

## The Influence of Culture on Breast-Feeding Decisions by African American and White Women

By: Darlene Joyner Street, [Lynne Porter Lewallen](#)

**This is a non-final version of an article published in final form in**

Street, D.J., & Lewallen, L.P. (2013). The influence of culture on infant feeding decisions by African-American and white women. *Journal of Perinatal & Neonatal Nursing*, 27(1), 43-51. doi:10.1097/JPN.0b013e31827e57e7

**Made available courtesy of Lippincott, Williams, & Wilkins:**  
<http://dx.doi.org/10.1097/JPN.0b013e31827e57e7>

**\*\*\*© Lippincott, Williams, & Wilkins. Reprinted with permission. No further reproduction is authorized without written permission from Lippincott, Williams, & Wilkins. This version of the document is not the version of record. Figures and/or pictures may be missing from this format of the document. \*\*\***

### **Abstract:**

The purpose of this study was to examine how culture influenced breast-feeding decisions in African American and white women, using the Theory of Culture Care Diversity and Universality as a framework. One hundred eighty-six participants responded to the following: The word culture means beliefs and traditions passed down by your family and friends. How has culture affected how you plan to feed your baby? Qualitative content analysis was used to analyze the data. Four categories of responses were identified: influences of family, known benefits of breast-feeding, influences of friends, and personal choice. The findings suggest that race alone may not be as influential in infant feeding decisions as other factors. Although some women acknowledged the effect of their cultural background and experiences, most women reported that their culture did not affect their infant feeding decision. In this population, breast-feeding decisions were based on the influences of family, friends, self, and the perceived knowledge of breast-feeding benefits. Although breast-feeding statistics are commonly reported by race, cultural influences on infant feeding decisions may transcend race and include the influence of family and friends, learned information from impersonal sources, and information that is shared and observed from other people.

**Keywords:** African American | Breast-feeding | White | Culture

### **Article:**

*Healthy People 2010* had 2 major goals: (a) increase the quality and years of healthy life and (b) eliminate health disparities. Increasing the proportion of mothers who initiate breast-feeding was one of the focus areas of *Healthy People 2010* and it continues to be a focus in *Healthy People*

2020.<sup>1,2</sup> *Healthy People 2020* also has goals of increasing the number of infants breast-fed exclusively at 3 months and through 6 months, breast-fed at all 6 months, and at 1 year. Other goals are reducing the number of breast-feeding infants who receive infant formula supplementation during the first 2 days of life, increasing the proportion of infants who are born in facilities that provide recommended care for lactating families, and increasing the percentages of workplaces that have lactation support services.

The Centers for Disease Control and Prevention's Breast-feeding Report Card<sup>3</sup> for 2012 shows that breast-feeding rates in the United States are rising. In 2009, 76.9% of women initiated breast-feeding, and the rates of any breast-feeding at 6 months and at 12 months were 47.2% and 25.5%, respectively, all of which were increases over the previous year. However, African American women fall well below the *Healthy People 2020* goal of 82% of women initiating breast-feeding in the early postpartum period.<sup>4</sup> The National Health and Nutrition Examination Surveys for 1999 to 2006 showed that breast-feeding rates increased for all racial groups and significantly increased among African American women from 36% to 65%. Despite this increase (the highest increase in all racial groups), African American women still fall behind Mexican Americans, whose breast-feeding rate increased from 67% to 80%, and whites, whose rate increased from 62% to 79%. Lower breast-feeding rates were found among non-Hispanic white and non-Hispanic black infants with lower family incomes.<sup>5</sup>

Disparities in breast-feeding initiation among white and African American women are well documented.<sup>6-10</sup> The reasons for the disparities are less well known. One factor that has not been widely studied in regard to breast-feeding initiation is culture. Therefore, the purpose of this study was to examine how culture influenced breast-feeding decisions in African American and white women, using the Theory of Culture Care Diversity and Universality<sup>11</sup> as a framework.

## REVIEW OF LITERATURE

There are many factors that influence a family's infant feeding decisions. This review of literature highlights several factors that have been shown to influence the decision to breast-feed in African American and white women: social influences, personal factors, and education about breast-feeding.

