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**CULTURALLY APPROPRIATE BREASTFEEDING EDUCATION FOR AFRICAN  
AMERICAN MOTHERS**

**A MASTER'S PROJECT  
SUBMITTED TO THE GRADUATE FACULTY  
OF THE GRADUATE SCHOOL  
BETHEL UNIVERSITY**

**BY  
ALICIA M. FREPPERT**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF  
MASTERS OF SCIENCE IN NURSING**

**AUGUST 2018**

Bethel University

Culturally Appropriate Breastfeeding Education for African American Mothers

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August, 2018

Approved: Bernita Missal Thesis Advisor



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Signature

APPROVED



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Department Chairperson



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## Abstract

**Background:** Exclusive breastfeeding is globally recognized as the best possible source of nutrition for infants due to breastmilk's extensive health benefits. Significant disparities in breastfeeding initiation and duration exist among demographic groups in the United States, with African American breastfeeding initiation rates being significantly lower than any other race.

**Purpose:** The purpose of this critical review of the literature is to explore the impact of providing culturally appropriate breastfeeding education interventions on the rate of exclusive breastfeeding among African American mothers with children 0 to 12 months of age.

**Theoretical Framework:** The theoretical frameworks utilized to guide this systematic review of the literature were Critical Social Theory and Black Feminist Theory.

**Methods:** Eighteen articles were reviewed and analyzed for this critical review of the literature. Articles were published within the last nine years, and were selected if they evaluated a breastfeeding promotion intervention, explored breastfeeding perceptions and experiences of the target population, investigated the breastfeeding promotion interventions currently in use by professionals and individuals who provide infant feeding advice, or examined social and societal influences on the decision to breastfeed. Articles were then organized using the Matrix Method (Garrard, 2017) and appraised using the Johns Hopkins Evidence Based Practice Model (Dang & Dearholt, 2018).

**Results:** Effective breastfeeding promotion targeting African American families includes providing multiple interventions, combining education and support interventions, utilizing of social media, involving support people, and tailoring information to address the unique contexts of African Americans. Barriers to effective breastfeeding promotion include unsupportive social

influences, healthcare providers offering minimal or no support, and receiving culturally irrelevant education.

**Conclusion:** Breastfeeding promotion interventions targeting African American families will be most effective if they include support persons, combine education and support interventions, and provide culturally relevant information.

**Implications:** Healthcare providers working with pregnant or parenting African American mothers should be providing exclusive breastfeeding promotion interventions that address the unique social, experiential, and environmental contexts of African American families that impact the decision to breastfeed. Further research is required to more fully understand these contexts.

**Key Words:** breastfeeding, infant feeding, education, African American mothers, social, support, promotion, low-income

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## Chapter I: Introduction

Breastfeeding is recognized as the best possible source of nutrition for infants. Although artificial baby milk, commonly known as formula, and breastmilk both contain water, protein, carbohydrates, DHR/ARA, fat, vitamins, and minerals, breastmilk also contains enzymes, growth factors, anti-parasitics, anti-allergens, antivirals, hormones, and antibodies (American Pregnancy Association, 2018). Breastmilk also consistently contains high levels of nutrients, whereas the nutritional content of artificial baby milk will vary based on preparation and can be impacted by human error (American Pregnancy Association, 2018). The mother's body formulates a perfect combination of the precise nutrients and protectants the child's body requires. Furthermore, the mother's body alters the composition of the milk as the child ages, as to ensure the milk is specifically tailored to the needs of the child's growing body and changing demands.

Breastfeeding also allows for infant led feeding by letting the child determine how much milk he or she will consume. The mother's milk supply is maintained based upon demand, so the mother's body is designed to produce milk consistent with the amount the child is consuming. Finally, breastfed infants exhibit a reduced risk of type two diabetes, asthma, obesity, ear infections, respiratory infections, and Sudden Infant Death Syndrome (SIDS) (American Pregnancy Association, 2018). These extensive health benefits associated with breastmilk make breastfeeding the healthiest feeding option for infants, and the feeding option the World Health Organization and American Academy of Pediatrics recommends exclusively for the first six months of life (World Health Organization, 2018).

Breastfeeding promotion and education efforts have been successful, with breastfeeding initiation rates in the United States rising from 73% to 83% from 2004 to 2014 (Centers for Disease Control and Prevention, 2017). Furthermore, the rates of continued breastfeeding at six

month rose from 42% to 55% (Centers for Disease Control and Prevention, 2017). However, racial disparities in the rate of breastfeeding initiation in the United States persist. For example, from 2010-2013, breastfeeding initiation rates among non-Hispanic black infants was 64.3%, whereas 81.5% of non-Hispanic white infants initiated breastfeeding (Centers for Disease Control and Prevention, 2017). Furthermore, 22 of 34 states participating in the study indicated significantly lower breastfeeding initiation rates among the non-Hispanic black population when compared to the non-Hispanic white population, and 14 of 34 states participating in the study indicated breastfeeding initiation rates among non-Hispanic black infants was at least 15 percentage points lower than non-Hispanic white infants (Centers for Disease Control and Prevention, 2017). The study also demonstrated that exclusive breastfeeding rates at six months among non-Hispanic black infants was also significantly lower than that of non-Hispanic white infants (Centers for Disease Control and Prevention, 2017). These statistics demonstrate the need for breastfeeding education interventions that specifically address the cultural milieu of African American mothers and families.

### **Purpose**

The purpose of this critical review of the literature is to explore the impact of providing culturally appropriate breastfeeding education interventions on the rate of exclusive breastfeeding among African American mothers with children 0 to 12 months of age. The review of literature will compare various breastfeeding promotion methods, the outcomes of those methods, and the methods' success in meeting the culturally specific educational needs of the African American population, in addition to addressing the barriers to successful breastfeeding facing the African American population. The review of the literature aims to answer the research

question: What breastfeeding promotion interventions are most successful in addressing the culturally specific needs of African American families?

### **Need for the Critical Review**

The World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life (World Health Organization, 2018). Breastfeeding is considered the gold standard of infant feeding, as it has health benefits for both the mother and infant and encourages bonding and attachment. However, racial disparities in breastfeeding continue to exist in the United States. 59% of African American mothers have breastfed, while 75% of White mothers and 80% of Hispanic mothers have breastfed (Centers for Disease Control and Prevention, 2013). These statistics demonstrate that current breastfeeding promotion interventions are less successful in engaging African American women in the breastfeeding experience.

### **Significance to Nursing**

African American infants have the highest rates of infant mortality, SIDS, premature birth, low birth weight, and very low birth weight of any other group in the United States (Office of Minority Health, 2017). African American women also have the lowest rate of breastfeeding of any other group in the United States (Centers for Disease Control and Prevention, 2017). Research found that 70% of African American women intend to breastfeed, but their intentions often do not translate into breastfeeding initiation or long term sustained breastfeeding (Asiodu, Waters, Dailey, & Lyndon, 2017). Breastfeeding supports infant health, neurodevelopment, and immune system development in infants (Asiodu et al., 2017). Therefore, breastfeeding could prevent infant mortality and aid in counteracting low birth weight or complications of prematurity. Increasing the rate of breastfeeding in the African American community could be integral to eliminating these racial disparities and improving infant outcomes.

## **Theoretical Framework**

The theoretical perspectives of Critical Social Theory and Black Feminist Theory informed this study. Critical Social Theory is a framework that “uses societal awareness to expose social inequalities that keep people from reaching their full potential” and suggests that “social meanings structure life through social domination” (McEwen & Wills, 2014, p. 292). This theory can be used to help identify societal influences that detour African American women from making the decision to breastfeed their children. Black Feminist Theory considers the influences of the interworking of history, race, and gender on African American women (Collins, 2008). This can be used to identify how these culturally specific experiences have an impact on the choice to initiate and sustain breastfeeding.

## **Summary**

In this chapter, the topic of the persisting racial health disparity present in African American breastfeeding rates was presented, including the composition of breastmilk, the health benefits of breastfeeding, the recommendations pertaining to breastfeeding exclusivity and duration, and other racial health disparities that could be addressed through increasing breastfeeding rates in the African American population. This chapter also outlined the statement of purpose for this study, the need for a critical review of the nursing literature pertaining to breastfeeding rates, the significance of breastfeeding rates to nursing, and the use of the Critical Social Theory and Black Feminist Theory as the applicable theoretical frameworks.

## **Chapter II: Methods**

The purpose of this chapter is to describe the methods utilized to identify relevant research studies this critical review of the nursing literature related to breastfeeding rates, barriers, and education in the African American population. It will discuss the specific search criteria, inclusion and exclusion criteria, and the process used to evaluate each study for quality and strength using the Johns Hopkins Evidence-Based Nursing Model and Guidelines prior to selecting them for the literature review.

### **Search Strategies**

Journal articles were gathered from the National Center for Biotechnology Information (NCBI), US National Library of Medicine (MEDLINE), National Institutes of Health, PubMed, and The Cumulative Index to Nursing and Allied Health Literature (CINAHL). The keywords of the search included breastfeeding, infant feeding, education, African American mothers, social, support, and promotion.

### **Inclusion Criteria**

Articles needed to be published within the last nine years to be included in the critical review. Publication dates spanned from 2009-2017. This criterion was important as a way to keep the study applicable to the current cultural climate, social influences, and societal factors that impact African American mothers' decision to breastfeed today. One exception was made for an article published in 2000, as it provided evidence on the outcome of a written instructional breastfeeding promotion intervention. Studies were excluded if they were published before 2009, included antepartum or postpartum education that was not specific to breastfeeding, or did not result in consistent conclusions that addressed the research. Studies that focused on education not

specific to breastfeeding included additional factors that may have influenced mothers' decisions to breastfeed, and therefore could not be included in this critical review of the literature.

