AN ETHNOGRAPHIC EXPLORATION OF THE INFLUENCES OF INFANT FEEDING DECISIONS AMONG FIRST AND SECOND GENERATION MEXICAN-AMERICAN MOTHERS

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAI‘I AT MANOA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN NURSING NOVEMBER 2015

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Key words: infant feeding, infant feeding decision, breastfeeding, influence, Mexican-American
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ABSTRACT

The purpose of the study was to explore what influences first and second generation Mexican-American women’s infant feeding decisions. A qualitative ethnographic study design using participant observation and interviews was utilized. Purposive sampling, convenience sampling, and snowball sampling were employed to recruit and enroll eligible participants. The number of participants recruited into the study was dependent upon those willing to participate and the achievement of data saturation which was attained after 10 participants completed their interviews. Field notes were taken and emic and etic perspectives were utilized. Thematic analysis and coding of transcribed interviews and field notes was conducted and yielded the following themes: Influences to breastfeed: Breast is best which includes the commitment to doing what was best for the infant, maintaining family or cultural tradition, the support of the family, community programs/support, breastfeeding allows bonding with the baby, breastfeeding is healthier, breastfeeding allows bonding with the baby, breastfed babies do not get sick as often, breastfeeding provides complete nutrition, breastfeeding enables better growth and development, breastfeeding has maternal benefits, breastfeeding is supported in media, social media and/or publications; the theme The challenges of breastfeeding includes: breastfeeding is physically and/or emotionally demanding, lack of confidence or breastfeeding education, getting the correct latch or position; pumping breast milk is a difficult endeavor and public acceptance of breastfeeding and privacy concerns; the theme Influences for infant formula feeding: It's an alternative includes that formula feeding is convenient and easier and the impact of maternal of infant physical complications; the theme Disadvantages of formula feeding and the theme
*Mexican traditions.* The discussion includes clinical implications of the results as well as recommendations for future research.
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CHAPTER 1. INTRODUCTION

This research study focused on the exploration of the influences of infant feeding decisions among Mexican-American women living in the Pacific Northwest region of Washington State. Chapter One will provide a brief summary of Chapters Two through Five. Chapter Two will present a comprehensive review of the literature about minority mothers’ infant feeding decisions, identify current gaps in the existing scientific literature about this issue, as well as explore theoretical frameworks related to the influences of infant feeding decisions. Chapter Three will present the selected methodology and research design for the study based upon the research questions. Chapter Four will provide the results of the analysis of the data collected during the study, and Chapter Five will discuss the results of the research, limitations of the study and the implications for practice.

Problem Statement

Scientific evidence indicates that infant feeding practices vary depending upon a woman’s ethnic background (McKee, Zayas & Jankowski, 2004). Whether the chosen method is breast or bottle feeding of formula, the decision is strongly linked to cultural beliefs (Caufield et al, 1998; Kessler, Gielen, Diener-West, & Paige, 1995). Many articles focusing on infant feeding decisions are limited to the “Caucasian”, “American”, “middle-class” and “well-educated” woman with the majority using quantitative methodologies (Schlickau & Wilson, 2005, p. 25). This approach lacks the perspective that a qualitative approach could provide about how minority women make infant feeding choices including the women’s beliefs, values, attitudes and meanings that influence their choices (Schlickau & Wilson, 2005). The gaps in scientific knowledge about infant feeding choices that are identified in Chapter Two of this proposal will
include the population of Hispanic women of Mexican descent living in the U.S., and the lack of a clear understanding of what influences these women to make specific infant feeding choices.

**Background and Significance**

The myth of the “melting pot” emerged in the United States (U.S.) primarily from a combination of a cultural ideology of equality and a European ethnocentric perspective (Tripp-Reimer & Afifi, 1989, p. 613). This myth perpetuates the idea that all Americans are alike, namely, white, middle-class persons (Tripp-Reimer & Afifi, 1989). Despite literature to the contrary, for many years the idea that culture, including generational and traditional practices, should be discounted or ignored was prominent in health care delivery systems (Tripp-Reimer & Afifi, 1989). Fortunately, great strides have been made during the past 20 years with regards to culturally congruent health care. It is now appreciated that beliefs and practices specific to an individual’s culture influence all human interactions including infant feeding decisions (Ahern & Ruland, 2003). For the purposes of this paper, “culture” is broadly defined as explicit or implicit socially transmitted behavior patterns, beliefs, values, customs, life-ways and generational and traditional influences that guide a person’s worldview and decision making processes (Giger & Davidhizar, 2008). Health care providers (HCP) must be sensitive to the needs and views of all mothers in order to understand, communicate, and work effectively with them, especially when they are making decisions about infant feeding (Ahern & Ruland, 2003; Leininger & McFarland, 2006; Tripp-Reimer & Afifi, 1989).