Social influences can affect the infant feeding decision and the course of the feeding process. In a cross-sectional sample of 109 black pregnant women in California,<sup>12</sup> those who attended support groups were more likely to intend to breast-feed than those who did not. In a qualitative study of 11 women in Australia (ethnicity not identified), a major theme related to the choice of breast-feeding was that the women felt that society expected them to breast-feed in order to be considered a good mother.<sup>13</sup> A study conducted in Texas about men's attitudes about breast-feeding (61% white sample) showed that men who held favorable attitudes about breast-feeding were more likely to have wives/partners who breast-fed.<sup>14</sup> A secondary analysis was performed using data from the Fragile Families and Child Wellbeing Study, a large, multiethnic survey

study of 6540 predominantly unmarried mothers in the United States.<sup>15</sup> This study found that women who attend religious services are more likely to breast-feed than women who never attend services, which may indicate a social influence to breast-feeding.

Even while acknowledging the influence of social networks, some women find personal factors more important in the decision to breast-feed. In a qualitative descriptive study of 5 African American women about their infant feeding choices,<sup>16</sup> influencing factors for both breast and formula-feeding were described. Factors influencing breast-feeding were maternal and infant advantages, family members who had breast-fed, healthcare provider support, and the feeling that bonding would be enhanced with breast-feeding. Despite acknowledgement of these influencing factors, women in the study stated that the decision to breast-feed had been a personal one. The women also offered ideas about why other African American women might not choose to breast-feed, such as lack of maturity, decreased education, laziness, selfishness, lack of attention to breast-feeding in the media, and the notion that the breast was viewed as a sex object. Women who chose to formula-feed acknowledged influencing factors, such as failed attempts at breast-feeding, partners who were not supportive of breast-feeding, the convenience of using formula, and the availability of free formula from the discharging hospital.

A study measured breast-feeding self-efficacy of African American women, using the Prenatal Breast-feeding Self-Efficacy Scale.<sup>17</sup> Although both women planning to breast-feed and those planning to formula-feed scored high on the Prenatal Breast-feeding Self-Efficacy Scale, women planning to breast-feed scored significantly higher ( $P = .001$ ). In a narrative analysis of interviews with a subset of the sample, 6 themes related to rationales for infant feeding choices were identified: performance accomplishments, vicarious experiences, verbal persuasions, physiological reactions, social embarrassment, and feelings of regret.

A focus group study of African American ( $n = 86$ ) and white women ( $n = 66$ ) was conducted with different groups of women who were pregnant, breast-feeding, and formula-feeding.<sup>18</sup> The overall theme that emerged from all the groups was that successful breast-feeding required “confident commitment.”<sup>18</sup>(p144) These women felt that in order for breast-feeding to be successful, the woman had to be confident in her ability to breast-feed, confident in the physical process of breast-feeding, and confident in her ability to make breast-feeding work despite obstacles.

A review by Wambach et al<sup>19</sup> showed that in addition to commonly known factors associated with breast-feeding initiation, such as demographic variables, other variables, such as informal (family support), formal (healthcare provider), and environmental (places to breast-feed) support, were also influential in the decision to breast-feed, and these varied in different cultures. Several studies have examined the prevalence of breast-feeding in different ethnic groups,<sup>20,21</sup> suggesting that ethnicity may be a factor in the breast-feeding initiation and duration. An earlier study of a small purposive sample of low-income African American women<sup>22</sup> found that culture greatly influenced breast-feeding decisions. Factors shown to influence breast-feeding initiation, such as

social support, demographics (marital status, age, education level, and race), perceived success, recognized benefits, health beliefs, and breast-feeding knowledge, could be influenced by culture; however, few studies have examined the effects of culture on breast-feeding.

In one study, Kong and Lee<sup>23</sup> examined the personal, social, cultural, workplace/public facilities, environmental, and other factors contributing to the decision to breast-feed by women in Hong Kong. First-time mothers' knowledge of breast-feeding and the influence of knowledge on breast-feeding intentions were also explored. This study indicated that cultural factors were influential in the decision to breast-feed. Similarly, McKee et al<sup>24</sup> examined predictors of the decision to breast-feed and predictors of successful breast-feeding initiation and persistence in Hispanic and African American women. Factors examined included depressive symptoms, social support, and mothers' perception of closeness to their families. The most important predictors of planning to breast-feed were education and ethnicity. Among Hispanic participants, greater identification with Hispanic culture was associated with increased likelihood of planning to breast-feed. African American women showed lower rates of intent to breast-feed than Latinas.

