

SHIFTING THE GAZE OF AFRICAN AMERICAN INFANT FEEDING TO A
PSYCHOLOGICAL, CULTURAL, AND SOCIO-HISTORICAL LENS

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A dissertation submitted to the faculty at The University of North Carolina at Chapel Hill in
partial fulfillment of the requirements for the degree of Doctor of
Philosophy in Nursing in the School of Nursing.

Chapel Hill
2016

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ABSTRACT

Stephanie DeVane-Johnson: Shifting the Gaze of African American Infant Feeding to a Psychological, Cultural, and Socio-Historical Lens
(Under the direction of Cheryl Woods Giscombé)

Despite efforts to address the disproportionately low rates of breastfeeding among African American women, disparities continue to exist. There is a consensus that breastfeeding has widespread health benefits for infants, mothers, and society. But socio-historical factors unique to African Americans have been largely overlooked. These are events, experiences, and other phenomena that have been culturally, socially, and generationally passed down and integrated into families, potentially influencing breastfeeding beliefs and behaviors. The goals of this study are to describe cultural factors influencing African American mothers' perceptions of infant-feeding decisions and to identify possible connections between these socio-historical factors and African American infant-feeding outcomes.

I conducted six focus groups, three breastfeeding groups and three formula-feeding groups, in May 2015 through September 2015. The groups were constructed using a purposeful sampling of African American mothers stratified by age—18–29, 30–50, and 51+. I used MAXQDA computer software to conduct a qualitative thematic analysis on the findings. This study's findings suggest that an examination of the socio-historical factors of breastfeeding disparities may illuminate key areas that can be targeted for the development of culturally sensitive interventions to improve African American breastfeeding outcomes.

To my family. Tracy and Karrington Johnson, I could not have done this without your love and support. I love you both more than you will ever know.

ACKNOWLEDGEMENTS

First giving honor to God. There is an African proverb, “It takes a village to raise a child.” This statement also holds true for the amount of support needed to matriculate through a PhD program. I did not accomplish this alone. I would like to thank my village for all of the love and support provided to me during these last four years. The voices of a million angels could not express my gratitude.

First, I must take the time to recognize my best friend, my confidant, and my biggest supporter, Mr. Tracy Johnson. Thank you for always being there. We’ve grown so much during this process and I love you more every single day. Thank you for all of the sacrifices that you have made to make obtaining this degree possible. I am incredibly blessed to have you in my life. God truly made you for me and for that I am forever grateful.

I owe a sincere debt of gratitude to my committee. Thank you for your wisdom, support, and encouragement throughout this process. To my dissertation advisor, Dr. Cheryl Woods Giscombé, who served as my guide through the dissertation process, thank you for challenging me to accomplish more than I ever thought I was capable of. For that, I am eternally grateful. Dr. Cathie Fogel, thank you for your knowledge and calming presence. Dr. Miriam Labbok, thank you for believing in my topic and for always believing in me. Dr. Sue Thoyre, thank you for your smiles and for being there from the beginning. Last, but definitely not least, Dr. Ronald Williams—I do not believe in coincidences, I believe our paths crossed for a reason and I am grateful for you, your family, and your guidance. Your expertise and insight were essential to this dissertation.

I am thankful to my parents, Ben and Brenda Spearman, who have always believed in me and supported my goals. Thanks for helping us take care of and raise Karrington. You are both always there when we need you. Without your support I know I would not have succeeded. I hope that I have made you proud. I am grateful to my family, in-laws, and friends for their continuing love and support. To my cousin Dr. Clarlynda Williams-DeVane, you are wise beyond your years. Thank you for your advice, tutoring, unconditional support, constant reassurance, and cupcakes. Our family has been truly blessed having you as a part of it. Dr. David Banks and Lucie Neiman, thank you for the stats help, constant positive encouragement, and for making sure our family had at least one home cooked meal every week for two years. Kerri, thank you for always keeping my best interest at heart and for looking out for me spiritually, mentally, and physically. And to Jordan Bailey, our relationship started out as a professional one but it has turned into a friendship. I am grateful for everything you have done for me during this process, the advice, listening to my ideas, and helping me make sense of everything when I was truly confused.

I would like to thank the participants in my focus groups. I am grateful to them for taking the time to share the details of their infant-feeding narrative. It is my hope that through these focus groups, I provided African American women with a voice that describes their journey to nourish their children. I would be remiss if I did not thank the Mocha Moms of Durham, Yvette Brown, owner of 'Best of Styles' Hair salon, and stylists for aiding in the recruitment of participants for the focus groups. Your help in recruiting focus group members was an integral part of this process. Additionally, to my pastor Dr. Rev. Lafayette Maxwell and Mt. Zion Baptist Church family, I am grateful for all the prayers, kind words, and members that participated in my focus groups.

To my best friend, hair stylist, and one of my biggest supporters, Sonya Murphy. Thank you for everything! Not just the last four years, but the last fifteen years. I could not have done it without you. You always make me laugh and always make sure I look my best at all times.

To my fellow doctoral friends Kayoll Galbraith, Karen Sheffield, Nakia Best, and Sherita Johnson House for moderating and helping with the focus groups. Thanks for being my second pair of eyes and ears and taking the time out of your busy schedules to help me with my research.

To my darling daughter Karrington Renee', you are at the center of every decision that I make. As your mother, I strive to be an exemplar of what a strong, independent woman should be. A great portion of obtaining this degree is to show you that anything is possible through hard work, sacrifice, and perseverance, which is my legacy to you. Always know that my love for you is unconditional and eternal. I am so incredibly blessed that God chose me to be your mother. You are my greatest gift.

To my angels in heaven, my grandmother Ms. Hattie DeVane, my aunt Ms. Pamela DeVane, my cousin Ms. Renee' Thornton, and my uncle Mr. H. C. Powers, I want to say thank you for your heavenly guidance and watching over me every day. Even though you are not physically here with me on earth, I constantly feel your presence in my life. I can hear your voices in my head and heart, making sure I make the right decisions. I know you are proud of me; please have celebration in heaven on my behalf as I celebrate here on earth. Until we see each other again, I love you.

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LIST OF ABBREVIATIONS

AAP	American Academy of Pediatrics
BF	Breastfeeding
BFHI	Baby Friendly Hospital Initiative
CDC	Centers for Disease Control
CNM	Certified Nurse-Midwife
DHHS	Department of Health and Human Services
IRB	Institutional Review Board
NIS	National Immunization Survey
NC	North Carolina
OB/GYN	Obstetrics & Gynecology
PI	Principal Investigator
SES	Socioeconomic status
UNICEF	United Nations International Children's Emergency Fund
U.S.	United States
WHO	World Health Organization
WIC	Women, Infants, and Children Program

CHAPTER 1: BREASTFEEDING IN AFRICAN AMERICANS

Background and Significance

In recent years, there has been an increased focus among researchers on health-care and health outcomes disparities; the goal of this research is to reduce these disparities and their resulting negative impact (U.S. Department of Health and Human Services, National Institutes of Health (NIH), 2013). The particular focus of this dissertation project is the disparate breastfeeding rates between African American women and other racial/ethnic groups. Despite widespread agreement that breastfeeding provides optimal nutrition and that early nutrition is essential for long-term health, there are differing rates of breastfeeding along racial and ethnic lines (Eidelman et al., 2012; Leung & Sauve, 2005; U.S. Department of Health and Human Services (DHHS), 2011). Based on data from a 2008 National Immunization Survey (NIS), 58% of African American mothers initiate breastfeeding, compared to 75% of White mothers and more than 80% of Hispanic mothers. However, at six months, breastfeeding rates drop for all three racial groups; African American 26%, White 43%, and Hispanic 45%. Interestingly, the same survey showed that only 49% of North Carolina (NC) African American mothers initiate breastfeeding and the number drops to 19% at six months (Centers for Disease Control (CDC), 2013).

Lower breastfeeding rates are associated with negative health outcomes for the child, mother, and society as a whole (Gartner et al., 2005; Bartick & Reinhold, 2010). African American infant mortality rates are more than twice as high as infant mortality rates among non-Hispanic White and Hispanic groups (MacDorman & Mathews, 2013; U.S. Department of

Health and Human Services Office of Minority Health, 2015). Importantly, breastfeeding is associated with increased infant survival and decreased risks of common childhood illnesses, such as acute otitis media, respiratory infections, and asthma (Eidelman et al., 2012).

Breastfeeding, especially exclusively breastfeeding, is associated with positive health outcomes for babies as well as for their mothers. For example, studies have found the risk of breast cancer decreases by 4.3% for every 12 months breastfeeding; each birth, if the mother breastfed, was estimated to decrease the risk of breast cancer by an additional 7% (Allen & Hector, 2005; Bernier, Plu-Bureau, & Bossard, 2000; Victora et al., 2016). The association between breastfeeding and breast cancer risk is important to consider because African American women diagnosed with breast cancer have higher mortality rates when compared with White women (Amend, Hicks, & Ambrosone, 2006). Moreover, African Americans have the highest morbidity and mortality rates from cancers (all types), diabetes, and influenza and are prone to obesity; breastfeeding is associated with lower rates of these conditions (Gibbs & Forste, 2014; U.S. DHHS Office of Minority Health, 2015).

There is also a substantial economic impact on a society when mothers do not breastfeed. It is estimated that if 90% of U.S. mothers breastfed exclusively for the first six months of life, the consequential improvements in health would prevent over 900 deaths annually, the vast majority (95%) of which would be infant deaths. Moreover, increasing the overall breastfeeding rate would yield an estimated \$13 billion per year in health-care savings overall (Bartick & Reinhold, 2010). Increasing breastfeeding rates among African American women is a desirable goal; if breastfeeding rates among African American women rose, it would contribute to overall health gains in this population.

Clinicians and policy makers are aware of the breastfeeding gap and there have been

strategies to address the disparate rates, such as the Baby Friendly Hospital Initiative (BFHI) and the “breast is best” language used by health care professionals (Lueng & Suave, 2005; Zakarija-Grković et al., 2012). These strategies have resulted in an increase in breastfeeding rates among African Americans, but the rates remain lower than those of other racial/ethnic groups. The goal of this dissertation is to examine key underlying cultural and socio-historical influences on breastfeeding and their contribution to breastfeeding disparities. The Healthy People 2020 initiative emphasized the importance of achieving health equity through addressing socio-historical factors, including historical factors, contemporary injustices, and avoidable biases; only then will the elimination of health and health-care disparities be possible (U.S. DHHS, 2012).

Socio-historical factors encompass thoughts, attitudes, and beliefs that influence health beliefs and health behaviors; these socio-historical beliefs may be personally experienced or heard about via oral histories that have been socially, generationally, and culturally passed down and integrated into families and communities (Fischer & Olson, 2013; Krieger, 2008; Lende & Lachiondo, 2009). Historical events that may be relevant to the puzzle of lower breastfeeding rates among African American women may include slavery, the Great Migration, aggressive formula marketing, changes in African American family structure, changes in birth practices, the Women, Infants, and Children Program (WIC), women’s employment patterns, culturally embedded stereotypes, and the breast is best language. These historical phenomena have not been adequately emphasized in previous studies aimed at understanding African American women’s breastfeeding decisions or in intervention studies. Examining cultural practices and socio-historical influences illuminates factors explaining why breastfeeding practices are less frequent among African Americans.

Summary of the problem

Breastfeeding is beneficial to the health of African Americans from birth to adulthood. Research designed to illuminate the factors that contribute to low breastfeeding rates among African American women may be vital in addressing this problem. The disproportionately low rate of breastfeeding among African Americans has not been sufficiently ameliorated by traditional promotional strategies that focus on educating women about the health benefits of breastfeeding. It is possible that an examination of socio-historical factors unique to African Americans will contribute to a better understanding of the current differences in breastfeeding rates and to improved strategies for eliminating these disparities.

Purpose

In reviewing the qualitative studies on African American breastfeeding disparities, it is clear that there is a lack of culturally relevant data that elicit women's perceptions of breastfeeding. With the exception of one question by Lewallen and Street (2010) that asked globally if there is anything about being African American that influenced the women's decision to breastfeed or not breastfeed, and one question by Street and Lewallen (2013) that asked how culture influenced how women were going to feed their children, it is clear that explicit questions about breastfeeding, being African American, or any questions about African American history and its influence on infant-feeding decisions are rare.

The purpose of this dissertation work is to examine and capture the thoughts, attitudes, and beliefs on infant feeding among African American mothers, specifically targeting cultural and socio-historical influences. There remains a gap in the breastfeeding literature investigating the connection between socio-historical events and the fact that African Americans in the United States have the lowest breastfeeding rates among all racial/ethnic groups. The collection and

analysis of this qualitative data will further our understanding of the historical and contextual antecedents to African American women's values and perceptions about breastfeeding.

Specific Aims

There is a dearth of literature on cultural and socio-historical influences affecting African American mother's infant-feeding decisions. Health disparities research is moving beyond traditional methodological approaches to ones that emphasize race, gender, and historical factors (Nuru-Jeter et al., 2009; Woods Giscombé, 2010; Woods Giscombé & Lobel, 2008).

The specific aims of this study are:

1. To describe African American mothers' thought processes in making infant-feeding decisions.
2. To describe cultural factors influencing African American mothers' perceptions on infant-feeding decisions.
3. To identify possible connections between the socio-historical factors of African American women's collective experiences and contemporary breastfeeding decisions.

Addressing these specific aims will provide information that will aid in the design and implementation of culturally relevant interventions enhancing the efforts to reduce breastfeeding disparities among African American women.

PEN-3 Conceptual Framework

I use the PEN-3 model developed by Collins Airhihenbuwa (1995) to guide the development of the focus group questions. This model addresses health inequities by considering health and culture together, rather than as separate entities, to develop culturally relevant interventions (Airhihenbuwa, 2010). The PEN-3 is a useful model for understanding the intersection of culture and health, as it defines culture as a shared awareness that can reveal itself

silently or through speech and history, through stories of a person's life experiences (Airhihenbuwa & Liburd, 2006). The PEN-3 model incorporates African American cultural and socio-historical influences on how individuals make certain health-care decisions. The unique aspect of the PEN-3 model is the fact that it addresses health disparities and health promotion from a three-domain approach (Figure 1.1). Each domain has three dimensions, accounting for the acronym "PEN."

First, the cultural identity domain includes three dimensions as potential points of intervention: A) person, B) extended family, and C) neighborhood. This domain emphasizes the role of the collective (family, community) in influencing an individual's health experiences and health decisions (Iwelunmor, Newsome, & Airhihenbuwa, 2014).

Second, the relationships and expectations domain includes three sources of influence for health behaviors: A) perceptions, B) enablers, and C) nurturers. Perceptions include knowledge, attitudes, and beliefs that may prevent or promote performing a health behavior. Enablers are community or structural factors that prevent or promote health-seeking practices. Nurturers are family or members of kinship networks who influence decisions on health behaviors.

The third domain is cultural empowerment and it includes three types of health beliefs and practices: A) positive, B) existential (unique), and C) negative. This domain identifies beliefs and practices that are positive, explores behaviors that may be considered exotic or having no harmful health consequences that can be continued, and then identifies negative practices that may be barriers to performing a new health behavior (Iwelunmor et al., 2014). For example, symbolic interactionism, or the meaning people ascribe to specific objects and how those meanings affect their reactions, may affect African American breastfeeding rates; this is conceptualized well in the cultural empowerment domain (Crotty, 1998). An African American

woman's reactions and behaviors, whether positive or negative, may be influenced by her previous life experiences; it is possible that when women think of breastfeeding, negative feelings or thoughts are elicited.

Incorporating all three domains of the PEN-3 model may facilitate the identification of factors that contribute to infant-feeding decision-making among African American women and can supplement findings of previous studies that have not fully addressed breastfeeding disparities from a socio-historical perspective. The cultural component of the PEN-3 model suggests that historical events and experiences may be complex, transformative, and may potentially influence attitudes and behaviors, despite the amount of time that has passed since the events occurred (Airhihenbuwa & Liburd, 2006). See Figure 1.1, which depicts how the PEN-3 model explains the intersection of culture and health.

Methods

The experience of breastfeeding and infant feeding is multi-dimensional; incorporating a socio-historical perspective to assess African American women's breastfeeding beliefs will add to the many dimensions needed to understand beliefs about infant-feeding decision-making. Therefore, a qualitative descriptive methodology is well suited to guide a study of a phenomenon that is poorly understood and to gain insight on African American women's values and perceptions related to breastfeeding (Creswell, 2013; Neergaard, Olesen, Andersen & Sondergaard, 2009; Sandelowski, 2000; Sandelowski, 2010). I conducted six focus groups between May 2015 and August 2015. Focus groups are a qualitative data collection method used when the goal is to understand a community's sense of normalcy (Mack, Woodsong, MacQueen, Guest, & Namey, 2005). The focus group structure and format was guided by the principles of Krueger and Casey (2000) and Morgan and Krueger (1998) in phrasing engaging questions,

thoughtful sequencing of questions, anticipating the flow of the discussion, controlling my reactions as the moderator, probing as needed, and being comfortable with silences. The goal of the focus groups was to examine low breastfeeding rates from the perspective of African American women and to elucidate factors that influence infant feeding. Participants provided both verbal and written informed consent prior to participant interaction, as approved by University of North Carolina at Chapel Hill Institutional Review Board (IRB). As principal investigator (PI) and lead moderator, I notified participants that their names would not be used, that the transcripts would be de-identified, and that any information shared during the focus groups would not be shared outside the focus group. Participants consented to providing information that would be used for educational purposes and for publication in a peer-reviewed journal.

Impact

The Centers for Disease Control and other leading health-care organizations continue to emphasize the importance of breastfeeding for all women. For vulnerable populations and particularly for African Americans, breastfeeding disparities already exist. It is therefore critical to increase the breastfeeding initiation and duration rates (Robinson & VandeVusse, 2011). Health-care professionals and researchers have been searching for answers to solve breastfeeding disparities for many years. This study will help to fill the gap in the literature about the effect cultural beliefs and socio-historical factors on breastfeeding in the African American community. The development of explanatory frameworks is needed to examine specific cultural beliefs in the African American community and the potential impact that historical events might have had on breastfeeding practices. In addition, this study will help clinicians, who should be aware of potential cultural and socio-historical patterns that influence breastfeeding attitudes and

behavior. This knowledge will lead to breastfeeding promotion, interventions, and education that are more culturally sensitive.

Outline of Dissertation

This dissertation will be organized into three publishable manuscripts. Paper 1 (Chapter 2) is an integrative literature review of the current empirical breastfeeding literature on African Americans. The purpose of the integrative review is to examine factors associated with low breastfeeding rates among African Americans, and to examine the extent to which extant literature addresses socio-historical events as a potential factor unique to this population. The journal selected for this manuscript is *The Journal of Human Lactation* with an impact factor of 1.977. The second manuscript (Chapter 3) is an historiographical essay about African American women and breastfeeding in the United States. An appropriate journal for this paper is *The Journal of African American History* with an impact factor of 0.382. Paper 3 (Chapter 4) presents the results from the focus group study, entitled Social, Cultural, and Historical influences on African American Women's Infant-Feeding Practices. Chapter 4 identifies trends and themes, and discusses the ways in which this information can be used to develop culturally relevant breastfeeding interventions aimed at African Americans. The journal of choice for this publication is *Qualitative Health Research*, which has an impact factor of 1.625. The purpose of chapter 5 is to synthesize the first four chapters, integrating the findings from each of the three publishable manuscripts, and to discuss implications for research, practice, and policy, as well as the study's limitations.

Conclusion

In summary, the dissertation explores background and significance, presents a review of the literature and an historiographic essay, introduces results of the focus group study, and synthesizes and discusses the three papers and their implications.

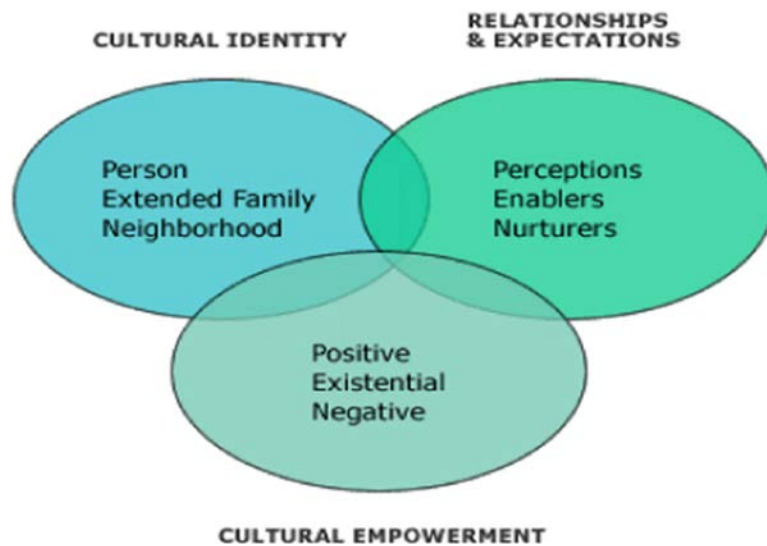


Figure 1.1. PEN-3 model for understanding the intersection of culture and health. From Iwelunmor et al., 2014.

