifiable factor that can influence the amount of time that mother will breastfeed her infant (Dennis, 2003). It is important for health care providers to recognize the importance of supporting breastfeeding women and realize the impact that increasing breastfeeding self-efficacy in breastfeeding women will have on the health of the mother and child, as well as our communities, in the long term.

This study will address breastfeeding self-efficacy and identify the best practices to increase breastfeeding self-efficacy in breastfeeding mothers. By recognizing the importance of self-efficacy interventions, healthcare providers can deliver improved, evidenced based support

to the breastfeeding woman as the mother navigates this vulnerable time and faces challenges. By increasing the level of a breastfeeding mother's self-efficacy the mother will feel empowered and supported as she cares for her child.

Purpose

The purpose of this study is to identify evidence based interventions that increase breastfeeding self-efficacy among breastfeeding women. It is necessary to determine how to best support breastfeeding women and their breastfeeding self-efficacy in order to empower breastfeeding women and create positive, successful breastfeeding experiences.

Studies have looked at factors that influence breastfeeding self-efficacy, (Dennis, 2006; Semenic, Loiselle, & Gottlieb, 2008). Studies have also looked at interventions that can influence a mother's breastfeeding self-efficacy (Aghas, Talat, Sepideh, 2014; McQueen, Dennis, Stremler & Norman, 2011; Otsuka et al., 2014). This study will look at the interventions, presented in the literature in order to determine evidenced based interventions that will be able to be used by healthcare providers. As a result of determining and utilizing these interventions, providers can help influence breastfeeding self-efficacy and improve breastfeeding practices in breastfeeding women. Thereby, increasing the health and wellbeing of a large portion of the population each year.

The dissemination product chosen for this project is a power point that can be used as an educational training tool for care providers working with breastfeeding women. It is important that breastfeeding education and support be consistent through the entire duration of the woman's prenatal, birth and postpartum experience (Cross-Barnet, Augustyn, Gross, Resnik & Paige, 2012). Creating a power point that clearly describes self-efficacy and evidenced based interventions to increase self-efficacy is a method to create consistency in care. If care is not

done consistently, the routine care implemented by care providers may instead discourage breastfeeding (Cross-Barnet et al., 2012).

The power point will be presented to the Healthy Families Staff at Community Health Partners in Sioux County, Iowa. The staff consists of providers that care for women prenatally and during the postpartum period. Reaching staff that care for women during the entire spectrum of their pregnancy and postpartum period will create an opportunity to assess and impact breastfeeding self-efficacy among the women they are caring for within the program. Educating the staff on breastfeeding self-efficacy will reinforce the importance and value of breastfeeding and help to increase breastfeeding duration by encouraging the implementation of interventions that will positively impact breastfeeding self-efficacy.

Significance

Breastfeeding self-efficacy is an essential element for the breastfeeding mother's breastfeeding experience. Breastfeeding self-efficacy is considered to be the level of confidence that a mother has in her ability to breastfeed her child (Dennis & Faux, 1999). Breastfeeding self-efficacy has been determined to be a modifiable determinant to whether or not a mother will continue to breastfeed their infant once she has begun (Dennis, 2006). Determining variables and interventions that will positively influence breastfeeding self-efficacy will greatly impact the practice of caring for breastfeeding mothers and their children.

Proper breastfeeding education also creates positive implications for the care provider. Increasing breastfeeding knowledge has been found to create a more positive attitude regarding breastfeeding by the care provider (Watkins & Dodgson, 2010). Education of providers is seen as a vital step to best care for women who are breastfeeding. The Baby Friendly Hospital Initiative has determined consistent education to be standard of care for all providers working

with breastfeeding women (World Health Organization [WHO] & United Nations International Children's Emergency Fund [UNICEF], 2009). One of the standards included in the Baby Friendly Hospital Initiative is that all providers who care for breastfeeding women in a designated Baby Friendly hospital should be expected to finish 20 hours of education focused on breastfeeding. However, this same continuing education will benefit providers who work beyond the walls of a Baby Friendly hospital.

Several studies, that examined interventions that impacted breastfeeding self-efficacy, were found. A small number of studies were found that compared and contrasted breastfeeding self-efficacy interventions. Several literature reviews looked at factors that influence breastfeeding duration in which self-efficacy was considered a factor (de Jager, Skouteris, Broadbent, Amir & Mellor, 2013; Meedya, Fahy & Kable, 2010). This study will specifically look at the literature and the evidence presented for interventions that impact breastfeeding self-efficacy among breastfeeding women.

The information gathered in this literature review will help better evaluate the effectiveness of tested interventions in order to determine which interventions should be included in the practice for care providers caring for breastfeeding women. This increased knowledge will help the care provider build trust and confidence with the breastfeeding mother. Ultimately, it is hoped that the increased knowledge of providers will thereby increase breastfeeding rates and improve health outcomes for the mother and the child.

Theoretical Framework

Cindy-Lee Dennis (1999) created a Breastfeeding Self-efficacy Framework based on Albert Bandura's Social Learning Theory (1977). Self-efficacy is a major emphasis within Badura's Social Learning Theory. Bandura defines self-efficacy as an individual's ability to

complete a specific task. However, this definition is complex and can be further broken down into two parts.

First, is the understanding that an individual will participate in a certain behavior because they believe the behavior will create a particular result (Bandura, 1977). The second part involves the existing confidence held by an individual or the perception that they have the needed abilities to accomplish a particular task that will lead to the desired result (Bandura, 1977). In addition, Bandura recognized that self-efficacy was impacted through four critical avenues of input: performance accomplishments, vicarious experience, verbal persuasion, physiological and affective states (Bandura, 1977). Dennis, likewise applied these critical avenues to breastfeeding self-efficacy.

Performance Accomplishments

The successes or **s**truggles an individual experiences influences their level of self-efficacy. Bandura (1986) related that the experiences a person has can greatly influence their self-efficacy, positively or negatively. These experiences and the way they are perceived are the most impacting elements on self-efficacy. The level of difficulty that the task has or the challenges it presents also influences the degree to which self-efficacy is impacted (Bandura, 1986).

Similarly Dennis (1999) stated that when a women is breastfeeding these variables apply. It is important to focus on successes and accomplishment that the mother has had while breastfeeding in order to increase her confidence level. Helping a mother through a particularly difficult breastfeeding obstacle would increase her confidence level even greater. In contrast, if the focus becomes about the difficulty of breastfeeding and the perceived failures a mother has experienced, her confidence level will diminish (Dennis, 1999).

Vicarious Experience

The next source of input that impacts self-efficacy, according to Bandura (1977), is vicarious experiences or the process of seeing an example of another person experience something similar to what an individual is experiencing. These examples could be represented in many different ways such videos, print, or in person.

Again Dennis (1999) went on to say when a breastfeeding mother is able to witness other mothers, such as friends, breastfeed with success it positively impacts their breastfeeding confidence. This could apply to viewing videos that demonstrate successful breastfeeding techniques or reading about mothers' personal stories of their positive breastfeeding experiences.

Verbal Persuasion

Encouragement and praise increases an individual's confidence. Bandura (1986) explained that an individual often accepts praise from others as a way of positively validating what they are doing, which increases that individual's self-efficacy.