Education about the benefits of breast-feeding has also been shown to influence the decision to breast-feed. Lack of knowledge has been cited as one factor that affects breast-feeding initiation.<sup>9,25</sup> Lewallen and Street<sup>26</sup> found that lack of knowledge about the benefits and mechanics of breast-feeding was identified by African American participants as affecting both initiation and continuation of breast-feeding. Wagner et al,<sup>27</sup> who conducted a study to improve breast-feeding initiation rates, found that a breast-feeding educational program for healthcare providers accomplished this goal. The program included yearly didactic classes for residents, a twice-yearly seminar for nursery staff, and bedside rounds with a provider knowledgeable about breast-feeding. Prenatal and postpartum patient education was also provided. Breast-feeding initiation and duration rates increased significantly at that institution after implementation of the program.

Many factors have been shown to influence breast-feeding initiation. Few studies have specifically examined the impact of a woman's culture, rather than simply her ethnicity, on this decision.

## THEORETICAL FRAMEWORK FOR THE STUDY

Leininger and McFarland<sup>11</sup> identified 7 interdependent dimensions of culture and social structure that influence cultural health patterns and practices: (a) technological; (b) religious and philosophical; (c) kinship and social; (d) cultural beliefs, values, and lifeways; (e) political and legal; (f) economic; and (g) educational. The theory suggests that the concept of culture is comprehensive and care is embedded in culture. The major tenet of Leininger's theory is that relationships exist between care diversity and the differences and similarities of cultures.

Lewallen and Street<sup>26</sup> explored issues related to initiating and sustaining breast-feeding in African American women, using Leininger's theory<sup>11</sup> as a guide. Although many participants

made the decision to breast-feed by themselves, the decision was also influenced by significant others, families, and friends. Participants chose to breast-feed although some of the influences were negative, such as stories of breast-feeding difficulties or beliefs that breast-feeding might make male children too dependent on the mothers. These negative influences were acknowledged in order to maintain cultural values and beliefs, and participants adapted breast-feeding behaviors to be acceptable in the culture.

## METHODOLOGY

This was a qualitative descriptive study focusing on the effects of culture on breast-feeding decision making in African American and white women. This was a secondary research question that was part of a larger study on infant feeding attitudes not reported in this article. Participants were asked to respond to the following 1 open-ended probe question: The word culture means beliefs and traditions passed down by your family and friends. How has culture affected how you plan to feed your baby? This question was part of a larger survey that included an instrument measuring infant feeding attitudes using the Iowa Infant Feeding Attitude Scale,<sup>28</sup> results of which are not discussed in this article. Institutional review board approval was obtained, and each participant signed a consent form to participate in the research. Data collection took place during prenatal classes in 3 locations in North Carolina. Participants completed the survey in the prenatal classroom either before or after the class or during class break. No time limits were imposed.

One hundred eighty-six participants comprised the convenience sample for the study: 119 whites and 67 African Americans. Inclusion criteria were as follows: age 18 years or older, at least 28-week pregnant, read and speak English, and self-define as either African American or white. Exclusion criteria were as follows: younger than 18 years, not pregnant or less than 28-week pregnant, unable to read and speak English, and self-define as a different race than African American or white.

See Table 1 for detailed demographic information on the sample. The ages of participants ranged from 18 to 45 years. The majority (91.9%) were first-time mothers. Of the women who were not first-time mothers, most (82.4%) reported 1 previous birth only. The majority (59.1%) were married, and 84% had more than a high school education. Most (69%) were employed and 60% of those employed worked 40 or more hours per week, but 44% were receiving the US Department of Agriculture Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and 43% were on Medicaid. African American participants were more likely than white participants to be young, unmarried, receiving WIC and Medicaid, of a low socioeconomic status, and unemployed. Most planned to exclusively breast-feed (49 African Americans, 101 whites). Twenty-seven planned to feed both breast milk and formula (17 African Americans, 10 whites), 8 planned to formula-feed (1 African American, 7 whites), and 1 white woman was undecided.