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CHAPTER 2: INTEGRATIVE LITERATURE REVIEW ON FACTORS RELATED TO BREASTFEEDING IN AFRICAN AMERICAN WOMEN: EVIDENCE OF THE NEED FOR A PARADIGM SHIFT

Introduction

Not all populations of women engage in breastfeeding at the same rates. Despite widespread agreement that the optimal nutrition offered by breast milk contributes long-term health benefits, there are differing rates of breastfeeding that fall along racial and ethnic lines (Eidelman, 2012; Leung & Sauve, 2005; U.S. DHHS, 2011). According to the latest Centers for Disease Control statistics, 59% of African American mothers initiate breastfeeding and only 26% continue to breastfeed at 6 months (CDC, 2013). In contrast, 75% of non-Hispanic White mothers initiate breastfeeding and 43% are still breastfeeding 6 months; for Hispanic mothers, 77% initiate and 48% continue at 6 months (CDC, 2013). African American infants have overall higher morbidity and mortality rates than other race/ethnicities, and are more likely to die during infancy and to experience serious health conditions, including diabetes, asthma, and obesity, than infants of any other racial group in the United States (CDC, 2013; Eidelman, 2012;; Gibbs & Forste, 2014; Khan, Vesel, Bahl, & Martines, 2014; Kull et al., 2010; MacDorman & Mathews, 2013; Spencer & Grassley, 2013; U.S. DHHS, Infant Mortality and African Americans, 2015). Protection against these conditions has been linked to breastfeeding (Allen & Hector, 2005; Bernier et al., 2000; Spencer & Grassley, 2013; U.S. DHHS, 2011).

The low African American breastfeeding rate persists despite recommendations that all babies be breastfed for at least the first year of life unless it is contraindicated (Eidelman et al., 2012). The lower rates of breastfeeding in African Americans result in significant health

problems from infancy to adulthood. Additionally, breastfeeding is associated with reduced incidence of ovarian and breast cancers and overall improved cancer prognoses after diagnosis among mothers who breastfed their infants (Bernier et al., 2000; U.S. DHHS, 2015; Victora et al., 2016). The low breastfeeding rate may imply that African American infants are more likely to die during infancy and to experience serious life-long health consequences when compared to all other race/ethnicities (Gartner et al., 2005; Gibbs & Forste, 2014; Godfrey & Lawrence, 2010; Slusser, 2007; U.S. DHHS, 2015). The low African American breastfeeding rate is a significant part of the overall \$13 billion in health-care costs attributed to the lack of breastfeeding in the United States (Bartick & Reinhold, 2010).

The benefits of breastfeeding are well documented, and healthcare providers and policy makers have attempted to increase breastfeeding rates through education, with recommendations to mothers to sustain breastfeeding for at least twelve months postpartum (Bernier et al., 2000; CDC, 2013; Green, 2012; Labbok, 2006; Labbok, 2008). As a result of major breastfeeding educational efforts, the breastfeeding rate among African Americans has increased in recent years, but it still continues to lag behind other ethnic populations (CDC, 2013).

The disproportionately low rate of breastfeeding among African Americans has not been ameliorated by traditional promotional strategies that focus on educating women about the health benefits of breastfeeding. In the literature, a variety of factors have been explored to explain why so few African Americans breastfeed. For instance, socio-economic status (SES), marital status, and level of education have been explored as factors to explain low breastfeeding rates (McDowell, Chia-Yih, & Kennedy-Stephens, 2008). Often, any one of these factors, or a combination of them (e.g. low SES and single), can make breastfeeding challenging or even impossible for some women (U.S. DHHS, 2011). However, social and economic factors alone

may not completely explain the differences in breastfeeding rates among racial groups, as even poor and/or single Caucasian and Hispanic mothers breastfeed at higher rates than similarly positioned African American women (McDowell et al., 2008).

Despite the growing body of literature, disparities in breastfeeding continue to exist. It is reasonable to explore alternative variables that may influence breastfeeding in African Americans. Therefore, the purpose of this integrative review is two-fold: 1) to synthesize the current literature about African American breastfeeding, and 2) to introduce concepts that are under-explored and could lead to more effective public health messaging about the desirability of breastfeeding.

Methods

I used the electronic literature databases PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycINFO, and Web of Science to search for peer-reviewed journal articles published from 1990 to 2015. I searched the following keywords in the journal title or abstract: African American, Black, breastfeeding, infant feeding, attitudes, and barriers (see Table 1). These search terms probe African American women's attitudes on breastfeeding.

A three-step search strategy was used to select relevant articles. First, using the aforementioned search terms and with the criterion that each article must examine African American women and their infant-feeding choices, 121 journal articles were found after duplicates were removed. Next, the following exclusionary criteria were applied: 1) not written in English, 2) sample population was from outside the United States, 3) did not have a group that self-identified as African American, 4) dissertation abstracts and books, 5) addressed topics other than breastfeeding. The final step, to ensure articles not addressing breastfeeding or not including

African Americans were identified, excluded 74 articles. A total of 47 eligible articles remained for this literature review (see Figure 2.1).

Data Evaluation

I appraised each of the 47 articles for the following: purpose and concept, design, sample setting, findings, demographics (race/ethnicity, age, SES, etc.), sample size, sampling method, and methodological limitations. For an overview of included articles see Table 2.2. After reviewing all reports, I conducted a thematic content analysis (Hsieh & Shannon, 2005). The themes were validated independently by the co-authors to ensure validity.

Results

The three main categorical themes for evaluating breastfeeding in the African American community identified were: 1) social influences, 2) breastfeeding perceptions, and 3) breastfeeding information provided by health-care providers (e.g. information quality and quantity).

Social Influences of Women Less Likely to Breastfeed

Within the theme of social influences, two specific domains were often discussed in the literature as influential in women's decision to breastfeed: SES and social/family support. SES was often identified as a factor that contributes to breastfeeding disparities, in that women with higher SES tend to breastfeed at higher rates than women with lower SES (Johnson, Kirk, Rosenblum, & Muzik, 2015; Lewallen & Street, 2010; McDowell, Chia-Yiu & Kennedy-Stephens, 2008). However, the influence of SES was inconsistent in several articles; for example, Belanoff, McManus, Carle, McCormick, and Subramanian (2012) found that poor and/or single White and Hispanic women breastfed at higher rates than similarly positioned African Americans. Similarly, SES failed to explain the higher initiation rates among foreign-

born Black women (Lee, Elo, McCollum, & Culhane, 2009). Foreign-born Black women were more likely to initiate breastfeeding than native-born Black women (Lee et al., 2009; McCarter-Spaulding & Dennis, 2010; McCarter-Spaulding & Gore, 2009; Sparks, 2011). These data suggest that cultural influences may be an important variable for understanding infant-feeding decisions. In fact, speculations have been made in the literature that cultural differences—specifically, being born and raised in a culture where breastfeeding is normalized—might be an important variable for understanding infant-feeding decisions (Lewallen & Street, 2010; Meyerink & Marquis, 2002).

One relevant social factor is employment during and after the birth of a child. African American women tend to have lower paying service-sector employment compared with other race/ethnicities (Ringel-Kulka et al., 2011; Smith-Gagen, Hollen, Walker, Cook, & Yang, 2014). African American women also tend to have shorter maternity leaves when compared with other race/ethnicities (Johnson, Kirk, Rosenblum & Muzik, 2015; Spencer & Grassley, 2013). Returning to work is consistently shown to be the most common reason for not breastfeeding (Fischer & Olsen, 2013; Hannon et al., 2000; Hill, Arnett, & Mauk, 2008; McCarter-Spaulding, 2007; Mickens, Modeste, Montgomery, & Taylor, 2009; Murimi, Dodge, Pope, & Erickson, 2010; Ogbuanu et al., 2009). Indeed, stress and separation from the infant could make establishing and maintaining a schedule of breastfeeding or pumping difficult for working mothers. The type of job a woman has also plays a role in breastfeeding decisions, as does the degree to which the work environment is supportive of breastfeeding (or breast-pumping). Smith-Gagen et al. (2014) found that five of the eight breastfeeding laws established to protect and promote breastfeeding duration were considerably less helpful for African Americans relative to White Americans. African American women were more reluctant to ask for a suitable

(i.e. not a closet or bathroom) place to pump than other race/ethnicities (Smith-Gagen et al., 2014; Spencer, Wambach, & Domain, 2015).

Social support factors were also identified as influencing African American women's decision to breastfeed. These social support factors include the opinions, values, and beliefs about breastfeeding in the family, the romantic partner, and friends. Family opinions, values, and beliefs about breastfeeding were found to be most important to breastfeeding success (Bai, Wunderlich, & Fly, 2011; Lewallen & Street, 2010; Meyerink & Marquis, 2002; Rose, Warrington, Linder, & Williams, 2004; Spencer & Grassley, 2013; Street & Lewallen, 2013; Ware, Webb, & Levy, 2014). More specifically, Bai et al. (2011) and Lewellan and Street (2010) found that the woman's mother and maternal grandmother had the greatest relationship influence on breastfeeding intention, thereby constituting a generational transmission of beliefs. Similarly, women were more likely to breastfeed if they had access to family members or friends who breastfed (Kum-Nji, Mangrem, Wells, White, & Herrod, 1999; Spencer & Grassley, 2013; Weimann, DuBois, & Berenson, 1998). Grassley and Eschiti (2008) conducted a study to elucidate the type of breastfeeding help and advice new mothers desired and needed from grandmothers (N= 3 AA out of a sample size of N=30). Grassley and Eschiti found that the grandmother's knowledge base and support was important to new mothers but that grandmothers had a limited knowledge base about breastfeeding and believed in certain myths (e.g. inadequate breast milk supply). Moreover, Grassley, Spencer, and Law (2012) developed a quasi-experimental, two-group intervention study based on the previous program of research (N= 2 AA out of a sample size of N=49) using the Intent to Recommend Breastfeeding Scale and the Iowa Infant Feeding Attitude Test. The researchers found no statistically significant attitude scores between the control and intervention groups. However, the intervention group had higher

breastfeeding knowledge posttest scores than the control group. Therefore, due to cultural differences in thoughts, attitudes and beliefs about breastfeeding, the generalizability of these results is limited due to an uneven ethnic distribution and a very small sample of African American women.

Relationships outside the mother or grandmother relationship have similar effects. Concerning the mother-father relationship, researchers found that if the romantic partner encouraged breastfeeding, the mother was more likely to breastfeed than if the partner discouraged breastfeeding (Bentley et al., 2003; Giugliani, Caiaffa, Vogelhut, Witter, & Perman, 1994; Hill et al., 2008).

Peers or friends giving advice about breastfeeding was also shown to affect some African American women's breastfeeding perceptions and decisions. Negative comments from friends would deter some African American women from wanting to breastfeed (Lewallen & Street, 2010; Meyerink & Marquis, 2002; Spencer et al., 2015; Street & Lewellan, 2013). Similarly, researchers found that if the African American women valued their friends' and family's support of breastfeeding, their decisions regarding infant feeding were affected. In contrast, in the same study, White women identified their own attitudes about breastfeeding as the most important factor, and Hispanic women identified situational factors such as availability to pump as the most important factor influencing their decisions to breastfeed (Bai et al., 2011).

Peer counselors, or women in the community providing breastfeeding support, were also identified as social influences impacting African American women's decision to breastfeed. African American women from lower SES reported that education received about breastfeeding (provided by peer counselors) influenced breastfeeding decisions. In fact, African American women were more receptive to information provided by other African American women than by

women of another racial group (Lewallen & Street, 2010; Meyerink & Marquis, 2002; Pugh, Milligan, Frick, Spatz, & Bronner, 2002; Pugh et al., 2010).

Women's Perceptions of Breastfeeding

Women's perceptions of breastfeeding were described in the literature as an important determinant of whether she would breastfeed (Hannon et al., 2000; Kaufman, Deenadayalan, & Karpati, 2010; Sparks, 2011; Spencer & Grassley, 2013). The empirical literature indicates that different racial groups tend to have similar perceptions of breastfeeding in public. Both African Americans and White women reported feeling uncomfortable, even embarrassed, to breastfeed in public (Hannon et al., 2000; Meyerink & Marquis, 2002; Robinson & VandeVusse, 2011; Wiemann et al., 1998). However, in a study with African Americans and Puerto Rican participants, those who were Puerto Rican did not feel uncomfortable breastfeeding in public and attributed their comfort with public breastfeeding to having been raised with the idea that breastfeeding is normal (Kaufman et al., 2010). However, in a study of African American and Latina adolescent mothers, women from both groups felt uncomfortable with breastfeeding in public. The Latina adolescent mothers, however, attributed the discomfort with public breastfeeding to losing their Mexican or Hispanic customs and becoming more like American adolescents. The African American adolescent mothers reported embarrassment about breastfeeding in public and indicated that breasts are private parts of a woman's body that should not be exposed in public (Hannon et al., 2000).

The fear of pain related to breastfeeding was also discussed in the breastfeeding literature (Hannon et al., 2000; Mickens et al., 2009; Murimi et al., 2010; Tucker, Wilson, & Samandari, 2011; Ware et al., 2014). For example, in a study of Hispanic and African American adolescents, 50% of the African American and Latina participants described either the physical

discomfort or pain with breastfeeding or the imagined pain (because someone told them breastfeeding hurt) as the major deterrent to breastfeeding (Hannon et al., 2000). Similarly, in a mixed sample of White, Black, and Hispanic teen mothers (N= 22), pain was given as a reason for not breastfeeding (Tucker et al., 2011). White, Hispanic, and African American adolescent mothers all report pain as a factor for not breastfeeding; however, White and Hispanic adolescent mothers tend to breastfeed at higher rates than African American adolescents.

Several reports have described participants' thoughts of their breasts as sexual or private, and not "functional" (to feed an infant), as a deterrent to breastfeeding (Bentley, Dee, & Jensen, 2003; Hannon et al., 2000). Additionally, studies reported that women believe negative physical consequences (appearance) from breastfeeding would occur (Hannon et al., 2000; McCann, Baydar, & Williams, 2007). McCann, Baydar, and Williams (2007) reported that 32% of African American women responded that they did not want their breast to "sag," and participants from Hannon et al. (2000) verbalized the same concern in response to questions regarding deterrents to breastfeeding.

The idea of adding cereal to infant bottles and concerns about breast milk inadequacies was a repeated theme found in the literature. African American mothers reported believing that breast milk is not enough nourishment or is even dangerous for babies (Hannon et al., 2000; Kaufman et al., 2010; Lewallen & Street, 2010). Some women perceived that their baby needed more food than could be provided by breast milk alone. These mothers indicated that breast milk was not enough to satisfy their babies, and accordingly they elected formula over breast milk. Adding cereal (as food) in the bottle reportedly occurs as early as two weeks old despite the recommendation from the American Academy of Pediatrics that infants receive only breast milk or formula for the first four to six months of life (Eidelman et al., 2012; Kaufman et al., 2010;

Underwood et al., 1997). An interesting discovery was that some African American mothers reportedly believed that breastfeeding could make a baby spoiled, lazy, and weak; these women expressed that formula feeding created “soldiers,” making them strong and independent, thereby not needing their parents as much (Cricco-Lizza, 2004).

Encouragement of breastfeeding from health educators or health providers, which included information that breastfeeding was better than formula feeding, did not always translate into increased breastfeeding among African American women. Some women reported that formula feeding added a sense of freedom and normalcy back to their lives (Cricco-Lizza, 2004; Kaufman et al., 2010; Nommsen-Rivers, Chantry, Cohen, & Dewey, 2010). This is consistent with reports that breastfeeding challenges—such as when and where to pump, breast milk storage, and having time to pump their breasts—negatively impacted the decision to breastfeed (Cricco-Lizza, 2004; Evans, Labbok, & Abrahams, 2011; Hannon et al., 2000; Hill et al., 2008). One study with 100% African Americans (Caulfield et al., 1998) and a study with multiple racial groups (Stuebe & Bonuck, 2011) found that knowledge about the benefits of breastfeeding was associated with higher initiation of breastfeeding and increased duration.

Quality of Information Provided by Healthcare Providers

Education and support are important factors associated with breastfeeding success (Howell, Bodnar-Deren, Balbierz, Parides, & Bickell, 2014). African Americans are more likely to report receiving inadequate and/or inaccurate information about breastfeeding from health-care providers compared with other races or ethnic groups (Bentley et al., 1999; Cricco-Lizza, 2006; Evans et al., 2011; Gee, Zerbib, & Lockett, 2012; Grassley et al., 2012; Hannon et al., 2000; Kaufman et al., 2010; Ringel-Kulka et al., 2011; Meyerink & Marquis, 2002; Spencer & Grassley, 2013). African American women enrolled in a Women, Infant, and Children (WIC)

program reported being discouraged from breastfeeding or not given any breastfeeding information at all (Cricco-Lizza, 2006; Gee et al., 2012). This is particularly worrisome because it is inconsistent with current national recommendations. In one state, WIC clinic locations that served populations with greater than 75% African Americans had no lactation support at all (Evans et al., 2011). Beal, Kuhlthau, and Perrin (2003) found that African American women raised concerns about being discouraged from breastfeeding and encouraged to formula feed by health-care providers. The literature also notes that African American women often wanted to breastfeed, but were not given adequate encouragement or education (Gee et al., 2012; Hill et al., 2008; Ringel-Kulka et al., 2011; Street & Lewallen, 2013).

Not all reports in the literature reviewed here clearly demonstrated that African Americans received less support than other racial and ethnic groups regarding breastfeeding (Cricco-Lizza, 2006). Robinson and VandeVusse (2011) conducted a study on self-efficacy and infant-feeding decisions among African American women using a mixed-methods approach with participants from the Midwest (N=59); they found that WIC counselors were described as very supportive and as providing positive reinforcement about breastfeeding. Similarly, participants in the Murimi et al. (2010) study also stated that the information given by the WIC counselors was supportive and the educational materials and information were clear. These inconsistent findings regarding support and education from WIC counselors could reflect sampling differences (private practice versus community health clinic) or overall individual differences among WIC counselors working in different communities, rather than differences in WIC policies.

According to the WIC policy, breastfeeding mothers and infants are a top priority; however, the budget allotted for breastfeeding initiatives (e.g. WIC counselor and peer counselor training) is substantially smaller than the formula budget (Baumgartel & Spatz, 2013; Hedberg, 2013).

Review of the current breastfeeding literature suggests that these three themes (social influences, women's perceptions, and breastfeeding education) are important factors. On the other hand, SES is inconsistent as a factor and does not explain the ethnic minority disparity. There are various social factors described in the literature that suggest there could be other factors unique to being African American that are deterring some mothers from breastfeeding.

Gaps Identified in the Breastfeeding Literature

From this review, I identify two gaps in the African American breastfeeding literature. First, there have been no studies conducted that investigate the connection between socio-historical events and the low rates of African American breastfeeding. Secondly, with the exception of one question by Lewallen and Street (2010), who asked if there is anything about African American culture that influenced infant-feeding decisions, the majority of researchers did not ask explicit questions about breastfeeding, being African American, and socio-historical influences. There is a dearth in the literature on exploring socio-historical influences that impact African American women's infant-feeding decision-making. However, research has been conducted on African American women's experiences of health disparities, emphasizing the specific influence of race and gender, and socio-historical factors on other health outcomes (Nuru-Jeter et al., 2009; Giscombé & Lobel, 2005; Woods Giscombé, 2010).

Paradigm Shift

A paradigm shift in approaching and understanding the low African American breastfeeding rate is needed and perhaps could lead to better interventions to raise the African American breastfeeding rate. There has been an increased focus on eliminating health disparities among ethnic minorities to reduce health disparities and the resulting negative impact on health (U.S. DHHS, 2013). Adoption of an alternative approach would be in line with the Healthy 2020

recommendations for eliminating health disparities, which state that historical and cultural factors need to be considered when examining health behaviors (U.S. DHHS, 2012).

There are conceptual frameworks that may be useful in approaching this issue. One conceptual framework that may provide valuable guidance for research on cultural and historical factors contributing to this breastfeeding disparity is the concept of embodiment (Krieger, 2005). Embodiment, or the characteristics of individuals that are directly influenced by their culture and their lived experience, may explain how a woman makes choices and implements choices based on the intersection of her culture and the world in which she lives (Lende & Lachiondo, 2009). According to Krieger (2005), historical contextual factors and events may influence a person's decision-making process even if she does not specifically remember the event.