Infant feeding is one of the first and most important maternal role performances for new mothers, and is the one function that occupies the greatest portion of interactional time between the mother and her infant during the infant’s early months of life (Ray & Estok, 1984). Both
international and western experts on infant feeding strongly advocate for exclusive breastfeeding in infancy due to the positive nutritional, immunological, and other health benefits of breastfeeding that are well documented in the literature (Rose, Warrington, Linder, & Williams, 2004). The data that have accumulated during the last 25 years has strongly supported the “breast is best” approach and, based on this scientific evidence, health care providers also strongly advocate “the breast is best” approach to their patients. However, knowledge about the benefits of breastfeeding does not always transfer to breastfeeding behavior (Libbus & Kolostov, 1994). A decline in national breastfeeding rates was observed between 1955 (29%) and 1971 (23%), followed by an increase in breastfeeding rates lasting through 1982 when its incidence peaked to 61% (Libbus & Kolostov, 1994; Ryan, Pratt, Wysong, & Lewandowski, 1991). Between 1984 and 1989, breastfeeding initiation rates steadily declined from almost 60% to 52% (Ryan, Rush, Krieger, & Lewandowski, 1991). Since the mid 1990s an increase in these rates has been observed, however, the current rates are still below those established by the Healthy People 2020 National Health objectives which state that by 2020, 81.9% of mothers will initiate breastfeeding and 60.6% will breastfeed until the infant is six months of age (CDC, 2011; Libbus & Kolostov, 1994; Ryan, 1997; United States Department of Health and Human Services [USDHHS], 2010). Currently in the U.S., only 63.2% of mothers initiate breastfeeding and just 25.1% of infants are breastfed through six months of age (CDC, 2011). Breastfeeding rates are especially low among ethnic minority and low-income women (e.g., 50.6% of Black mothers initiate breastfeeding and 18% of Black infants are breastfed through 6 months of age [CDC, 2011]), a trend warranting additional examination as to why this is happening (Bunik et al., 2006; Gill, Reifsnider, Mann, Villarreal, & Tinkle, 2004; Rose et al., 2004). For example, Kimbro, Lynch and McLanahan
(2008) note that although breastfeeding initiation rates in Mexico are high (>90%) they suggest that as acculturation occurs, second and subsequent generations may abandon breastfeeding “in favor of the more ‘Americanized’ bottle-feeding practice” (Kimbro et al., 2008, p.187). After an extensive review of publications about maternal breastfeeding decisions, there was an identified gap in the literature regarding what influences first and second generation Mexican-American mothers decisions about the method of feeding for their infants.

**Hispanic Population**

The American Community Survey in 2004 (U.S. Census Bureau, 2007) estimated the number of Hispanics in the U.S. to be 40.5 million or 14.2% of households in the U.S. Hispanics of Mexican origin were the largest Hispanic group with 64% identifying themselves as Mexican. In Pierce County Washington, where the study was conducted, up to 13.8% of the population is identified as being Hispanic (U.S. Census Bureau, 2009) with 62% of Hispanics identifying themselves being of Mexican origin (U.S. Census Bureau, 2009). Furthermore, approximately 15% of Mexicans in Pierce County speak a language other than English in their homes (U.S. Census Bureau, 2009) and 20.5% live below the poverty level. In Washington State, 89% of mothers initiate breastfeeding, 60.2% are breastfeeding at 6 months, and 35% of mothers are breastfeeding at 12 months (Centers for Disease Control and Prevention [CDC]), 2012). Among the Hispanic population in Washington State, 88.5% of mothers initiate breastfeeding, 57% are breastfeeding at 6 months, and 31.5% are breastfeeding at 12 months (Scanlon, Grummer-Strawn & Chen, 2010). There was no breakdown of breastfeeding data on Hispanic sub-groups including Mexican or Mexican-American. Breastfeeding data for Pierce County was unavailable.
**Theoretical Frameworks**

Many theories have been developed to predict behavior but few have been applied to breastfeeding as a behavior (Risica, 2011). Symbolic interactionism was the theoretical concept utilized in this study due to its common use in ethnographic research analysis to understand human behavior.