**Table 1.** Demographics of sample

<b>Variable</b>	<b>Frequency (%)</b>
Age (N = 186)	18–20: 28 (15.1)
	21–25: 44 (23.7)
	26–30: 51 (27.4)
	31–35: 46 (24.7)
	36–40: 15 (8.1)
	41–45: 2 (1.1)
African American(n = 67)	18–20: 19 (28.3)
	21–25: 24 (35.8)
	26–30: 12 (17.9)
	31–35: 9 (13.4)
	36–40: 3 (4)
	41–45: 0 (0)
White (n = 119)	18–20: 9 (7.5)
	21–25: 20 (16.8)
	26–30: 39 (32.7)
	31–35: 37 (31)
	36–40: 12 (10)
	41–45: 2 (1.6)
Parity (N = 186)	Primipara: 171 (91.9)
	Multipara: 15 (8.1)
African American(n = 67)	Primipara: 56 (83.6)
	Multipara: 11 (16.4)
White (n = 119)	Primipara: 115 (96.6)
	Multipara: 4 (3.3)
Marital status (N = 186)	Single: 73 (39.2)
	Married: 110 (59.1)
	Separated: 2 (1)
	Widowed: 1 (.05)
African American(n = 67)	Single: 52 (77.6)
	Married: 12 (17.9)
	Separated: 2 (3)
	Widowed: 1 (1)
White (n = 119)	Single: 21 (17.6)
	Married: 98 (82.3)
	Separated: 0
	Widowed: 0
Education (N = 186)	Less than high school: 7 (4)
	High school: 23 (12.3)
	Some college: 72 (38.7)
	Baccalaureate: 44 (23.6)

	Master's: 40 (21.5)
African American(n = 67)	Less than high school: 5 (7)
	High school: 12 (17.9)
	Some college: 33 (49.2)
	Baccalaureate: 11 (16.4)
	Master's: 6 (9)
White (n = 119)	Less than high school: 2 (1.6)
	High school: 11 (9.2)
	Some college: 39 (32.8)
	Baccalaureate: 33 (27.7)
	Master's: 34 (28.6)
Employment (N = 186)	Yes: 128 (69%)
	≥40 h/wk: 77 (60)
	<40 h/wk: 44 (34)
	Missing data: 30
	No: 58 (31%)
African American(n = 67)	Yes: 32 (47.7)
	• ≥40 h/wk: 11 (34.3)
	• <40 h/wk: 18 (56.2)
	• Missing data: 3 (9)
	No: 35 (52.2)
White (n = 119)	Yes: 96 (80.6)
	• ≥40 h/wk: 66 (55.5)
	• <40 h/wk: 26 (21.8)
	• Missing data: 4 (4.2)
	No: 23 (19.3)
WIC (N = 186)	Yes: 82 (44)
	No: 104 (56)
African American(n = 67)	Yes: 55 (82)
	No: 12 (18)
White (n = 119)	Yes: 27 (22.7)
	No: 92 (77.3)
Medicaid (N = 186)	Yes: 80 (43)
	No: 106 (57)
African American(n = 67)	Yes: 57 (85)
	No: 10 (15)
White (n = 119)	Yes: 23 (19.3)
	No: 96 (80.7)
Socioeconomic status (family income) (N = 185)	<\$20 000: 62 (33.5)
	\$20 000-\$39,999: 22 (11.9)
	\$40 000-\$59 999: 14 (7.6)
	\$60 000-\$79 999: 17 (9.2)
	\$80,000-\$99 999: 23 (12.4)
	>\$100 000: 47 (25.4)

	Missing: 1
African American(n = 67)	<\$20 000: 45 (67.1)
	\$20 000-\$39 999: 12 (17.9)
	\$40 000-\$59 999: 2 (2.9)
	\$60 000-\$79 999: 1 (1.4)
	\$80 000-\$99 999: 2 (2.9)
	>\$100 000: 5 (7.5)
White (n = 118)	<\$20 000: 17 (14.4)
	\$20 000-\$39 999: 10 (8.5)
	\$40 000-\$59 999: 12 (10.1)
	\$60 000-\$79 999: 16 (13.6)
	\$80 000-\$99 999: 21 (17.8)
	>\$100 000: 42 (35.6)
	Missing: 1
Infant feeding plans(N = 186)	Breast: 150 (80.7)
	Formula: 8 (4.3)
	Combination breast and formula: 27 (14.5)
African American (n = 67)	Breast: 49 (73.1)
	Formula: 1 (1)
	Combination breast and formula: 17 (25.4)
White (n = 119)	Breast: 101 (84.9)
	Formula: 7 (5.9)
	Combination breast and formula: 10 (8.4)
	Undecided: 1 (.8)

WIC indicates Special Supplemental Nutrition for Women, Infants, and Children.

## DATA ANALYSIS

Qualitative inductive content analysis<sup>29</sup> was the method for data analysis. Initially, the data were coded and then overall categories describing cultural influences on breast-feeding decisions were developed. The components of trustworthiness and credibility of the analysis were ensured with the following procedures. The authors (1 African American and 1 white with experience in breast-feeding research and qualitative content analysis) worked together during the analysis process. When the analysis was finished, a second qualitative researcher not involved with the study examined the process of analysis with the results and validated the trustworthiness of the process.