Dennis (1999) then stressed that it is important for healthcare providers to praise the efforts and accomplishments of the breastfeeding women they are caring for. Praise and approval will increase breastfeeding self-efficacy and affirm the mother's efforts of feeding her child. Dennis added that the more knowledgeable the individual giving the praise, the more of an impact they have on the mother's breastfeeding self-efficacy.

Physiological and Affective States

The final significant input effecting self-efficacy, according to Bandura (1977) is a person's physical state and response to a particular behavior. Bandura explained the presence or absence of factors such as fatigue and pain can impact self-efficacy. For example, according to Bandura, a positive physical response can lead to feelings of accomplishment or anticipation. In

contrast a negative response could lead to increased anxiety, discomfort or stress (Bandura, 1977).

Breastfeeding experiences produce the same types of physical reactions that impact breastfeeding self-efficacy. Dennis (1999) explained that these physical reactions impact self-efficacy and may also impact the nature of the breastfeeding experience. As an example, Dennis explained that a negative physical reactions may decrease milk supply due to a delayed let-down of milk. It is therefore important to understand the impact of a woman's physical response to the experiences surrounding her as she breastfeeds her infant.

Finally, Dennis (1999) also applied what Bandura (1977) described as four concepts of how self-efficacy impacts an individual's outgoing thoughts or actions. These four areas include an individual's willingness to participate or avoid a new situation, the degree to which an individual will put effort into the task at hand, the positive or negative thoughts created by an individual that shapes how the experience is perceived, and whether the individual involved in the experience believes it to be too overwhelming or instead a challenge to be pursued.

This study used the concepts of self-efficacy described in Bandura's Social Learning Theory (1977) and applied to the Breastfeeding Self-Efficacy Framework shaped by Dennis (1999). The concepts are valuable to understanding interventions that will positively impact a breastfeeding woman's self-efficacy and create feelings of success and accomplishment as she care for her child.

Process

When completing the literature review, CINAHL database was searched using the major concepts of "breastfeeding interventions" and "breastfeeding confidence". This search found 41 articles. A second search was done using the concepts "breastfeeding self-efficacy" and

"interventions". The second search found 21 articles. Limits for both of the searches included English language, peer reviewed articles, and the time limit of 2010-2016. The articles were reviewed and additional articles were identified in the reference sections of the reviewed articles. These articles were found using the CINAHL and PubMed databases. One of the identified articles was retrieved using Interlibrary Loan at the University of North Dakota Harley E. French Library. All search databases were accessed through the University of North Dakota Harley E. French Library. After critical review of the articles, 15 were determined to pertain to this literature review.

Review of the Literature

Overview

As a woman considers, anticipates and begins to breastfeed, confidence is a major implication on the success of her breastfeeding experience and duration. Breastfeeding self-efficacy must be considered as a provider cares for a breastfeeding woman, during both the prenatal and postpartum care of the mother. Negative and positive factors that impact a mother's breastfeeding self-efficacy must also be understood to fully understand the complex impact of the factors surrounding a breastfeeding mother's breastfeeding experience.

Factors that Negatively Impact Self-Efficacy

It is important to understand factors that negatively impact breastfeeding self-efficacy in order to provide interventions that can help influence those factors. Negative factors must be avoided or impacted in order to best support the mother.

Introducing formula. The introduction of formula among breastfeeding women impacts a mother's confidence in her breastfeeding ability. In their cross sectional survey study Koskinen, Aho, Hannula, and Kaunoonen (2014) determined that formula supplementation

negatively impacted breastfeeding self-efficacy. Their study included 573 breastfeeding mothers living in Southern Finland who were over the age of 18 and delivered a single infant that was healthy. Women were recruited from three hospitals in Finland and completed surveys within one week after giving birth and again at 6 weeks. The Breastfeeding Self-Efficacy Scale-Short Form (BSES-SF), which has shown to have strong validity and was used in multiple research studies, was used to evaluate breastfeeding self-efficacy in their study. One element they included in their study was to look at mothers whose infant received formula while in the hospital and the impact it had on the mother's breastfeeding self-efficacy. They found that mothers whose infants receive formula to supplement breastfeeding while in the hospital had lower breastfeeding self-efficacy scores than mothers who were breastfeeding exclusively. A limitation recognized in this study was that the sample may not have been an accurate representation of the population being studied. However, the results warrant investigation and consideration because supplementing with formula is a practice occurring in hospitals that serve breastfeeding women and their infants.

Semenic, Loiselle and Gottlieb (2008) completed a prospective study that has been a foundational research study and referred to by authors of several different studies included in this literature review. Their study included a sample of 189 Canadian women who were over the age of 18, first time mothers, living with their partner and who gave birth to a single healthy infant. This study is unique because in addition to gathering data from the mother, the mothers' partners were also asked to complete a survey. One hundred and seventy nine of the partners completed a survey within 72 hours after the infant was born. Data was also collected from the mother within 72 hours after the birth of their infant. In addition to this, telephone interviews were completed by the mothers at 6 weeks and 4 months postpartum. A number of validated tools such as the

Breastfeeding Self-Efficacy Scale Short Form, Breastfeeding Informational Support Inventory, the Breastfeeding Beliefs and Bottle Feeding Beliefs scales, and the Infant Satisfaction/Growth subscale of the Maternal Breastfeeding Evaluation Scale were used within this study. One of the factors examined in their study also included the impact of formula supplementation. About half of the mothers stated that their infants were given formula to supplement their feedings during their postpartum hospital stay. Again, there was a clear impact on the mother's breastfeeding self-efficacy as a result. It was discovered that at the initial assessment and at six weeks postpartum, mothers whose infants were supplemented with formula while in the hospital had lower breastfeeding self-efficacy scores compared to mothers who were exclusively breastfeeding.

Therefore, it is a reasonable assumption that formula supplementation can negatively impact a mother's breastfeeding self-efficacy. Semenic et al. (2008) identified formula supplementation among the four predictors, including self-efficacy that impacted whether the mother was exclusively breastfeeding and how long the mother breastfed. Koskinen et al. (2014) also found that when infants were given formula supplementation without a medical reason the amount of time the mother exclusively breastfed was shorter. It is crucial to recognize the impact of formula supplementation on breastfeeding self-efficacy and in turn breastfeeding duration. Negative consequences were found and formula supplementation should be avoided unless medically necessary. Wu, Hu, McCoy and Efird (2013), in their quasi-randomized control trial that included 74 breastfeeding mothers from a hospital in China, recognized in their study, that in the initial days after delivery, mothers were concerned whether they were producing enough milk for their infant. Perceptions of a lack of milk supply were reported to be one of the reasons that women stopped breastfeeding (Wu et al., 2013). Wu et al. (2013) used the convenience sample

to implement a self-efficacy intervention that included implementing three postpartum sessions at 24 hours, 48 hours and one week after delivery to measure the impact on breastfeeding self-efficacy, duration, and whether or not the infant was being breastfed exclusively. The intervention included one-on-one appointments during which the mother's breastfeeding self-efficacy was assessed, individualized interventions based on the mother's assessment were implemented and the mother completed an evaluation regarding the appointment. The personalized interventions were based on breastfeeding counseling concepts developed by the World Health Organization and UNICEF (Wu et al., 2013). The validated Breastfeeding Self-Efficacy Scale- Short Form was once again used. A telephone call at 4 weeks and 8 weeks was completed to assess the mother's breastfeeding self-efficacy. Perceived low milk supply was reported by mothers during the data collection process. Again, this supports the importance of recognizing that it is a concern for breastfeeding mothers. Formula supplementation adds to the negative impact on breastfeeding self-efficacy. These factors appear to work in conjunction with each other and need to be addressed by providers.