**Research Questions**

The qualitative study was designed to answer three over-arching questions utilizing a brief demographic questionnaire and questions to guide semi-structured interviews. The three over-arching questions explored in the study were:

1. How do first and second generation Mexican-American mothers make infant feeding decisions?

2. What meaning does the mothers’ cultural group ascribe to breastfeeding or formula feeding?

3. How do culture and/or family traditions influence Mexican-American mothers’ choice of infant feeding method(s)?

**Methodology**

Based upon the gaps in the literature identified in the literature review (Chapter Two) as well as the focus of the study and the research questions that were to be answered, an ethnographic study design using participant observation and interviews was employed following approval from the University of Hawai‘i institutional review board (IRB). Field notes were taken and emic and etic perspectives were utilized. Thematic analysis and coding of transcribed interviews and field notes was conducted utilizing constant reflection and synthesis.
Results

The themes that were identified in the analysis of the transcripts and field notes in Chapter Four revealed that the influences of infant feeding decisions among first and second generation Mexican-Americans are multifaceted and include: *Influences to breastfeed: Breast is best, The challenges of breastfeeding, Influences for infant formula feeding: It’s an alternative, Disadvantages of formula feeding and Mexican Traditions*. The results of this research study are also discussed in the context of the research questions. Research question one explored how first and second generation Mexican-American women made infant feeding decisions. The results of the thematic analysis revealed that the mothers’ infant feeding decisions were a result of the participants’ individual influences of infant feeding (e.g., family, what was healthier, HCP advice). The actual process, although not explicitly described by the mothers, was implicitly found to be consistent with the concept of influence. The influences of maternal infant feeding decisions described by the participants were found to be contextually and temporally dependent upon the mother, were perceived as powerful by the mother, and affected or changed the mother’s infant feeding decision. The symbolic interactionism perspective was consistent with the framework of the study results.

Research question two explored what, if any, meaning that the mothers’ cultural group ascribed to breastfeeding or formula feeding. In the current study, breastfeeding was consistently described by participants as the “best “or the “healthiest” method of infant feeding. This is consistent with the findings in the research on minority mothers’ infant feeding decisions (Balcazar, Trier, & Cobas, 1995; Bunik et al., 2006; Gill et al., 2004; Guttman & Zimmerman, 2000; Joffe & Radius, 1987; Libbus & Kolostov, 1994; Miner, Witte, & Nordstrom, 1994;
The third research question explored how culture and/or family traditions influenced Mexican-American mothers’ choice of infant feeding method. In this study, the influence of family or cultural tradition was the strongest and most dominant theme found. Nine out of ten participants described culture and/or family traditions as having a significant influence on the choice of infant feeding methods. This is also consistent with what has been found throughout the literature related to infant feeding decisions among minority women (Corbett, 2000; Gill et al., 2004; Hally et al., 1984; Hannon et al., 2000; Joffe & Radius, 1987; Libbus & Kolostov, 1994; Lipsky et al., 1994; Mahoney & James, 2000; Morrison et al., 2008; Ray & Estok, 1984; Rose et al., 2004; Schlickau & Wilson, 2005; Scrimshaw et al., 1987; Swanson & Power, 2005; Textor, Tiedje, & Yawn, 2013; Wambach et al., 2015; Wambach & Koehn, 2004; Weller & Dungy, 1986; Wiemann et al., 1998).