The responses were originally written by the participants on the survey instrument, and to begin the analysis these responses, including the participant's code number, were typed into Microsoft Word. Data from each of the 3 data collection locations were saved in different transcript files. First, all of the responses from each site were read several times by both authors to get an initial sense of the data. Then, open coding was performed by the first author on each of the 3 transcripts to begin to condense the ideas expressed in the data. No a priori codes were identified; instead, they were developed from the data. Both authors then compared the codes

from all 3 transcripts and noted no major differences in codes among the sites. The decision was made to combine the data from the 3 sites into 1 file for continued analysis. Agreement percentage was 95% and was determined by dividing the total number of responses by the number of quotes that were in disagreement between the researchers. Any areas of disagreement were discussed and agreement was reached.

Coded statements were identified with the race of the woman who made the statement to facilitate comparisons among African Americans and whites as required by the research question. As the data were read, it became clear that not only did the responses address the influence of culture on the feeding decision but also did provide information on specific categories of factors that influenced the decision. Therefore, both of these are addressed here. First, the codes were condensed into 4 categories, which represented the range of responses of all the women about the factors that had influenced the decision about how to feed the infants. Table 2 lists those categories and identifies the race of the women represented in those categories. Some of the women mentioned more than 1 factor, so these categories were exhaustive but not mutually exclusive. Next, the categories were then examined more closely considering the research question of the influence of culture on the decision of whether to breast- or formula-feed. Considering the definition of culture that was given in the research question (beliefs and traditions passed down by family and friends), each entire response was reread as a whole and the responses were divided into 2 mutually exclusive and exhaustive themes that cut across the other categories.

## RESULTS

### *Factors considered influencing the feeding decision*

Many women cited more than one factor that was considered when making feeding decisions, so the number of responses exceeds the number of participants. Four categories of factors were identified: family influence, friends influence, known benefits of breast-feeding, and personal choice. Table 2 lists the categories and the number of responses in each, broken down by race.

**Table 2.** Influences on feeding decision

Categories	Numbers of responses	Race of respondents, N (%)
Influences of family	74	White: 56 (42)
		African American: 18 (24)
Known benefits of breast-feeding	66	White: 47 (35)
		African American: 19 (25)
Influences of friends	19	White: 17 (13)
		African American: 2 (3)
Personal choice	11	White: 9 (7)
		African American: 2 (3)

Family was the most frequently mentioned factor in the breast-feeding decision. Family influence was defined as knowledge about the opinion and experiences related to infant feeding of persons related by blood or by marriage. One African American woman said, “My family all breastfed and expect me to do the same because they believe it's best for the baby. And I strongly agree.” A white woman said, “My mother breastfed all her children despite the many complications she had. For generations the babies in my family have been breastfed and I plan to continue it because of its benefits.” Sometimes, family factors were known but did not play a role in the participant's decision on a method of feeding. One African American woman said, “Everybody was bottle-fed and I wanted to try something else.”

Known benefits of breast-feeding were the second most frequently mentioned influence on breast-feeding decisions. This is defined as the participant's description of having information from healthcare providers, other people, research, written materials, and other media sources about the benefits of breast-feeding. One white woman said, “I don't believe that I chose it for beliefs or traditions. After learning the benefits, I wanted to breast-feed.” Another white woman described awareness of the multiple benefits of breast-feeding as a factor in her decision:

I feel that my child will benefit a great deal from breast milk, which I've learned from family, friends, and research via books and the internet. Benefits include bonding between mother and baby, a better immune system, and cost efficient [sic].

Friends were influential for the women as they made the decision about how to feed their infants. One white woman said: “My friends and co-workers are big advocates of breastfeeding due to the massive amount of data out there that proves its health benefits. This is the main reason I am influenced/inclined to do so.” An African American woman said, “My friends said ... the child was healthier (if breast-fed).”

A final category was personal choice, where these women clearly indicated that the feeding choice was their own decision. One African American woman said, “Everybody was bottle fed and I wanted to try something else.” A white woman said, “I think my decision has been more independent as my mother did not breast-feed so I am the first to make the choice.”