Depression. Low breastfeeding self-efficacy can also lead to increased postpartum depression. Because the factors surrounding breastfeeding and breastfeeding self-efficacy are complex, it is important to consider the degree to which breastfeeding self-efficacy and depression interact and impact the breastfeeding mother. Lower breastfeeding self-efficacy scores can predict an increased risk for postpartum depression (Henshaw, Fried, Siskind, Newhouse & Cooper, 2015). Henshaw et al. (2015) completed a prospective study with 204 women, who gave birth at a level III tertiary care center in the Midwest United States. They assessed breastfeeding self-efficacy with the Breastfeeding Self-Efficacy Scale-Short Form and mood using the Edinburgh Postnatal Depression Scale (EPDS) and the Postpartum Depression

Predictors Inventory-Revised along with the Being a Mother Scale at two days, six weeks and six months postpartum. They discovered that breastfeeding self-efficacy scores taken on the second postpartum day were related to the EPDS scores at 6 weeks (Henshaw et al., 2015). A lower self-efficacy score at two days usually resulted in a higher depression score at six weeks.

By comparison, positive attitudes held by the mother may increase breastfeeding self-efficacy. In their retrospective study de Jager, Broadbent, Fuller-Tyszkiewicz and Skouteris (2014), data were collected from a sample of 174 women from Australia, the United States and Europe, using an online questionnaire. The questionnaire was developed using a number of validated tools including the Breastfeeding Self-Efficacy Scale Short Form, the Body Attitude Questionnaire, The Brief COPE shortened form, the Depression Anxiety Stress Scale 21 and the Fetal Health Locus of Control Scale (de Jager et al., 2014). The questionnaire asked the women to reflect on their experiences and attitudes before becoming pregnant, while pregnant and after giving birth. The sample for this study was large enough to produce enough power for the study (de Jager et al., 2014). In their study de Jager et al. (2014) found different time periods of breastfeeding self-efficacy: 7% breastfed exclusively for less than a month, 4% breastfeed exclusively for two months, 7% for four months, 49% for greater than four months and 31% for six or more months. A mother's breastfeeding self-efficacy and her attitude about breastfeeding while pregnant was significantly related to her plans to breastfeed exclusively (de Jager et al., 2014). In addition, the strength a woman felt she had was significantly associated with her breastfeeding self-efficacy (de Jager et al., 2014). Finally, a woman's breastfeeding self-efficacy was determined to be the only factor that could be directly relayed with the amount of time a woman exclusively breastfed.

Factors the Positively Impact Self-Efficacy

Positively impacting breastfeeding self-efficacy can lead to increased breastfeeding initiation, duration and increased breastfeeding exclusivity. Interventions should be implemented that supports these factors and increases breastfeeding self-efficacy.

Positive attitude. The randomized control trial by Srinivas, Benson, Worley and Schulte (2015) depicted the importance of a mother's positive attitude towards breastfeeding and its impact on breastfeeding initiation and duration. In their randomized control trial to determine the impact of peer counselors on self-efficacy, the rates of women exclusively breastfeeding and breastfeeding attitude were recorded. They also used validated instruments including the Breastfeeding Self-Efficacy Scale Short Form and the Iowa Infant Feeding Attitude Scale (Srinivas et al., 2015). They included 103 women from the Westown Physician Center, a clinic located in an urban area in Cleveland Ohio, that serves a low income population Srinivas et al., 2015). They found that when breastfeeding women had a positive attitude towards breastfeeding there were higher breastfeeding initiation rates and women breastfed for longer periods of time, whether or not they received the intervention from the peer counselor. Although the sample size was small this study presents good evidence for further research to be done in the area of peer counseling (Srinivas et al., 2015).

Skin to skin contact. Three studies examined skin to skin contact in relation to breastfeeding self-efficacy. A randomized control trial completed by Aghdas, Talat and Sepideh (2014) in Mashhad, Iran at a large tertiary hospital, included 92 infant and mother pairs. The study compared mothers whose infants were placed naked on their mothers for the first two hours after birth, to mothers whose infants received standard care which included receiving their initial care under a radiant heat warmer. Validated tools, including the Infant Breast Feeding

Assessment tool and the Breastfeeding Self-Efficacy Scale were used to assess women at 28 days postpartum (Aghdas et al., 2014). The study found that women that received the skin to skin intervention had a higher mean Breastfeeding Self-Efficacy Scale score, reported more success in their first feeding, and reported a shorter period of time in which the infant began the first feeding (Aghdas et al., 2014). In addition, more of these women reported having the skills to breastfeed, felt that breastfeeding was easy and felt that they knew they had enough milk for their baby (Aghdas et al., 2014). Thus, skin to skin contact was a significant intervention to increase a breastfeeding mother's self-efficacy.

In their descriptive correlation study, Yuen Loke and Chan (2013) used skin to skin contact as part of their intervention when studying the impact of exclusive breastfeeding and breastfeeding self-efficacy. Their study included 199 women from a hospital in Hong Kong who were healthy and delivered healthy newborns. (Yuen Loke & Chan, 2013). The researchers used a Chinese version of the validated Breastfeeding Self-Efficacy Scale Short Form to collect data related to self-efficacy. In addition, the Infant Breastfeeding Assessment Tool, a validated instrument, was used to assess and collect data on newborn breastfeeding behavior (Yuen Loke & Chan, 2013). The tools were used to collect data after skin to skin contact feedings observed by midwives, during the initial infant feeding two to four hours after delivery, at a feeding 24 hours after delivery, and during a telephone contact six weeks after birth (Yuen Loke & Chan, 2013). Initially, all infants were placed skin to skin on their mothers during feedings, on the first and second day postpartum, and breastfeeding was assessed by midwives using the Infant Breastfeeding Assessment Tool. Women were further separated in groups depending on their postpartum feeding methods: women that exclusively breastfed, those who bottle fed, and those who supplemented with formula while breastfeeding (Yuen Loke & Chan, 2013). They found

that at six weeks, women who were exclusively breastfeeding had higher breastfeeding self-efficacy scores than mothers in the other two groups. These mothers also felt more comfortable regarding the amount of milk their infant was receiving, did not feel that they needed to supplement with formula, that their infant was satisfied and coped better overall with breastfeeding experiences (Yuen Loke & Chan, 2013). In addition mothers who scored higher on the Infant Breastfeeding Assessment Tool were more likely to be breastfeeding at 6 weeks postpartum (Yuen Loke & Chan, 2013). Limitation to consider in this study include that is was done in one hospital, the sample size was small and there was only one follow up telephone call after the women returned home (Yuen Loke & Chan, 2013).