### **Study Selection**

Articles were selected if they evaluated a breastfeeding promotion intervention, explored breastfeeding perceptions and experiences of the target population, investigated the breastfeeding promotion interventions currently in use by professionals and individuals who provide infant feeding advice, or examined social and societal influences on the decision to breastfeed. Studies included in this review were random control trials, quasi-experimental trials, systematic reviews, and non-experimental studies. Studies were only included if they were classified as having high quality or good quality according to the Johns Hopkins Evidence Level and Quality Guide and were classified as an evidence level I, II, or III study.

### **Study Evaluation**

Studies were evaluated using the Johns Hopkins Evidence Level and Quality Guide. Articles were only included if they were classified as an evidence level I, II, or III study with a quality of A or B. Level I studies include experimental studies, randomized controlled trials, and systematic reviews of randomized controlled trials (Dang & Dearholt, 2018). Level II studies include quasi-experimental studies and systematic reviews of a combination or randomized controlled trials and quasi-experimental studies or quasi-experimental studies alone (Dang & Dearholt, 2018). Level III studies include non-experimental studies or systematic reviews of a combination of randomized controlled trials, quasi-experimental, and non-experimental studies or non-experimental studies only (Dang & Dearholt, 2018). Quality A, or high-quality studies, include those that provide consistent and generalizable results, conclusions, and recommendations based on the conclusions and scientific evidence (Dang & Dearholt, 2018).



Quality B, or good quality studies, include those that provide reasonably consistent results, conclusions, and recommendations based on the conclusions and some scientific evidence (Dang & Dearholt, 2018). Both quality A and quality B studies have sufficient sample sizes for the design of the study (Dang & Dearholt, 2018).

### **Summary**

This chapter highlighted the methods utilized to locate articles for this critical review of the nursing literature. Details of the search strategies, inclusion and exclusion criteria, study selection, and study evaluation were discussed, including an explanation of the Johns Hopkins Nursing Evidence-Based Practice Model that was used to analyze the articles.

### **Chapter III: Literature Review and Analysis**

This chapter includes a review and analysis of the articles selected for this systematic literature review. Encompassed in the review and analysis is a synthesis of the major findings of the studies and a critique of the strengths and limitations of the studies. The critical review of the literature addresses the question: What breastfeeding promotion interventions are most successful in addressing the culturally specific needs of African American families?

#### **The Matrix**

The literature review was completed utilizing the Matrix Model (Garrard, 2017). Eighteen articles were chosen for the review based on the methods of the study selection. The information from the articles was then compiled in a matrix including the citation, the level and quality ranking based on Johns Hopkins Evidence Based Practice, the purpose statement, the study design, the research findings, the nursing implications, and the recommendations. (Dang & Dearholt, 2018). Articles are organized alphabetically by the author's last name in Appendix A.

#### **Synthesis of Major Findings**

Research findings indicate the need for health professionals in all areas of the healthcare continuum to implement and provide culturally specific breastfeeding promotion interventions. However, the cultural experience of African American women and families historically has not been adequately addressed in breastfeeding education, resulting in significantly lower breastfeeding rates among the African American population than any other group. Furthermore, there are differences in breastfeeding rates among women of other races due to income or status, and African American women are less likely to breastfeed than women of other races regardless of income or status (Reeves & Woods-Giscombé, 2015). The synthesis of articles evaluated in this literature review of 18 studies, including seven ethnographic studies, five cross-sectional

studies, five literature reviews, and one randomized control trial, reported on the effectiveness of various breastfeeding promotion interventions, barriers to the success of those interventions, and the most significant influences on the choice to breastfeed. The key themes that emerged from the literature are: the influence of the breastfeeding mother's support persons on the choice to breastfeed, the necessity for culturally specific breastfeeding education, the success of breastfeeding education in combination with breastfeeding support, the lack of breastfeeding support from healthcare providers, and the need for further research pertaining to the specific cultural experiences that impact African American mothers' choice to breastfeed.

### **Importance of support people.**

Eleven of the 18 articles selected for the literature review highlighted the influence of support persons on the decision to breastfeed. This was the most significant recurring theme throughout the literature. A cross-sectional study of 236 mothers, including 93 non-Hispanic African American women, 72 non-Hispanic white women, and 71 Hispanic mothers, found that the intent to breastfeed is impacted by differing key influences across demographic groups (Bai, Wunderlich, & Fly, 2011). The study found that the most influential factor for African American women on the decision to breastfeed is the beliefs of family members and the opinions of the general public surrounding breastfeeding (Bai, Wunderlich, & Fly, 2011). Another cross-sectional study of 186 mothers, including 119 white women and 67 African American women, found the number one influence in the choice to breastfeed to be social influences including family and friends (Street & Lewallen, 2013). Furthermore, an ethnographic study, consisting of 22 socioeconomically diverse African American mothers and their support persons, identified one of the most salient barriers to African American mothers breastfeeding as the absence of reinforcement from support persons (Asiodu et al., 2017). The beliefs, attitudes, and level of

breastfeeding reinforcement projected from support persons repeatedly emerged in the literature as the most prominent factor in African American mothers' choice to breastfeed. This indicates that breastfeeding promotion interventions must include support persons and must address the support persons' beliefs and attitudes toward breastfeeding.

### **Necessity for culturally specific education.**

Nine of the 18 studies chosen for the literature review discussed the need for breastfeeding promotion interventions to be culturally specific. A cross-sectional study of 82 predominantly African American mothers demonstrated that increasing knowledge and addressing general barriers to breastfeeding alone is insufficient in encouraging African American women to initiate and continue breastfeeding (Thomson, Tussing-Humphreys, Goodman, Landry, & Olender, 2016). Improving breastfeeding outcomes will require providing culturally relevant, consistent, and engaging breastfeeding education (Thomson et al., 2016). An ethnographic study of 38 pregnant or lactated African American women found that the participants agreed that breastfeeding is the healthiest feeding option for babies, but the breastfeeding promotion interventions they experienced did not address the social and cultural challenges specific to the African American population (Johnson, Kirk, Rooks, & Muzik, 2016). Furthermore, two ethnographic studies, including one with 22 African American women and another with 16 African American women, identified a need for culturally relatable breastfeeding role models within breastfeeding promotion interventions (Asiodu et al., 2017; Lutenbacher, Karp, & Moore, 2016). The nine studies that discussed the need for culturally tailored breastfeeding promotion interventions described a significant gap in representation when related to the cultural, social, and societal experience of African American families that must be addressed.

**Education combined with support.**

Eight of the 18 articles evaluated emphasized the combination of breastfeeding education and breastfeeding support as the most successful method of increasing breastfeeding rates. A systematic literature review of 110 randomized control trials and quasi-experimental studies evaluating various breastfeeding promotion interventions found the most successful interventions to be those that combined both individual and group breastfeeding counseling with breastfeeding education (Haroon, Das, Salam, Imdad, & Bhutta, 2013). An ethnographic study of 28 low-income families identified the most needed breastfeeding promotion intervention as educational home visits from a healthcare provider or breastfeeding expert in combination with breastfeeding peer support groups (Kaufman, Deenadayalan, & Karpati, 2010). Another ethnographic study of 11 African American mothers demonstrated that African American mothers who were successful with breastfeeding had received both breastfeeding education and support interventions (Gross, Davis, Anderson, Hall, & Hilyard, 2017). Three barriers to successful breastfeeding that repeatedly emerge in the literature are lack of breastfeeding knowledge, lack of healthcare provider support, and lack of social support. By joining social and professional support with education, interventions can address all three of these barriers directly.

**Lack of healthcare provider support.**

Six of the 18 studies analyzed in the review identified a lack of healthcare provider support as one of the major barriers to initiating and maintaining breastfeeding practices. An ethnographic study of 38 pregnant or lactating women showed that participants felt breastfeeding was the healthiest feeding option, yet healthcare professionals were not always supportive and were even discouraging at times (Johnson et al., 2016). Furthermore, mothers in the study who chose not to breastfeed expressed distrust for the information from the healthcare providers, as

the healthcare providers did not have appropriate information or skills to engage African American women about breastfeeding (Johnson et al., 2016). Another ethnographic study of 16 African American mothers showed that despite breastfeeding education, critical periods, and supportive transitions being key factors in the decision to breastfeed, most women experienced little breastfeeding support from health care professionals (Lutenbacher et al., 2016). A literature review of 22 articles pertaining to infant feeding practices among African American women found that African American women understand the health benefits of breastfeeding, yet they lacked healthcare provider assistance in gaining the practical breastfeeding knowledge needed to successfully maintain breastfeeding (Reeves & Woods-Giscombé, 2015). Finally, a cross-sectional study of 80 low-income mothers found that healthcare providers advised families to choose the infant feeding method they had chosen themselves (Schafer, Williams, Digney, Hare, & Ashida, 2016). Therefore, if the provider combination fed or formula fed their own child, they would not advise exclusive breastfeeding despite the overwhelming evidence supporting exclusive breastfeeding (Schafer et al., 2016). As the ones providing new mothers with breastfeeding education, healthcare providers play a critical role in the decision whether or not to breastfeed. Because of that, increasing breastfeeding rates will require healthcare providers to implement evidence-based practice and provide adequate breastfeeding education and support.

### **The use of social media.**

Two studies examined in the review evaluated the utilization of social media in disseminating antepartum and postpartum education. An ethnographic study of 14 pregnant African American women and eight of their support persons found that participants were regularly using social media for both education and social support when looking for perinatal and parenting information (Asiodu, Waters, Dailey, Lee, & Lyndon, 2015). However, the participants

did not remember encountering information pertaining to breastfeeding when attempting to find educational material on social media (Asiodu et al., 2015). Another ethnographic study of 22 African American mothers and their support persons identified social media interventions as an important next step in increasing breastfeeding knowledge and awareness and in addressing breastfeeding attitudes and beliefs among the African American population (Asiodu et al., 2017). Social media is regularly utilized as a source of education during the antepartum and postpartum periods, yet it is not being used to its full potential to disperse culturally relevant and engaging breastfeeding education.