### *The effect of culture on the feeding decision*

The question analyzed in this study asked whether culture had affected the infant feeding decision and went on to define culture as “beliefs and traditions passed down by your family and friends.” To answer this research question, each response was read in its entirety, all categories of influence were considered, and 2 themes were developed, which were given in vivo (participant's actual words) names that represent the concepts: “My culture has affected my decision” and “I decided how to feed my baby on my own.” The theme “my culture has affected my decision” was defined as encompassing all participant responses that acknowledged that a major influence in the decision of whether to breast- or formula-feed was the experience or advice from family or friends. Also included in this theme were the responses of women who

specifically stated that their culture had influenced the decision. Thirty-six percent of the entire sample was included in this theme (26% [n = 48] white; 9.6% [n = 18] African American).

One African American woman said, “My culture has helped me to determine what things I will and will not do as a mother.” A white woman said, “My culture has influenced my belief that breast-feeding is a natural and healthy way to care for my infant and protect him from disease. It's very clearly considered what's best for baby and mother.”

The theme “I decided how to feed my baby on my own” was defined as encompassing all participants' responses who spoke of making an independent decision, often based on research, information from written sources or other media, or healthcare provider advice. Also included in this theme were the responses of women who specifically stated that culture had no effect on the feeding decision, or that they specifically were going against cultural influences in their decision about a method of feeding. Sixty-four percent of the sample was represented in this theme (37.6% [n = 70] white; 26% [n = 49] African American).

An example from a participant who specifically rejected the notion that culture had an effect on her feeding decisions was an African American woman who said this: “Culture hasn't influenced my decision on how I will feed my baby. Education on the benefits of breast-feeding and breast milk is the primary factor.” One African American woman described how she was going against what she perceived to be her cultural influences in her decision to breast-feed: “My culture hasn't really affected my plans to breastfeed my baby. Just because it didn't work for them doesn't mean it won't work for me.”

## DISCUSSION

As noted in the literature about breast-feeding initiation, the women in this sample identified family, friends, self, and knowledge of the benefits of breast-feeding as critical in the choice of an infant feeding method. This attests to the use of culture as defined by Leininger<sup>11</sup> as including kinship, social, and educational dimensions. Surprisingly, even though the interview question specifically asked about the influence of culture on the decision, few women acknowledged culture per se as an influence. From the 189 women who responded, 245 statements were generated reflecting influences on the feeding decision. Only 73 responses mentioned the word culture. Of those 73 responses, the great majority (n = 56) indicated that the woman's culture had not affected the feeding decision. Of the women who mentioned culture by name, more white women indicated that culture had affected the decision whereas more African American women indicated that culture had not affected the breast-feeding decision. It may be that other factors had more influence than culture on breast-feeding decisions in this sample, or the word culture may have been narrowly defined by some of the women. When the definition of culture provided in the survey question was used in the analysis, the number of women influenced by culture as more broadly defined increased. More white women acknowledged the influence of culture as defined by influences of family and friends than African American women. The majority of the

sample stated that they had come to the feeding decision independently, as noted in the work of Robinson and VandeVusse<sup>16</sup> in their small study of African American women.

Many of the responses to the question, “How has culture influenced how you plan to feed your baby?” included the influence of family and friends. The question was introduced by noting that family and friends' influences may be considered a part of culture, and this may have influenced how the women responded. However, these responses suggest that for participants in this study, the notion of culture consists of family and immediate friends, not an abstract notion of culture or race.

Leininger's theory includes cultural and social structure dimensions,<sup>11</sup> which reflect various influences that may directly or indirectly affect health and well-being. One of these influences is kinship and social factors. The participants in this study indicated that both family and friends had an influence on infant feeding decisions. When talking with pregnant women about infant care decisions, including feeding, it is important that nurses ask women about the significant influences in their lives and not make assumptions based solely on race or socioeconomic status.

Another of Leininger's cultural and social structure dimensions that have relevance for this study are cultural values, beliefs, and lifeways. These are influences that may be passed down or learned from others, either directly through telling or indirectly through observing others' experiences. In their responses, women mentioned family members' experiences with infant feeding. Pregnant women could be encouraged to reflect on what they have heard and seen from family and friends about infant feeding. By acknowledging vicarious experiences, the woman can consider how her own views have been shaped by these. Peer groups can be useful for women to discuss infant feeding, and peer support groups have been shown to be helpful to increase breast-feeding duration.<sup>12</sup>

A final cultural and social structure dimension that is reflected in these results is technological and educational factors. Many of the women who stated that culture had not affected their decision spoke of learning about breast-feeding through research, books, and information from healthcare providers. Since, at least for this sample, women reported that their own informed choice was critical to the decision about infant feeding and women can be provided with evidence about breast-feeding and encouraged to visit worthy Web sites containing breast-feeding information and discuss what they have learned with healthcare providers, including lactation consultants.