Conclusion

In order for a HCP to provide culturally specific care related to infant feeding choices by the Mexican-American mother, the HCP must have an understanding of how the woman makes infant feeding decisions. Therefore, this study’s exploration about what influences first and second generation Mexican-American women’s infant feeding choices contributes to the body of evidence about this important issue. The influences described by the mothers in this study have not been previously documented among first and second generation Mexican-American women.
and it is important for HCPs to consider these potential influences when providing health education with regard to a woman’s infant feeding decision. The nurse and other HCPs can use knowledge gained from this study to provide culturally sensitive and holistic care.
CHAPTER 2. REVIEW OF THE LITERATURE

The purposes of Chapter Two are to present a comprehensive literature review about minority mothers’ infant feeding decisions that includes the current gaps identified in the existing scientific literature about this issue, and the theoretical frameworks related to the influences of infant feeding decisions.

Scientific Literature Search Method

The purpose of the literature review is to examine the influences on infant feeding decisions made by minority mothers. A search for published literature on minority mother’s infant feeding decisions, influences of the decisions, and the impact of culture on the maternal infant feeding decision was initially conducted in 2008 and then updated in 2012 and 2015 for any further relevant articles to the study’s focus. Databases included CINAHL, PubMed (Medline), EBSCOhost (Academic Search Premier), Health Source Nursing (Academic Edition), and the Cochrane Library. The timeframe for the search dated from the mid 1970s to 2015 to ensure that an appropriate historical context could be ascertained as well as to achieve saturation of data. The search was limited to English language articles and initially yielded over 11,000 references using the search term “infant feeding”.

Subsequently, the following and more specific search terms were entered resulting in over 650 references: “infant feeding”, “infant feeding decision”, “infant feeding choice”, “infant feeding culture”, “feeding AND culture”, “breastfeeding AND culture”, “low-income AND feeding”, “poverty AND feeding”. Articles were then retrieved and 275 were rejected based upon the key words relating to the title rather than the content of the article. Subsequently, 385 article abstracts were reviewed and 250 were rejected because the topics of the articles (e.g.,
infant feeding decisions in the newly diagnosed HIV mother) did not relate to the focus of this literature review. Further searching was conducted by using the reference lists of selected empirical works and undertaking web searching with internet-search engines. A total of 160 full text articles, 8 books, and web-resources were reviewed in detail. The articles and other sources were reviewed by the researcher to gain a comprehensive understanding of the issues, as well as to establish data saturation. Inclusion criteria for articles to be reviewed were as follows: the topic addressed was maternal infant feeding decisions; variables that may determine infant feeding method; infant feeding choices in the minority and/or low-income mother; and cultural issues related to infant feeding decisions. The data were then reduced to 50 references (e.g., articles, web-resources) (Appendix 1) that encompassed a breadth of disciplines including nursing, sociology, feminist theory, medicine, pediatrics, anthropology, psychology, nutrition, public health, obstetrics and gynecology, and family medicine.

**Literature Review Results**

**Scientific evidence for “breast is best” approach to infant feeding.** From an international perspective, the World Health Organization (WHO) launched a program in 1991 entitled the “Baby Friendly Hospital Initiative” (BFHI). It is a combined effort of United Nations International Children's Emergency Fund (UNICEF) and the WHO and its mission is to ensure that “all maternities, whether freestanding or in a hospital, become centers of breastfeeding support” (UNICEF, 2015, p. 1). To become designated as a “baby friendly hospital,” facilities must adhere to the 10 steps of successful breastfeeding which include: implementing breastfeeding policies that inform all pregnant women about the benefits of breastfeeding, helping mothers to initiate breastfeeding within 30 minutes of birth, demonstrating to mothers
how to maintain lactation, and restricting the newborn’s diet to breast milk only (no food or
drink other than breast milk) (WHO, 2015). The “baby-friendly hospital” designation has been
achieved by more than 20,000 facilities in 152 countries (BFHI, 2015; WHO, 2015).

Nationally, the American Academy of Pediatrics (AAP) is a well respected organization
based on Western health beliefs and the “medical model” of care. The AAP recommended
frameworks and guides for the care of infants and children, including infant feeding methods, are
considered the mainstream “ideal paradigm” of care for HCPs to promote and for parents to
follow. The AAP (2008; 2012) along with the WHO (2015) recognize breastfeeding as the
optimal infant feeding method and recommend that infants be breastfed exclusively for the first
six months of life.