Skin to skin also contact played an important part in the study conducted by Koskinen et al. (2014). Among the women participating in the study, 87% had their infants immediately placed skin to skin after birth, and 62% of all infants had their first feeding within an hour of birth (Koskinen et al., 2014). It was found that those women in which the first feeding was initiated within the hour after birth had the highest breastfeeding self-efficacy scores using the BSEF-SF (Koskinen et al., 2014). This supports the importance of skin to skin contact and early breastfeeding and the impact it has on increasing breastfeeding self-efficacy in breastfeeding women.

Intention to breastfeed. A mother's decision to breastfeed and the timing of that decision is also associated with the mother's breastfeeding self-efficacy. Yuen Loke and Chan (2013) found that the mother's intent to breastfeed, as reported by the mother in the first 48 hours after birth, was a significant predictor to whether or not the mother was breastfeeding exclusively six weeks after delivery. In their study, de Jager et al. (2014) discovered that a mother's breastfeeding self-efficacy was also associated with her intent to breastfeed. They determined

that when a mother felt more confident in her ability to breastfeeding at 48 hours postpartum then her intent to exclusively breastfeed at 6 weeks was stronger.

Finally, in their cross sectional study Zhu, Chan, Zhou, Ye and He (2014) determined that the timing of the mother's intention to breastfeed was also related to breastfeeding self-efficacy. Zhu et al. studied 201 pregnant mothers at three hospitals in China using the Chinese version of the Breastfeeding Self-Efficacy Scale. A second tool used in their study was the Perceived Social Support Scale which was tested and shown to be reliable and valid (Zhu et al., 2014). Some of the limits of the study included a fairly homogenous sample size and a selection process for the sample that was not random. However, in their study Zhu at al. found that 85% percent of the mothers in their sample made their decision about whether or not they would breastfeed their infant during the early stages of their pregnancy and in some cases before their pregnancy. This early decision to breastfeed was found in their study to be among the five maternal characteristics that were strong predictors of a mother's breastfeeding self-efficacy. These characteristics included: the mother's perception of social support, previous breastfeeding experience, observing other mothers breastfeed, the timing of the mother's intention to breastfeed, and the mother's perception of her husband's attitude toward breastfeeding. As a result of considering these three studies, it can be suggested that a mother's intention to breastfeed and the timing of that decision is an important factor to recognize in relation to breastfeeding self-efficacy.

Partner support. Including a breastfeeding woman's partner when supporting and educating a breastfeeding woman has been found to impact breastfeeding self-efficacy. Zhu et al. (2014) reported that in their study the perceived attitude that a breastfeeding mother believed her partner had towards breastfeeding was a factor that significantly impacted the mother's

breastfeeding self-efficacy. They recommended that breastfeeding education with the mother and partners should begin prenatally to most positively impact a mother's breastfeeding self-efficacy.

Abbass-Dick, Stern, Nelson, Watson and Dennis (2015) also found that including a breastfeeding mother's partner impacted the duration a mother breastfed, due to the fact that the mother's perception of the father's support with breastfeeding impacted their breastfeeding self-efficacy. Abbas-Dick et al. included 214 couples from a large hospital in Toronto, Canada in their randomized control trial and looked at the impact that a co-parenting intervention had at six and 12 weeks postpartum. The intervention included face to face instruction aimed at both parents in the postpartum unit including: breastfeeding teaching, reviewing an informational packet and watching a breastfeeding video (Abbas-Dick et al., 2015). Parents were given access to a workbook, video and website with breastfeeding information and followed up at 1 and 3 weeks postpartum using email, and 2 weeks postpartum with a telephone call. Data was collected from both parents regarding the intervention at 6 weeks and 12 weeks postpartum by using an online questionnaire or telephone call (Abbas-Dick et al., 2015). An adapted version of the BSES-SF was used to measure the mother's breastfeeding self-efficacy in the study, and another adapted version was used in order to measure the father's self-efficacy in providing breastfeeding support. Abbass-Dick et al. found that the couples in the intervention group had a significant increase in the mean BSES-SF during the 6 week postpartum period compared to the control group. This evidence indicates that it is important to include fathers as they have a direct influence on the mother's feelings of support and confidence while breastfeeding.

Modeling. Seeing breastfeeding modeled by other breastfeeding mothers can greatly influence a mother's breastfeeding experience, especially those who are first time mothers. Zhu

et al. (2014) found that women with previous breastfeeding experience had higher breastfeeding self-efficacy scores and also found that having breastfeeding techniques modeled by other breastfeeding mothers significantly increased a mother's breastfeeding self-efficacy. Similarly, Kingston, Dennis and Sword (2007) found that seeing breastfeeding role modeled significantly impacted a mother's breastfeeding self-efficacy, especially at 48 hours postpartum. Their descriptive study used the BSES-SF to measure breastfeeding self-efficacy in 63 mothers at 48 hours postpartum and four weeks postpartum. The sample was drawn from a hospital in Toronto, Canada. Among the factors that impacted breastfeeding self-efficacy, Kinston et al. found that observed modeling through pictures and videos of breastfeeding women significantly impacted the mean BSES-SF results at 48 hours postpartum. Eighty seven percent of the women in their sample had received modeling through videos and pictures. In contrast it was found that this type of modeling did not have a significant influence on the BSES-SF scores at four week postpartum (Kingston et al., 2007). It appears that this type of modeling is most influential when completed prenatally and in the early postpartum time period.

Hospital intervention. The mother's postpartum hospital stay can be a vulnerable time for breastfeeding self-efficacy. It is important to address the mother's breastfeeding self-efficacy in order to provide her with the best possible breastfeeding support. Wu et al. (2014) used in-hospital interventions and followed up with breastfeeding women in China to determine the effect on breastfeeding self-efficacy. The interventions included personalized sessions within one day postpartum, one day after the first session and one week after delivery. These personalized sessions included assessing breastfeeding self-efficacy using the BSES-SF, reviewing low and high scoring questions, reviewing the mother's breastfeeding goals and assessing the mother's overall psychological state. The interventions also included counseling

and viewing a breastfeeding training course. Thirty three of the 74 women in the sample were included in the intervention group, 34 were in the control group. Wu et al. (2014) found that the women in the intervention group had significantly higher BSES-SF scores at both four weeks and eight weeks postpartum. Although this study was limited by a small sample size it still suggests early, in-hospital interventions could impact breastfeeding self-efficacy during the immediate and short term postpartum period (Wu et al., 2014).