In this way, embodiment is a promising lens for examining breastfeeding and is suitable for analyzing the importance of environmental, cultural, and socio-historical influences on infant-feeding decisions, which have not been widely studied. An African American woman may not be doing what is recommended for her child if she formula feeds, but she may be doing what is culturally normal in her household or community (Krieger, 2005). Hence, studying the current indicators of low breastfeeding rates among African Americans without examining the historical and social circumstances may limit understanding of the problem (Krieger, 2008). The concept of embodiment has been well articulated (Lende & Lachiondo, 2009; Woods Giscombé, 2010) and can be used to help conceptualize the processes that contribute to women's health-related decision making (e.g. breastfeeding) in terms of environmental, cultural, and historical influences.

A second potentially useful conceptual model for the study of socio-historical effects on breastfeeding rates in the African American population is the PEN-3 model developed by Collins

Airhihenbuwa (1995). The PEN-3 model addresses health inequities by understanding health and culture together rather than as separate entities (Airhihenbuwa, 2010). PEN-3, similar to the concept of embodiment, emphasizes the ways in which the historical experience of the individual may consciously or unconsciously affect health behaviors (Airhihenbuwa, 1995; Airhihenbuwa, 2010; Krieger, 2008). The unique aspect of the PEN-3 model is that it addresses health disparities and health promotion from a three-domain approach (Figure 1.1). Each domain has three dimensions, accounting for the acronym 'PEN'. First, the cultural identity domain includes: A) person, B) extended family, and C) neighborhood. Second, relationships and expectations include: A) perceptions, B) enablers, and C) nurturers. The third domain is cultural empowerment and it includes: A) positive, B) existential (unique), and C) negative factors (Iwelunmor et al., 2014). In this way, the PEN-3 model focuses on cultural, socio-historical, and ethnic factors that influence change, not just individual factors that influence change (Cowdery, Parker, & Thompson, 2012).

The PEN-3 model defines culture as a shared awareness that can reveal itself silently or noticeably through speech and history by means of stories of a person's life experiences (Airhihenbuwa & Liburd, 2006). The PEN-3 model invites researchers to incorporate African American cultural and historical influences into theories on how individuals decide on health behaviors. Additionally, it is important to note that the historical component of culture suggests that historical events and experiences may be complex and transformative and may potentially influence attitudes and behaviors, despite the amount of time that has passed since the events occurred (Airhihenbuwa & Liburd, 2006). (See Figure 1.1.)

A third concept, referred to as "cultural trauma" by Alexander (2004) and Eyerman (2001) or as "historical trauma" by Sotero (2006), explains how past events can affect present-

day behavior. The mechanism through which cultural/historical trauma persists is the cross-generational transmission of ideas (Alexander, 2004; Eyerman, 2001; Sotero, 2006). Historical trauma is apparent in the African American community as a public memory of the residual effects of centuries of racism (Eyerman, 2001). According to this model, the mass collection of emotional and psychological harm sustained over generations is noticeable in maladaptive behaviors, such as not breastfeeding, in response to traumas (Sotero, 2006). In this way, it is possible that African American history has shaped current patterns of breastfeeding.

Historically, African American women suffered from a collection of racially, socially, and politically motivated exclusions from society. This institutional discrimination may explain why African Americans are more reluctant than other groups to breastfeed (Jones, 2000; Williams & Mohammed, 2013). Attempting to understand this phenomenon requires a close reading of the psychological literature offered by Ogbu (2004) and the concept of oppositionality. Oppositionality is a phenomenon through which African Americans perceive as “bad” whatever the majority perceive as “good” (Ogbu, 2004). This is perhaps one way that African Americans deal with racial, social, and political exclusions. Additionally, within the theories of *learned* behavior, or considerations of *why* people behave as they do it is reasonable to consider how current breastfeeding behavior maybe a result of generations of systematic discouragement, imposed in different ways at different times—during slavery, during decades of institutionalized poverty during reconstruction, the Jim Crow era, and until today, and even through targeted formula advertising of the superiority of infant formula-feeding, such as was done using the African American Fultz quadruplets of 1946 (Shteingart & Loewenstein, 2014; Skinner, 1988).

It is possible that the unique history that has shaped African American life in the United States may contribute to the low rate of breastfeeding in this population. For example, the socio-historical patterns experienced during slavery, structural changes of the family unit and work, aggressive formula marketing, and racism may have been transmitted inter-generationally to subsequent generations of women. These factors may have cross-generationally influenced African American women's lifestyle priorities, their images and perceptions about their bodies, and subsequently their engagement in breastfeeding behavior.

Discussion

I examined 47 articles for this literature review, assessing African American breastfeeding practices in an effort to better understand why African American breastfeeding rates are lower than those of other race/ethnicities. The articles reviewed revealed several factors that contribute to African American's low breastfeeding rates and several protective influences (i.e., those which were associated with the practice of breastfeeding). The themes identified were social characteristics of women likely not to breastfeed, women's perceptions of breastfeeding, and the quality of information given by healthcare providers (e.g. inadequate or inaccurate). Despite increased research focused on African American mothers and breastfeeding in the United States, the socio-historical factors related to breastfeeding among African American women remain underexplored. Therefore it is important to shift the research focus and to integrate the influence of history and culture on African American women's decisions about breastfeeding (Fischer & Olson, 2013; Johnson et al., 2015; Reeves & Woods Giscombé, 2015).

Limitations

There are limitations in this literature review that should be noted. First, the search terms may have resulted in the omission of relevant articles; to reduce the likelihood of this limitation,

I used a wide variety of electronic databases. Secondly, it is possible that there is a publication bias against publishing about a link between socio-cultural-historical effects and breastfeeding. It is also possible that previous research on historical events and breastfeeding yielded no evidence of a connection, which would result in omitting the data from publications or rejection of the studies (Phillips, 2004).

Implications for Research and Clinical Practice

African Americans constitute a particularly vulnerable population with markedly low breastfeeding rates. The reports reviewed account for only a part of the variance in breastfeeding rates, but research focusing on socio-historical events in African American history may contribute to a more precise understanding of the lower breastfeeding rates among African American women. Future research should attempt to fill the gap in the literature about cultural beliefs and psycho-socio-historical factors in the African American community that influence low breastfeeding rates. Development of explanatory frameworks is needed to examine specific cultural beliefs in the African American community and the potential impact that historical events might have had on breastfeeding practices. In addition, clinicians should be aware of the potential socio-cultural patterns that influence breastfeeding attitudes and behavior by approaching breastfeeding promotion and education with culturally sensitive strategies.

Although breastfeeding promotion and education have resulted in increased rates of breastfeeding in African American women, the rate of breastfeeding still falls behind when compared with other race/ethnicities. There are no reports in the scientific literature that empirically investigate the contribution of socio-historical events as a factor in low breastfeeding rates among African American women. As identified in this review, the existing body of literature suggests that breastfeeding behavior is influenced by women's characteristics and/or

perceptions about breastfeeding, as well as messages received from providers, partners, and family members. A comprehensive incorporation of all plausible factors will contribute to the development and implementation of more effective, culturally sensitive interventions targeting African American women, their families, and their communities.

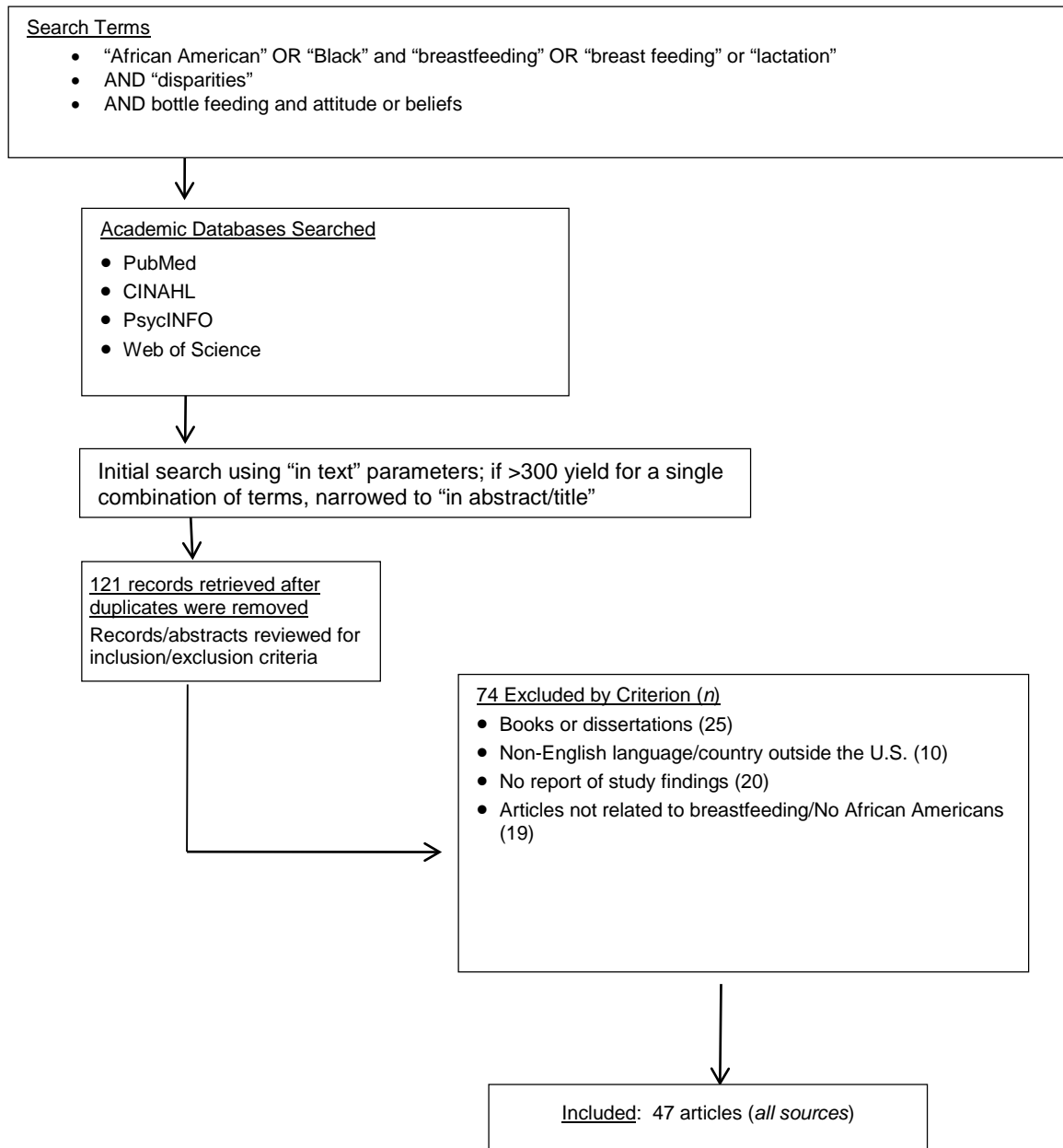


Figure 2.1. Search strategy for literature review on breastfeeding in the African American community.

Table 2.1

Integrative Literature Review Search Terms

Database	Search Terms	Results
PubMed	("Bottle Feeding"[Mesh] OR "Breast Feeding"[Mesh] OR bottle feed*[tw] OR breastfeed*[tw] OR breast feed*[tw] OR breast pump*[tw] OR breast express*[tw]) AND (attitude*[tw] OR thoughts[tw] OR beliefs[tw] OR barrier*[tw]) AND (african american*[tw] OR black*[tw])	147
CINAHL	((MH "Bottle Feeding") OR (MH "Breast Feeding+") OR "bottle feed*" OR breastfeed* OR "breast feed*" OR "breast pump"* OR "breast express*") AND (attitude* OR thoughts OR beliefs OR barrier*) AND ("african american*" OR black*)	121
PsycInfo	((DE "Breast Feeding") OR (DE "Bottle Feeding") OR "bottle feed*" OR breastfeed* OR "breast feed*" OR "breast pump"* OR "breast express*") AND (attitude* OR thoughts OR beliefs OR barrier*) AND ("african american*" OR black*)	60
Web of Science	("bottle feed*" OR breastfeed* OR "breast feed*" OR "breast pump*" OR "breast express*") AND (attitude* OR thoughts OR beliefs OR barrier*) AND ("african american*" OR black*)	93
Total		421

Table 2.2

Report Characteristics Identified in Literature Review

Author(s)	Study Design and Location	Sample Size (% AA participants)	Findings
Bai et al. (2010)	Quantitative, Cross-sectional Indiana and New Jersey	N= 236 (39%)	Subjective norm important indicator of BF in AA women; support from family and friends valued highly among AA.
Beal et al. (2003)	Qualitative, Secondary Analysis	N= 8,757 (54%)	AA women self-reported that WIC counselors gave advice against BF
Belanoff et al. (2012)	Qualitative, 2007 Secondary Analysis	N= 23,374 (12%)	BF difference across states based on race. Other people's opinions matter to low-SES women
Bentley et al. (1999)	Mixed Methods, Logistic Regression Baltimore, MD	N= 441 (100%)	AA women were strongly influenced by the attitudes and experiences of others within their social circle; more so influenced by health care providers.
Bentley et al. (2003)	Ethnographic and Quantitative data Baltimore, MD	N= 136 (100%)	Television can have a negative effect on BF; breast seen as sexual not functional; or breast milk portrayed as harmful.
Caulfield et al. (1998)	Intervention 2x2 factorial design Baltimore, MD	N= 242 (100%)	Facilitators to BR were no formula given at discharge, peer counselors, and intention to BF.
Cricco-Lizza (2004)	Qualitative interviews New York	N= 319 (100%)	Limited BF info from provider
Cricco-Lizza (2006)	Qualitative interviews New York	N= 130 (100%)	Not provided breastfeeding information
Evans et al. (2011)	Quantitative surveys, linear and logistic regression North Carolina	N= 50 counties	The more AA in a county = less BF support personnel.

Fischer et al., 2014	Focus groups and Interviews Michigan	N= 42 (40%)	Barriers: Retuning to work, BF intentions most significant predictor of BF.
Gee et al. (2012)	Data from 2007–8 Louisiana Pregnancy Risk Assessment Monitoring System, Archival data	N= 2,534 (39%)	Race influenced whether a woman received BF support prenatally and postpartum
Giugliani et al. (1994)	Case-control study Maryland	N= 200 (65%)	Opinion and support from father of baby most important.
Grassley and Eschiti (2008)	Focus groups Texas	N=30 (10%)	Grandmother's BF knowledge and support important.
Grassley et al. (2012)	Focus group Intervention Southwest USA	N= 49 (4%)	Grandmother's support and attitudes are very influential to new mothers.
Hannon et al. (2000)	Qualitative, Interviews and focused groups, Chicago, IL	N= 35 (60%)	Barriers: perceptions of pain, public exposure, and unease with the act of BF, misconceptions about BF
Hill et al. (2008)	Mixed methods Texas	N= 88 (18%)	Women's perception of what was normal mattered most, father most influential; Comfort with formula = low BF duration
Howell et al. (2014)	Randomized control trial intervention. New York	N= 540 (38%)	Facilitators: BF education and social support important.
Johnson et al. (2015)	Systematic review of BF interventions.	N/A	No single intervention or strategy can address all BF barriers facing AA mothers. Suggests need for an integrative approach.
Kaufman et al. (2010)	Qualitative Individual and group interviews Brooklyn, New York	N= 28 (50%)	Perceptions of harm of breast milk and trust in formula. Public exposure fitting BF into daily routines. Intentions to BF did not always translate into practice.

Kum-Nji et al. (1999)	Questionnaire Mississippi	N= 420 (79%)	Having a family member or friend who has breastfeed was a strong influence. Suggested need for educational programs that target the community.
Lee et al. (2009)	Secondary Analysis	N= 1,140 (64%)	Foreign-born Black women were more likely to BF than native-born AA and White women.
Lewallen & Street (2010)	Focus groups, Southeastern US	N= 15 (100%)	Reported receiving low BF info from providers; Perceived lack of info about benefits and management of BF
McCann et al. (2007)	1 year longitudinal study of WIC participants. North Carolina	N= 874 (23%)	Perceived BF benefits resulted in initiation and longer duration; concerns about insufficient breast milk were a barrier.
McCarter-Spaulding (2007)	Focus groups, Mixed methods Michigan	N= 8 (100%)	Most important person that influences BF was maternal grandmother. Culture plays a role in AA decision to BF
McCarter-Spaulding and Dennis (2010)	Instrument testing of the Breastfeeding Self-Efficacy Scale-Short Form. Northeast USA	N=152 (32%)	Black women in the U.S. received lower scores than African born women.
McCarter-Spaulding and Gore (2009)	Descriptive Longitudinal Study New England	N= 125 (32%)	African American women were less likely to BF than foreign-born Blacks
Meyerink et al. (2002)	Qualitative surveys and interviews, Alabama	N= 150 (93%)	Family and personal experiences most important determinant of BF
Mickens et al. (2009)	Quantitative Cross- sectional California	N= 109 (100%)	BF support groups important; barriers: pain, work, ease of bottle feeding and not comfortable with BF
Murimi et al. (2010)	Quantitative Cross- sectional Louisiana	N= 130 (43%)	WIC information was effective and clear.

Nommsen-Rivers et al. (2010)	Interviews California	N= 532 (12%)	AA women voiced comfort and convenience of formula.
Ogbuanu et al. (2009)	Secondary analysis Arkansas	N= 113,6857 (18%)	Barriers to BF: Embarrassment
Pugh et al. (2002)	Randomized Control Trial Mid Atlantic Region of United States	N= 41 (10%)	Peer counselor support can increase BF duration
Pugh et al. (2010)	Randomized Controlled trial Baltimore, Maryland	N= 328 (87%)	Intervention group was more likely to breastfeed until 6 weeks postpartum, unlike the control group.
Ringel-Kulka et al. (2011)	Focus groups North Carolina	N = 49 (100%)	Lack of support at home, work, peers, and providers; Unmet informational needs
Robinson et al. (2011)	Mixed Methods Midwest	N= 17 (100%)	BF self-efficacy had an impact on infant-feeding intentions for AA women
Rose et al. (2004)	Interviews Baltimore, MD	N= 70 (70%)	Partner and family most influential to BF decision.
Smith-Gagen et al. (2014)	Cross-sectional NHANES 2003-2010	N= 3,132 (19%)	BF laws affect African American and Hispanic women in different ways than White women.
Sparks (2011)	Secondary Analysis	N= 3550 (18%)	Foreign-born Blacks BF at higher rates than native-born A; Limited social support from social network makes BF more difficult.
Spencer & Grassley (2013)	Systematic Review	N/A	Differing information based on race, Social support importance, breastfeeding intentions
Spencer et al. (2015)	Focus groups	N= 17 (100%)	Intersectionality of race, class and gender oppression, BF in public and work were factors against BF.
Street & Lewallen (2013)	Qualitative, Survey, North Carolina	N= 187 (37%)	Culture, family, friends, self, and knowledge of the benefits of BF were critical in choice of infant feeding.

Stuebe & Bonuck (2011)	Randomized Control Trial New York	N= 883 (31%)	Intention to BF was associated with maternal knowledge
Tucker et al. (2011)	Mixed Methods North Carolina	N= 389 (45%)	Barriers to BF were school, pain, insufficient milk
Underwood et al. (1997)	Focus groups	N= 35 (100%)	Infant feeding learned from family members; a generational affect.
Wambach et al. (2011)	Randomized Control Trial Midwest	N= 289 (61%)	Education/support was partially effective in increasing BF.
Ware et al. (2014)	Focus groups Tennessee	N= 86 (97%)	Participants voiced a lack of knowledge about BF; barriers pain and work
Wiemann et al. (1998)	Quantitative Cross-sectional Texas	N= 696 (30%)	BF influences differ by race. For AA barriers were work, school and embarrassment.

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CHAPTER 3: HISTORIOGRAPHIC ESSAY: THE HISTORY OF AFRICAN AMERICAN BREASTFEEDING IN THE UNITED STATES

Introduction

In the United States, a breastfeeding disparity exists along racial lines (Berry & Gribble, 2008; Johnson et al., 2015). For more than four decades, African American women have breastfed less than all other racial groups. Based on the latest Centers for Disease Control (CDC) data, 59% of African American mothers initiate breastfeeding, but only 26% continue to breastfeed at six months. In contrast, 75% of non-Hispanic White mothers initiate breastfeeding, and 43% are still breastfeeding at six months; for Hispanic mothers, 77% initiate and 48% continue to six months (CDC, 2013).

The lower rate of breastfeeding among African Americans may be associated with other significant health problems: African American infants have greater mortality and they experience higher rates of acute otitis media, diabetes, respiratory infections, and asthma, and other lifelong health problems (Eidelman et al., 2012; Gibbs & Forste, 2014; Leung & Sauve, 2005; MacDorman & Mathews, 2013). Adult African Americans have the highest morbidity and mortality rates from cancers (all types), diabetes, and influenza and are prone to obesity (Gibbs & Forste, 2014; U.S. DHHS National Institute on Minority Health and Health Disparities, 2015). People who have been breastfed have lower risks for these conditions (Gibbs & Forste, 2014; U.S. DHHS, 2011).