The plethora of literature published from multiple disciplines about infant feeding
decisions for the professional including nursing, sociology, medical anthropology, psychology,
nutrition, public health, and medicine is dominated by the theme of “breast is best” (Balcazar,
Trier, & Cobas, 1995; Bunik et al., 2006; Gill et al., 2004; Guttman & Zimmerman, 2000; Joffe
& Radius, 1987; Libbus & Kolostov, 1994; Miner, Witte, & Nordstrom, 1994; Morrison, Reza,
Cardines, Foutch-Chew, & Severance, 2008; Rose et al., 2004; Weller & Dungy, 1986). The
U.S. Breastfeeding Committee (2002), which is sponsored by the CDC, has published and
widely disseminated a brochure entitled “Benefits of Breastfeeding.” This brochure lists a
number of recent articles and analyses of research on the positive effects of breastfeeding, which
will be briefly summarized in this section. Heinig (2001) conducted a systematic review of the
host defense benefits of breastfeeding and found an overall decrease in respiratory infection rates
in breastfed infants compared to formula fed infants. Anderson, Johnstone, and Remley (1999)
completed a meta-analysis evaluating the relationship between breastfeeding and cognitive development and found that breastfeeding was associated with significantly higher scores for breastfed children (p < .001) than formula fed children. Drane and Logemann’s (2000) work confirmed the findings of Anderson et al. (1999). Uhari, Mantysaari, and Niemela (1996) completed a meta-analyses investigating risk factors for acute otitis media and found that children who had been breastfed at least 3 months had significantly fewer ear infections (RR, 0.87; 95% CI, 0.79-0.95; p = .003).

The dominant “breast is best” perspective in infant feeding decisions that was found in this literature review stems from multiple professional disciplines including nursing, sociology, medical anthropology, psychology, nutrition, public health, and medicine as well as well respected national and international professional agencies including the WHO and AAP (Figure 1). Moreover, this literature review revealed multiple contexts and perspectives that can influence a mother’s infant feeding choice. These contexts and perspectives are presented in the following sections of this Chapter.
Figure 1. Multiple discipline and organizational contributions to the “Breast is Best” perspective.
Maternal socio-cultural context and perspectives. Reasons that low-income mothers choose not to breastfeed are not immediately obvious but appear to be closely related to social and cultural barriers (Bunik et al., 2006; Gill et al., 2004; Guttman & Zimmerman, 2000; Lee et al., 2005; Libbus & Kolostov, 1994; Lipsky et al., 1994; Wambach & Koehn, 2004). Social and cultural barriers that have been identified in the literature include: maternal prenatal breastfeeding intent, acculturation, maternal education, and generational and traditional influences.

Maternal prenatal breastfeeding intent. Maternal breastfeeding intent during the prenatal period has been examined by multiple investigators. Dungy (1989) conducted a quantitative study \( (N = 1951) \) investigating the breastfeeding preferences of Hispanic \( (N = 1471) \) and Anglo \( (N = 480) \) women upon admission to the labor and delivery department at the University of California at Irvine Medical Center through a retrospective analysis of birth log data from 1978-1985. The study variables included maternal age, gravidity, ethnicity, infant birth weight, and expected method of infant feeding. The researcher found that at least 90% of the mothers had made their infant feeding decision upon admission to the labor and delivery unit (e.g., breastfeeding, formula feeding) and of those admitted, 53.3% of Hispanic and 63.5% of Anglo mothers intended to breastfeed prior to discharge from the hospital. The study was limited by data type (e.g., preference upon admission to the unit, no method implementation data), the narrow range of variables that were included and the retrospective design. Further, the study was also limited to Hispanic women and the women who enrolled in the study gave birth in a university medical center hospital making the results non-generalizeable to other ethnic groups.
of pregnant women or women who give birth in community hospitals, free-standing birth centers, or at home.