Many of the women said that they were not “told” of the benefits of breast-feeding but they “learned” of them by other methods. This may suggest that educational factors are influential in decisions to breast-feed. Women said that they learned by taking classes, watching television, going to school, and reading medical studies. Nurses could inquire how pregnant women gain information and direct women to reliable sources. In addition, the role of nurses and other providers in teaching pregnant women about the benefits of breast-feeding should not be

overlooked. In a study of African American breast-feeding women, Lewallen and Street <sup>26</sup> found that many reported that the benefits of breast-feeding were not mentioned by healthcare providers during pregnancy. Healthcare providers may not have up-to-date knowledge on the benefits and management of breast-feeding and so may hesitate to offer advice about breast-feeding.<sup>30</sup> This deficit should be remedied with continuing education.

The findings from this study suggest that race alone may not be as influential in breast-feeding decisions as other factors in both African American and white mothers. The most frequently mentioned influences on breast-feeding decisions in this sample were personal influences, such as family, friends, or significant others; impersonal influences, including environmental factors such as economics or educational factors; and shared and learned influences that may be passed down or learned from others. National statistics on breast-feeding, such as those from the Centers for Disease Control and Prevention and other groups, continue to be reported by race; however, in providing culturally competent care for pregnant women, nurses must not make assumptions based on race. An optimum time to initiate discussion and education about infant feeding choices is preconception or early in pregnancy.

## LIMITATIONS

Limitations of this study include the fact that the women completed the surveys independently and may not have completely understood the question and the references to culture. Furthermore, the question defined culture as “practices and traditions passed down by family and friends” which may have constrained the definition of culture and may have overemphasized the importance of family and friends in the infant feeding decision. All the women in the sample were attending prenatal care classes, so they may have been more aware of the benefits of breast-feeding than other women. Many of the women were accompanied by family members or friends, so the influences of these people may have been uppermost in the women's minds when they were answering the question. Finally, although the sample contained a larger proportion of African Americans than those present in the US population, the sample contained twice as many whites as African Americans, and all the women were from the same state. Generalizations from this geographically and demographically specific sample cannot be made to the larger population of African American and white women.

## CONCLUSION

Although breast-feeding statistics are commonly reported by race, cultural influences on breast-feeding decisions may transcend race and include the influences of family and friends, learned information from impersonal sources, and information that is shared and observed from other people. Leininger's Theory of Culture Care Diversity and Universality<sup>11</sup> can be used by healthcare providers who work with pregnant women to increase awareness of the factors that can contribute to culturally competent care. Given the influence of family and friends on breast-feeding decisions of the women in this sample, interventions that acknowledge these influences

and involve these people in teaching about the benefits of breast-feeding may increase breast-feeding initiation.

## References

1. Centers for Disease Control and Prevention. Healthy People 2010 final review. [http://www.cdc.gov/nchs/healthy\\_people/hp2010/hp2010\\_final\\_review.htm](http://www.cdc.gov/nchs/healthy_people/hp2010/hp2010_final_review.htm). Published October 5, 2011. Accessed October 26, 2012.
2. US Department of Health and Human Services. Healthy People 2020 maternal, infant and child health objectives. <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=26>. Published July 26, 2012. Accessed October 26, 2012.
3. Centers for Disease Control and Prevention. Breast-feeding report card—United States, 2012. <http://www.cdc.gov/breastfeeding/data/reportcard.htm#Rates>. Published August 2012. Accessed October 26, 2012.
4. American Academy of Pediatrics, Section on Breastfeeding. Breast-feeding and the use of human milk. *Pediatrics*. 2012;129:e827–e841.
5. McDowell MA, Wang C-Y, Kennedy-Stephenson J. Breast-Feeding in the United States: Findings From the National Health and Nutrition Examination Surveys 1999–2006. NCHS data briefs, no. 5, Hyattsville, MD: National Center for Health Statistics; 2008.
6. Humphreys AS, Thompson NJ, Miner KR. Intention to breast-feed in low-income pregnant women: the role of social support and previous experience. *Birth*. 1998;25:169–174.
7. Khoury AJ, Moazzem SW, Jarjoura CM, Carothers C, Hinton A. Breast-feeding initiation in low-income women: role of attitudes, support, and perceived control. *Womens Health Issues*. 2005;15:64–72.
8. Lee HJ, Rubio MR, Elo IT, McCollum KF, Chung EK, Culhane JF. Factors associated with intention to breast-feed among low-income, inner-city pregnant women. *Matern Child Health J*. 2005;9:253–261.
9. Lu MC, Prentice J, Yu SM, Inkelas M, Lange LO, Halfon N. Childbirth education classes: sociodemographic disparities in attendance and the association of attendance with breast-feeding initiation. *Matern Child Health J*. 2003;7:87–93.
10. Pippins JR, Brawarsky P, Jackson RA, Fuentes-Afflick E, Haas JS. Association of breast-feeding with maternal depressive symptoms. *J Womens Health*. 2006;15:754–762.
11. Leininger MM, McFarland MR. *Culture Care Diversity and Universality: A Worldwide Nursing Theory*. 2nd ed. Sudbury, MA: Jones & Bartlett; 2006.