Breastfeeding is associated with increased infant survival and it is also associated with reduced incidence of maternal ovarian and breast cancers and overall improved cancer prognoses

after diagnosis among women who breastfeed (Allen & Hector, 2005; Bernier et al. 2000; Godfrey & Lawrence, 2010; U.S. DHHS, 2011; Victora et al., 2016). The potential impact of disparate breastfeeding rates is that African American mothers do not receive many health benefits and their children are more likely to die during infancy and experience serious, life-long health consequences, including diabetes, respiratory infections, asthma, and obesity when compared with all other races (CDC, 2013; Eidelman et al., 2012; Gibbs & Forste, 2014; Khan et al., 2014; Kull et al., 2010; Spencer & Grassley, 2013; U.S. DHHS, 2015). Children who are breastfed have an overall lower morbidity and mortality rate than those who are formula fed (Gartner et al., 2005; Godfrey & Lawrence, 2010; Slusser, 2007).

The benefits of breastfeeding are well documented, and educational efforts have been made to increase breastfeeding among populations with low adherence to recommendations to sustain breastfeeding for twelve months postpartum (Bernier et al., 2000; CDC, 2013; Green, 2012; Labbok, 2006; Labbok, 2008). As a result of these educational efforts, the breastfeeding rate among African Americans has increased in recent years, but it continues to lag behind other races. Despite increased research focused on African American mothers and breastfeeding in the United States, the psycho-socio-historical factors related to breastfeeding by African American women remains underexplored.

This paper fills this gap by examining the history of African American women and breastfeeding from the era of slavery in the United States until the present. This paper also delineates the potential impact historical events have on infant-feeding decisions. The first section provides a broad overview of the socio-historical effects and introduces the key concepts. The second section of this paper contains a description of African American history, analyzing and interpreting breastfeeding trends that have evolved from past events. This process provides a

lens through which to view the ways in which African American breastfeeding behaviors have changed over time in response to historical influences. The third section offers psychological theories that will elucidate the potential psychosocial link between history and present day breastfeeding behaviors. Lastly, the fourth section provides a conclusion and implications of this work for research and clinical practice. For the purposes of this essay, the term African American refers to people of African descent who are able to trace their ancestry back to American slavery (as opposed to, say, recent immigrants who have acquired citizenship). African American women are not a monolithic group, nor do all aspects of African American history affect all African American women in the same way. However, there are commonalities in the African American narrative that can be applied to most African American women.

Section 1: Overview

The objective of exploring African American history is neither to dwell on the past nor to open old wounds; instead the purpose is to look back, validate, and illuminate a path moving forward (Akbar, 1996). There are bodies of literature in genetics, history, nursing, and psychology that discuss how racism and sexism have impacted African American women (Collins, 2000; Davis, 1983; Giscombé & Lobel, 2005; Jasienska, 2009). This literature illustrates how African American women have experienced powerful oppression due to historical, gender, and racial injustices. Injustices can be traced back to slavery, followed by segregation, and inclusive of present-day, persistent marginalization and oppression in the United States. It is reasonable to explore the potential influence of these experiences on health behaviors, including breastfeeding, as slavery has been shown to affect present health. One example is Jasienska (2009), which provided genetic data showing that a framework of historical (slave-era) practices has had long-lasting effects on a population. The article suggests a causal

link between slavery and African American birth weights, finding that African American birth weights from 1995 to 2005 were 250 grams lower than birth weights of European Americans. Jasienska (2009) suggests epigenetic changes across generations, driven by conditions associated with slavery, as the mechanism by which low birth weight occurs.

Blassingame (1972) postulated that accumulated injustices result in durable legacies that may be strong enough to impact the biological drive to breastfeed one's infant. The culture of breastfeeding and motherhood in the African American community are associated with a unique set of perceptions, which include beliefs, values, and attitudes rooted in the particular way women acquire those perceptions (Thomas, 2004).

African American women make health-related choices, such as breastfeeding, within a unique cultural and socio-historical context that may implicitly or explicitly discourage certain health behaviors (Collins, 2000). Here, "socio-historical" refers to a person's historical perspective of events that have been socially, generationally, and culturally passed down and integrated into families and communities, influencing health beliefs and behaviors (Fischer & Olson, 2013; Krieger, 2008; Lende & Lachiondo, 2009). African American mothers' beliefs, values and attitudes about breastfeeding have likely evolved over time alongside a social context of subjugation and oppression in the United States. Experiences of marginalization among African American women are related to both race/ethnicity and gender; this has often been referred to as gendered-racism or oppression (see Giscombé & Lobel, 2005).

Section 2: History of African American Breastfeeding

This section forges a connection between historical factors and disparate breastfeeding rates, providing another context in which to examine low breastfeeding rates in the African American community. In order to understand this context, I will first present an outline of

historical events that have been socially, generationally, and culturally integrated into families and communities and that may influence health beliefs and health behaviors. It is argued here that events and topics such as slavery, forced wet nursing, stereotypes/respectability, Reconstruction and the Great Migration, Black Codes/segregation, structural factors, availability of formula, change in birth location, formula marketing, and the Women, Infants and Children (WIC) Program are described as contributing to the low breastfeeding rates today among African American women. These historical stages did not affect all African American women in the same way, but these events and influences had a wide range of effects on the entire population and are potentially sufficient to tip the statistical balance, creating a breastfeeding disparity in the 21st century. In addition, this paper places all women broadly, and African American women specifically, within the framework regarding socio-historical influences that affect breastfeeding decisions.

Slavery

The institution of slavery of Africans occurred in North America, the British West Indies, South America, Europe, Jamaica, and other islands and countries. This paper considers the trans-Atlantic slave trade to what is now referred to as the United States of America. Starting in 1619,¹ enslaved Africans were captured and transported; estimates of the number of slaves brought to America vary from at least 15 million to 30 million (DeGruy, 2005; Marable & Mullings, 2009; White, Bay, & Martin, 2012). The slavers justified the enslavement and abuse

¹ 1619 is the date most commonly used to mark the beginning of African slavery in the United States because it reflects slavery imposed by the British colonizers of America. However, enslaved Africans arrived in North America a whole century earlier by means of Spanish colonial settlements. In regards to the continental United States, for instance, the Spanish first colonized the geographic area of North America that became the state of Florida soon after their 1513 arrival. There were relatively low numbers of enslaved Africans due to sparse Spanish settlements and liberal Spanish manumission laws. The Spanish actually encouraged Africans enslaved in British colonies to the north (Georgia and Carolina) to abscond those colonies and flee to Florida by offering freedom in exchange for their conversion to Roman Catholicism. In 1763, Spain traded Florida to Great Britain in exchange for control of Havana (Cuba), thus ending the First Spanish Period in Florida (1565–1763) (Blackburn, 1998).

of Africans with the belief that those of European descent were socially, culturally, and economically superior because they were White (Blassingame, 1972; Fett, 2002; Fox-Genovese, 1988; Glymph, 2008). Africans were specifically selected for a life of servitude and abuse because they did not worship the same God as the Europeans and because their skin color was black, therefore making them inferior to the Whites (Akbar, 1996; Blassingame, 1972; Fox-Genovese, 1988; Glymph, 2008). According to Eyerman (2003), “slavery is a cultural marker: few African-Americans can avoid its impact on their identities” (188). The social condition of slavery has transformed into a symbolic condition; different generations have varying perspectives on the past because of both emotional and temporal distance, altered circumstances, and desires affecting all slave descendants (Eyerman, 2003). Most Blacks were slaves between 1619 and 1865, and all Blacks either endured slavery or feared slavery until it was legally abolished.

During slavery, female slaves were financial commodities, such as breeders or laborers (Hine & Thompson, 1998; Jennings, 1990). In addition, some were used as concubines and were raped and physically and psychologically abused by their capturers (Blassingame, 1972; Blum, 1999; Fett, 2002; Fox-Genovese, 1988; Hine, 1994; Kelley, 2010; White, 1999). Slave women were exploited and used as sexual objects by the oppressor, his friends, and family (Blassingame, 1972; Giddings, 1984; Glymph, 1984; Jennings, 1990; White, 1999). It is reasonable to hypothesize that criminalization and exploitation of Black bodies by rape and abuse during slavery and beyond may have damaged the dignity and nurturing qualities of motherhood. Therefore, it may also have an indirect influence on African American infant-feeding decisions and the low breastfeeding rate.

Forced Wet-Nursing

Historically, breastfeeding was a normal behavior for Black women (Barber, 2005; Blum, 1999). Especially for women in Africa at the time slavery began, breastfeeding was, indeed, the only form of infant feeding. When African slaves were brought to America they were forced to breastfeed the children of White slave masters, a practice called ‘forced wet-nursing,’ which had negative implications for the slaves and their biological children (Alexander, 2004; Hine, 1994; Marable & Mullings, 2009). The natural act of breastfeeding, practiced commonly and virtually exclusively in their homeland of Africa, was now degraded to a task that benefited the slave masters’ children (Frazier, 1989). The slave women could have suffered psychological ramifications from breastfeeding their owners’ children. Hatred would have been a reasonable reaction to the fact of breastfeeding and nurturing their owners’ children, their future oppressors.

Most slave women had limited time to nurture and bond with their own children, and this situation may have produced feelings of neglect towards her offspring. Some women who were forced to wet-nurse were given ‘privileges,’ such as living in the “big house” away from her children instead of out in the field, while being subjugated for her breast milk. Additionally, some might have felt a sense of hopelessness for themselves and their babies because the situation felt inevitable; slave women were not able to say no for fear of getting beaten or having their children taken away. Most significantly, the slave children of women assigned to forced wet-nursing often received significantly less breast milk, therefore they either went hungry or were fed a substitute of cow’s milk, corn meal, and potentially impure water (Barber, 2005). That substitution led to gastrointestinal issues, such as diarrhea, infections, and even death (Barber, 2005; Blum, 1999; Stevens, Patrick, & Pickler, 2009). Forced wet-nursing deprived Black infants of protective antibodies, affection, and nurturing that are inherent benefits of

breastfeeding.

Many slave babies died from starvation while their mothers were breastfeeding the master's children (Dunaway, 2003; Frazier, 1989). This is consistent with the nearly 90% infant mortality rate for slave babies that has been calculated from that era (Dusinberre, 1996). Historians have estimated that 20% of White female slave owners used African/African American wet-nurses to feed their children (Blum, 1999; McMillen, 1990). This could suggest that a fairly large proportion of slave descendants could have heard accounts of or witnessed forced wet-nursing.

Today, no living African American has first-hand knowledge of the circumstances endured by slaves, nor does anyone have a first-person account of forced wet nursing among slave women in the United States. African American history from this period is carried forward through oral histories, slave narratives, and other important documents known as primary sources that serve as first-hand knowledge of the circumstances endured by slaves (Rampolla, 2012). Additionally, historians acknowledge that some components of oral histories are imagined; therefore, historians and researchers take what is known from the primary sources and critically synthesize the oral histories and folklore to interpret the types of conditions slave women endured. What can be substantiated is that slave women did not have control of their reproduction. They were caring for the slave masters' children, in addition to their biological children that resulted from sexual encounters with the slave master or with their romantic partners (Blassingame, 1972; Blum, 1999; Fett, 2002; Fox-Genovese, 1988; Hine, 1994; Kelley, 2010; White, 1999).

In addition, it is important to note that there are myths and realities about African American womanhood that have passed down across generations and have had a bearing on how

African American women are socialized around motherhood, particularly about breastfeeding. A hypothesis proposed here is that the institution of slavery could have dismantled the traditional breastfeeding practices of African American women and therefore might explain why the African American breastfeeding rate today is below that of other populations that did not experience slavery or forced wet-nursing. It is possible that slavery and forced wet-nursing caused some African American women to embrace the bottle as a symbol of freedom, relying upon milk substitutes and bottle-feeding. The association of breastfeeding with oppression could, thus, have multigenerational ramifications on African American health and breastfeeding practices (Asiodu & Flaskerud, 2011; Johnson et al., 2015; Thompson & Bentley, 2012).

Stereotypes and Respectability

During slavery, stereotypes were developed and used to mask the humanity of the subjugated and to justify cruel treatment of disadvantaged populations throughout history; these stereotypes are still in existence today (Blassingame, 1972; Fox-Genovese, 1988; White, 1999). Slave owners imposed degrading labels or stereotypes on Black slaves to justify abusive treatment and actions. Two stereotypes imposed upon female slaves by White people were “mammy” and “jezebel” (Blassingame, 1972; Glymph, 2008; White, 1999). A mammy is depicted as a nurturing, loving surrogate mother that took care of the master’s children. Mammy would sometimes be forced to breastfeed or wet-nurse the white infants instead of her own (Blassingame, 1972; Fox-Genovese, 1988; Hine, 1994; White, 1992). Mammy was created and justified as a mutual, reciprocal, and positive relationship by White southerners, in response to harsh criticisms by White northerners. In an oral history account of Sarah Louise Augustus by Belinda Hurmence (1984), *My Folks Don’t Want Me to Talk About Slavery*, she states in reference to her grandmother, “she was called Black mammy because she wet-nursed so many

white children” (p.26). This is one example of how the mammy figure could drive negative attitudes of breastfeeding for some contemporary African American women.

On the opposite end of the spectrum from mammy is “jezebel.” Jezebel, meaning “chaste” or void of sexual intent, is a woman in the Bible who is manipulative in her words and immoral in her actions, especially aimed toward men. Jezebel’s reputation was as a sex-driven woman, but in fact her actions were not sexual in nature (1 Kings 16:31; 18:4-19; 19:1, 2; 21:5-25; 2 Kings 9). However, most may be familiar with the slave era use of the word jezebel, which was given by Whites as overly sex-driven women who had slept with many men (Blassingame, 1972; White, 1999). White men created this description in order to justify sexual advances toward and rape of slave women. White (1999) suggests this depiction stemmed from the slavers misconstruing African women’s scant (by the prevailing European standards) dress, which in fact was due to the hot climate of Africa. Moreover, slave women had to work in the fields with their dresses lifted up to keep them from getting wet or dirty (White, 1999). Being scantily dressed enhanced the negative stigma imposed on Black women and helped to rationalize White men’s sexual advances (Blassingame, 1972; White, 1999). The jezebel image is a racist stereotype meant to marginalize Black women. Even over a century after the abolition of slavery, exposing one’s breast to feed a baby, especially in public, may have been felt to lend credence to the jezebel stereotype, and thus breastfeeding could be viewed as an indecent activity in which to engage.

The African American church has both secular and sacred roles in the African American community. Women were encouraged to dress modestly and to present themselves in a respectable manner. Higginbotham (1993), in an attempt to understand the concept of respectability, posed the question, “What does it mean to be respectable in the African American

community?” Respectable women are covered from head to toe when out in public and carry themselves in a manner so as not to attract male attention, especially avoiding flirting (Higginbotham, 1993). For some African American women, being raised with such a strict code of behavior internalized the values of a socially conservative society; and, importantly, this code of conduct is inconsistent with breastfeeding. Breastfeeding did not fit into this conservative environment either because of the conflation of breasts with sex, or because of a more expansive interpretation of modesty to avoid jezebel stereotyping. These conservative attitudes may have distorted the African American view of breastfeeding.

Reconstruction and the Great Migration

After the Civil War came the period known as Reconstruction (1865–1877). African Americans had to survive and rebuild their lives as free citizens, and they had to earn a living and exist as independent individuals (Hunter, 1997). Black men generally worked as farmers and laborers and could not make enough to support their families (Hine & Thompson, 1998). Although free from slavery, African Americans were faced with continued racism, limited rights, and a lack of economic opportunities. African Americans could not shop at the same stores, nor reside on the same side of town as White Americans. Moreover, they were refused adequate medical care, voting rights, and had few resources such as money, food, and housing. African Americans were denied the ability to provide for their families due to inadequate housing, low paying jobs, race-specific price inflations on necessities, and harassment by the law.

Starting in 1910, approximately two million free slaves migrated from the southern states to northern states such as New York, Washington D.C., and Chicago seeking better jobs and quality of life (Hunter, 1997; Jones, 2010). The desire for a better lifestyle, financial stability, and educational advancement was soon overshadowed by new stressors and challenges,

including substandard living conditions, low wages, food insecurity, and continued racism from Whites who refused to accept that African Americans were free and entitled to live as such (Hine & Thompson, 1998). Change in geographic location may have played a part in Black women moving away from stereotypical habits of country life, such as breastfeeding. Women raised on a farm or in the country may have been more apt to breastfeed. Once Blacks started moving north into the city, their attitudes and behaviors changed (Hine, 1994). Some Black women may have wanted to disassociate themselves from their previous lives and adopted new behavioral patterns such as bottle-feeding in order to fit in with their new surroundings, either to mimic White mothers, or to conform to work schedules in city life.

During the Great Migration, it was common for men and women to move to the north alone and send for their children, parents, and other family members later once they had secured work and housing (Hine & Thompson, 1998). Mothering traditionally revolved around family and community (Bentley et al., 1999; Lewallen & Street, 2010). Therefore, the reality of being isolated and not having immediate family support could have presented a problem for Black women wishing to breastfeed. Mothering and caring for a child was embedded in African American cultural traditions and as such it was learned from older female family members (Litt, 2000). Not having a readily available social network to provide answers to questions or advice could have created additional breastfeeding challenges for a new mother (Litt, 2000). Additionally, it is possible that the housing situation of multiple families living in small quarters did not provide a safe, private, or appropriate environment to accommodate breastfeeding.

Black Codes and Segregation

As with slavery, Black Codes, Jim Crow laws, and national legislation prohibited African Americans from seeking equal treatment, thus marginalizing them in society (Gilmore, 1996).

Black Codes (1865–1866) were a series of laws designed to create a new labor system, putting Blacks back to work “sharecropping.” Sharecropping circa 1860–1940 forced freed slaves into perpetual servitude to White land owners. Blacks contracted with landowners to work the land and split the proceeds at the end of the year. The sharecroppers did not have money, so they purchased tools and seeds on credit (DeGruy, 2005). Unable to pay off their debt from the crops every year, Blacks were forced to continue to work the land, year after year, in an attempt to one day break even or make money. If the sharecroppers attempted to leave or not pay their debt, they could be put in jail.

Similarly, Jim Crow laws during 1890–1960 were federal and local laws that prohibited African Americans from using the same public or private spaces as White Americans (Valk & Brown, 2010). Segregation prohibited Blacks from using the same water fountains, restrooms, schools, hospital wings, or building entrances as Whites (Giddings, 1984). These laws were heavily enforced in the South. During this time African American women were at a dual disadvantage. Not only did African American women experience oppression associated with being Black (racism), but they also experienced oppression and disadvantage related to being a woman. Even within the oppressive Jim Crow era that afflicted African American culture, being a woman added to the disadvantage of being treated as a second-class citizen within that marginalized Black society. There were two kinds of marginalization, by men for being a woman and by White society and the government for being African American (Davis, 1983; Valk & Brown, 2010).

During the early part of the Jim Crow era, from 1890 to 1920, African American women had less freedom of choice in the decision to use formula. Jim Crow placed a heavy burden upon African American women; mental and physical stress due to dirty jobs, low wages, and high

rates of sexual harassment in the workplace could have restricted their ability to breastfeed. These factors may have contributed to a consciousness of being oppressed, marginalized, and stereotyped in ways consistent with slavery and possibly a growing desire to escape the oppressive box. Furthermore, there were additional factors that could have made breastfeeding during this time difficult such as poor health, lack of privacy and job loss (which sometimes was the only income coming into the household).

Structural Factors

There are structural factors, such as change in family structure and work, that may have made engagement in a mothering behavior such as breastfeeding more stressful, especially for African American women (Blum, 1999). Changes in family structure that forced women out of the home and into the workforce caused disruptive periods for families. When economic circumstances cause this to happen, then the expectations of the woman's role in the family changes (Blum, 1999). In order to survive financially, every family member, including women, had to work. African American women endured long hours at grueling jobs as cooks, live-in nannies, laundresses, and field workers (Hine & Thompson, 1998). In contrast, their White counterparts held less onerous positions that provided more opportunity to be with their children; they were often secretaries and homemakers (Davis, 1983; Hunter, 1997; Litt, 2000; Sharpless, 2010; White et al., 2012). Moreover, if the mother lived a long distance from her work, she had less time at home and with her children as well. Therefore, for Black women, separation from one's infant, caring for someone else's children, and being tired from doing hard work for long hours was a normal situation. This burden may have influenced their ability and time available to engage in the mothering act of breastfeeding.