Balcazar et al. (1995) examined the effects of infant feeding predictors (e.g., attendance of pre-natal classes) on the prenatal intention to breastfeed among Mexican-American (N = 430) and non-Hispanic white women (N = 3659) who participated in the National Maternal and Infant Health Survey (NMIHS) of 1988. The NMIHS utilized a nationally representative, stratified, systematic sample (N = 9953) of women age 15-49 and was conducted by the National Center for Health Statistics to examine factors related to poor pregnancy outcomes (Balcazar et al., 1995). The researchers found that 97% of Mexican-American women and 99% of non-Hispanic White women had selected an infant feeding method prenatally—yet only 31.6% of Mexican-American women and 43.2% of Non-Hispanic White women planned to breastfeed exclusively and 19.8% of Mexican-American women and 25.7% of non-Hispanic White women planned to partially breastfeed. However, there are several limitations to the study including the fact that the survey was written in English thereby not allowing the Spanish-speaking participants to respond to questions written in their native language. Additionally, NMIHS utilized a retrospective cross-sectional survey methodology making recall bias a possibility at the time of the survey and that the responses associated with the intention to breastfeed or bottle-feed may have reflected in part the women’s post-partum experience regarding the method of feeding used (Balcazar et al., 1995).

Shepherd, Power, and Carter (2000) conducted a secondary data analysis of a longitudinal mixed method study to determine the infant feeding attitudes of breastfeeding and bottle-feeding couples in Scotland and their respective socio-demographic characteristics. The
results of semi-structured interviews \((N = 256)\) found that infant feeding choices were made prenatally by the majority \((92.6\%)\) of the mothers participating in their study. The research findings of the Shepherd et al. (2000) and Balcazar et al. (1995) studies are similar to those of Dungy (1989) where more than 90% of Hispanic and Caucasian women \((N = 1951)\) had made the infant feeding decision prenatally. In summary, the evidence indicates that the majority of women make their infant feeding decisions prenatally with wide variation in the choice of infant feeding method. Additionally, the rate of those who intend to breastfeed is lower than the Healthy People 2020 goals for breastfeeding initiation.

**Acculturation.** Acculturation’s influence on maternal infant feeding decisions is a theme that has been identified in the literature. Scrimshaw, Engle, Arnold, and Haynes (1987) analyzed maternal intentions to breastfeed with actual initiation of post-partum breastfeeding behavior among primiparous Mexican women in Los Angeles. The researchers found a trend indicating that the more acculturated the women were to the U.S., the lower the breastfeeding rate. Rassin et al. (1994) in their study of Hispanic women living along the U.S.-Mexico border and Gill et al. (2004) in their study of low-income Mexican American women living in Texas also found that the higher the level of acculturation to the U.S., the lower the breastfeeding rate was among the participants. These findings confirmed the work of Scrimshaw et al. (1987). Based upon these findings, future research should examine the processes involved in reported decreased breastfeeding rates in immigrant women once they arrive in the U.S. and assimilate into the U.S. culture.

**Maternal education.** Several studies addressed the relationship between maternal education and infant feeding choice. Breastfeeding rates were found to be higher in participants
with higher education levels (Balcazar et al., 1995; Forste, Weiss, & Lippincott, 2001; Guttman & Zimmerman, 2000; Kurinij, Shiono, & Rhoads, 1988; Lee et al., 2005; Libbus & Kolostov, 1994; Mahoney & James, 2000; Swanson & Power, 2005). However, in a study investigating maternal-fetal attachment (including infant feeding) in African American and Hispanic mothers conducted by Ahern and Ruland (2003), results indicated that the cultural influence was a stronger factor than the influence of the maternal educational level. Therefore, the HCP can consider the mother’s educational attainment level to anticipate her care and infant feeding counseling needs, but caution should be employed to avoid stereotyping mothers about how they might proceed with infant feeding decisions based solely on their educational level.

**Race and infant feeding education.** Evidence in the literature indicates that HCPs’ stereotyping of mothers based on their race influenced the education they received about infant feeding methods. Wiemann, DuBois, and Berenson (1998) conducted a quantitative study ($N = 696$) of post-partum adolescent mothers at a Texas hospital that investigated racial differences and influences on maternal infant feeding behavior. Race/ethnicity was identified as a critical factor in the decision of adolescent mothers to breastfeed (Wiemann et al., 1998). Overall, the researchers found that African American participants were significantly less likely to breastfeed compared with Mexican American and Caucasian American participants ($p < .001$) (Wiemann et al., 1998). Additionally, African American mothers were encouraged to breastfeed significantly less often ($p < .001$) by HCPs than white or Mexican-American women. Similar findings have been reported by Kogan, Kotelchuck, Alexander, and Johnson (1994) in their study of racial disparities in pre-natal care education by HCPs utilizing data from the 1988 NMIHS survey.
White women received more advice prenatally on alcohol, smoking and breastfeeding than did the Black study participants (Kogan et al., 1994).