12. Mickens AD, Modeste N, Montgomery S, Taylor M. Peer support and breast-feeding intentions among Black WIC participants. *J Hum Lact.* 2009;25(2):157–162.
13. Brouwer MA, Drummond C, Willis E. Using Goffman's theories of social interaction to reflect first-time mothers' experiences with the social norms of infant feeding. *Qual Health Res.* 2012;22:1345–1354.
14. Vaaler ML, Castrucci BC, Parks SE, Clark J, Stagg J, Erickson T. Men's attitudes toward breast-feeding: findings from the 2007 Texas Behavioral Risk Factor Surveillance system. *Matern Child Health J.* 2011;15:148–157.
15. Burdette AM, Pilkauskas NV. Maternal religious involvement and breast-feeding initiation and duration. *Am J Public Health.* 2012;102(10):1865–1868.
16. Robinson K, VandeVusse L. Exploration of African American women's infant feeding choices. *J Natl Black Nurses Assoc.* 2009;20(2):32–37.
17. Robinson K, VandeVusse L. African American women's infant feeding choices: prenatal breast-feeding self-efficacy and narratives from a Black feminist perspective. *J Perinat Neonat Nurs.* 2011;25(4):320–328.
18. Avery A, Zimmerman K, Underwood PW, Magnus JH. Confident commitment is a key factor for sustained breast-feeding. *Birth.* 2009;36(2):141–148.
19. Wambach K, Campbell SH, Gill SL, Dodgson JE, Abiona TC, Heinig MJ. Clinical lactation practice: 20 years of evidence. *J Hum Lact.* 2005;21:245–258.
20. Bonuck KA, Freeman K, Trombley M. County of origin and race/ethnicity: impact on breast-feeding intentions. *J Hum Lact.* 2005;21:320–326.
21. Kelly YJ, Watt RG, Nazroo JY. Racial/ethnic differences in breast-feeding initiation and continuation in the United Kingdom and comparison with findings in the United States. *Pediatrics.* 2006;118:e1428–e1435.
22. Underwood S, Pridham K, Brown L, et al. Infant feeding practices of low-income African American women in a central city community. *J Community Health Nurs.* 1997;14:189–205.
23. Kong SK, Lee DT. Factors influencing decision to breast-feed. *J Adv Nurs.* 2004;46:369–379.
24. McKee MD, Zayas LH, Jankowski KR. Breast-feeding intention and practices in an urban minority population: relationship to maternal depressive symptoms and mother-infant closeness. *J Reprod Infant Psychol.* 2004;22:167–181.

25. Stolzer J, Zeece P. Low-income women and physician breast-feeding advice: a regional assessment. *Health Educ J.* 2006;65:126–134.
26. Lewallen LP, Street DJ. Initiating and sustaining breast-feeding in African American women. *J Obstet Gynecol Neonatal Nurs.* 2010;39:667–674.
27. Wagner CL, Hulsey TC, Southgate M, Annibale DJ. Breast-feeding rates at an urban medical university after initiation of an educational program. *South Med J.* 2002;95:909–913.
28. De La Mora A, Russell DW, Dungy CI, Losch M, Dusdieker L. The Iowa Infant Feeding Scale: analysis and reliability and validity. *J Appl Soc Psychol.* 1999;29:2362–2380.
29. Elo S, Kyngas H. The qualitative content analysis process. *J Adv Nurs.* 2007;62:107–115.
30. Labbok MH, Taylor E. Call to action on breastfeeding in North Carolina: review and rationale. *N C Med J.* 2010;71:459–463.