The percentage of women in the workforce has increased over the last 50 years, which

implies that more and more women are facing the dilemma of when to return to work following childbirth. In fact, women have to return to work earlier and earlier in order to take care of their family financially (U.S. DHHS, 2011). Not only do they have to return to work, but also many find themselves working for a company that does not support breastfeeding (Gross et al., 2014; McKinlay & Hyde, 2004; Thuiler & Mercer, 2009). Typically, working mothers need to pump to express the breast milk. But her employer might not allow breaks in her shift to pump or there might not be a suitable place to pump (e.g. a conference room or lounge), and so these women are forced to pump in the bathroom. In 2009, the Society for Human Resource Management reported that only 25% of companies had adequate accommodations for women to pump their breasts (U.S. DHHS, 2011). Working is not unique to African American women and many women have to or want to enter the workforce; however, due to the pressures of racism and sexism, accumulative stress may create a further disincentive to breastfeeding.

Availability of Formula and Change in Birth Place

During the 1800s, breastfeeding was considered the norm regardless of ethnicity or socioeconomic status and African American women breastfed their own children at the same rate or at a higher rate than White women (Apple, 1987; Blum, 1999). During this time, women (usually White women who had more resources than African American women) who could not or did not want to breastfeed their infants relied on wet-nurses or a special formula of cow's milk (Stevens et al., 2009). This changed in 1865, with the invention of an alternative to replace breast milk called "infant formula." The chemical make up of infant formula changed to non-milk based with vitamin fortification from the years 1865 to 1920. With this change, formula companies started advertising that formula was chemically equal to breast milk, implying that formula was an equal if not better alternative than breastfeeding (Apple, 1987; Asiodu & Flaskerund, 2011;

Kaplan & Graff, 2008; Stevens et al., 2009). Large corporations began mass-producing infant formula, which was advertised primarily to wealthy White women as a superior alternative to breast milk. Researchers have suggested that moderate to low-income families, which at that time constituted a large percentage of African Americans, may have felt inferior to wealthy women because they could not afford the reportedly “superior” infant formula (Stevens et al., 2009). The context within which infant formula was developed and advertised for wealthy, primarily White, women underscored the broader marginalization of African American women in society during this time. Therefore, since formula feeding had been marketed as the refined, “high-end” choice, when formula became a tangible choice, African American women were motivated and more open to formula feeding. I argue that, in this way, the negative stigma of breastfeeding that began with practices of wet-nursing during slavery reemerged, or was deepened, with the targeted advertisement of infant formula to wealthier, White women.

In many ways, the advent and marketing of infant formula may have recapitulated the attitudes toward breastfeeding during slavery with wet-nursing, in which breastfeeding was considered a task that the privileged, White class could refuse to do. However, this culturally established stigma—that breastfeeding was an activity for poorer, Black women—could not begin to affect breastfeeding decisions until there was a feasible alternative to breastfeeding available. The availability of infant formula provided exactly the avenue needed for an observable bias against breastfeeding to manifest in the African American community.

The availability of formula coincided with a shift in birthing practices in the early 20th century. African American women at that time delivered their children at home with midwives (Smith & Holmes, 1996). Having a child at home in a safe environment with a midwife often meant that family and the midwife encouraged breastfeeding. The midwife would stay after the

birth to assist with cooking, cleaning, and laundry, and she made sure that the mother had assistance with breastfeeding (Smith & Holmes, 1996). However, in the 1950s, the obstetrical medical community endorsed and encouraged hospital births over traditional home births (Blum, 1999). Delivering in the hospital increased the accessibility of infant formula for the mother, as most hospitals had a ready supply of infant formula and were willing to give new mothers samples of infant formula (provided by the formula company). The practice of giving birth in a hospital, itself, was more common among wealthier women. As giving birth in a hospital served to increase the availability and engagement in formula feeding, this trend could have served to further embed an association between “wealth” and infant formula (Stevens et al., 2009.)

Formula Marketing & the “Women, Infants and Children” (WIC) Program

Formula corporations sought to glamorize infant formula, and its commercialization resulted in the use of infant formula as a status symbol for the wealthy women who could afford formula (Barness, 1987). As formula sales were on the rise within the White population, the formula companies began to shift some of their focus to the populations that were not yet buying their product. Specifically, targeted formula marketing aimed at increasing sales to African Americans have been cited as the primary catalyst that resulted in a global deterioration in breastfeeding rates (Asiodu & Flaskerud, 2011; Kaplan & Graff, 2008; Stevens et al., 2009). An example of glamorized formula marketing aimed at African Americans can be found in the 1946 PET formula company’s exploitation of the Fultz quadruplets (the “Fultz quads”) from North Carolina.

The Fultz quads were the first recorded set of African American identical quads born (before infertility treatments) that survived. They were born to Pete and Annie Mae Fultz, poor Black sharecroppers with six other children (“Carolina tenant farm pair parents of quads,” “N.C.

quads will be aided by milk firm,” “Fultz quads at 2 years old have never been sick,” 1946). The PET formula company “adopted” the Fultz quads and made a financial deal with Dr. Fred R. Klenner, a White family physician who delivered the quads (Tribune, 1946). From the time the Fultz quads were born until they were adults, their image was used in predominately African American magazines and newspapers around the country to advertise PET formula. Showcasing the presumed good health and beauty of the Fultz quads produced a positive connection and attraction to formula in the African American community. By glamorizing the quads, the PET formula company created a situation in which some African Americans wanted their babies to look like and be like the quads. But since realistically that could not happen, the next best thing may have been seen as feeding them PET milk. Reports have suggested that aggressive formula marketing was a contributing factor in decreasing African American breastfeeding rates and increasing the use of formula (Asiodu & Flakerund, 2011; Kaplan & Graff, 2008).

The Women, Infants, and Children (WIC) program, initiated in 1972 and still in existence today, supports at-risk and low-income pregnant women and families with food vouchers and free formula (Owen & Owen, 1997). WIC was developed as a pilot program by the Food and Drug Administration (FDA) to improve birth outcomes, since poor outcomes were associated with poor nutrition (Kent, 2006; Owen & Owen, 1997). While the intention was undoubtedly good, some of the practices advanced by WIC presumably disrupted the cultural norm of breastfeeding in the African American community. It has been proposed that WIC “financialized motherhood,” meaning mothers who participated in the WIC programs that breastfed risked not receiving as many food vouchers as did mothers who chose to formula feed (Oliveria & Frazao, 2009). Additionally, incentives such as free samples of formula and free diaper bags upon discharge from the hospital perhaps made formula feeding attractive to some African American

women. In many ways, the practices of WIC have greatly helped to facilitate the manifestation of a bias against breastfeeding among African American women. The aforementioned social practices (WIC) and industry interests (selling infant formula) likely affected the breastfeeding rates in the African American community (Asiodu & Flaskerund, 2011).

Section 3: Racism & Psychological Theories

Examination of the intersection of history and psychology may result in enhanced ways of understanding and addressing African American breastfeeding disparities. African Americans have experienced a variety of historical injustices, the most distal of which occurred 400 years ago, which may continue to have repercussions for African Americans today. This section investigates the manner in which historical events or negative perceptions can have psychological effects, impacting health behaviors such as breastfeeding.

Racism

First, “racism,” or an imagined superiority of a particular race, negatively impacts African Americans in the form of chronic stressors, cultural stigma, and internalized feelings of inferiority (Clark, Anderson, Clark, & Williams, 1999; Williams & Mohammed, 2013). Kwate, Valdimarsdottir, Guevarra, and Bovbjerg (2003) argued that attitudes or beliefs intended to subjugate people or individuals of a different racial or ethnic group have led to an increase in health disparities in contemporary African Americans compared with other racial groups. White supremacist ideology acknowledges these health disparities, arguing that systemic illnesses, such as high blood pressure and diabetes, are inherent to a particular ethnic group. But evidence supports that racism has negative health consequences, so it is reasonable to suggest that racism and negative cultural stigmas could potentially influence some African American women’s preference not to breastfeed.

Additionally, internalized racism, or self-devaluation based on internalizing the myth of white superiority, has negative effects on health behaviors (Jones, 2000). For example, a report by Kaufman et al. (2010) found that some African American women believed breast milk was dangerous. Even though their bodies produced breast milk, they believed formula was safer. This could be an example of internalized racism in that some African American women may feel as though their breast milk is not “good enough” or tainted in some way.

Institutional Racism

Institutional racism, discrimination or prejudices that are built into institutional structures with through certain practices, customs, or law, also has the potential to influence African American women’s psychology and health behavior (Jones, 2000). For example, in the breastfeeding literature, African American women have voiced that they were either not given breastfeeding information or even encouraged not to breastfeed (Beal et al., 2003; Cricco-Lizza, 2006; Gee et al., 2012). Experiences like this, which constitute differential institutional treatment of African American women in health-care settings, may keep some African American women from embracing breastfeeding (Jones, 2000).

Psychological Theories

Discrimination and Resilience. The paper by Gaines and Reed (1994), “Two Social Psychologies of Prejudice,” unpacks theories by Gordon W. Allport and W.E.B. Dubois, and the legacy of Booker T. Washington, speaking to the destructive effects of discrimination and the resilience and adaptability that has sustained African Americans for centuries. Because slave women were forced to wet-nurse at the expense of their own children, not breastfeeding speaks to how Black women may have internalized racist ideologies, but may also demonstrate coping, resilience, and adaptation in ways that have historically been necessary to survive. The act of not

breastfeeding is, in some ways, a strategy for dealing with what I will refer to in this paper as historical pain. Not physical pain, but a psychological pain or hurt that may have been instilled unconsciously in Black women from a history of oppression. In order to cope with the historical pain from what was once forced on Black women (forced wet-nursing), Black women today feel as though they have to reject breastfeeding their own children by formula feeding (Gaines & Reed, 1994).

Oppositionality. Ogbu (2004) proposed the concept of oppositionality—that whatever the majority perceives as “good,” Blacks define as “bad” in an attempt by Blacks to deal with discrimination. So if White society views breastfeeding as “good,” it is possible that Blacks will define breastfeeding as “bad” because of oppositionality, in an attempt to deal with the historical legacy of racism around breastfeeding. Similarly, Black people may perceive whatever is viewed as “bad” by Whites, such as formula feeding, as “good.” This behavior displays resistance and a potential distrust of the messages given by the majority; at the same time, this demonstrates a way of taking back their power and redefining infant feeding for their own purposes (Harvey & Afful, 2011; Ogbu, 2004).

Purposeful resistance of breastfeeding, whether conscious or unconscious, may be a way of rejecting the past and coping with historical pain. Black women must contend with a historical legacy that sometimes makes Black women think they need to protect their bodies—even if that requires rejecting current trends such as breastfeeding. This psychological warfare in the minds of Black women can be seen as a coping mechanism, while internalized racism fuels the conflicted psyche.

Learned Behavior. Another formal understanding of behavior change is offered by theories that explain *learned* behavior. More specifically, Skinner (1988) believed the best way

to understand behavior is to look at causes and consequences of an action, or “operant conditioning.” Operant conditioning deals with intentional actions that have effects on surrounding environments (Skinner, 1988). This literature claims that individuals engage in behavior more often if that behavior is rewarded, and will engage less frequently in behavior that is not rewarded (Shteingart & Loewenstein, 2014; Skinner, 1988). For example, some African American women formula feed their children because that is the only feeding method they know. Any deviation from a social norm such as breastfeeding is, for some individuals, intrinsically and extrinsically aversive or not rewarded (Nobles, Goddard, & Gilbert, 2009). The hypothesis here is that there are variables encouraging some African American women today to engage in bottle-feeding, because formula feeding continues to be rewarded by social acceptance and compliance with a cultural norm. These variables likely include the aforementioned traumatic aspects of African American history. The theories and examples given here may explain why some African Americans have developed an unconscious bias against breastfeeding (Jones, 2000; Williams & Mohammed, 2013).

Section 4: Conclusion and Implications for Research and Clinical Practice

Increasing breastfeeding rates among African Americans is the desired goal, and would contribute to overall health gains. Despite all the benefits associated with breastfeeding, African American women have had to deal with many barriers in order to breastfeed. Mainstream attempts to increase breastfeeding, such as educating mothers with “breast is best” language, have had limited success in the African American population. Breast milk is considered far superior to all other alternative forms of infant feeding and the data suggest that the “breast is best” language has legitimate scientific support, but it is not resulting in breastfeeding by an

overwhelming majority of African American women (CDC, 2013; Leung & Sauve, 2005; U.S. DHHS, 2011).

The African American breastfeeding rate remains below those of other races that did not experience the same history. I have argued in this chapter that the root cause of the breastfeeding disparity may be cultural and historical, rather than evidence of an educational gap. In order to address and rectify the breastfeeding disparity, health professionals and African American women must be educated about these cultural and historical variables. Undoubtedly, there is a complex history from which African American women have emerged. The Black woman's historical narrative is rarely represented in empirical literature, but this is a critical piece of moving the science of African American breastfeeding forward. History is the root cause of why some Black women choose not to breastfeed. There may be critics who dispute history's contribution to health disparities by saying the past is in the past, move on. However, African American women are still facing systemic racism and micro-aggressions, discriminatory situations and experiences that are subtle and blatant occurring in everyday life.

Negative historical influences associated with breastfeeding may function as unconscious biases in the African American community, which perhaps conflict with their own conscious intention. It is important to examine African American history and the evolution of breastfeeding in the Black community in order to increase African American breastfeeding rates. African American history allows contextualization of current health behaviors that are linked to being marginalized and subjugated. It is possible that years of oppression have caused African American women to embrace the bottle as a symbol of freedom. Examining cultural and socio-historical practices will help gain a more complete picture of why breastfeeding practices are different among African Americans.

Research focusing on socio-historical events or perceptions may contribute to understanding the reluctance of African American women to breastfeed today. Future research should attempt to trace and confirm the complex mechanisms among cultural beliefs and socio-historical factors in the African American community that led to low breastfeeding rates. Examining the current indicators of low African American breastfeeding rates without examining historical and social circumstances may limit empirical understanding (Krieger, 2008; Lende & Lachiondo, 2009). Identifying the root cause of differences in breastfeeding rates may contribute to decreasing the breastfeeding disparity (Kwate et al., 2003; Reeves & Woods Giscombé, 2015; Williams & Mohammed, 2013).

It is impossible, of course, to be certain how or if any of the above mentioned historical events have affected African American breastfeeding rates today. However, it is reasonable to explore alternative explanations that address the breastfeeding disparity, and it is likely that this unique history has had some effect on African American women today. Further consideration needs to be given to the development of explanatory frameworks that examine specific cultural beliefs in the African American community, with particular emphasis on the potential impact that historical events have had on breastfeeding practices.

Most importantly, this chapter suggests a shift in African American breastfeeding promotion strategies by health-care professionals. If health-care providers and public health professionals want to close the racial gap in breastfeeding rates, they must shift away from “breast is best” language and an exclusive focus on the health benefits for mother and baby. New breastfeeding interventions for African American women should stress that the decision to breastfeed can be seen as a way to combat institutionalized racism. Breastfeeding should be presented as a right rather than a duty, because African American mothers are likely to chafe at

the idea of having an externally imposed duty to breastfeed. Informing clinicians of the potential socio-cultural patterns that influence African American breastfeeding attitudes and behavior may prompt new approaches that promote breastfeeding and education with culturally sensitive strategies that empower African American mothers.

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CHAPTER 4: SOCIAL, CULTURAL, AND HISTORICAL INFLUENCES ON AFRICAN AMERICAN WOMEN’S INFANT-FEEDING PRACTICES

Introduction

Historical life experiences of African American women encompass a collection of unique transformative events, which include racial, social, and political exclusions (Geronimus, Hicken, Keene, & Bound, 2006). In addition to these exclusions, cultural stigmas, as well as racial and institutional discrimination have deleterious effects on health; the African American community has poor rates of cardiovascular disease, low birth weight, preterm delivery, and infant mortality (Jones, 2000; Giscombé & Lobel, 2005; Woods Giscombé & Lobel, 2008; Williams & Mohammed, 2013). These factors may also affect other specific health behaviors, such as breastfeeding (Asiodu & Flaskerund, 2011; Johnson et al., 2015; Mattox, 2012;).

Several national initiatives have begun to focus on the influence of culture on health and health-related behaviors. For example, the recent report “The Cultural Framework for Health” was developed by the National Institutes of Health and provides the first standardized definition of culture and strategies to assess and operationalize culture in health behavior research, with the goal of addressing health disparities between ethnic populations (Kagawa-Singer, Dressler, George, & Elwood, 2015). In addition, Healthy People 2020 emphasizes the importance of achieving health equity through addressing historical factors, contemporary injustices, and avoidable biases in the elimination of health and health-care disparities (U.S. DDHS, 2012). Finally, the Robert Wood Johnson Foundation’s Culture of Health initiative emphasizes how

health is cultivated by everyday life experiences and social factors (Robert Wood Johnson Foundation, 2014). These national initiatives provide support for the critical importance of understanding how cultural factors influence desired health outcomes.

African American women breastfeed at disproportionately lower rates than non-Hispanic White and Hispanic mothers despite the recommendation that all babies, unless contraindicated, be breastfed for at least the first year of life (Eidelman, et al., 2012; U.S. DHHS, 2011). According to a 2008 National Immunization Survey (NIS), 58% of African American mothers initiate breastfeeding compared with 75% of non-Hispanic White mothers and more than 80% of Hispanic mothers. At six months, non-Hispanic Whites and Hispanics continue to breastfeed at higher rates than African Americans (CDC, 2013). Interestingly, based on the same survey, only 49% of North Carolina (NC) African American mothers initiate breastfeeding and the number drops to 19% at six months (CDC, 2013).

There is clear evidence that low breastfeeding rates among African Americans have a negative impact on infant health, maternal health, and society as a whole (Bartick & Reinhold, 2010; Eidelman et al., 2012). Breast milk contains protective immunological properties and has been associated with increased infant survival and decreased risk of common childhood illnesses such as acute otitis media, respiratory infections, and asthma (Eidelman et al., 2012; Khan et al., 2014; Kull et al., 2010). This is particularly relevant considering the infant mortality rate for African Americans is more than double that of non-Hispanic Whites and Hispanics (MacDorman & Mathews, 2013; U.S. DHHS Office of Minority Health, 2015). The American Academy of Pediatrics (AAP) (2012) estimated that breastfeeding could lower the rate of infant mortality in the African American community by 21%; recently researchers estimated that worldwide across all racial and ethnic groups, breastfeeding could prevent 823,000 child deaths (Victora et al.,

2016). The disproportionately low breastfeeding rate within the African American community is also problematic from an economic viewpoint. Researchers estimate that increasing the overall breastfeeding rate in the US would yield an estimated \$13 billion per year in health care savings (Bartick & Reinhold, 2010).

Breastfeeding provides protective effects to the mother, in addition to the wide range of health benefits for the breastfed infant. For instance, there is an association between breastfeeding and reduced risk of breast cancer; researchers estimate that worldwide, increasing breastfeeding could prevent 20,000 deaths from breast cancer (Victora et al., 2016). This is an important finding because African American women diagnosed with breast cancer have higher mortality rates than non-Hispanic White women (Amend et al., 2006) and studies report that the risk of breast cancer decreases by 4.3% for every 12 months of breastfeeding, and an additional 7% for each subsequent birth for which the mother engages in breastfeeding (Allen & Hector, 2005; Bernier et al., 2000). Data shows African Americans have the highest morbidity and mortality rates from cancers (all types), diabetes, and influenza, and are more prone to obesity; breastfeeding lowers the risk of these diseases (U.S. DHHS, 2015; Gibbs & Forste, 2014). Together, this evidence sharpens the importance of examining racial disparities in breastfeeding.

There is limited research published in the scientific literature that has focused on the contribution of the generational, cultural effect of historical events that now influence health beliefs and health behaviors (Fischer & Olson, 2013; Krieger, 2008; Lende & Lachiondo, 2009). The lack of research into the role that socio-historical or cultural influences specific to the African American community may contribute to the limited number of evidence-based interventions tailored to African American women, a population for which it has been difficult to raise breastfeeding rates. Therefore, the goal of this study is to examine and describe cultural and

socio-historical factors influencing African American mothers' perceptions about infant-feeding decisions. This study was designed to fill the gap in the literature to enhance understanding of how to address breastfeeding disparities in the African American community.

Conceptual Framework

The influence of one's culture on health and health-related behavior has received increasing attention in recent years, led in part by the PEN-3 cultural model that directly incorporates one's cultural identity into understanding health behavior and developing interventions when that behavior is suboptimal (Airhihenbuwa, 1995, 2010). The inclusion of cultural identity, cultural empowerment, and relationships within the basic framework of PEN-3 (Figure 1.1) makes this cultural model particularly appropriate for this infant-feeding study, which seeks to examine breastfeeding behavior in light of cultural influences unique to the African American community. In identifying relevant cultural influences on breastfeeding behavior, targeted interventions among African American women that address issues related to their unique culture might be made possible.