McQueen, Dennis, Stremler, and Norman (2011) also used a hospital based breastfeeding self-efficacy intervention in their pilot randomized control group trial at a hospital in Northwest Ontario, Canada. They had a sample of 150 first time pregnant mothers who planned on breastfeeding, 81 were in the control group and received the usual standard of care, 68 were in the intervention group and 1 withdrew from the study. Their intervention, similar to the intervention by Wu et al. (2014), included two in hospital interventions and one intervention once the mother returned home. The intervention sessions were also done within one day after birth, 24 hours after the first intervention and then one week after the mother returned home. The last intervention was provided over the telephone; however the first two interventions were completed by a registered nurse with breastfeeding education experience. The sessions were individualized, based on the assessment of the mother's self-efficacy and physiological state. The tool used to assess breastfeeding self-efficacy was the BSES-SF. McQueen at al. (2011) found that mothers who received the intervention had higher mean BSES-SF scores at four weeks and 8 weeks postpartum. However, the difference in the scores between the intervention and control group were not significant. This study is limited due to the fact that it was a pilot study and future studies should be done to continue this research.

Abbas-Dick et al. (2015) also used an in hospital intervention during their study in Canada. The mother and father both participated in the intervention that delivered face to face breastfeeding education, provided curriculum in an educational packet, and the option of watching videos. These face to face sessions were followed up with an email at one week and three weeks, once the couple was home. In addition, a telephone call was completed during the second postpartum week (Abbas-Dick et al., 2015). Other resources that were offered included a workbook and internet site that were developed and available to the couples. The findings from the study indicated that there was a significant increase in breastfeeding self-efficacy scores during the first six weeks after delivery in the intervention group. They couples also reported that they felt that the information that they received as part of the intervention was helpful (Abbas-Dick et al., 2015).

Workbooks. Like Abbas-Dick et al. (2015), who used a workbook as part of their breastfeeding intervention, Otsuka et al. (2014) also implemented a breastfeeding self-efficacy intervention using a workbook. In their intervention study, women were recruited from two hospitals considered to be baby friendly hospitals in Japan and two that were not considered baby friendly hospitals. A workbook that had been developed and tested was distributed to the women in the intervention group during their third trimester. Their sample included a total of 781 women, 276 at baby friendly hospitals and 505 at non baby friendly hospitals. The intervention group, including 136 women from the baby friendly hospitals and 239 from the non-baby friendly hospitals, were given workbooks. The remaining 406 women in the control group, 140 from baby friendly hospitals and 266 from non-baby friendly hospitals, did not receive the workbook. Again, the BSES-SF was used to measure breastfeeding self-efficacy. Women were followed after delivery, four weeks after returning home, and 12 weeks after returning home.

This study found that the intervention did not impact breastfeeding self-efficacy among those women at non baby friendly hospitals. However, in women at baby friendly hospitals, the intervention increased BSES-SF scores at delivery and 4 weeks postpartum. This may suggest that the hospital practices at non baby friendly hospitals may negatively impact a woman's breastfeeding self-efficacy, despite other interventions, such as the workbook used in this study (Otsuka et al., 2014). The limits included in this study are many. They did not take into account the impact of hospital infant feeding practices, the hospital sites were not systematically selected and the influence of hospital staff on the study participants cannot be accounted for (Otsuka et al. 2014).

Interactive computer agent. Many turn to the internet for support and education regarding breastfeeding. Edwards, Bickmore, Jenkins, Foley and Manjourides (2013) introduced the use of an interactive computer agent, at a community hospital in the United States, to give support and education to breastfeeding women, prenatally when they choose to breastfeed and during postpartum period, while they were breastfeeding at the hospital and at home. The information provided during the program was based on information that would be given during a visit with an International Board Certified Lactation Consultant (Edwards et al., 2013). Prenatally, the program used motivational interviewing to encourage women as they approached the idea of breastfeeding. While in the hospital, information was provided that the woman needed while breastfeeding during their first three postpartum days. It also included information that answered the most common questions asked by breastfeeding women with responses that were supportive and acknowledged the importance of exclusive breastfeeding as described by the Centers for Disease Control and Prevention (Edwards et al., 2013). The study used the BSES-SF as well as the Iowa Infant Feeding Attitude Scale, both of which have been proven valid and

reliable. In this piloted randomized control trial, a sample of 15 mothers were used, seven were included in the intervention group and eight in the control group (Edwards et al., 2013). This small sample size is a limitation of the sample and it was recommended that the study be done again with at least 31 participants for both the intervention and control group. It was noted that the mean BSES-SF scores for the mothers in the intervention group were higher in the intervention group as compared to the control group, although this difference was not statistically significant (Edwards et al., 2013). While it is encouraging that the impact of the computer agent intervention did produce positive self-efficacy results, additional research with larger samples are needed to establish this as an intervention with strong evidence.

Postpartum support interventions. Finally, there are several postpartum interventions found in the studies that supported breastfeeding self-efficacy. The perceived support and breastfeeding attitudes of family, friends and the mothers of breastfeeding women correlated with the mother's breastfeeding self-efficacy (Zhu et al., 2014). Kingston et al. (2007) also found that the support given by the mother of a breastfeeding mother or their partner, if positive, had higher BSES-SF scores at 48 hours postpartum compared to those who received praise from friends only.

Price (2014) looked at the impact that home visitations had on postpartum breastfeeding women at the Berkshire National Health Services Foundation Trust, in the United Kingdom, by offering nursing visits during the postpartum period. Additional support was also offered through a local children's center. A total of 44 mothers participated in the program during a six month time period. They received a telephone call from the nurse within the first week of going home and then home visits were offered and continued as needed (Price, 2014). All of the mothers, when evaluating the services provided, shared that the support that they received from

participating in the home visitation program and, when applicable, attending the center, increased their confidence when breastfeeding their infant (Price, 2014). There were several limitations to this study, including a small sample size which impacted the significance of the data collected. There was also no mention of using a validated tool to assess breastfeeding self-efficacy, the responses were collected from the mothers during the completion of the program satisfaction survey (Price, 2014). So although the information provided does not provide strong evidence, it encourages the need for future research regarding home visits and their impact on a mother's breastfeeding self-efficacy.

Summary of Findings

Many of the studies included have the limitation of a small sample size. There are also few randomized control trials completed on the topic of interventions and breastfeeding self-efficacy. This suggests that there needs to be future research completed in this area. In many of the studies the BSES-SF was used as a valid tool to assess breastfeeding self-efficacy. This tool was adapted when needed in order to be used to assess a father's self-efficacy or when it was used in a foreign language however, it was still shown to be valid and reliable. Practices were found to impact breastfeeding self-efficacy both positively and negatively. Providing support to the breastfeeding mother in the forms of ongoing breastfeeding support, education and access to information or professionals were found to positively impact breastfeeding self-efficacy. Breastfeeding self-efficacy was found to be an important factor to consider throughout the mother's pregnancy, hospital stay and at home postpartum experience. Breastfeeding self-efficacy is a complex concept and has been addressed using many techniques such as face to face support, workbooks, technological resources, baby friendly hospitals and the encouragement of professional, family and friend support. Although there are many interventions critiqued and

reviewed here many of them center on increased support for the breastfeeding mother as she makes the decision to breastfeed, initiates breastfeeding and continues to breastfeed during the postpartum period.

Interpretation

Breastfeeding self-efficacy is an important element of a women's breastfeeding experience. The evidence found in the literature review can be reviewed through the lens of the Breastfeeding Self-Efficacy Framework developed by Dennis (1999) based on the Bandura's Social Learning Theory (1977).