### **Evaluation of Salient Studies**

A systematic literature review by Lumbiganon et al. (2016) rated at level I with good quality assessed the effectiveness of antenatal breastfeeding education in 20 studies including 9,789 mothers. The literature review found that studies including only one method of breastfeeding education with standard care did not result in any difference in breastfeeding rates. Conversely, studies that included multiple methods of breastfeeding education improved the proportion of women exclusively breastfeeding at three months and marginally at six months. However, this study excluded any interventions that combined antenatal and intrapartum or postpartum breastfeeding education, creating a gap in understanding of the effectiveness of long term breastfeeding interventions that span from antepartum through postpartum. Additionally, the search strategy utilized for the literature review did not yield an adequate number of studies representing breastfeeding education interventions in low-income and middle-income countries.

Another systematic literature review by Haroon et al. (2013) rated at level II with high quality assessed the effectiveness of interventions that encourage breastfeeding at increasing the rate of exclusive breastfeeding at six months. This literature review found that interventions that

combined both individual and group counseling with breastfeeding education were most successful in increasing exclusive breastfeeding rates when compared to other breastfeeding promotion interventions. However, studies with before-after study designs, cohort studies, cross-sectional studies, and studies including preterm babies, low birth weight babies, babies with prenatal disease, babies of drug-using mothers, and babies in the NICU were excluded. Furthermore, studies that included combination interventions such as interventions promotion breastfeeding along with skin-to-skin contact or delayed pacifier use with the goal for decreasing ambivalence and resistance toward breastfeeding were also excluded. Excluding these combination intervention studies creates a gap in understanding the effectiveness of coupling breastfeeding interventions with other interventions to promote positive behaviors.

An ethnographic study conducted by Kaufman et al. (2010) rated at level III with high quality explored the breastfeeding conceptions and practices of 28 low-income African American and Puerto Rican families in two low-income Brooklyn neighborhoods through semi-structured individual and group interviews. The researchers found that women in the study thought breastfeeding was the best way to feed their children, but that commitment to breastfeeding turned to ambivalence in the face of perceptions about the dangers of breast milk, the virtues of formula, experiences in personal, extended familial, neighborhood, and institutional contexts, and the practical and sociocultural challenges of breastfeeding. However, the researchers concluded further studies are required to understand the ambivalence circulating in various women's contexts, as their study only included women who were all coming from a similar context.



## **Strengths and Limitations**

A significant limitation of this literature review is the missing representation of pregnant and parenting adolescent mothers. Five of the seven ethnographic studies, four of the five cross-sectional studies, and the randomized control trial explicitly excluded women under the age of 18. Therefore, understanding the effectiveness of various breastfeeding promotion interventions on pregnant or parenting teens under the age of 18 is lacking.

Another limitation of this literature review is the limited number of studies that focus solely on African American mothers. The participants in 11 of the 18 studies were comprised of either all or a significant number of African American mothers. However, the participants of the other seven studies were comprised of low-income mothers, a random sample of mothers, or multiple studies including varying samples of mothers. Thus, those seven studies did not focus specifically on African American mothers. The aim of this literature review was to address the effectiveness of breastfeeding promotion interventions with African American mothers. Therefore, it would have been desirable for all the studies to represent the views, experiences, and outcomes of African American mothers.

A major strength of this literature review is the consistency of recommendations across the studies. All 18 studies in this review addressed the necessity for improved breastfeeding promotion interventions. The nursing literature is consistent in expressing the goal of increasing breastfeeding initiation, exclusivity, and duration. The studies are also in agreement that a multiple intervention approach to promoting breastfeeding is most effective in encouraging and engaging families in the breastfeeding process. Finally, every study that included all or predominantly African American mothers expressed the need for culturally relevant

breastfeeding promotion interventions that address the specific contexts and barriers to breastfeeding that African American mothers experience.

Another strength of this literature review is the variety of study designs included in the literature review. The studies selected for this review of the nursing literature included both qualitative and quantitative ethnographic and cross-sectional studies, systematic reviews with and without meta-analysis, and a randomized control trial. This provided a wide range of study designs from which to gather conclusions.

The level and quality, and therefore strength of the studies, was evaluated using the Johns Hopkins Evidence Level and Quality Guide. Of the 18 studies selected for this literature review, four studies were level I with good quality, three studies were level II with high quality, one study was level II with good quality, eight studies were level III with high quality, and two studies were level III with good quality (see Table 1). A limitation of this systematic review of the literature is the disproportionately high representation of level III studies compared to level I and II studies. However, all studies selected for the review were of either high or good quality, bringing strength and validity to the results of the review.

Table 1

*Level and Quality of the Included Studies*

Quality	Level			Total
	I	II	III	
High Quality	0	3	8	11
Good Quality	4	1	2	7
Total	4	4	10	18

**Summary**

This chapter includes a synthesis of the major findings and recommendations of the eighteen studies selected for this systematic review of the nursing literature. The Matrix Method (Garrard, 2017) was utilized to critically review each article. The studies were organized according to significant findings pertaining to key influences on African American women's decision to breastfeed. The strengths and limitations of the studies were also noted.

## **Chapter IV: Discussion, Implications, and Conclusions**

This chapter will revisit the practice question: What breastfeeding promotion interventions are most successful in addressing the culturally specific needs of African American families? The information obtained from this literature review will be synthesized in regard to improving breastfeeding promotion interventions for African American families. Current trends and gaps in the literature will be addressed, in addition to recommendations for further research. Implications for nursing practice to improve breastfeeding promotion interventions targeting African American mothers and families will be discussed, specifically highlighting the use of Critical Social Theory and Black Feminist Theory to inform interventions.

### **Synthesis of the Literature**

The clinical question driving this critical review of the nursing literature is: What breastfeeding promotion interventions are most successful in addressing the culturally specific needs of African American families? Through evaluating the effectiveness of breastfeeding promotion interventions on increasing breastfeeding initiation and duration in African American families, five recurrent themes emerged in the literature. These themes included:

- the importance of including support persons
- combining educational and support interventions
- addressing contextual factors of African American families
- lack of healthcare provider support
- the need for further research pertaining to African American contexts

### **Trends in the literature.**

The first major theme demonstrated in the literature is the critical influential role of the support people in the decision to breastfeed. Including support persons in breastfeeding

promotion interventions is a critical ingredient for success. The next major theme revealed in the literature is the most effective forms of breastfeeding education include combining educational and support interventions that provide both comprehensive breastfeeding information and encouragement. Being in the know about the benefits and practical skills associated with breastfeeding and having a breastfeeding support network were repeatedly identified in the literature as being key determinants of breastfeeding success. The third major theme shown in the literature is tailoring interventions to focus on contextual factors that have an impact on the breastfeeding experiences of African American women is critical in providing successful breastfeeding promotion and education interventions. The literature found that African American women do not feel current breastfeeding promotion education adequately addresses the unique barriers to breastfeeding they experience, making it difficult to find success with breastfeeding. The fourth major theme described in the literature is the lack of healthcare providers offering breastfeeding support to African American mothers. Healthcare providers should be the biggest advocates for exclusive breastfeeding, yet African American women report not receiving breastfeeding support from their providers. The final major theme found in the literature is the need for further research pertaining to the social, experiential, and environmental contexts impacting African American women's choice to breastfeed.

#### **Gaps in the literature.**

While numerous high and good quality studies of varying levels were identified on the topic of the effectiveness of breastfeeding promotion interventions, the literature could be further enhanced by addressing several specific gaps. These gaps include:

- high quality level I studies

- sufficient research specific to the effectiveness of breastfeeding promotion interventions with African American mothers
- the effectiveness of interventions that promote more than one positive health behavior (including breastfeeding) with African American mothers (Haroon et al., 2013)
- the effectiveness of breastfeeding promotion interventions with pregnant or parenting African American mothers under the age of 18
- knowledge about experiences and influences that impact African American women's choice to breastfeed (Roll & Cheater, 2016)
- understanding of the social contexts of breastfeeding longitudinally (Schafer et al., 2016)
- interventions for overweight and obese women (Skouteris et al., 2014)

### **Recommendations for Nursing Research**

Six of the 18 studies examined in this systematic review of the nursing literature explicitly noted a need for further research to inform future breastfeeding education interventions for African American families. Further research is needed to investigate the social contexts of breastfeeding that impact the decision to breastfeed for African American women (Schafer et al., 2016). Social influences, the social-ecological perspective, and social media messaging all have a significant role in the decision to breastfeed. Therefore, in order to successfully tailor breastfeeding education and support interventions toward the unique experiences of African American women, it is necessary to identify what aspects of the social context of breastfeeding must be addressed. This should include identifying the current social perspective of breastfeeding, the support network available to educate and embolden African American women

to breastfeed, and the specific contextual factors that will require focused attention within the breastfeeding promotion interventions.

Future nursing research should also seek to address the current gaps in the literature. This includes conducting further research specific to the effectiveness of breastfeeding promotion interventions with African American mothers. Additionally, studies evaluating the effectiveness of breastfeeding promotion interventions on specific groups within the African American population are needed, such as African American mothers under the age of 18 and overweight or obese women. Finally, future nursing research should evaluate the effectiveness of interventions that promote other positive health behaviors in addition to breastfeeding with African American mothers (Haroon et al., 2013).

### **Implications for Nursing Practice**

#### **Inclusion of support persons.**

Future nursing practice should recognize the critical role support persons play in the decision to initiate and maintain breastfeeding. The most significant recurring theme throughout the literature, with 11 out of 18 of the studies addressing the issue, was the substantial influence support people have on whether or not a mother chooses to breastfeed. Therefore, including support persons in breastfeeding promotion and education interventions is vital. This requires healthcare providers to tailor breastfeeding education to not only address the attitudes, beliefs, experiences, contexts, and barriers present for the target parent, but for the support persons of the target parent as well.

#### **Combining education and support.**

Nursing practice should also aim to utilize a multiple-intervention approach when addressing breastfeeding education for African American women that includes both education

and support interventions. The studies that demonstrated the most success in increasing breastfeeding initiation rates, increasing exclusive breastfeeding rates, and increasing duration of breastfeeding included multiple educational and support interventions. Additionally, interventions utilizing social media and social messaging should be considered, as they are able to address social influences and contextual factors that impact the African American population.