The PEN-3 model defines culture as a shared awareness that can reveal itself silently or noticeably through speech and history by means of stories of a person's life experiences (Airhihenbuwa & Liburd, 2006). The PEN-3 model provides a method for incorporating African American cultural and historical influences into the understanding of how individuals make health-care decisions. Moreover, the cultural component also suggests that historical events and experiences may be complex and transformative and may potentially influence attitudes and behaviors, despite the amount of time that has passed since the events occurred (Airhihenbuwa & Liburd, 2006). See Figure 1.1.

Purpose

The purpose of this study is to examine socio-historical/cultural factors unique to African American women that may contribute to breastfeeding disparities. The goals of this study are: (1) To describe African American mothers' thought processes in making infant-feeding decisions, (2) To describe cultural factors influencing African American mothers' perceptions of infant-feeding decisions, (3) To identify possible connections between the socio-historical factors of African American women's collective experiences and contemporary breastfeeding decisions.

Methods

Six focus groups were conducted between July 2015 and September 2015 in an urban area of North Carolina. A focus group methodology is appropriate when the goal is to understand a community's sense of normalcy (Mack et al., 2005). The focus group model is more appropriate for this study than a one-on-one interview methodology. A one-on-one interview is another data collection method that is the most common and preferred qualitative data collection strategy when exploring cultural, personal, and private topics (Mack et al., 2005; Roulston, 2010). However, there are studies in the literature that support focus group designs because they instill a sense of camaraderie among participants as well as strengthen the community's social infrastructure (Green, 2012). Because of this, focus groups are well suited to gain insight on African American women's attitudes, values, and beliefs regarding infant feeding (Creswell, 2013; Neergaard et al., 2009; Sandelowski, 2000, 2010). The focus group structure and format was guided by the principles of Krueger and Casey (2000) and Morgan and Krueger (1998) in phrasing engaging questions, thoughtful sequencing of questions, and anticipating the flow of the discussion. The PEN-3 model provided the theoretical underpinning for the structure of the

questions.

Sample Population

A community-based sample of 39 African American women was recruited in a large metropolitan area in the southeastern region of the United States. Purposive sampling obtained a sample of African American women who were diverse in age, educational backgrounds, and socio-economic status (SES). All participants for this study met the inclusionary criteria that stipulated: 1) women who self-identify as African American, as defined as offspring of three or more generations of African descent born in the United States (McCarter-Spaulding & Dennis, 2010, 2) women 18 years old and older, 3) women who have experienced giving birth to a full term infant, and 4) women who have completed at least one year of education after high school. In order to study the effect of factors other than SES on breastfeeding decisions, it is appropriate to restrict the sample to those African American women with education beyond a high school degree, therefore education is used as a proxy for SES. The PI desired to know infant feeding influences among African American women with education beyond a high school degree, because often literature on health disparities demonstrates the contribution of lower SES. Additionally, the PI desired to see what factors might be at play other than low SES. The six focus groups were divided into three formula-feeding groups and three breastfeeding groups based on age, 18–29, 30–50, and 51 and over. Participants that breastfed for less than 2 weeks were assigned to the formula-feeding groups, and participants that breastfed for more than 2 weeks were assigned the breastfeeding groups. In the case of multiple children and multiple feeding methods, the method used most or longest was the deciding factor and the principal investigator (PI) made the final decision on participant group placement.

Recruitment Procedure

Participants for this study were recruited from a large urban area in North Carolina. The Institutional Review Board (IRB) at the University of North Carolina at Chapel Hill approved the study. Five strategies guided recruitment of participants for the study:

1. **Fliers:** Study fliers were posted at local Obstetrics & Gynecology (OB/GYN) offices, university campuses, African American churches, hair salons, and community settings such as public libraries. The fliers provided the basic study information and contact information for possible participation in the infant-feeding study. (See Appendix A.)
2. **Churches:** Recruiting participants from African American churches is an effective way of recruiting African Americans for research studies (Carter-Edwards, Fisher, Vaughn, & Svetkey, 2002; Hatch & Voorhorst, 1992; Taylor, 2009). The PI has a congregational relationship with several African American churches. She contacted the pastor and asked permission to recruit members of the church to participate in the study. The PI made an announcement about the importance of the study during church service. Additionally, a copy of the study flier was printed in the church bulletin every Sunday for three months.
3. **Hair salon:** The PI has a personal relationship with hair salon owners who gave verbal and written approval for the PI to recruit in their establishment. When the PI was not on site, hair stylists would talk to their clients about the infant-feeding study and get their name and number for the PI to contact them if they were interested.
4. **Local Mocha Moms breastfeeding group:** The PI reached out to the local Mocha Moms breastfeeding group, which is a breastfeeding support group for mothers of color in the local area. A member of the group passed along the study information to the other members of the group, asking them to participate in the infant-feeding study.

5. Snowball sampling: Snowball sampling allows a participant to refer others within their network that may fit the study inclusion criteria (Creswell, 2013). After participants were screened, found to be eligible, and invited to participate, the PI then told them to refer any friends or associates that they thought might be interested in being a participant.

Once participants responded, they spoke directly with the PI, who then asked a series of screening questions based on the inclusionary criteria. Participants who met the inclusionary criteria were invited to participate. Participants were informed about the 90-minute focus group format, given the date, time, and location where the group would be held, and notified of the \$25 Target gift card for participating. The participants were also asked about how they would like to be reminded of the focus group (telephone call, text, or email). Two days before and four days before each focus group the PI either called, text messaged, or emailed the participants a reminder about the time and location of the group.

The formula-feeding focus groups filled up first and were conducted first. The PI found it more difficult to recruit women who had breastfed. For example, the breastfeeding focus group with participants age 18–29 had to be conducted twice due to lack of participation. The first focus group had only one participant. The PI followed the standard reminder procedure, but did not receive any notification from any of the other eight women recruited that they would not or did not want to participate.

Setting

Since 38% of the sample was recruited from the hair salon, four of the six focus groups were held in the lobby of the hair salon after hours. The other two focus groups were held in a private room at two area libraries. All three spaces were private and large enough to accommodate all participants with tables and comfortable chairs.

Study Procedure

The focus groups lasted between 1.5 and 2 hours with refreshments provided. Before any PI-participant interaction, the participants gave both verbal and written informed consent. To establish rapport and intimacy within the group, the PI facilitated an icebreaker, such as a “if you had to be called a different name what would it be and why” (Krueger & Casey, 2000). Not only did this activity serve as an icebreaker but it also served as the participant’s pseudonym used during the focus group to insure anonymity. Following Morgan and Krueger (1998), the participants sat in chairs set up in a circular arrangement and the group members and the facilitators established ground rules (e.g. “no interrupting when someone else is talking” and “being respectful of other opinions.”) This helped to create a comfortable and safe environment with positive group interaction and participation.

The lead moderator and PI was an African American female in her 40s with 18 years of experience providing breastfeeding support and care for women. There was also a second moderator trained in qualitative methods in attendance who assisted with participant check-in and served as a note taker. The second moderator was one of two African American females age 26–45 years. The personal characteristic of being African American is important for this type of research, particularly because it addresses history, culture, race, and other contextual factors. When the PI, moderator, and participants share certain characteristics like gender and ethnicity, the quality of the data collection may be enhanced (Thomas, 2004). Certain elements of the experimental design (e.g. selection of the interviewer/researcher who interacts with the participants) can impact the responses of the participants (Thomas, 2004). Moreover, the quality of researcher-participant interaction improves if there are shared characteristics among the participants and the researcher (Collins, 2000; Thomas, 2004). That the PI is female, African-

American, and a mother helped facilitate authentic engagement by her participants on topics related to infant feeding.

In this study, the PI used a prepared focus group discussion guide to obtain rich and thought-provoking responses, to probe appropriately based on the participant's responses, and to generate continued discussion within the group (Krueger & Casey, 2000; Sandelowski, 2010). The focus group discussion guide was developed based on the PEN-3 model and the PI's clinical expertise as a Certified Nurse-Midwife (CNM), in collaboration with a panel of experts in the fields of women's health, nursing, public health, social and health psychology, and African American studies.

Examples of the focus group questions include:

- 1) Could each of you tell me about how you decided how you were going to feed your baby (babies)?
- 2) Do you think there are any cultural factors—things that we learned from our parents and relatives—that influence African American women and their decision whether or not to breastfeed?
- 3) What, if any, cultural or historical factors influenced your decision to or ability to breastfeed and/or formula-feed?

For a complete list of preliminary focus group discussion questions, see Appendix B. Once the discussions started, close attention was paid to the dynamics in the group and the conversations were redirected if one person was dominating the discussion. Also, if participants were quiet and not sharing, the PI encouraged them to share, but did not push them into talking (Mack et al., 2005). It is important to note that during the focus groups the PI did not prompt participants with historical examples or pictures to obtain any of the responses that are noted in the Results

section.

Data Analysis

The focus groups were audio recorded, de-identified, transcribed professionally, and uploaded to a password-protected computer (Sandelowski, 1994). Descriptive summaries were created for each transcript, summarizing participants' infant-feeding decision-making processes and influences. Throughout data analysis, the research team's goal was to identify thoughts, attitudes, and beliefs about infant-feeding decisions in the formula and breastfeeding groups. The PEN-3 model was used to develop the questions and to provide support for using a cultural and historical approach; it was not used for the analysis. The analysis was data-driven, participant-centered and inductive, to allow identification of concepts that live in the data that perhaps the researcher was unaware of when the study was designed (Miles & Huberman, 1994). The researchers conducted a close reading (and iterative reading) of the data. That is, the researcher privileged what participants said and used their language and insights to direct the analysis, rather than using theory or a conceptual framework to provide a priori data codes (Miles & Huberman, 1994). This approach highlighted social, cultural, and socio-historical influences that impact infant-feeding decisions.

Thematic analysis was conducted evaluating the data to identify codes and themes throughout the participant narratives using the qualitative computer software program MaxQDA (Morgan, 1988; Morse & Field, 1995). The participant responses were compared within the same focus groups (breastfeeding and formula) and across groups (breastfeeding versus formula). Exemplar quotes are included from the narrative data emphasizing participants' thoughts, attitudes, and beliefs about their infant-feeding choice (Roulston, 2010). Once themes were identified, the PI conducted an interpretation of the meaning and significance of the themes from

the data (Hsieh & Shannon, 2005).

The researcher consulted widely to enhance the scientific rigor of this qualitative study. The PI consulted with an expert in the field of African American history and with an advisory committee when reviewing the transcripts to insure validity and credibility (Sandelowski, 1993). To ensure confirmability, the PI provided an interpretation of the participants' responses along with quotes from the transcripts (Roulston, 2010). The PI and second moderator maintained field notes and debriefed after each focus group to assess consensus and increase legitimacy (Morgan & Krueger, 1998).

Results

Demographic Data

Each participant completed a demographic survey consisting of age, marital status, highest level of education, and total income. Participant ages ranged from 19 to 87 years; the median age was 53 years. Participants had a wide range of education (13 years of education to terminal degrees, such as PhD) and professional backgrounds (e.g. waitress, academic professor). Currently married women made up 63% of the participants; 74% of the mothers in the breastfeeding group (N=23) were married, compared with 44% in the formula-feeding group (N=16). Additionally, 19% of mothers in the formula-feeding groups were divorced or separated, while none in the breastfeeding groups were divorced or separated. All participants had at least one year of post-high-school education. The groups were similar in that 44% of the formula feeders had some college and 43% of the breastfeeding mothers did as well. Also 13% of the breastfeeding mothers had a doctoral degree, compared with none in the formula-feeding group. With regards to income, there were no participants in the formula-feeding group that reported an income of <\$20,000, compared to 9% in the breastfeeding group. The largest

income group for formula feeders was the \$36,000 to \$50,000 at 31%; for the breastfeeding group, 22% reported a total household income of \$100,000+. Full time workers made up 75% of the formula-feeding group compared with 48% in the breastfeeding group. Notably, there were no stay-at-home mothers in the formula-feeding group, compared with 22% in the breastfeeding group. (See Table 4.1.)

Qualitative Focus Group Results

Analysis of the qualitative focus group data resulted in the identification of six major themes (see Figure 2.1). The first three themes (Cultural Beliefs/Family Traditions, Social Realities, and Personal Rationale for Choices) are identified and explored in previous research and are described in Section I. The second three themes (Historical Influences, Body Image, and Breastfeeding as “Nasty”) are either non-existent or under-explored in the current breastfeeding literature and are described in Section II. (See Figure 4.1)

Section I: Themes Found in the Existing Breastfeeding Literature

Theme I: Cultural beliefs/Family traditions. Culture is defined as the environment in which an individual is raised that shapes an individual’s beliefs, values, and culture; culture contributes to how African American women make infant-feeding decisions (Mojab, 2000). One woman in the 18–29 age formula-feeding group discussed how her upbringing and cultural traditions influenced her infant-feeding choice with the following sentiment: “I grew up thinking breastfeeding was a White thing, I never saw a Black woman breastfeed.”

One breastfeeding participant age 18–29 stated, “But it's just my aunts are old-fashioned. They're just like ‘no you're not doing that,’ so we're not allowed to do it in front of family members.” This statement shows that in some families, if a woman defies her family’s tradition of formula feeding, instead choosing to breastfeed, it is not without consequences. This mother

was in some ways given an ultimatum; if she breastfed her child she would have to avoid being around her family. Certainly, this situation could make the breastfeeding woman feel ostracized, and therefore she may second-guess her decision to breastfeed.

Social, Cultural and Historical Influences on African American Women's Infant Feeding Decisions

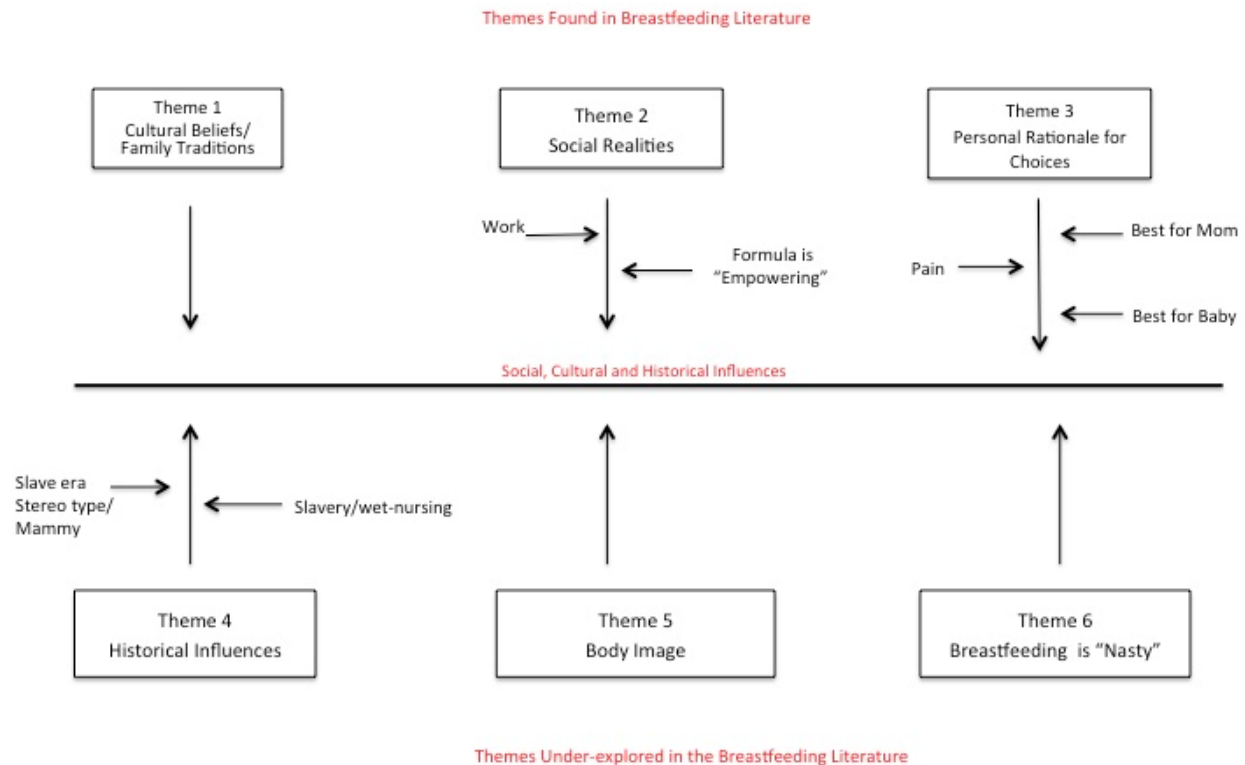


Figure 4.1. Diagram of social, cultural and historical influences on African American women's infant-feeding decisions. Focus group theme arrangement: those that are found in the existing breastfeeding literature (top three, themes 1-3) and those that are nonexistent or underexplored in the breastfeeding literature (bottom three, themes 4-6). Arrows correspond to sub-themes in each theme. Each theme is presented schematically along a continuum representing degree of cultural and historical influence, with themes 1 and 4 representing the greatest influence.

In this study, generationally persistent traditions were noted among participants. One participant in the 30–50 formula-feeding focus group discussed the impact of generational traditions on her infant-feeding choice with the following statement: “Everyone in my family bottle feeds, it’s just been generationally. That is the way grandma did it and it continued.”

Similarly, a participant in the 51 and over breastfeeding group had support from her family: “I had a mother and aunt that was there to coach me and they were saying that the breast milk was better than the formula.”

However, most women reported not having direct conversations about infant feeding with family members. In fact, when participants were explicitly asked about the conversations that they had with their family about how they were going to feed their babies, 35 out of 39 participants stated they had “no conversations” at all. One participant in the 18–29 age formula-feeding group shared that it was a given in their family that bottle-feeding was the only option, “bottles were just natural” and no conversations were needed. Another participant in the 30–50 age breastfeeding group shared that not only did her family avoid discussing infant feeding, there also were no conversations about breasts at all, “no conversations, you don’t talk about your boobs.” Only four participants stated that they discussed their infant-feeding choices with their mothers, grandmothers, aunts, or any other relatives. A mother in the 18–29 age breastfeeding group shared, “The most conversation we had in our family about feeding is the best bottle to buy, glass versus plastic.”

Theme II: Social realities. Social realities is the second theme that emerged from the focus groups. It incorporates two sub-themes: issues related to work and formula providing a sense of empowerment. Participants shared that various realities of life affected their decisions about infant feeding, including work-related challenges and choosing formula because it was empowering. Also related to this theme was the feeling that formula was perceived as being better than breastfeeding.

Work. A recurrent sub-theme that emerged when talking with women of all ages was that the practical and logistical constraints of working and breastfeeding were problematic. An over

51 breastfeeding participant who stopped breastfeeding when her infant was six months old exemplifies the difficulties of working while breastfeeding. She stated,

I stopped breastfeeding before I went back to work. I went back to work after six months. And so that was one of the criteria I had for going back to work was to get her weaned. I made sure I had my stuff in order before I went back to work so I didn't have that to deal with.

Relatedly, a formula-feeding participant age 30–50 stated, “I think that I feel more working moms, a lot of us really couldn't breastfeed but I think by us being working, we didn't really have a choice to breastfeed.” A breastfeeding participant age 30–50 stated, “women working and breastfeeding, you are at a disadvantage because then it's almost like a crutch.” Other women described an inability to advance in their workplace while pumping or unwillingness by the company to provide a space and storage for breast milk. There were statements shared by two breastfeeding participants age 18–29 and 30–50 that illustrate how some employers did not support breastfeeding. “I was asked by a senior female consultant with no kids at my firm when I was pregnant, are you going to be an A+ employee and a C+ mom or a C+ employee and an A+ mom?” Another stated, “There was a problem with my employer. He never provided somewhere to pump my milk. And then when I did get somewhere to pump my milk, they would pour it out because they said it couldn't be in the refrigerator.”

Formula as a sense of “Empowerment”. Participants discussed how social messaging, mainly through formula advertisement, associated formula feeding with empowerment. For many women, formula feeding was communicated through social messaging as normal, convenient, and natural. Conversely, some participants felt “disempowered” by the idea of breastfeeding. One participant in the over 51 formula-feeding group shared, “There was an empowerment in being able to choose that bottle and not say I'm going to be sitting here with the baby attached to me. I'm just going to do the bottle thing and just be done with it.” A

breastfeeding group participant age 30–50 stated,

I know Black women who felt like they don't want to do anything else that was outside of their Blackness. It's enough that you already have the spotlight because you are Black. If you are Black *and* you nurse it's an additional, "Oh my gosh look at that person with that baby."

Participants in the formula-feeding group shared additional examples about how choosing to formula feed was empowering because using formula was comparable or superior to breast milk, such as this statement from an over-51 formula-feeding participant,

There's newer formulas that can replicate what's coming out of me. I have a choice today. I don't have to work in someone's house and clean. I don't have to breastfeed if I don't want to, so I choose not to breastfeed. That sort of empowered myself to make my own decisions.