Performance Accomplishments

First, in order to best support a breastfeeding woman there must be increased focus on her performance accomplishments. It is important for her to celebrate her accomplishments especially during the first 48 hours in the hospital and the first two weeks at home, some of the most vulnerable times for a woman's breastfeeding self-efficacy. When focusing on her accomplishments and helping her overcome challenges it will create positive feeling towards breastfeeding and increase her breastfeeding self-efficacy (Dennis, 1999). In contrast when the mother is overwhelmed by challenges and negative experiences her breastfeeding self-efficacy will decrease (Dennis, 1999).

Avoiding the introduction of formula is important in order to avoid negatively influencing a mother's breastfeeding self-efficacy. Introducing formula supplementation creates the perception that she is not producing enough milk and impacts breastfeeding self-efficacy and results in a shorter duration of breastfeeding (Semenic et al., 2008; Wu et al., 2013). If formula is given without a medical reason it impacts breastfeeding self-efficacy and results in a shorter time period in which the mother exclusively breastfeeds (Koskinen et al., 2014).

Skin to skin contact in the first 48 hours after birth is an experience that is rewarding and can positively impact a mother's breastfeeding self-efficacy. Aghdas et al. (2014) found that mothers that experienced skin to skin contact during breastfeeding had higher breastfeeding self-efficacy scores, felt more successful during the first feeding, felt breastfeeding was easy and felt that they had enough milk for their infant. Skin to skin contact is an important factor impacting breastfeeding self-efficacy scores and as a result influences the duration in which a mother breastfeeds exclusively (Koskinen et al., 2014; Yuen Loke & Chan, 2013). Mothers who were able to experience skin to skin contact were better able to cope with breastfeeding challenges (Yuen Loke & Chan, 2013).

Assisting the mother as she overcomes breastfeeding challenges is important in order to impact her perception of her breastfeeding successes. Providing breastfeeding instruction and supervising feeding in the hospital positively impacts a mother's breastfeeding self-efficacy (Abbas-Dick et al., 2015; McQueen et al., 2011; Wu et al., 2013). It is important to assist the mother in the first 48 hours after she gives birth, by assessing challenges she may be having and encourage her by pointing out the successes she has had thereby, positively influencing her performance accomplishments. Providing support in the hospital not only impacts a mother's breastfeeding self-efficacy while in the hospital but it also has been shown to impact her self-efficacy at four weeks (Wu et al., 2013), 6 weeks (Abbas-Dick et al., 2015) and eight weeks postpartum (McQueen et al., 2011; Wu et al., 2013).

Vicarious Experience

Dennis (1999) related that watching another mother breastfeed or witnessing examples of positive breastfeeding experiences can impact a mother's breastfeeding self-efficacy. This can be done in face to face interactions or using other experiences such as videos. In fact, using

videos to educate and help women observe positive breastfeeding experiences continues to be a method that significantly impact a mother's breastfeeding self-efficacy during the first 48 hours (Kingston et al., 2007). Observing other mothers breastfeed and having successful breastfeeding techniques modeled increases a mother's breastfeeding self-efficacy (Zhu et al., 2014). Modeling whether in person or through videos is effective and a convenient tool for breastfeeding mothers.

Workbooks may be an effective tool to educate breastfeeding women and increase their breastfeeding self-efficacy. Abbas-Dick et al. (2015) used workbooks in their study as part of their intervention impacting a mother's breastfeeding self-efficacy. Otsuka et al. (2014) found that, at baby friendly hospitals, using a workbook supplemented the interventions the women were receiving, allowed them to have another tool or reference when learning about proper breastfeeding technique, and increased their breastfeeding self-efficacy.

Another, novel way to use vicarious experience is through an interactive computer agent (Edwards et al., 2013). Although the results were not statistically significant, possibly due to sample size, the personalized breastfeeding information provided by the interactive computer agent does show promise as a potential intervention to increase breastfeeding self-efficacy scores. This could be a useful tool, after further research is done, to consider using in the future when working with breastfeeding women to increase their self-efficacy.

Verbal Persuasion

Providing positive verbal encouragement impacts self-efficacy (Bandura, 1986) and healthcare providers are in an excellent position to provide that encouragement (Dennis, 1999). This encouragement should be provided while in the hospital, impacting breastfeeding self-efficacy as the mother begins her breastfeeding experience (Abbas-Dick at al., 2015; McQueen

et al., 2011; Wu et al., 2013). However, this support can also be effectively provided during the postpartum period in the form of telephone calls (Abbas-Dick at al., 2015; McQueen et al., 2011; Price, 2014; Wu et al., 2013) or email (Abbas-Dick at al., 2015).

In-home nursing with breastfeeding women can be a useful intervention when supporting them during their postpartum breastfeeding experience. By individualizing the nursing visits to the needs of the breastfeeding mother and encouraging the use of other resources such as breastfeeding support at a local children's center, mothers feel more confident when breastfeeding their infants (Price, 2014).

Finally, although it is not professional advice, the verbal persuasion of those included in the mother's support system also influences her breastfeeding self-efficacy. The perception of the attitudes held by her friends, mother and significant other can positively impact her breastfeeding self-efficacy in the first 48 hours of her breastfeeding experience if she feels that her support system is giving her positive feedback (Zhu et al., 2014). Kingston et al. (2007) also found that a mother's breastfeeding self-efficacy can be impacted in the initial 48 hours by her partner or her mother. In addition, Abbas-Dick et al. (2014) found that a mother's breastfeeding self-efficacy increased during the first six week postpartum period when she felt supported by her partner and her partner also felt confident in his ability to support her.

Verbal persuasion is an important factor to consider. When done positively, specifically by health professionals but also by a mother's social support system, it can create increased levels of breastfeeding self-efficacy. It is important to consider this when working with breastfeeding mothers.

Physiological and Affective States

A response to an experience may either increase feelings of accomplishment or add to stress and anxiety (Bandura, 1977). A breastfeeding mother's response to her breastfeeding experience may lead to similar physical responses (Dennis, 1999). In addition it could lead to trouble with milk let down or decrease a mother's milk supply (Dennis, 1999).

Having a positive attitude toward breastfeeding has been found to create higher breastfeeding initiation rates among women (Srinivas et al., 2015; Zu et al., 2014) as well as impact whether the mother will breastfeeding exclusively and the amount of time the mother will exclusively breastfeed (de Jager et al., 2014; Zu et al., 2014). In fact, when a mother has a lower breastfeeding self-efficacy score in the first 48 hours after birth, one of the most vulnerable times for the mother, she is more likely to have a higher depression score using the EDPS at six weeks (Henshaw et al., 2015). Therefore, it is vital to help the mother realize her accomplishments and work through breastfeeding challenges. This will impact breastfeeding initiation, breastfeeding exclusiveness, breastfeeding duration, and overall feeling of depression.

In conclusion it is also important to remember that a mother's breastfeeding self-efficacy impacts her ongoing perceptions and actions towards breastfeeding (Dennis, 1999). It will influence: her willingness to continue to participate in breastfeeding experiences or avoid them, the amount of effort she feels she is able to put towards breastfeeding, whether positive or negative thoughts are created after certain experiences, and whether she will be overwhelmed by breastfeeding experiences or consider them challenges that can be overcome (Dennis, 1999). A mother's breastfeeding self-efficacy must be considered throughout her entire breastfeeding experience. Impacting breastfeeding self-efficacy in positive ways will result in positive short term and long term outcomes.