#### **Application of Critical Social Theory.**

The Critical Social Theory implies bringing awareness to social inequalities is the first step toward helping a population reach their full potential (McEwen & Wills, 2014, p. 292). When considering the persistent racial disparities present in breastfeeding rates and infant mortality within the African American population, Critical Social Theory calls healthcare providers to bring awareness to this significant inequality. Breastfeeding promotion and education must address the problem and meet it head on by providing culturally relevant, competent, appropriate, and engaging interventions.

#### **Application of Black Feminist Theory.**

Black Feminist Theory identifies how African American women are influenced by their background and social context (Collins, 2008). Because of this, forming education and support initiatives that use culturally inclusive messaging and focus on the specific contextual factors that impact African American women will result in the most effective interventions. These contextual factors can include the mother's experiences with healthcare providers, the perception of breastfeeding of the community and support system of the mother, the workplace environment of the mother, and the mother's current knowledge pertaining to breastfeeding. Breastfeeding promotion and education interventions will carry the greatest influence if they are tailored to



address the social influences, experiences, beliefs, attitudes, and barriers specific to African American women and families.

### **Summary**

This chapter provides a review and synthesis of the literature's success in answering the practice question: What breastfeeding promotion interventions are most successful in addressing the culturally specific needs of African American families? It was concluded that the most successful breastfeeding promotion interventions include support persons, combine education and support, and address the contexts, experiences, and barriers specific to African American women and families. Gaps in the literature were addressed, including the need for further research that specifically addresses African Americans, pregnant and parenting teens under the age of 18, overweight and obese mothers, and intervention methods that include the promotion of multiple health behaviors. Recommendations for further research include expanding understanding of the social contexts and experiences that impact African American women's decision to breastfeed. Implications for nursing practice were highlighted, including application of Critical Social Theory and Black Feminist Theory in light of this systematic review of the nursing literature.

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## Appendix A: Literature Matrix

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Asiodu, I. V., Waters, C. M., Dailey, D. E., Lee, K. A., &amp; Lyndon, A. (2015). Breastfeeding and use of social media among first-time African American mothers. <i>Journal of Obstetric, Gynecologic &amp; Neonatal Nursing</i>, 44(2), 268-278. doi:10.1111/1552-6909.12552</p> <p><b>Level/Quality:</b> III/A</p>	<p><b>Purpose Statement:</b> To describe the use of social media among first-time African American mothers and their support persons during both the antepartum and postpartum periods.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 14 pregnant African American women and eight of their support persons</li> <li>• Participants were: <ul style="list-style-type: none"> <li>○ Self-identified African American women</li> <li>○ First-time mothers</li> <li>○ 18 years of age or older</li> </ul> </li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• Four Northern California Bay Area counties</li> <li>• Recruited through community-based programs, public health programs, and home visiting programs</li> </ul>	<p><b>Study Design:</b> Ethnographic study</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• Mothers and support persons were observed and interviewed during the antepartum period and the postpartum period</li> <li>• 25 hours of participant observations</li> <li>• 18 in-person interviews during the antepartum period (14 participants, four support persons)</li> <li>• 25 in-person interviews during the postpartum period (16 participants, nine support persons)</li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• Field observation notes</li> <li>• Interview recordings</li> </ul>	<ul style="list-style-type: none"> <li>• Participants use social media for both education and social support when looking for perinatal and parenting information</li> <li>• Although they looked at information on social media both during their pregnancies and after giving birth, they did not remember the information about breastfeeding</li> </ul>	<ul style="list-style-type: none"> <li>• Social media is important in disseminating feeding information</li> <li>• Social media is not being used to its full potential for breastfeeding promotion</li> <li>• As social media platforms become increasingly popular, there is a great opportunity for social media interventions to be creative and target health interventions and information about breastfeeding.</li> <li>• Future breastfeeding interventions geared toward African American mothers or their support persons should include social media initiatives</li> </ul>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Asiodu, I. V., Waters, C. M., Dailey, D. E., &amp; Lyndon, A. (2017). Infant feeding decision-making and the influences of social support persons among first-time African American mothers. <i>Maternal and Child Health Journal</i>, 21(4), 863-872. doi:10.1007/s10995-016-2167-x</p> <p><b>Level/Quality:</b> III/A</p>	<p><b>Purpose Statement:</b> The purpose of the study was to describe the perceptions and experiences of African American mothers and their support persons on the topic of infant feeding.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 22 socioeconomically diverse African American mothers and their support persons</li> <li>• Inclusion criteria included: <ul style="list-style-type: none"> <li>○ African American</li> <li>○ 18 years of age or older</li> <li>○ English speaking</li> <li>○ Ability to identify support persons</li> </ul> </li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• San Francisco Bay area in northern California</li> <li>• Recruited through public health programs, social media platforms, breastfeeding and parenting support groups, hospital bulletin boards, sororities, and professional and community-based organizations</li> </ul>	<p><b>Study Design:</b> Ethnographic study</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• Field observations</li> <li>• Demographic questionnaires</li> <li>• Face-to-face semi-structured and open-ended interviews</li> <li>• Meetings too place in participants home, community-based organizations, or coffee shops</li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• Interviewers used a uniform 8 question antepartum set and 7 question postpartum set</li> <li>• Interview included a demographic questionnaire</li> <li>• Interviews were audio recorded and transcribed</li> </ul>	<ul style="list-style-type: none"> <li>• Most mothers were not exclusively breastfeeding</li> <li>• Most mothers were breastfeeding some</li> <li>• Seven of the mothers expressed intent to exclusively breastfeed</li> <li>• Only four of the seven followed through</li> <li>• Mothers who intended to but did not expressed shame and guilt about not being able to exclusively breastfeed</li> <li>• Mothers identified barriers, including stress, lack of role models, limited experience, and changing family dynamics with the new baby.</li> </ul>	<ul style="list-style-type: none"> <li>• This study contraindicated the idea that African American women do not want to breastfeed</li> <li>• Possible interventions to continue increasing exclusive breastfeeding practices include <ul style="list-style-type: none"> <li>○ social media interventions</li> <li>○ providing information about combination feeding</li> <li>○ increased education surrounding the importance of identifying support persons</li> <li>○ incorporating culturally inclusive messaging around breastfeeding and lactation</li> </ul> </li> </ul>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Bai, Y., Wunderlich, S., &amp; Fly, M. (2011). Predicting intentions to continue exclusive breastfeeding for 6 months: A comparison among racial/ethnic groups. <i>Maternal and Child Health Journal</i>, 15(8), 1257-1264.</p> <p><b>Level/Quality:</b> III/A</p>	<p><b>Purpose Statement:</b> To explore how mothers of different races/ethnicities make the decision whether or not to continue exclusive breastfeeding for six months using the Theory of Planned Behavior.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• Purposive sampling method</li> <li>• 236 mothers, including 93 non-Hispanic African American, 72 non-Hispanic white, and 71 Hispanic/Latina mothers</li> <li>• Included mothers who: <ul style="list-style-type: none"> <li>○ Had infants from birth through four weeks old</li> <li>○ Were practicing exclusive breastfeeding</li> <li>○ Spoke English or Spanish</li> <li>○ Were 18 years of age or older</li> </ul> </li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• Central Indian and Southern New Jersey</li> <li>• Recruited from hospitals and WIC clinics</li> </ul>	<p><b>Study Design:</b> Cross-sectional study</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• Mothers completed a questionnaire during either their postpartum stay at the hospital or during their initial newborn certification visits at WIC clinics</li> <li>• Variables on questionnaire were developed through a theory-guided elicitation study and assessed intention, theoretical constructs, and their respective underlying beliefs using a seven-point Likert scale</li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• Self-administered questionnaires containing measures of theoretical components and demographic variables</li> <li>• Multiple regression analyses determined the relative importance of the responses, and factor analysis established validity.</li> </ul>	<ul style="list-style-type: none"> <li>• Intent to breastfeed was based on different factors for each demographic group</li> <li>• Attitudes, specifically latent beliefs like bonding and easy feeding, were the most important factor for white mothers</li> <li>• Subjective norms, specifically the beliefs of family members and the general public, were the most important factor for African American mothers</li> <li>• Perceived behavioral control, specifically pumping, was the most important factor for Latina mothers.</li> <li>• Although attitudes, subjective norms, and perceived behavioral control were important factors for all three demographic groups, the most influential factor on the decision to breastfeed varies for different racial/ethnic groups.</li> </ul>	<ul style="list-style-type: none"> <li>• Development of policy and intervention programs that focus on shaping strong predictors and beliefs within racial/ethnic groups is a significant way disparities in exclusive breastfeeding rates could be reduced</li> <li>• Interventions that support breastfeeding should be tailored to meet the specific needs of each population</li> <li>• Interventions that support breastfeeding should address the most influential factors that impact the choice to breastfeeding of each group</li> <li>• Exclusive breastfeeding for six months could be established as a cultural norm if needs and influencing factors are addressed and included in the development and implementation of breastfeeding promotion interventions</li> </ul>



Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Gross, T. T., Davis, M., Anderson, A. K., Hall, J., &amp; Hilyard, K. (2017). Long-term breastfeeding in African American mothers. <i>Journal of Human Lactation</i>, 33(1), 128-139. doi:10.1177/0890334416680180</p> <p><b>Level/Quality:</b> III/A</p>	<p><b>Purpose Statement:</b> To use the positive deviance approach in a qualitative study to explore the long-term breastfeeding experiences of low-income African American women.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 11 African American mothers</li> <li>• Included African American mothers who: <ul style="list-style-type: none"> <li>○ Were 18 years of age or older</li> <li>○ Participated in WIC</li> <li>○ Breastfed for at least 6 months in the past 2 years</li> </ul> </li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• Three health districts in Georgia</li> <li>• Recruited through breastfeeding peer counselors in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)</li> </ul>	<p><b>Study Design:</b> Ethnographic study</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• Phase two of an existing study</li> <li>• In phase one, focus groups were conducted with WIC breastfeeding peer counselors</li> <li>• In phase two, researchers conducted semi-structured individual interviews with participants</li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• Interview questions were developed by the researchers with the help of the peer counselors and a focus group of three members</li> <li>• Audio-recordings and transcriptions of the interviews were then analyzed for emerging themes using NVivo software</li> <li>• Interviewers had specific questions to ask, however they allowed for flexible conversation.</li> </ul>	<ul style="list-style-type: none"> <li>• One of the common themes was that not many African American women breastfeed</li> <li>• Reasons for breastfeeding included <ul style="list-style-type: none"> <li>○ Family influence</li> <li>○ Spousal support</li> <li>○ Knowledge of health benefits</li> <li>○ Bonding and attachment</li> <li>○ Self-efficacy</li> <li>○ Breastfeeding support hospital policies</li> <li>○ WIC peer counselors</li> <li>○ Routines</li> </ul> </li> <li>• Cost was not cited as a reason for breastfeeding</li> <li>• Participants noted gaps in culturally appropriate breastfeeding</li> </ul>	<ul style="list-style-type: none"> <li>• African American women were successful with breastfeeding education and support</li> <li>• Culturally appropriate breastfeeding education is needed</li> <li>• Successful breastfeeding education and social support to African American women can be successful in increasing breastfeeding rates</li> <li>• Future breastfeeding efforts should be culturally tailored and target the contextual factors that have an impact on breastfeeding experiences for African American women using a social-ecological perspective</li> </ul>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Haroon, S., Das, J. K., Salam, R. A., Imdad, A., &amp; Bhutta, Z. A. (2013). Breastfeeding promotion interventions and breastfeeding practices: A systematic review. <i>BMC Public Health</i>, 13(Suppl 3). doi:10.1186/1471-2458-13-s3-s20</p> <p><b>Level/ Quality:</b> II/A</p>	<p><b>Purpose Statement:</b> To determine what interventions to encourage breastfeeding are most effective in increasing the rate of exclusive breastfeeding until the child is six months old because that is the recommendation of the World Health Organization.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>110 studies pertaining to breastfeeding rates correlating to various community and facility-based interventions</li> </ul>	<p><b>Study Design:</b> Systematic literature review of randomized control trials and quasi-experimental studies</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>Articles were selected that compared breastfeeding encouragement methods, including education, support, and routine care</li> <li>The effect of the interventions was considered for exclusive, predominant, partial, and no breastfeeding parents</li> <li>Time intervals of day 1, &lt;1 month, and 1-5 months were targeted</li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>The Child Health Epidemiology Reference Group (CHERG) rules were used to grade the evidence using the adapted Grading of Recommendations, Assessment, Development and Evaluation (GRADE) criteria</li> <li>The Lives Saved Tool (LiST) model was used for studies in developing countries</li> </ul>	<ul style="list-style-type: none"> <li>Exclusive Breast Feeding (EBF) rates significantly increased as a result of promotion interventions</li> <li>Improvement at day 1 was 43%, 30% at &lt;1 month, and 90% at 1-5 months</li> <li>Breastfeeding education increased EBF and decreased no breastfeeding rates at birth, &lt;1 month, and 1-5 months</li> <li>Combining individual and group counseling was most effective compared to individual or group counseling alone</li> <li>The impact was stronger in developing countries</li> </ul>	<ul style="list-style-type: none"> <li>Breastfeeding education and/or support was successful in increasing the Exclusive Breast-Feeding rates at all the target intervals</li> <li>Breastfeeding education was successful in decreasing the no breastfeeding rates at birth, &lt;1 month, and 1-5 months</li> <li>The most successful interventions include both individual and group counseling</li> <li>Combining individual and group counseling is an especially effective tool in developing countries</li> <li>Policies that include providing breastfeeding education and support through individual and group counseling should be implemented to improve breastfeeding rates</li> </ul>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Hoyer, S., &amp; Horvat, L. (2000). Successful breastfeeding as a result of a health education programme for mothers. <i>Journal of Advanced Nursing</i>, 32(5), 1158-1167. doi:10.1046/j.1365-2648.2000.01553.x</p> <p><b>Level/Quality:</b> III/B</p>	<p><b>Purpose Statement:</b> To determine how written instructions for successful breastfeeding and individual breastfeeding counseling improve the rate of successful breastfeeding without the addition of other liquids and milk in babies' nutrition in the first six months of life.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 203 mothers selected at random</li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• Slovenia</li> <li>• Participants were selected by district field nurses</li> <li>• The first two visits with the district field nurses were completed in either the maternity hospital or clinic</li> <li>• The rest of the visits were completed in the women's homes</li> </ul>	<p><b>Study Design:</b> Cross-sectional study</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• 179 field nurses each responsible for educating and monitoring one or two women</li> <li>• Participants received "Guidelines for promotion of breastfeeding", which appealed to variables proven to be influential in Slovenian breastfeeding practices</li> <li>• Participants took a questionnaire six times throughout the first year of the child's life</li> <li>• Nurses completed the first visits within the first 4-7 days of the child's life and covered the birth, first breastfeeding, style of living, child's nutrition support of health personnel, breastfeeding experience, and nutrition difficulties</li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• The 74-item questionnaire was developed using population characteristics and standard routines used by district hospitals and district field nurses</li> </ul>	<ul style="list-style-type: none"> <li>• 25.7% were exclusively breastfeeding at the end of the first week</li> <li>• 16.4% were exclusively breastfeeding at the end of the first month</li> <li>• 9.5% were exclusively breastfeeding at the end of the third month</li> <li>• 84.7% of the women continued breastfeeding at the end of the first month</li> <li>• 74.9% continued breastfeeding at the end of the third month</li> <li>• 45.8% continued breastfeeding at the end of the sixth month</li> <li>• Participants expressed having a positive experience with breastfeeding</li> <li>• Factors that contributed to discontinuing breastfeeding included: <ul style="list-style-type: none"> <li>○ Lack of hospital breastfeeding support</li> <li>○ Difficulty breastfeeding in the hospital</li> <li>○ Introduction of formula in first month</li> <li>○ Pacifier use in first month</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Breastfeeding promotion interventions should encourage parents to wait to introduce fluids other than breastmilk for at least six months because of the many health benefits of breastmilk</li> <li>• Further education on the benefits of exclusively breastfeeding is recommended for breastfeeding women</li> </ul>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Johnson, A. M., Kirk, R., Rooks, A. J., &amp; Muzik, M. (2016). Enhancing breastfeeding through healthcare support: Results from a focus group study of African American mothers. <i>Maternal and Child Health Journal, 20</i>(S1), 92-102. doi:10.1007/s10995-016-2085-y</p> <p><b>Level/Quality:</b> III/A</p>	<p><b>Purpose Statement:</b> To explore thoughts, attitudes, and experiences of African American women pertaining to breastfeeding with healthcare professionals and the influences on their breastfeeding interest and behavior.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 38 pregnant or lactating African American women and racially diverse health professionals at one of six membership specific focus groups</li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• Metro Detroit area</li> <li>• Six focus groups, including: <ul style="list-style-type: none"> <li>○ two for professionals</li> <li>○ two for women breastfeeding or planning to breastfeed</li> <li>○ two for women not breastfeeding or planning to breastfeed</li> </ul> </li> </ul>	<p><b>Study Design:</b> Ethnographic study</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• An African American focus group facilitator led group discussions</li> <li>• Discussions covered perceptions of personal and professional roles and behaviors that support breastfeeding behaviors for African American women</li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• Discussions were recorded and transcribed</li> <li>• A grounded theory approach was used to analyze data and interpret themes</li> <li>• Thematic analysis inductively analyzed and coded transcripts and field notes</li> <li>• A content analysis framework was used to organize the data</li> </ul>	<ul style="list-style-type: none"> <li>• Participants agreed that breastfeeding is the healthiest feeding option for babies, yet healthcare professionals are not always supportive and were discouraging at times</li> <li>• Mothers choosing not to breastfeed expressed distrust for of the information from healthcare providers and listened to peers' advice more</li> <li>• Participants expressed healthcare providers did not have appropriate information or skills to engage African American women about breastfeeding</li> <li>• Identified barriers to breastfeeding initiation included: <ul style="list-style-type: none"> <li>○ Lack of breastfeeding interventions addressing social and cultural challenges</li> <li>○ Lack of appropriate hospital support</li> <li>○ Unconscious bias</li> <li>○ Lack of support system from the hospital, community, and peers</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Healthcare professionals should become aware of the diverse breastfeeding intervention needs and expectations of African American mothers and address them in a consistent and standardized manner</li> <li>• A contextualized approach that combines credible, professional knowledge, expertise, and conscience cultural awareness, in combination with interpersonal social support within a continuum of care from pregnancy through to postpartum would be effective in meeting these diverse needs</li> </ul>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Kaufman, Leslie, Deenadayalan, Swarna, &amp; Karpati, Adam. (2010). Breastfeeding ambivalence among low-income African American and Puerto Rican women in North and Central Brooklyn. <i>Maternal and Child Health Journal</i>, 14(5), 696-704.</p> <p><b>Level/Quality:</b> III/A</p>	<p><b>Purpose Statement:</b> To explore low-income African American and Puerto Rican women's conceptions and practices surrounding breastfeeding and the impact of diverse factors such as social constructions of the body, local mores around infant care, and the practicalities of food availability, in context of interactions with family members and friends, institutions, and others peers.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 28 African American and Puerto Rican families in which the women had recently given birth</li> <li>• The goal was to represent each infant feeding method within the sample</li> <li>• Eight women formula fed, 18 breastfed and formula fed, and two exclusively breastfed.</li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• Two low-income Brooklyn neighborhoods, Bushwick and Bedford-Stuyvesant</li> <li>• Women were identified by screening those participating in WIC</li> <li>• Recruitment was through the New York City Department of Health and Mental Hygiene's Newborn Home Visiting Program</li> </ul>	<p><b>Study Design:</b> Ethnographic study</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• In-context, semi-structured individual and group interviews and participant observation</li> <li>• A topic-based interview instrument administered by the lead researcher and an assistant that included <ul style="list-style-type: none"> <li>○ Demographics</li> <li>○ Family history</li> <li>○ Infant feeding practices</li> <li>○ Infant feeding perceptions</li> <li>○ Breastfeeding promotion experiences</li> <li>○ Decision making in the antepartum and postpartum periods</li> </ul> </li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• Interviews were audiotaped and transcribed</li> <li>• Researchers followed up with participants by phone</li> <li>• Researchers documented interactions and observations by taking notes</li> <li>• Transcriptions and notes were analyzed and coded to reveal themes</li> </ul>	<ul style="list-style-type: none"> <li>• Women in the study felt breastfeeding was the best way to feed their children</li> <li>• Commitment to breastfeeding turned to ambivalence in the face of perceptions about the dangers of breast milk, the virtues of formula, and the practical and sociocultural challenges of breastfeeding</li> <li>• Sources of ambivalence included women's experiences in their personal, extended familial, neighborhood, and institutional contexts</li> <li>• Formula was introduced sooner as a result of ambivalence to breastfeeding, resulting in short breastfeeding durations.</li> </ul>	<ul style="list-style-type: none"> <li>• Further studies should be completed to represent the realities of women in various contexts in order to gain a deeper understanding of the ambivalence that may circulate in women's worlds</li> <li>• Public health goals must be revised to address the challenges of women's varying contexts</li> <li>• Far more education is needed surrounded the competing messages women are hearing pertaining to breastfeeding, what is going on in the body during breastfeeding, and how to cope with difficulties</li> <li>• Promotion should include home visits by lactation consultants, nurses, and peer counselors, and breastfeeding peer support groups should be established.</li> </ul>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Lumbiganon, P., Martis, R., Laopaiboon, M., Festin, M. R., Ho, J. J., &amp; Hakimi, M. (2016). Antenatal breastfeeding education for increasing breastfeeding duration. <i>Cochrane Database of Systematic Reviews</i>. doi: 10.1002/14651858.cd006425.pub4</p> <p><b>Level/Quality:</b> I/B</p>	<p><b>Purpose Statement:</b> To assess the effectiveness of antenatal breastfeeding education for increasing initial breastfeeding initiation and breastfeeding duration.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 20 studies including 9,789 mothers</li> <li>• Studies were selected that evaluated the effect of formal antenatal breastfeeding education or compared two different antenatal breastfeeding education methods on the duration of breastfeeding</li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• The Cochrane Pregnancy and Childbirth's Trials Register was utilized, including CENTRAL, MEDLINE, and Scopus databases</li> <li>• Most studies took place in high-income countries, including the US, UK, Canada, and Australia</li> </ul>	<p><b>Study Design:</b> Systematic literature review including published, nonpublished, and ongoing randomized controlled trials</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• Pertinent studies were evaluated by two review authors</li> <li>• Data was extracted using a form developed to ascertain the data in the same way for all studies</li> <li>• Bias risk and discrepancies were assessed and resolved through discussion.</li> <li>• Trials were assessed for quality using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) system</li> </ul>	<ul style="list-style-type: none"> <li>• In studies that included one method of breastfeeding education with standard care, there was no difference in duration of breastfeeding</li> <li>• In studies that included multiple methods of breastfeeding education versus standard care, implementing a breastfeeding booklet, video, and lactation consultant improved the proportion of women exclusively breastfeeding at three months and marginally at six months</li> <li>• The same trial without the lactation consultant was not effective.</li> <li>• Monthly breastfeeding sessions and weekly cell phone messages improved the proportion of women exclusively breastfeeding at three and six months</li> <li>• Of all the interventions evaluated, the most effective were ones that included multiple methods of breastfeeding education</li> </ul>	<ul style="list-style-type: none"> <li>• Breastfeeding promotion interventions should include multiple methods of breastfeeding education</li> <li>• There is an urgent need for a high-quality randomized controlled study to evaluate the effectiveness of antenatal breastfeeding education in low-income and middle-income countries</li> </ul>