Another participant in the over-51 formula-feeding group stated,

At the time when I was having my kids they had good milk out there like Enfamil and Similac. That's when I decided to feed my kids with the bottle. Plus, I love washing the bottles out, filling them up with milk, putting them in the refrigerator, and just stand about and look at them. It was just something about that I just love.

When participants were asked about current formula marketing, one participant in the 30–50 formula-feeding groups stated, "I had formula at my house before I had a baby in the house. Formula companies sent it." A breastfeeding participant in the same age group had a similar experience, stating, "They gave me samples of formula and were just like, 'Hey, if it doesn't work out. You know.'"

One breastfeeding over-51 participant discussed remembering a formula company ad that communicated the idea that formula feeding was a more empowering and healthy option than breastfeeding.

I do remember the advertisement for PET and Carnation and about the healthy babies and all of that. With the Fultz quadruplets, I just felt that they were promoting more so the product more so than the health of the infant, the child. That was my perception of that taking off, where more people decided not to breastfeed because of the image of the

quadruplets and their appearance of their looks, and thinking that that would make their babies look better or healthier instead of breastfeeding.

It was clear from these participants that for some women, formula is considered an acceptable, even desirable, way to feed a baby. However, none of the participants in the 18–29 age group mentioned any formula-marketing tactics.

Theme III: Rationale for personal choices. Rationale for personal choices was the third theme that emerged from the data. This theme consisted of participants' personal reasons and justifications for their infant-feeding choice. There were three sub-themes noted, pain, best for mom, and best for baby. These subthemes reflect the distinct differences between the two groups when asked, "What were some of the factors that influenced your decision to breast/formula feed?"

Pain. While both groups discussed the challenges associated with managing the pain of breastfeeding, the formula feeders described this as a reason for choosing formula. An 18–29 age formula-feeding participant reported, "I guess my boobs were really sore, so when my baby started to suck on them, they were really tender and stuff so I stopped, I didn't want him to be on me." However, the breastfeeding mothers "pushed through" it, stating that they continued to prioritize what (they thought) was best for baby. A participant age 30–50 stated,

I mean, it hurt badly, it was tough. I got scales on it and it was bad. And I didn't have anybody to talk to about it, I mean, I sort of suffered through it, I got through it on my own, but it was tough. I just remember it hurting really badly and thinking, I don't know whether I can do this, but I stuck to it and I got through it.

Best for mom. The 'best for mom' rationale was predominately discussed among the women from the formula-feeding group. Not surprisingly, few of the formula-feeding participants discussed the benefits of breastfeeding. Rather they mainly discussed the negative aspects and barriers of breastfeeding and why they did not want to breastfeed, as exemplified by

the statement by a 30–50 age participant, “I wanted a little bit of freedom, [the] bottle easier” and an 18–29 age formula-feeding participant who stated, “I wanted to make sure someone else could help.” Along the same lines is a statement by an over-51 formula-feeding participant, “bottle feeding was easier and more convenient.”

Best for baby. Breastfeeding participants discussed considering what was best for baby in their infant-feeding choices. The breastfeeding mothers all stated the positives and benefits of breastfeeding for them and the baby, such as “breast milk adjusts based on the needs of the baby. I want to be as natural as possible, I do not know what in formula” and “I wanted to give him the best start in life.” Another breastfeeding participant stated, “After doing some research I learned the sucking motion causes the brain and the skull to develop in a certain way.”

There were sentiments that breast milk was inadequate and that some of their babies needed more to eat. The concept of adding cereal to an infant’s bottle was voiced in both the formula and breastfeeding groups. The majority of the formula participants discussed the topic of adding cereal and food in the bottle across all three age groups. The timing varied from as early as two weeks to four months. The reasons for adding cereal varied; a statement by an 18–29 formula participant stated, “I started cereal at two weeks old so he would sleep. I mixed formula, cereal, Karo syrup, just to make sure that they didn’t get constipated, and just mix it all together.” Others stated being advised to mix cereal with formula by family members, such as this statement by another 18–29 year old formula-feeding participant, “my mother pretty much told me if they weren’t sleeping at night or within the first week, to go ahead and put cereal in their bottle.” However, there was only one breastfeeding participant age 18–29 who stated that she added food to her baby’s bottle, “I used to take a little bit of baby food and I mix it in their milk and shake it up and let them drink it, like peas, sweet tomatoes, carrots and they drink it.”

Section II: Themes That are Under-explored in the Breastfeeding Literature

Theme IV: Socio-historical influences. When asked “Do you think there is anything historical that happened a long time ago in African American history that affected your decision to breast or formula feed?” Participants described two distinct socio-historical influences: slave-era wet-nursing and the slave-era “mammy” stereotype. Participants reported these influences without any kind of prompting from the researcher. Most responses about socio-historical influences were from the older generation of participants who were over 51. Yet there were responses from the 18–29 and 30–50 breastfeeding participants as well.

Slavery and slave-era forced wet-nursing. Participants shared their thoughts about slavery and slave-era wet nursing and how this influenced their perceptions about breastfeeding.

A breastfeeding participant age 18–29:

The stealing of the breast milk from the slaves. They put them down on their stomach and they will squeeze their breast onto the jugs until they were empty. They would put the slave lady in the position to where they could not hurt the babies because they need strong workers to come and they would just literally squeeze their milk, their breast until the breasts were empty.

Another over-51 formula participant stated:

Breastfeeding was what they had to do because the economy at that time for Blacks wasn't that good. So mother, she breastfed because she *had* to. This day and time Black women have a better choice. So that's why I chose to bottle-feed, because I did have a better choice. In reference to economics, I have a better choice. I could bottle-feed my children instead of breastfeeding.

One breastfeeding participant age 30–50 shared the following:

Some just associate breastfeeding with slavery, wet-nursing, and the lack of choice. And so they feel like a formula will be like a step up, the whole economics. And so you're not a slave, I'm not going to be no baby touching me like that and trying to dissociate themselves.

Slavery era stereotypes. Data from the present study indicate, indeed, that slavery era stereotypes such as “mammy” (the wet nurse) did influence the older generation of women to not engage in breastfeeding. One over-51 formula-feeding participant stated,

That image of a “mammy” when people would say that, it did conjure up those pictures of the women feeding the White babies and all of that. Because a White man said to me one day, “Tell your mammy I said ‘hello’.” That was one of the influential words that I heard.

Theme V: Body image. The participants in this study were very candid when talking about their experiences with developing breasts and how this did or did not affect their self-esteem and body image. Specifically, they discussed the potential impact of breast-related self-esteem issues and body image on their infant-feeding decisions. Participants in this study verbalized developing breasts at a young age and trying to hide them due to fear of getting teased or verbally sexually harassed by boys. Some participants voiced not liking their breasts and always trying to hide or cover up their breasts, which did not produce a positive foundation for relating to their breasts in a way that promoted or facilitated breastfeeding. For example, when asked, “Tell me how you felt when you started developing breasts,” one participant stated,

I never wanted them, I still have a problem with it. I always want a breast reduction and I have minimizer bras because I don’t like myself with big breasts. That’s probably one of the reasons I really didn’t want to breastfeed.

Another participant stated, “I was not happy with my breasts. I got boobs early and I would hunch to try and hid them.”

However, one formula group participant age 30–50 shared her satisfaction with her breasts because they were large, yet she reported disappointment that they did not produce milk, “I prayed to God every night for big breasts. I really do love my breasts. I just wish they would have done right for my babies.”

Theme VI: Breastfeeding described as “Nasty.” The description of breastfeeding as “nasty” was shared in both the formula and breastfeeding groups. One bottle-feeding participant over 51 shared, “I chose to bottle-feed because I thought breastfeeding was nasty.” Another formula-feeding group participant age 30–50 stated, “I thought it was nasty like ‘Ooh, she got the baby sucking her breast!’” One woman in the 18–29 age breastfeeding group described that she received messages from her family that breastfeeding was “nasty”: “Breastfeeding is like taboo. I have a sister that’s older than me and when she found out that I was breastfeeding I wasn’t allowed to do it at her house because she said it was nasty.”

Discussion of Findings

This paper presents African American mothers’ thoughts, attitudes, and beliefs about infant feeding. Results of this study indicate that African American culture, traditions, and history play a contextual role in making infant-feeding decisions. This study contributes to the existing literature by examining the influence of African American history on infant-feeding choices. It is possible some of the variability in breastfeeding rates may be accounted for by factors related to cultural and socio-historical influences across generations of African American women. Exploring the role of culture among ethnic populations, specifically African Americans, is important to reduce health disparities and the burden on the health-care system. There is important knowledge to be gained in examining African American history and the evolution of breastfeeding in order to increase the African American breastfeeding rate today.

Similar to the studies conducted by Forste, Weiss, and Lippincott (2001) and Hannon et al. (2000), the findings from this study suggest that a lack of socialization around breastfeeding contributes, in some part, to African American women’s preference for formula feeding. The findings of this study parallel other researchers who found that there are external influences such

as peers and family that guide a woman in making infant-feeding decisions (Lewallen & Street, 2010; Underwood et al., 1997). Family members, specifically mothers and grandmothers, may have an enormous impact on women's breastfeeding choices (Bentley et al., 1999; Kaufman et al., 2010; Lewallen & Street, 2013; Underwood et al., 1997). It is important to highlight that the researchers in this study found that there was no discussion about feeding choices or feeding decisions in most of the women's families. Culturally specific thoughts, attitudes, and beliefs, and the way in which women acquire these beliefs provide the context for infant-feeding practices among African American women (Mojab, 2000). For a woman who is not socialized or raised seeing and hearing about breastfeeding, the likelihood of that woman choosing to breastfeed is low (Mojab, 2000). Personal preferences and choices are grounded in cultural traditions and socio-historical experiences, and it is important for research on breastfeeding disparities to further investigate how these factors influence infant-feeding decisions.

Findings from this study suggest that there are generational patterns to preferences among participants in the formula-feeding groups, which may represent what is referred to as a generational transmission of beliefs (Bentley et al., 1999). When older matriarchal members of the African American population discourage breastfeeding, it influences subsequent generations to favor bottle-feeding methods. Based on the findings of the significant influence of family matriarchs' preferences for formula, older women may be less supportive of breastfeeding and more persuasive to formula. Moreover, if a mother disregards the advice of an older matriarch who formula fed, this could be seen as a sign of disrespect, and a sense of guilt may result if the members of younger generations do not follow the infant-feeding family tradition.

Results from this study are consistent with others who have asserted that certain aspects of African American history (e.g. slave-era stereotypes and wet-nursing) have affected African

American breastfeeding rates (Asiodu & Flaskerund, 2011; Mattox, 2012; Johnson et al., 2015). Historical life experiences of African American women are a collection of racial, social and political exclusions (Geronimus et al., 2006). Cultural stigmas, as well as racial and institutional discrimination have deleterious effects on health behaviors in the African American community (Jones, 2000; Williams & Mohammed, 2013). Results from this study suggest that these historical factors extend to breastfeeding.

In this study, certain aspects of African American history such as slavery, wet-nursing, and the mammy stereotype did influence some formula participants over 51 from not breastfeeding. Historically, stereotypes have been used to justify cruel treatment of disadvantaged populations. Often, the dominant group in a population justifies abusive actions toward the non-dominant group by associating that group with negative behaviors and attributes. During slavery, White slave owners imposed degrading labels on Black slaves. A concept known as “stereotype threat” asserts that negative stereotypes can inhibit behaviors for fear of conforming to the presumed stereotype (Ambady, Paik, Steele, Owen-Smith, & Mitchell, 2004). By not engaging in certain behaviors (here, breastfeeding) that are linked to a negative stereotype (here, the wet-nurse/slave), individuals might distance themselves so that they are not judged negatively or even self associated with that stereotype (Ambady et al., 2004).

Participants in the over-51 formula-feeding and the 18–29 and 30–50 breastfeeding groups all reported thoughts of historical events and stereotypes, such as slavery, forced wet-nursing, and the mammy caricature; the over-51 formula participants reported that the historical events did influence their decisions to use formula. The participants in the 18–29 age formula-feeding group and the over-51 breastfeeding group did not report slave-era events or stereotyping as influencing their infant-feeding decision. The fact that the women did not report socio-

historical influences, of course, does not mean those events did not influence their decisions; it is possible that there may have been an indirect influence. Socio-historical events could drive attitudes of breastfeeding today due to a common shared experience in the Black culture that is kept alive in the words or oral histories and attitudes of African American women (Alexander, 2004). Older family matriarchs (e.g., mothers and grandmothers) may have negative thoughts, attitudes, and beliefs about breastfeeding and a preference for formula feeding. It is reasonable to postulate that the institution of slavery could have dismantled traditional breastfeeding practices for Black women and may explain why breastfeeding rates among African American mothers today are below that of populations that were not exposed to forced wet-nursing or mammy stereotypes.

Formula marketing aimed at increasing sales to African Americans have been cited as the primary catalyst that resulted in a global deterioration in breastfeeding rates (Asiodu & Flaskerud, 2011; Kaplan & Graff, 2008; Stevens et al., 2009). A historical example of aggressive formula marketing aimed at African Americans was found in the data and can be found in the 1946 PET formula company's exploitation of the Fultz quadruplets (the "Fultz quads") from North Carolina. Showcasing the presumed good health and beauty of the Fultz quads could have produced a positive connection and attraction to formula in the African American community. Then and now, formula marketing strategies may be a major contributing factor in decreasing African American breastfeeding rates and increasing the use of formula (Asiodu & Flaskerund, 2011; Kaplan & Graff, 2008).

Work is well documented in the breastfeeding literature as a factor in why some African American mothers do not breastfeed (Fischer & Olsen, 2014; Hannon et al., 2000; Hill et al., 2008; McCarter-Spaulding, 2007; Mickens et al., 2009). Results from this study indicate that

African American women's social reality of work-related challenges are an important for women, regardless of formula or breastfeeding status. Breastfeeding mothers were more committed to breastfeeding regardless of the obstacles of working. The breastfeeding participants were fully invested in breastfeeding and found ways to cope with work challenges. The formula feeders reported that they could not or were not willing to deal with work-related challenges. Factors related to work and their influences on infant-feeding decisions are particularly relevant for African American women due to their patterns of employment. For example, the 2010 United States census estimates that African American women head (no spouse) 30% of households polled, which is twice that of other race/ethnicities (Lofquist, Lugaila, O'Connell, & Feliz, 2012) therefore the stress of returning to work early, potentially having to work multiple jobs to pay bills, and lack of financial (and possibly) emotional support can pose major problems in breastfeeding initiation and sustainability for African American women (Fischer & Olsen, 2014; Hannon et al., 2000; Hill et al., 2008; McCarter-Spaulding, 2007; Mickens et al., 2009; Murimi et al., 2010; Ogbuanu et al., 2009). In this study, the breastfeeding group had a higher socioeconomic status, which perhaps suggests increased finances, better resources, and better support that creates an environment that is more conducive to breastfeeding.

A women's rationale for her infant-feeding decision is personal. The physical pain associated with breastfeeding was discussed among women in all the groups. Participants expressed real pain or imagined pain as a reason why they either did not breastfeed or stopped breastfeeding early. Interestingly, a difference in commitment to breastfeeding was noted as women from the formula group reported pain as a contributing factor for ceasing breastfeeding but women in the breastfeeding group persevered through the pain. Moreover, the differences in

thought processes between the formula and breastfeeding groups can be interpreted as what was most important to the mother. The formula-feeding group comments were geared more towards the mother's benefits and the breastfeeding group comments were geared more toward the baby's benefits. Breastfeeding mothers were more committed to breastfeeding regardless of the obstacles of working and pain. The breastfeeding participants were fully invested in breastfeeding and suffered through work challenges and the discomfort or pain of breastfeeding. The formula feeders reported difficulties in dealing with work-related challenges, pain, or discomfort.

Strengths and Limitations

To my knowledge, this is the first study to comprehensively explore the influence of culture and history on African American women's thoughts, attitudes, and beliefs about infant feeding using a culturally sensitive framework, the PEN-3 model, to guide the inquiry. This study contributes to the existing literature by examining the influence of African American history on infant-feeding choices. Recruitment efforts were made to include a sample of diverse African American women. The participants in this study included African American women with cultural roots from the Southern United States with varying age, marital status, education, and income levels. However, all of the participants lived in North Carolina. Therefore, the sample is not representative of African American women in other geographical or cultural locations. It is plausible that African American women who live in other areas of the United States may have completely different cultural and historical experiences. An additional limitation is that the focus group design may not be the ideal environment to discuss a potentially sensitive and personal topic such as breast- or formula-feeding in a group (Mack et al., 2005). Individual interviews may have revealed a different set of influential factors. Some women may not feel comfortable

talking about their infant feeding experience in a public environment for fear of judgment and feelings of embarrassment.

Shifting the Lens

A paradigm shift to include cultural and socio-historical factors influencing infant-feeding decisions and the utilization of innovative, culturally relevant conceptual and theoretical frameworks may help to uncover important causes of racial and ethnic breastfeeding disparities. The PEN-3 model, which was used to guide the development of the focus group questions and provide support for a cultural and socio-historical methodology, addresses health inequities by highlighting the importance of examining health and culture together rather than as separate entities. Additionally, the PEN-3 model provides a formal conceptualization of culture, and it was useful in constructing the focus group questions for this study.

It is important to note that the PEN-3 model is not an explanatory model to understand health behaviors or decisions. Instead, the PEN-3 model was developed to guide the design, application, and assessment of health promotion and disease prevention interventions so that they are optimally culturally sensitive (Kannan et al., 2009). The six themes identified from the analysis of data from the current study can be linked to themes and concepts of the PEN-3 model to develop culturally sensitive breastfeeding promotion interventions. This is discussed more in the Implications section below.

Similar to PEN-3, the concept of embodiment emphasizes the historical experience of the individual that may consciously and unconsciously affect health behaviors (Krieger, 2005; Krieger, 2008). Embodiment provides a framework for understanding a woman's lived experience and how she makes choices based on her culture and the world in which she lives, as well as how she must adapt to it (Lende & Lachiondo, 2009). This concept, when used to

examine breastfeeding, can help to illuminate the under-examined factors that may be critical for producing disparities, including environmental, cultural, and socio-historical influences on infant-feeding decisions. In addition, the concept of embodiment can enhance understanding of rationale surrounding the decision to formula feed; for some women this could be a decision that promotes harmony with her household, extended family, or community.

Implications

Implications for Research

Developing research interventions geared towards African American matriarchs of the family (such as mothers, grandmothers, and aunts) may encourage more young African American women to breastfeed (Bentley et al., 1999). A grandmother-focused intervention has been conducted, but due to the lack of African Americans in the study, some of the results were not culturally relevant or applicable (Grassley et al., 2012). Developing an intervention tailored to African American grandmothers, great grandmothers, and other matriarchs (older women who are influential in young mothers lives) could involve educating them on breastfeeding benefits, while at the same time illuminating historical perceptions that may play a part in their perception of breastfeeding.

The findings from this study could enhance already existing breastfeeding interventions and aid in continuing to increase breastfeeding initiation among African American women. Additionally, there is a need for interventions that expose young African American women to the socio-historical factors that influence breastfeeding rates to see if this influences infant-feeding decisions. Moreover, there is a need for interventions that target issues related to body image; breast “appreciation” could help African American women to become more comfortable with their breasts and address negative body image challenges that may exist.

Findings related to the influence of breast-related body image and shame of breasts is important to note when attempting to understand breastfeeding disparities. African American women, especially older African American women, may be socialized that breasts are private and not to be exposed (Ashing-Giwa, 1999; Higginbotham, 1993). It is possible that cultural preferences for modesty may influence breastfeeding decision-making. There is a need for further research exploring this phenomenon among all races/ethnicities, especially African Americans. Perhaps there is a need for interventions that facilitate privacy for those who would be more comfortable using covers or shawls to breastfeed.

The reports of focus group participants regarding breastfeeding as “nasty” were compelling. Although there has not been a great deal of research on this topic, findings from this study corroborate others who have suggested it as a potentially important factor in breastfeeding disparities (Cricco-Lizza, 2004; Hannon et al., 2000). More research is needed to more comprehensively explore this concept among African American women and how it may contribute to choices to formula feed. Additional research on perceptions of breasts as nasty may reveal important elements for the development of successful interventions to promote breastfeeding.

Implications for Education and Practice

The results from this study suggest that it would be beneficial to consider policy changes and budget allocations that can enhance the ways in which health-care providers and health educators are trained to work with women during the process of decision-making about infant feeding. Findings from this study could directly benefit the practice of women’s health providers. It is reasonable and critical for lactation consultants, nurse scientists, global health workers, and health-care providers to be aware of the unique cultural and historical phenomena

that exist for African American women when compared to other racial or ethnic populations. Some African American women may make infant-feeding decisions within a unique cultural and socio-historical context that may implicitly or explicitly discourage breastfeeding. The awareness of cultural and socio-historical influences that impact breastfeeding attitudes and behaviors will aid in approaching breastfeeding promotion and education in a culturally sensitive manner. It is also important to note that although there may be a collective historical narrative that is similar, each African American woman enters motherhood embodying her own set of beliefs that are based on her lived experiences, including how she was raised. If armed with an awareness of specific cultural and socio-historical influences that impact infant-feeding decisions, while also prioritizing individualized care for African American women, healthcare workers can avoid cultural or racial stereotypes that limit their ability to provide the highest quality of services.