Outcome/Dissemination

The deliverable product created as a result of the literature review is a PowerPoint that can be used as a teaching tool for healthcare workers to help them understand the importance of the types of interventions that positively and negatively impact a mother's breastfeeding self-efficacy. A copy of the PowerPoint is included in the Appendix. This PowerPoint could be used as part of a short presentation however, it was also created so that it could be used as a standalone tool that a healthcare worker could review and gather beneficial interventions for their practice. In this way it is a versatile teaching tool that could be used in a variety of settings.

The PowerPoint would be an ideal tool to introduce to Healthy Families of Sioux County, Iowa. It is a home visitor program in Northwest Iowa that works with families prenatally through the child's entrance into preschool. The healthcare workers are advocates for the families they serve and would benefit from the information gathered in this project. Another opportunity for this tool to be used would be at the Northwest Iowa Breastfeeding Coalition. This coalition meets quarterly and includes representatives from public health and three birthing hospitals in Sioux County, Iowa and one in Plymouth County, Iowa.

The tool could be distributed and the responses by the women and the healthcare workers could be reflected on as part of a Healthy Family staff meeting or at a Northwest Iowa Breastfeeding Coalition meeting. Comments about the usefulness of the tool or constructive suggestions would be gathered. Once this process has taken place, a more formal conversation could take place with the OB nurse managers or clinic nurse managers at the three birthing hospitals as well as the community health center in Sioux County, Iowa regarding the use of the tool for their staff.

Implications for Nursing

Practice

Breastfeeding self-efficacy assessment should be an important part of healthcare practice. It should begin prenatally and continue through the postpartum period. The breastfeeding woman's partner should be involved and included in breastfeeding self-efficacy assessment and interventions. Support should be given to the mother to encourage skin to skin contact of mother and baby and formula should be discouraged. The mother should be surrounded with resources, professionals, as well as social support as they breastfeed, celebrate victories and overcome challenges. The assessment of a mother's breastfeeding self-efficacy should be a vital part of caring for a breastfeeding mother as she considers, initiates and continues to breastfeed her infant. By including breastfeeding self-efficacy assessment and follow up as part of a mother's standard of care, positive impacts will be made on initiation, the decision to exclusively breastfeed and the duration that a mother breastfeeds her infant. This will also impact the health of the mother and her infant.

More research needs to be done in order to create a reliable tool to use for assessing breastfeeding self-efficacy in practice. Dennis and Faux (1999) created the Breastfeeding Self-Efficacy Scale and Dennis (1999) created the Breastfeeding Self-Efficacy Scale Short Form. These tools are have been validated and reliable, however they have primarily been used for research purposes to collect data on breastfeeding self-efficacy. It would be helpful to create a similar tool or adapt these tools to be used to assess breastfeeding self-efficacy in breastfeeding women prenatally, in the hospital within 48 hours after birth and once the mother returns home to assist healthcare providers when providing care to breastfeeding women.

Education

Breastfeeding self-efficacy training should be included in the education given to healthcare workers as part of their orientation and training when they begin to work with pregnant women and their families. It should also be included as part of required ongoing continuing education in order to remain competent in caring for the breastfeeding woman and her infant. Current evidenced based research should be included in the education. This education should also be done with baccalaureate nursing students. It should be included in the curriculum as the students are educated on how to care for women prenatally, and how to care for the mother and infant during the postpartum period. Healthcare workers, especially nurses, are typically those who are most hands on and are some of the first individuals present when a mother decides to breastfeeds, initiates breastfeeding and continues to breastfeed. Therefore, they should be educated on the best evidence in relation to ways to increase breastfeeding rates, and that includes assessment and support of breastfeeding self-efficacy.

Policy

Policy should be in place that ensures healthcare practices used support a mother's breastfeeding self-efficacy. Policies should be in place in all systems that influence the mother's breastfeeding experience. This includes clinic and hospital policies that impact a mother's prenatal, labor and delivery and postpartum care. Breastfeeding self-efficacy should be routinely assessed in all women prenatally, in the hospital and postpartum during home visits or clinics visits. Breastfeeding self-efficacy assessment should be considered as part of the routine "vital signs" to gain a more complete understanding of the mother and child's well-being.

Policies should be in place that encourage skin to skin contact and prevent the introduction of formula. Polices should insure that interventions are done with breastfeeding

women by a breastfeeding expert within the first twenty four hours after birth, before the mother goes home, and during her postpartum time at home. These interventions should also include supporting the breastfeeding mother's partner. When important breastfeeding self-efficacy practices become a part of routine policy there is continuity of care and the attitudes of healthcare workers towards breastfeeding self-efficacy are positively impacted as well.

Research

Breastfeeding self-efficacy should be the focus of ongoing research. Several of the studies in the literature review were pilot studies or had small sample sizes that impacted the significance of their results. It is important to continue research regarding interventions such as home visitation, the impact of consultations with lactation consultants and counselors, as well as the most appropriate way to educate healthcare workers on breastfeeding self-efficacy. A practical tool for healthcare workers must be created and tested for validity and reliability so that breastfeeding self-efficacy can be more easily and consistently assessed. Finally, only a few of the research articles found regarding breastfeeding self-efficacy were completed in the United States. In order to better understand breastfeeding self-efficacy among breastfeeding women in the United States, where culture differences from other countries may exist, more studies should be completed in healthcare setting in the United States.

Summary/Conclusions

Breastfeeding self-efficacy must be considered when caring for prenatal and postpartum women. To impact breastfeeding duration, as well as whether or not a women will breastfeed exclusively, breastfeeding self-efficacy should be assessed as the women considers, initiates and continues to breastfeed. Breastfeeding self-efficacy should be assessed prenatally, as this impacts the initiation rates and confidence levels especially during the initial 48 hours of

breastfeeding. This should be a part of a woman's prenatal care and prenatal classes before giving birth. Her partner should be included in this as well as he will be one of her main support systems and his perceptions of and support of her breastfeeding greatly influences her breastfeeding self-efficacy.

During the immediate postpartum period skin to skin contact should be encouraged and the use of formula supplementation should be discouraged. Trained breastfeeding professionals including nurses, lactation consultants and lactation counselors should visit the postpartum mother and help assess her breastfeeding self-efficacy as well as offer encouragement and solutions to any challenges she may be experiencing. When the mother prepares to leave the hospital she should be provided with resources that she feels confident accessing while at home. She should also return home knowing that she will receive follow up support from trained breastfeeding professionals, especially during the first two weeks at home. Her partner should also be educated about resources. When leaving the hospital there is so much new information for the couple to absorb. Having an informed partner will also build his confidence in his ability to support and advise the breastfeeding mother.