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<p><b>Citation:</b> Lutenbacher, M., Karp, S., &amp; Moore, M. (2016). Reflections of Black women who choose to breastfeed: Influences, challenges and supports. <i>Maternal and Child Health Journal</i>, 20(2), 231-239.</p> <p><b>Level/Quality:</b> II /B</p>	<p><b>Purpose Statement:</b> To identify factors that influence and challenge African American women who choose to breastfeed, and supportive strategies that facilitate the breastfeeding experience for African American women.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 16 self-identified African American women aged 21-46, with a median age of 31.35 years</li> <li>• Participants had 11-18 years of education, with a median education level of 14.94 years</li> <li>• Participants were either pregnant or had given birth within the past five years</li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• Participants were recruited using flyers placed in clinics and circulated via email to service providers at WIC clinics, prenatal classes, and community centers that target young families</li> </ul>	<p><b>Study Design:</b> Ethnographic study</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• An African American focus group facilitator used a semi-structured interview style</li> <li>• Interview questions discussed perceptions of personal and professional roles and behaviors that support breastfeeding behaviors for African American women</li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• Discussions were recorded and transcribed</li> <li>• Interviewers took detailed field notes</li> <li>• A grounded theory approach was used to analyze data and interpret themes from the range of participants' perceptions</li> <li>• Thematic analysis inductively analyzed transcripts and field notes and coded them for themes</li> <li>• A content analysis framework was used to organize the data, which was circulated as a draft to verify interpretative accuracy</li> </ul>	<ul style="list-style-type: none"> <li>• Four major themes emerged from the discussions as key factors in the decision to breastfeed: <ul style="list-style-type: none"> <li>○ Being in the know</li> <li>○ Critical periods</li> <li>○ Supportive transitions</li> <li>○ Balancing the influences of people, myths, and technology</li> </ul> </li> <li>• Most women experienced little breastfeeding support from healthcare professionals</li> <li>• Family, myths, and the internet were most influential in the decision</li> <li>• Having personalized support and good role models were identified as important, but were lacking for African American women</li> </ul>	<ul style="list-style-type: none"> <li>• Further support systems should be developed to aid African American women in achieving their breastfeeding goals</li> <li>• Cultural beliefs and traditions have a significant impact on the decision to breastfeed and must be taken into consideration as supportive interventions and systems to address racial and ethnic disparities in breastfeeding are developed</li> <li>• Decreasing disparities in breastfeeding rates and increasing African American women's success in breastfeeding will require diverse, readily available, user-friendly, culturally sensitive options for African American women choosing to breastfeed</li> <li>• A patient-centered, coordinated system of care that utilizes diverse providers, settings, and modalities would help to meet the individual needs and circumstances of African American women</li> </ul>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Martinez-Brockman, J., Shebl, F., Harari, N., &amp; Pérez-Escamilla, R., (2017). An assessment of the social cognitive predictors of exclusive breastfeeding behavior using the Health Action Process Approach. <i>Social Science &amp; Medicine</i>, 182, 106-116. doi: 10.1016/j.socscim.2017.04.014</p> <p><b>Level/Quality:</b> I/B</p>	<p><b>Purpose Statement:</b> To examine if the theoretical model, the Health Action Process Approach (HAPA), fits the breastfeeding data, if planning had an effect on the intentions and maintenance self-efficacy of exclusive breastfeeding, and if the recovery of self-efficacy reconciled the association between maintenance self-efficacy and exclusive breastfeeding behavior.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 119 pregnant women</li> <li>• Women were chosen if they were: <ul style="list-style-type: none"> <li>○ 18 or older</li> <li>○ 28 weeks gestation or less</li> <li>○ Expressed intention to breastfeed</li> <li>○ Had unlimited text messaging</li> </ul> </li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• Connecticut</li> <li>• Participants attended the breastfeeding peer counseling program at one of four WIC Breastfeeding Peer Counseling (BFPC) program sites</li> </ul>	<p><b>Study Design:</b> Randomized controlled trial</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• Seven BFPC's and three Internationally Board-Certified Lactation Consultants (IBCLC's) utilized the LATCH protocol</li> <li>• Participants received text messages on a predetermined schedule with topics including: <ul style="list-style-type: none"> <li>○ Benefits of breastfeeding</li> <li>○ Breastfeeding myths</li> <li>○ Proper positioning</li> <li>○ Getting enough milk</li> <li>○ BFPC's supportive role</li> </ul> </li> <li>• Control group received the standard WIC BFPC program</li> <li>• Intervention group received the standard BFPC program and the text intervention</li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• The messaging platform recorded when messages were sent, if they were received, and messages exchanged</li> <li>• Intention to initiate breastfeeding and exclusively breastfeed were measured using the Infant Feeding Intentions Scale</li> <li>• Breastfeeding status was measured using a modified version of the breastfeeding status question from the Infant Feeding Practices Study II questionnaire</li> </ul>	<ul style="list-style-type: none"> <li>• An equal proportion of participants planned to exclusively breastfeed as planned to partially breastfeed</li> <li>• The correlation between action self-efficacy and intention was high (<math>r = 0.82</math>; <math>p &lt; 0.001</math>)</li> <li>• Maintenance and recovery self-efficacy were strongly correlated (<math>r = 0.78</math>; <math>p &lt; 0.001</math>)</li> <li>• Planning was more strongly correlated with maintenance and recovery self-efficacy than with exclusive breastfeeding.</li> <li>• Planning (0.55; <math>p = 0.006</math>), maintenance self-efficacy (-0.87; <math>p = 0.028</math>), and recovery self-efficacy (0.64; <math>p = 0.026</math>) were strongly correlated with exclusive breastfeeding behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Self-efficacy is built and reinforced as mothers learn about breastfeeding and resolve breastfeeding issues</li> <li>• Self-efficacy is a strong indicator of whether or not mothers will continue to breastfeed</li> <li>• WIC BFPC's provide education and social support to breastfeeding women</li> <li>• The HAPA model is effective in predicting exclusive breastfeeding among women who attend WIC</li> <li>• The LATCH protocol is a theoretically sound intervention and can be used to reinforce the WIC breastfeeding peer counseling process</li> </ul>



Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Mickens, A. D., Modeste, N., Montgomery, S., &amp; Taylor, M. (2009). Peer support and breastfeeding intentions among Black WIC participants. <i>Journal of Human Lactation</i>, 25(2), 157-162. doi:10.1177/0890334409332438</p> <p><b>Level/Quality:</b> III/A</p>	<p><b>Purpose Statement:</b> To identify the factor that influence low-income women's infant feeding decisions.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• Cross-sectional convenience sample</li> <li>• 109 African American pregnant women aged 18-45</li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• Inland Empire Region of California</li> <li>• Participants regularly attended Women, Infant, and Children (WIC) clinics and associated programs</li> <li>• Participants were recruited through fliers in WIC clinics</li> </ul>	<p><b>Study Design:</b> Ethnographic study</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• Participants took a questionnaire while waiting to attend their WIC appointment or peer group</li> <li>• The questionnaire included multiple choice, true/false, and 5-point scale questions</li> <li>• Questions were based on the social learning theory, and included: <ul style="list-style-type: none"> <li>○ Demographics</li> <li>○ Behavioral capacity</li> <li>○ Expectations</li> <li>○ Self-efficacy</li> <li>○ Observational learning</li> <li>○ Reciprocal determinism</li> </ul> </li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• The questionnaires were put in a sealed envelope until the time of data entry.</li> <li>• The 45-item questionnaire was developed based on a literature review</li> <li>• Content validity was tested with 10 women from the target population</li> <li>• Chi-square and Fisher's Exact test were used to analyze the responses</li> </ul>	<ul style="list-style-type: none"> <li>• Women who attended support groups were more than twice as likely to intend to breastfeed when compared with women who did not</li> <li>• Breastfeeding intention was associated with: <ul style="list-style-type: none"> <li>○ Knowledge about breastfeeding</li> <li>○ Breastfeeding beliefs</li> <li>○ Previous breastfeeding experience</li> </ul> </li> <li>• Those who planned to exclusively breastfeed had higher knowledge scores than the other groups</li> <li>• Education and peer support were the most significant influencers of exclusive breastfeeding</li> </ul>	<ul style="list-style-type: none"> <li>• Social influences play a significant role in the decision to breastfeed</li> <li>• Support groups are highly effective in increasing intention to breastfeed</li> <li>• Education topics in breastfeeding promotion interventions should address breastfeeding knowledge, breastfeeding beliefs, and previous breastfeeding experiences</li> <li>• There is a need to expand community-based education for the promotion of breastfeeding</li> </ul>