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interventions: Cultural Empowerment, Cultural Identity, and Relationships and Expectations.

The implications of this study's findings suggest interventions that align with the PEN-3 model.

Conclusion

The goal of this study was to examine the perspectives of African American women regarding cultural and socio-historical influences on their infant-feeding decisions. Despite previous research on racial disparities in breastfeeding, the cause has been inadequately understood. Findings from the current study corroborate previous research findings that family and social factors influence breastfeeding decision-making. In addition, this study's findings illuminate the potential contributions of generational, cultural, and historical factors. These findings may be critical for culturally relevant and effective intervention design. It may be beneficial to expand women's consciousness about specific aspects of African American history that may directly or indirectly influence their personal decisions to breastfeed. More specifically, educating women about factors within their community that contribute to preferences for formula, and explaining the idea of cultural and socio-historical influences may be important components to interventions designed to promote breastfeeding. This may eventually contribute to higher rates of valuing and accepting the health benefits of breastfeeding, as well as higher rates of breastfeeding initiation and continuation through the first year of life, which can influence improvements in overall health for this population.

Table 4.1

Focus Group Demographic Data

Total N=39	Formula	Breastfeeding
N (%)	16 (41%)	23 (59%)
Marital Status N (% of group)		
Married	7 (44%)	17 (74%)
Single	5 (31%)	5 (22%)
Divorced/Separated	3 (19%)	0 (0%)
Widowed	1 (6%)	1 (4%)
Education N (% of group)		
Some College	7 (44%)	10 (44%)
Associates Degree	5 (31%)	4 (17%)
Bachelors Degree	2 (13%)	3 (13%)
Some Post-Secondary	2 (13%)	0 (0%)
Masters Degree	0 (0%)	3 (13%)
Doctoral Degree	0 (0%)	3 (13%)
Employment N (% of group)		
Full time	12 (75%)	11 (47%)
Part time	1 (6%)	2 (9%)
Self employed	2 (13%)	2 (9%)
Housewife	0 (0%)	5 (22%)
Retired	1 (6%)	3 (13%)
Income N (% of group)		
<\$20,000	0 (0%)	2 (9%)
\$20,000-35,000	4 (25%)	3 (13%)
\$36,000-50,000	5 (31%)	4 (17%)
\$51,000-75,000	4 (25%)	4 (17%)
\$76,000-100,000	2 (13%)	3 (13%)
\$100,000+	1 (6%)	5 (22%)
No answer	0 (0%)	2 (9%)

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CHAPTER 5: SYNTHESIS, DISCUSSION, IMPLICATIONS FOR RESEARCH AND PRACTICE

Significance

Increasing the African American breastfeeding rate will contribute to overall health gains in this population. Prominent healthcare organizations such as the World Health Organization (WHO), Centers for Disease Control (CDC), and the United Nations International Children's Emergency Fund (UNICEF) continue to emphasize the importance of breastfeeding for all women (CDC, 2013; World Health Organization & UNICEF, 2009). For African Americans breastfeeding disparities exist; therefore, it is critical to increase breastfeeding initiation and duration rates for this group (Robinson & VandeVusse, 2011). The disproportionately low rates of breastfeeding among African American women (compared to Hispanic and non-Hispanic White women) is poorly understood; and as such, this limits the development of interventions that have been able to successfully eliminate disparities. The current study presents variables that have not been examined with respect to infant-feeding decision-making. Barriers, influences, and other psychosocial or psychological issues revealed by this study help explain the existing disparities, and may lead to development of successful strategies to increase breastfeeding rates in the African American community. This dissertation work has implications for future research and interventions, and incorporates a methodology that can be replicated across the country to improve African American women's lives and increase the health of African American children.

Summary of Findings

The purpose of this dissertation work was to examine the thoughts, attitudes, and beliefs

on infant feeding of African American mothers, specifically targeting cultural and socio-historical influences. These influences associated with not breastfeeding may function as unconscious biases in the African American community, and perhaps may conflict with their own conscious intentions. Asking direct questions about culture and history facilitated contextualization of infant-feeding behaviors that may be connected to marginalization and subjugation. Illuminating this phenomenon may add insight to factors that have been previously identified in the literature, and can inform future interventions aimed at increasing breastfeeding among African American women. The collection and analysis of this qualitative data can enhance understanding of the historical and contextual antecedents to African American women's values and perceptions about breastfeeding.

Chapter 2: Integrative Literature Review on Factors Related to Breastfeeding In African American Women

The integrative review had two major goals: 1) to synthesize the current African American breastfeeding literature, and 2) to identify under-explored factors that may extend or enhance the existing African American breastfeeding literature. The articles reviewed revealed several factors that contribute to African American's low breastfeeding rates and several protective influences (i.e. those which were associated with the practice of breastfeeding). The themes identified were social characteristics of women likely not to breastfeed, women's perceptions of breastfeeding, and the quality of information given by healthcare providers (i.e. inadequate or inaccurate). There were no articles found that examined historical influences impacting African American breastfeeding rates.

Chapter 3: The History of African American Breastfeeding in the United States

The historiographic essay examined the history of African American women from the era of slavery in the United States to the 21st century. This paper delineated the potential impact of socio-historical events on infant-feeding decisions from a psychological perspective. There is a complex history from which African American women have emerged. The African American woman's historical narrative is rarely represented in empirical literature, but its inclusion could be critical in moving the science of African American breastfeeding forward. Examining the past may illuminate historical connections to African American women's breastfeeding decisions.

Chapter 4: Social, Cultural and Historical influences on African American Women's Infant-Feeding Practices

Chapter 4 presents rationale, methods, and results from the focus group study, which aimed to examine African American women's perceptions of social, cultural, and historical influences on infant-feeding decisions. The analysis of the focus group data identified possible connections between African American culture and socio-historical factors and African American infant-feeding decisions. This study helps to fill the gap in the literature addressing breastfeeding disparities by revealing cultural beliefs and socio-historical factors about infant-feeding in the African American community. Themes identified from the analysis include: 1) cultural beliefs and family traditions, 2) social realities, 3) personal rationale for choices, 4) historical influences, 5) body image, and 6) breastfeeding is "nasty." Analysis revealed that certain aspects of African American history, including slavery stereotypes and wet-nursing, influenced the older generation of mother's infant-feeding choices. This is an important finding because some young mothers live with their mothers or grandmothers and perhaps are hearing negative comments about breastfeeding. There were factors such as pain and work identified in

this study as influences on infant-feeding choices; these factors are also found in the existing literature. More research needs to be conducted to investigate deeper into breastfeeding as “nasty” and on breasts being seen as sexual rather than as biologically functional to feed children.

Methodological Challenges

Unanticipated challenges occurred with recruitment. When the study was conceptualized, the potential difficulty with recruiting African American women was discussed. Plans were made to enhance recruitment, including contact with various community stakeholders who would be willing to assist with recruitment (e.g. church pastors and hair salon owner). However, there was difficulty recruiting younger African American women to participate in the research study. The difficulty was not in the recruitment, but in actually getting the mothers to attend the focus groups once they agreed to participate. It is documented that due to past historical experiences with research experiments, many African Americans, especially older African Americans, are reluctant to participate in research studies and clinical trials (Gibson & Abrams, 2003; Matthews, Sellergren, Manfredi, & Williams, 2002). It is possible that this contributed to challenges recruiting the younger participants. However, it is also likely that for younger African American women, competing demands (e.g. children and work) did not leave adequate time to participate in a research study (Banks-Wallace & Conn, 2002). For this study, the breastfeeding focus group age 18–29 had to be conducted twice. Ten participants were recruited the first time and agreed to participate. However, on the focus group day, one participant arrived at the designated location. Another focus group was planned; thirteen participants were recruited and seven arrived to participate. For future studies a contingency plan will be made to over-recruit.

A second methodological challenge is that the focus group design, although appropriate for examining this phenomenon, may not have been ideal for some women to feel comfortable talking about their infant-feeding experiences; a public environment may invite fear of judgment and feelings of embarrassment. Therefore, future studies should consider a design that includes both interviews and focus groups to determine if different perceptions about infant-feeding decisions emerge between the two data-collection methods.

Methodological Strengths

This study has several methodological strengths. First, four focus groups were held in the lobby of a hair salon after hours. For a lot of African American women the hair salon is a sanctuary and a place of refuge where they go for self-care, stimulating conversations, and fellowship with other African American women (Browne, 2006). Therefore, with the majority of participants being recruited from the hair salon, it was a comfortable, safe environment for the participants and made for a favorable place to conduct the focus groups. Similar work has been done in barbershops with young African American men and sexually transmitted infection prevention (Baker et al., 2012).

A second methodological strength to consider is race concordance. In this study the moderator, second moderator, and all participants were African American, improving the quality of researcher-participant interaction and facilitating genuine conversations (Collins, 2000; Thomas, 2004). Certain individuals may feel more comfortable talking about sensitive topics, such as race related issues, with individuals that look like them. The participants' comfort level was indicated by their stating approval of the focus group format and expressing desire to participate in other research studies about topics that impact African American women.

Implications

Implications for Research

There is more to be learned by social and health science researchers about breastfeeding nationally and globally. The cultural and historical approach used in the current study can be replicated for future investigations of how race, class, and history intersect to affect health behaviors and disparities in other populations. Although the focus of the present work is African American women, there are other populations who have experienced comparable historical events that also may impact present-day behavior. In fact, there are reports that Mexican-American, Native-American, and Holocaust victims' health disparities are at least partially influenced by the institutional oppression and marginalization that they experienced (Brave Heart, Chase, Elkins, & Altschul, 2011; Evans-Campbell, 2008; Prussing, 2014; Sotero, 2006). Examining the past can be beneficial for understanding patterns of ethnic differences in health outcomes; history can potentially help explain health behaviors that contribute to increased risk for poor outcomes, as well as health behaviors that promote health (Collins, 2000; Davis, 1983; Giscombé & Lobel, 2005; Jasienska, 2009). For example what are the historical factors that can help to explain why Hispanic women have the highest breastfeeding rate of any race/ethnicity? Looking at the past and the lived experience of different groups could illuminate potential strategies that may be helpful in promoting overall health and well being across groups. The focus group methodology used in the current study could be expanded to include not only women from North Carolina, but also women from across the United States. This would provide insight into how geographically influenced experiences may shape infant-feeding decision-making.

Future research might also explore the degree to which racial identity contributes to breastfeeding decision-making. Previous research has demonstrated associations between higher racial identity and health-promoting behaviors. There are existing valid and reliable measures, such as the Cross Racial Identity scale (CRIS), which measures how secure Black people are with their identity, that could be used to conduct this research (Parham & Helms, 1981; Simmons, Worrell, & Berry, 2008; Vandiver, Cross, Worrell, & Fhagen-Smith, 2002). In the first stage of the CRIS scale, there is diminished value in being Black, and a person instead acts and talk like their White counterparts. In stage two, a Black identity realization occurs and individuals open up and embrace their Black identity. In stage three, Black identity is intensified and there is a sense of pride in being Black, while at the same time degrading White individuals. In the final stage, a sense of security and satisfaction about ones Black identity surfaces and the need to degrade White people disappears (Parham & Helms, 1981). It would be interesting to determine if there is a significantly higher level of racial identity among African American women who make a conscious effort to breastfeed despite any cultural or historical norms in their social environment that discourage breastfeeding. It would be interesting to determine if the “breastfeeding statement” made by women with higher racial identity is based on a foundation of knowledge of African American history or a sense of pride. Findings from such investigations could have implications for fostering racial/ethnic consciousness in African American women as an intervention component for culturally relevant breastfeeding interventions.

In the present study, a large number of participants did not have conversations about infant feeding with their family members or friends. A “conversational intervention” with female family members such as grandmothers, daughters, and aunts might facilitate discussions about breastfeeding. A multi-generation conversational intervention is an alternative approach to

traditional breastfeeding education and promotion and may be well suited to populations that have strong familial, cultural, and socio-historical influences on specific health behaviors (Slater, Buller, Waters, Archibeque, & LeBlanc, 2003). This could lead to a change in dialogue about infant feeding and perhaps dismantle the negative stigma concerning breastfeeding among some women. Data from the current study suggest that socio-historical factors are at least partial contributors to decisions to formula feed among African American women. Therefore, it is reasonable to explore the potential benefits of a conversational intervention with socio-historical components. The socio-history events of the African American experience and their potential impact on attitudes, perceptions, and behaviors about breastfeeding could be presented first. Next, data on the physical, emotional, and developmental benefits of breastfeeding and the particular importance of breastfeeding for the African American community (given current health disparities) could be presented. With this approach, the message would be tailored to match African American women's culture, ethnicity, and gender. Some African American women may not be aware of why they prefer formula feeding to breastfeeding. Bringing attention to the cultural and historical influences that impact their own decision to breastfeed or not may raise a woman's consciousness and create a context in which the women will be motivated to engage in breastfeeding. Understanding why African American women might be biased against breastfeeding may in itself serve to break the formula-preference cycle in this community. A multi-generation conversational intervention could provide African American women with the opportunity to become more aware of the factors that previously shaped their perspective about infant feeding. If designed and implemented this way, the intervention could communicate information that may be acceptable to the target population, and could potentially impact on African American women's breastfeeding thoughts, attitudes, and beliefs.

Implications for Practice

Results from this study can provide information that can guide the education of health-care professionals and lactation consultants. Specifically, the findings suggest that it is important for these professionals to understand the multi-dimensional, contextual factors that influence infant-feeding decisions for some African American women and how these factors can be addressed to achieve an increase in African American breastfeeding. Health research literature explicates the critical influence that media exposure to health messages can have on actual health behaviors (Nagler, 2014). It would be beneficial for health-care professionals to display culturally sensitive education materials and posters in the waiting room, lobby, and examination rooms. These materials could include images of African American women breastfeeding. In addition, culturally sensitive messages in predominantly African American magazines and television stations could provide images that can normalize and promote breastfeeding in this population. Promoting positive images of breastfeeding highlighting African American women smiling and actively breastfeeding their babies could challenge negative images of breastfeeding among some African Americans.

Policy Implications

The results of the current study suggest ways in which existing breastfeeding initiatives could be modified or enhanced to promote better outcomes for African American women. For example, the Baby Friendly Initiative incorporates ten steps to promote successful breastfeeding for women (UNICEF, 2012). However, none of the steps address issues related to socio-historical influences on infant feeding. In addition, issues related to family and cultural influence on decision-making are not addressed. Incorporating socio-historical, cultural, and familial influences could be an eleventh step to successful breastfeeding. Similar to the other ten steps,

this eleventh step could be mandated, and all institutions with Baby Friendly designation could require cultural sensitivity training regarding specific aspects related to culture, race, and ethnicity that could hinder or impede breastfeeding among diverse populations. Educating lactation consultants, nurses, and health-care providers about the cultural differences that exist for some women is of critical importance. Improving breastfeeding outcomes among all women, in particular African American women, would lead to improved maternal, infant, and child health outcomes.

Some African American women and other diverse populations may not have breastfeeding friendly jobs that provide support and opportunity to engage in breastfeeding. For lower SES women who have less autonomy at work, pumping could result in a loss of revenue. For lower income African American women there could be additional workplace challenges with regard to their metric for productivity and their ability to meet this metric and be a breastfeeding mom. They may not feel empowered enough to request time to pump for fear of losing their job. The findings of the current study suggest that additional workplace-related challenges include having a private place to pump. These findings suggest that although individuals are the ones to make the final decision to breastfeed or not, this decision is influenced by social and institutional factors that are powerful and difficult to circumvent. There may be negative implications and concern for job security and income stability. This is even more critical for single-wage earner households led by women. More qualitative research is needed, specifically concerning work and breastfeeding challenges, illuminating specific work issues to inform policies for women across various socioeconomic strata.

Public Health Implications

The very best of nursing science is when the results of a study can translate to tangible improvements in the quality of real people's lives. This research can be used as a foundation for more scholarship on this topic, and it can also provide information that can be directly used in communities and health-care settings to promote breastfeeding among African American women. The breastfeeding disparity between African Americans and other ethnicities is a public health crisis. Research has pointed out the disturbing implications that this disparity could have in the event of natural disasters or emergency situations. For example, Cook (2010) explicated the advantage that breastfeeding mothers have in emergency situations. Regardless of access to safe drinking water or food, breastfeeding mothers have a supply of fresh, immunologically protective breast milk that is readily available. In contrast, formula-feeding mothers would be disadvantaged if access to safe water, formula, and equipment are compromised. Specifically in areas with a large populations of African Americans, there is a need for initiatives to promote and sustain optimal infant-feeding practices (breastfeeding) while reducing health risks associated with unregulated use of infant formula such as gastrointestinal infections causing diarrhea (Hipgrave, Assefa, Winoto, & Sukotjo, 2012). Breast milk in disaster and emergency situations proves to be sterile and offers potential immunity to certain infections (Cook, 2010). Moreover, educating mothers who recently stopped breastfeeding how to re-lactate in the event of a natural disaster is also important.

Conclusion

The current study fills the gap regarding cultural, socio-historical, and oppressive influences that undergird the low African American breastfeeding rates. Additionally, it provides information about how history has shaped some African American mothers' thoughts,

attitudes, and beliefs about infant-feeding decisions. This focus group data suggests that future research should use cultural and historical evidence to inform future breastfeeding promotions, initiatives, and interventions.

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APPENDIX A. FOCUS GROUP FLIER



*Influences on
African American Women's Infant Feeding
Practices*

*This is a research study examining African American women and their ideas about breastfeeding.

*We are looking for African American women who will agree to participate in a focus group with other African American mothers lead by Stephanie Devane-Johnson (principal investigator).

If you are interested please contact Stephanie Devane-Johnson at (919) 815-4365.

Thank you for your interest.
Stephanie Devane-Johnson CNM, MSN
UNC-Chapel Hill School of Nursing

APPENDIX B. FOCUS GROUP DISCUSSION GUIDE

1). Could each of you tell me about how you decided how you were going to feed your baby (babies)? **(Specific Aim 1)**

1a). What was it like for you making your decision? Can you walk us through it?

2). What comes to mind when you hear the word breast? What do your breast mean to you?

What did you think when you first started growing breast? **(Specific Aim 1)**

2a). What does this mean to you?

2b). Tell me what you have heard about breastfeeding.

2c). Can you talk more about what you didn't like about the thought of breast-feeding, if anything?

2d). Can you talk about what other people in your lives think about breastfeeding?

2e). Do you know about the health benefits of breastfeeding?

3). How did the women in your family (mother, grandmother, aunts, girlfriends) feed their babies? **(Specific Aim 1)**

3a). What conversations did you all have?

4). How did your male partner, if any, influence your decision? **(Specific Aim 1)**

4a). What about other males in your family?

5). Can you tell me about what you heard about breastfeeding from older relatives?

(Specific Aim 2)

5a). What stories did you hear?

5b). What advice were you given, if any?

6). Were there any factors specific to the African American community or being an African American woman that influenced your decision to breastfeed and /or bottle- feed? **(Specific Aim 2 & 3)**

7). How, if at all, do you think breastfeeding is different for African American women than women of other races? **(Specific Aim 2 & 3)**

7a). Can you tell me more about that?

7b). What kinds of things do you think African American women hear that influences their decision whether or not to breastfeed?

8). What cultural factors – things that we learned from our parents and relatives -- may influence African American women and their decision whether or not to breastfeed? **(Specific Aim 2)**

8a). Do you think you were influenced by these things?

9). What historical factors – things that may have happened a long time ago -- may influence African American women and their decision whether or not to breastfeed? **(Specific Aim 3)**

9a). Do you think you were influenced by these things?

10). If you were giving a new mother advice about how to feed her baby, what might you tell her? **(Specific Aim 1)**

11). Is there anything you'd like to discuss that we have not yet talked about?

APPENDIX C. THEMES BY AGE BETWEEN FORMULA-FEEDING AND
BREASTFEEDING GROUPS

	Breastfeeding Group			Formula-Feeding Group		
	18–29	30–50	>50	18–29	30–50	>50
Theme 1 Cultural Beliefs/Family Traditions	X	X	X	X	X	X
Theme 2 Social Realities	X	X	X	X	X	X
Theme 3 Personal Rationale for Choices	X	X	X	X	X	X
Theme 4 Historical Influences	X	X				X
Theme 5 Body Image	X		X	X	X	X
Theme 6 Breastfeeding as ‘Nasty’	X				X	X