Finally, when returning home there should be support in place. The mother's support system should be assessed, ensuring that she has people in her life that she can turn to for positive breastfeeding support. Telephone calls should be a routine part of follow up breastfeeding care and home visits by trained professionals should be available to the mother, catering to her needs. As the mother faces challenges after she returns home, she should have a clear list of resources available to her that are easily accessible. Offering breastfeeding support at care centers and clinics that have flexible hours should also be available for the women who has questions or may be experiencing challenges.

Breastfeeding is a rewarding yet challenging experience. Each breastfeeding experience is different. Breastfeeding self-efficacy impacts this experience and it also influences initiation rates, duration and whether or not the mother will breastfeed exclusively. Therefore, it is important to assess and implement strategies to most positively impact a mother's breastfeeding self-efficacy and create the best possible outcomes for the mother and her infant.

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Appendix

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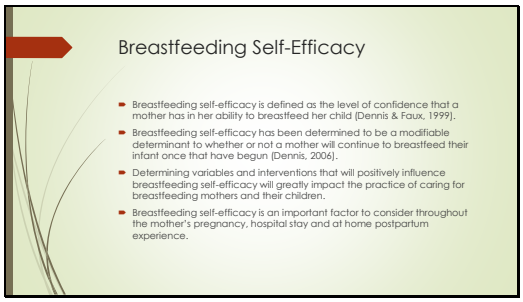

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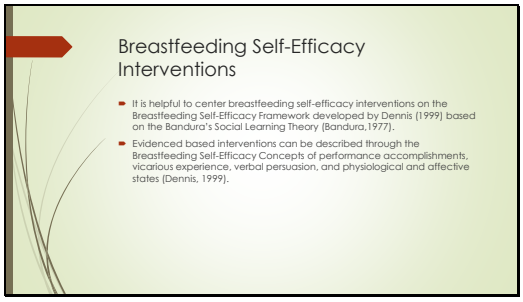

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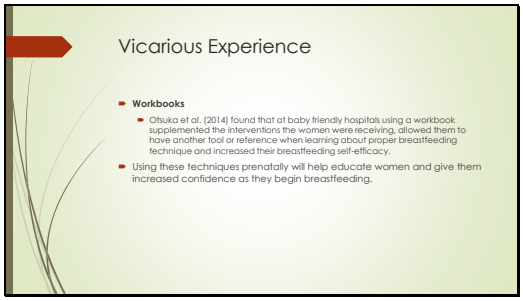

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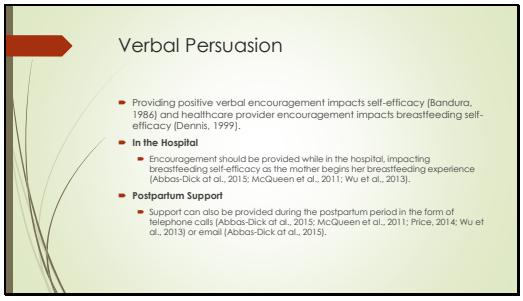

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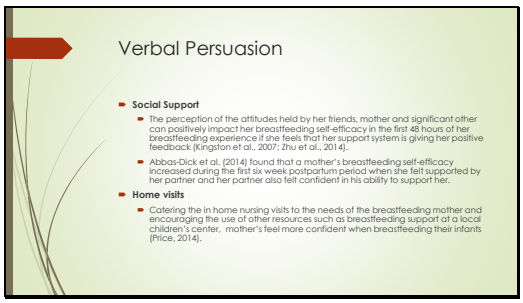

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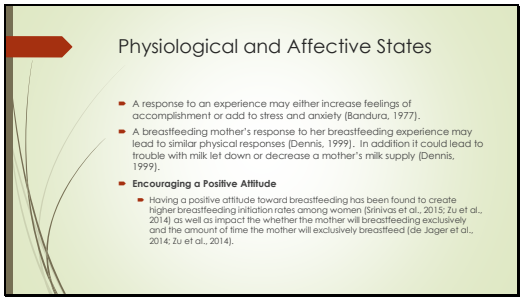
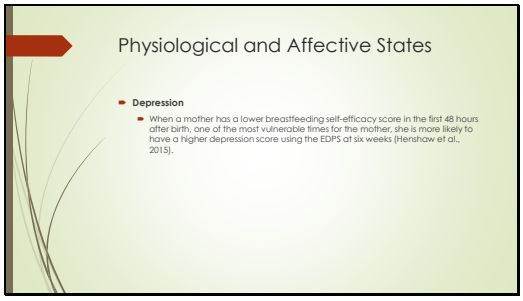
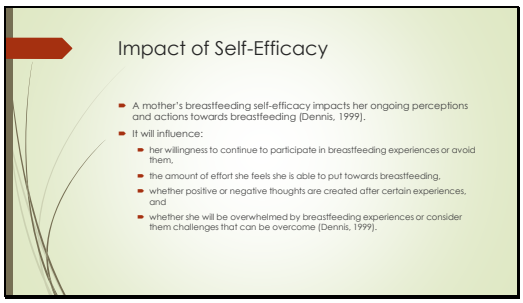


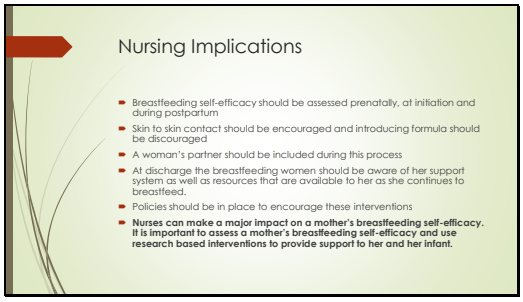
Slide 15



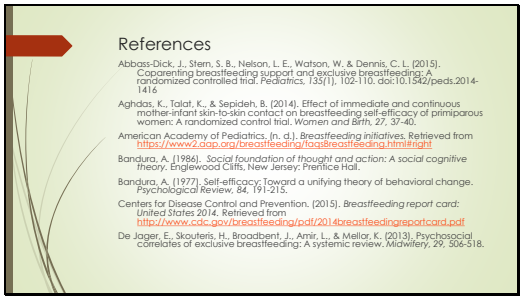
Slide 16



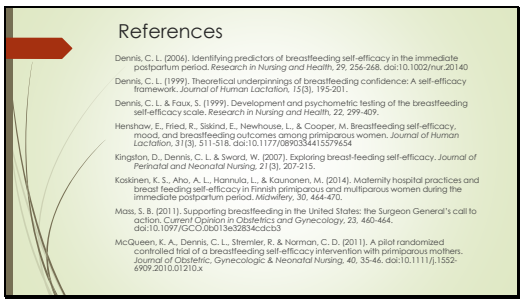
Slide 17



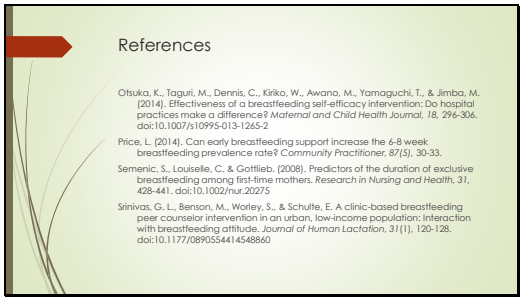
Slide 18



Slide 19



Slide 20



Slide 21