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<p><b>Citation:</b> Reeves, E., &amp; Woods-Giscombé, C. (2015). Infant-feeding practices among African American women. <i>Journal of Transcultural Nursing, 26</i>(3), 219-226.</p> <p><b>Level/Quality:</b> II/A</p>	<p><b>Purpose Statement:</b> To use the social-ecological model to explore the personal, socio-economic, psychosocial, and cultural factors that impact the decision to breastfeed and to discuss the implications of these findings for clinical practice and research.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 22 articles pertaining to infant feeding practices among African American women</li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• All studies were: <ul style="list-style-type: none"> <li>○ Peer-reviewed</li> <li>○ Published within the last five years</li> <li>○ Written in English</li> </ul> </li> <li>• Studies were from The National Library of Medicine at the National Institutes of Health, PubMed, Google Scholar, and CINAHL databases</li> <li>• The review used the terms: <ul style="list-style-type: none"> <li>• African American AND breastfeeding OR infant feeding OR formula feeding</li> <li>• Breastfeeding AND health disparities OR barriers</li> <li>• WIC AND breastfeeding; breastfeeding AND demographics;</li> <li>• Breastfeeding AND socioeconomic factors</li> </ul> </li> </ul>	<p><b>Study Design:</b> Systematic literature review</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• The review utilized Urie Bronfenbrenner’s Social-Ecological Model and the three spheres of influence to guide analyses of health behaviors</li> <li>• The three spheres include: <ul style="list-style-type: none"> <li>○ The microsystem, which includes the familial and interpersonal relations</li> <li>○ The exosystem, which includes social networks, community, and healthcare providers</li> <li>○ The macrosystem, which includes cultural beliefs and customs</li> </ul> </li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• Relevant information from each article was categorized by theme based on these spheres then analyzed</li> </ul>	<ul style="list-style-type: none"> <li>• African American women are less likely to breastfeed than women of other races regardless of income or status</li> <li>• Research shows African American women understand the health benefits of breastfeeding, but do not have practical breastfeeding knowledge</li> <li>• African American women have the lowest breastfeeding self-efficacy when compared to Black women of other ethnic groups</li> <li>• The decision to breastfeed is impacted by: <ul style="list-style-type: none"> <li>○ Availability of social support</li> <li>○ Work environment</li> <li>○ Community</li> <li>○ Public reaction to breastfeeding</li> <li>○ Lack of healthcare provider assistance</li> <li>○ Cultural beliefs</li> <li>○ Perceptions of formula</li> <li>○ American attitudes</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Gaining further knowledge about the influences in African American women’s infant feeding decision making process and exploring practice changes that promote breastfeeding will be essential in increasing rates of breastfeeding among African American families</li> <li>• Reducing racial disparities in breastfeeding initiation and duration rates can help to reduce disparities in infant mortality rates and chronic diseases</li> <li>• Ways to reduce disparities include: <ul style="list-style-type: none"> <li>○ Culturally relevant education literature</li> <li>○ Education literature for fathers</li> <li>○ Enhanced provider knowledge of social determinants and implications of breastfeeding</li> <li>○ Opportunities for peer support</li> <li>○ Healthcare provider support</li> <li>○ Advocacy for breastfeeding friendly policies</li> </ul> </li> </ul>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Roll, &amp; Cheater. (2016). Expectant parents' views of factors influencing infant feeding decisions in the antenatal period: A systematic review. <i>International Journal of Nursing Studies</i>, 60, 145-155.</p> <p><b>Level/Quality:</b> III/A</p>	<p><b>Purpose Statement:</b> To explore the factors that influence infant feeding decisions for expectant mothers in the antenatal period.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 17 studies that focused on participant views of factors influencing their infant feeding decisions in the antenatal period</li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• CINAHL, Medline, Embase, and PsychInfo databases</li> <li>• Studies were: <ul style="list-style-type: none"> <li>○ Written in English</li> <li>○ Published after 1990</li> <li>○ From developed countries</li> <li>○ Qualitative, quantitative, or mixed method design</li> </ul> </li> <li>• The search terms used were: <ul style="list-style-type: none"> <li>○ Antenatal</li> <li>○ Bottle feeding</li> <li>○ Breastfeeding</li> <li>○ Choice</li> <li>○ Decision-making</li> <li>○ Fathers</li> <li>○ Infant feeding</li> <li>○ Mothers</li> <li>○ Parents</li> </ul> </li> </ul>	<p><b>Study Design:</b> Mixed method systematic review</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• Data extraction tools were devised and piloted to reflect the Social Ecological Model “systems”</li> <li>• For each study phrase, the key words were extracted and entered into the tools and were mapped to a “system” of the Social Ecological Model</li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• Quality appraisal tools for qualitative and quantitative data were adapted and used to ensure quality studies were assessed in relation to key criteria</li> <li>• Outcomes that emerged from the data reflected the broad focus of the review question and were categorized based on the Social Ecological Model</li> <li>• Thematic codes emerged to focus on the context and the parents' views</li> <li>• Thematic codes were further categorized into positive and negative focus in relation to feeding choices reflecting the emotive and practical considerations</li> </ul>	<ul style="list-style-type: none"> <li>• Thematic synthesis revealed nine themes of factors influencing an expectant mother's decision to breastfeed: <ul style="list-style-type: none"> <li>○ Bonding and attachment</li> <li>○ Body image</li> <li>○ Self-esteem and confidence</li> <li>○ Female role models</li> <li>○ Family and support network</li> <li>○ Lifestyle</li> <li>○ Formal information sources</li> <li>○ Knowledge</li> <li>○ Feeding in public</li> </ul> </li> <li>• There was a significant bias toward negative factors relating to the breastfeeding decision, suggesting infant feeding is a process of weighing reasons for and against breastfeeding</li> </ul>	<ul style="list-style-type: none"> <li>• The specific influences impacting a family's decision to breastfeed should be addressed and considered when coordinating services to expectant families</li> <li>• Public health policy and service coordination should support breastfeeding, with education interventions being informed by expectant parents' views and experiences about infant feeding</li> <li>• Further research and attention are needed to better understand expectant parents' views and experiences in making infant feeding decisions in the prenatal and antenatal periods</li> </ul>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Schafer, E. J., Williams, N. A., Digney, S., Hare, M. E., &amp; Ashida, S. (2016). Social contexts of infant feeding and infant feeding decisions. <i>Journal of Human Lactation</i>, 32(1), 132-140. doi:10.1177/0890334415592850</p> <p><b>Level/Quality:</b> III/B</p>	<p><b>Purpose Statement:</b> To evaluate the social contexts of breastfeeding and other infant feeding methods by examining individual and relationship characteristics of mothers and network members associated with providing advice about infant feeding practices.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 80 low-income mothers</li> <li>• completed a one-time survey which gave information about 287 network members associated with providing advice about infant feeding practices.</li> <li>• Eligible mothers were: <ul style="list-style-type: none"> <li>○ 18 years of age or older</li> <li>○ Fluent in English</li> <li>○ Had an infant aged 0 to 12 months</li> </ul> </li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• Urban Memphis, Tennessee</li> <li>• Clinic staff identified participants and a trained interviewer approached those identified</li> </ul>	<p><b>Study Design:</b> Cross-sectional study</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• Participants took a one-time survey developed to ascertain target information</li> <li>• Mothers listed the important people in her life during the past year and who were important during daily life, specifically those who care for and feed the baby</li> <li>• Participants were asked what advice they got about infant feeding</li> <li>• If the person was a network member, they reported their role, demographics, frequency of contact, parental status, and feeding method used on their own children</li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• Characteristics of relationships associated with mothers receiving advice from each network member were identified using SPSS version 22, a 2-level logistic regression analysis</li> <li>• A post hoc analysis using a multivariate logistic regression model was used to evaluate whether receiving advice was associated with breastfeeding</li> </ul>	<ul style="list-style-type: none"> <li>• If network members made feeding decisions, exclusively breastfed their child, or were healthcare providers, they would likely advise exclusive breastfeeding</li> <li>• If network members provided emotional support, or combination fed their own child, they would likely advise combination feeding</li> <li>• If network members exclusively formula fed, they would likely advise formula feeding</li> </ul>	<ul style="list-style-type: none"> <li>• Characteristics of social relationships and the various experiences of network members' infant feeding experiences may influence on what advice new mothers receive</li> <li>• To inform interventions, further research should investigate social contexts of breastfeeding and other infant feeding practices longitudinally</li> </ul>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Skouteris, H., Nagle, C., Fowler, M., Kent, B., Sahota, P., &amp; Morris, H. (2014). Interventions designed to promote exclusive breastfeeding in high-income countries: A systematic review. <i>Breastfeeding Medicine, 9</i>(3), 113-127. doi:10.1089/bfm.2013.0081</p> <p><b>Level/Quality:</b> I/B</p>	<p><b>Purpose Statement:</b> To assess various interventions that are used to promote exclusive breastfeeding practices for mothers with children from birth to six months of age in exclusively high-income countries.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 17 studies including anywhere from 40-17,000 women.</li> <li>• Only randomized controlled trials (RCTs) were included, four of these being cluster-randomized designs</li> <li>• The trial needed to have a minimum of four months post-partum follow-up to be included</li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• Peer reviewed journals</li> <li>• Studies written from 2000-2013</li> <li>• Five from the USA</li> <li>• Three from Australia</li> <li>• Three from the UK</li> <li>• One from Belarus</li> <li>• One from Denmark</li> <li>• One from the Netherlands</li> <li>• One from Turkey</li> <li>• One from Singapore</li> <li>• One from Malaysia</li> </ul>	<p><b>Study Design:</b> Systematic literature review of RCTs</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• The selected studies were evaluating different breastfeeding promotion interventions</li> <li>• Trials were combined to form a narrative synthesis evaluating the success of the interventions and the success associated with the intervention characteristics</li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• Studies were assessed using an adaptation of the Cochrane Collaboration risk of bias tool, which assesses: <ul style="list-style-type: none"> <li>○ statistical power</li> <li>○ intervention fidelity</li> <li>○ blinded assessment</li> <li>○ use of intention-to-treat</li> </ul> </li> <li>• Trials were assessed for quality using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) system, which evaluates: <ul style="list-style-type: none"> <li>○ limitations of design</li> <li>○ inconsistency</li> <li>○ indirectness, imprecision</li> <li>○ publication bias.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• 9 trials showed statistically significant improvements in duration of breastfeeding, 7 of the 9 increasing the rate of exclusive breastfeeding to six months</li> <li>• One trial showed a clinically significant reduction in infants' risk of infection compared to the control group</li> <li>• Successful interventions were mainly: <ul style="list-style-type: none"> <li>○ Programs that provided additional home-based and telephone support by lactation experts</li> <li>○ Long-lasting (five weeks to six months postpartum)</li> <li>○ Began postpartum (all but one successful intervention)</li> <li>○ Had multiple points of contact (all but one successful intervention)</li> </ul> </li> <li>• Other successful methods were educational or based on kangaroo care, self-observation or baby-friendly trained nurses</li> </ul>	<ul style="list-style-type: none"> <li>• Programs that have the most impact on exclusive breastfeeding rates are support programs offering additional home-based and telephone support</li> <li>• The most successful interventions for breastfeeding promotion happen during the postnatal period over a significant amount of time</li> <li>• Further research is needed to provide enough information to inform future interventions</li> <li>• Further research should aim to better understand and promote home-delivered interventions, the development of interventions for overweight and obese women, and barriers to breastfeeding to six months.</li> </ul>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Authors' Recommendations
<p><b>Citation:</b> Street, D. J., &amp; Lewallen, L. P. (2013). The influence of culture on breastfeeding decisions by African American and White women. <i>The Journal of Perinatal &amp; Neonatal Nursing</i>, 27(1), 43-51.</p> <p><b>Level/Quality:</b> II/A</p>	<p><b>Purpose Statement:</b> To examine how culture influences breastfeeding decisions in both African American and white women using the Theory of Culture Care Diversity and Universality as a framework.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• Convenience sample</li> <li>• 186 participants including 119 white women and 67 African American women</li> <li>• Participants were: <ul style="list-style-type: none"> <li>○ Aged 18 and older</li> <li>○ 28 weeks pregnant</li> <li>○ Able to read and speak English</li> </ul> </li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• North Carolina</li> <li>• Three prenatal classes</li> </ul>	<p><b>Study Design:</b> Cross-sectional study</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• Leininger's Theory of Cultural Care Diversity and Universality was used to evaluate how cultural and social structure dimensions influence the decision to breastfeed</li> <li>• Participants were asked to write their response to: "The word culture means beliefs and traditions passed down by your family and friends. How has culture affected how you plan to feed your baby?"</li> <li>• The question was part of a larger survey using the Iowa Infant Feeding Attitude Scale.</li> </ul> <p><b>Data Analysis:</b></p> <ul style="list-style-type: none"> <li>• Qualitative inductive content analysis was used to analyze the data from the answers</li> <li>• Data was coded and the overall categories describing cultural influences on breastfeeding decisions were developed</li> <li>• To ensure credibility, there was one African American author, one white author, and one second qualitative researcher not involved in the study to examine the analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Women in the study identified critical influences on the choice whether or not to breastfeed as: <ul style="list-style-type: none"> <li>○ Family</li> <li>○ Friends</li> <li>○ Knowledge of benefits of breastfeeding</li> </ul> </li> <li>• The majority of the women in the study indicated family and social influences the most significant determinant in their decision to breastfeed</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural influences that impact the decision to breastfeed and should be considered in breastfeeding education include: <ul style="list-style-type: none"> <li>○ Family</li> <li>○ Friends</li> <li>○ Learned information from impersonal sources</li> <li>○ Information shared and observed by other people</li> </ul> </li> <li>• Healthcare providers who work with pregnant women should utilize Leininger's Theory of Culture Care Diversity and Universality to increase awareness of the factors that can contribute to culturally competent care</li> <li>• Breastfeeding promotion interventions must acknowledge the influence of family and friends on the decision to breastfeed</li> </ul>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design	Research Findings	Nursing Implications and Recommendations
<p><b>Citation:</b> Thomson, J. L., Tussing-Humphreys, L. M., Goodman, M. H., Landry, A. S., &amp; Olender, S. E. (2016). Low rate of initiation and short duration of breastfeeding in a maternal and infant home visiting project targeting rural, Southern, African American women. <i>International Breastfeeding Journal</i>, 12(1). doi:10.1186/s13006-017-0108-y</p> <p><b>Level/Quality:</b> I/B</p>	<p><b>Purpose Statement:</b> The Delta Healthy Sprouts Project was designed to test two different home visiting curriculums and determine outcomes on breastfeeding initiation, intent, knowledge, and beliefs following the curriculum intervention.</p>	<p><b>Sample:</b></p> <ul style="list-style-type: none"> <li>• 82 predominantly African American pregnant women</li> <li>• Participants were: <ul style="list-style-type: none"> <li>○ 18 years of age or older</li> <li>○ Less than 19 weeks pregnant with their first, second, or third child</li> <li>○ Pregnant with a singleton</li> <li>○ A resident of one of the target counties</li> </ul> </li> </ul> <p><b>Setting:</b></p> <ul style="list-style-type: none"> <li>• Three Lower Mississippi Delta counties</li> <li>• Recruitment included publicizing the study in the local media and actively recruiting by study staff at the local health fairs</li> <li>• Women could be referred to the program by health professionals</li> </ul>	<p><b>Study Design:</b> Cross-sectional study</p> <p><b>Methods:</b></p> <ul style="list-style-type: none"> <li>• Participants were assigned to either the Parents as Teachers (PAT) curriculum group or the PAT curriculum plus nutrition and physical activity enhancement (PATE) group</li> <li>• Both curriculums included: <ul style="list-style-type: none"> <li>○ One-on-one home visits</li> <li>○ Optional monthly group meetings</li> <li>○ Developmental screenings</li> <li>○ A resource network</li> </ul> </li> <li>• The PATE curriculum added culturally tailored antepartum and postpartum curriculum</li> </ul> <p><b>Data Collection:</b></p> <ul style="list-style-type: none"> <li>• Breastfeeding intent, knowledge, and beliefs were measured at baseline and at visit number nine using a questionnaire with items taken from the national Loving Support Makes Breastfeeding Work campaign</li> <li>• Statistical analyses using: <ul style="list-style-type: none"> <li>• SAS software</li> <li>• Chi square tests of association</li> <li>• Sample t tests</li> <li>• Correspondence analysis</li> <li>• Generalized linear mixed models using maximum likelihood estimation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Breastfeeding knowledge scores increased significantly from baseline to late gestation period for both curriculum models</li> <li>• Breastfeeding belief scores were higher for participants who initiated breastfeeding compared to those that did not</li> <li>• Only 39% of participants initiated breastfeeding, with only one participant breastfeeding for at least six months</li> <li>• Breastfeeding intent, beliefs, and pre-pregnancy weight class significantly predicted breastfeeding initiation</li> </ul>	<ul style="list-style-type: none"> <li>• Increasing knowledge and addressing barriers to breastfeeding alone is insufficient in encouraging primarily African American women to initiate or continue breastfeeding</li> <li>• Improving breastfeeding outcomes for all socioeconomic groups will require providing culturally relevant, consistent, and engaging education.</li> <li>• Promotion efforts should positively influence beliefs and offer social and environmental supports that make breastfeeding more accepted, convenient, and economical choice</li> </ul>