**Culture, generational, and traditional influences.** Many of the studies reviewed thus far are limited because they focused on race rather than cultural influences related to infant feeding decisions (Balcazar et al., 1995; Forste et al., 2001; Guttman & Zimmerman, 2000; Hannon, Willis, Bishop-Townsend, Martinez, & Scrimshaw, 2000; Joffe & Radius, 1987; Kogan et al., 1994; Kurinij et al., 1988; Lee et al., 2005; Libbus & Kolostov, 1994; Rose et al., 2004; Shepherd et al., 2000; Wambach & Koehn, 2004; Wiemann et al., 1998). Practices and beliefs that are specific to an individual’s culture influence all human interactions (Ahern & Ruland, 2003). Infant feeding practices are rooted in the context of ethnic beliefs and cultural practices and, therefore, influence how mothers make decisions (Fishman, Evans, & Jenks, 1988; Kannan, Carruth, & Skinner, 1999; Lipsky et al., 1994).

The family is a direct part of a person’s cultural make-up, and thus influences their worldview and decision-making. Therefore, family perspectives certainly can impact maternal infant feeding choices. The influence of family in the maternal infant feeding decision, whether it was breastfeeding or bottle-feeding, was the strongest and most dominant theme found in this literature review (Corbett, 2000; Gill et al., 2004; Hally et al., 1984; Hannon et al., 2000; Joffe & Radius, 1987; Libbus & Kolostov, 1994; Lipsky et al., 1994; Mahoney & James, 2000; Morrison et al., 2008; Ray & Estok, 1984; Rose et al., 2004; Schlickau & Wilson, 2005; Scrimshaw et al., 1987; Swanson & Power, 2005; Wambach et al., 2015; Wambach & Koehn, 2004; Weller & Dungy, 1986; Wiemann et al., 1998). Morrison et al. (2008), in a qualitative interview investigating determinants of infant feeding choices among young women in Hilo, Hawai‘i,
found that the mother or grandmother of the daughter who was deciding about her infant’s feeding were important influences even in acrimonious relationships. Gill et al. (2004) studied cultural beliefs regarding breastfeeding among low-income Mexican Americans \((N = 39)\) using focus group interviews. The participants included pregnant women, new mothers, men, and grandmothers. All participants identified and discussed cultural practices that were believed to be essential to a successful breastfeeding experience (e.g., consumption of “liquado” - a traditional Mexican beverage believed to enrich breast milk).

Several other studies support the influence of customs, practices, and traditional beliefs within the social norm of the cultural group about maternal infant feeding decisions (Corbett, 2000; Fishman et al., 1988; Morrison et al., 2008, Wambach et al., 2015). Weller and Dungy (1986), studied personal preferences and ethnic variations among Anglo and Hispanic postpartum participants using a mixed methods, cognitive anthropology and marketing research technique and found that family tradition about infant feeding choice was associated with the current infant feeding decision. Additionally, Hispanic participants felt that bottle-feeding provided complete nutrition when a breastfeeding mother is not eating properly or when the mother is angry or upset (e.g., it provided a way for the mother to not transfer these feelings to the baby and hurt them) (Weller & Dungy, 1986). Additionally, Hispanic participants expressed concern that the baby “eats part of the mother” and thus the woman may “waste themselves” and age faster by breastfeeding (Weller & Dungy, 1986, p. 543). Lipsky et al. (1994) found similar results through structured interviews and focus groups they conducted in mothers from rural Mexico. The women believed that breast milk could be tainted by maternal emotional states, exposure to the sun, and heavy exercise (Lipsky et al., 1994). In addition, women ceased
breastfeeding when either the mother or the child was ill (Lipsky et al., 1994). This practice stemmed from the concept of a “hot” and “cold” food classification system. This system is used during illness to re-establish balance and subsequently health in the affected individual (Lipsky et al., 1994). When a child is ill (considered a “hot” state), they believe that the child should have “cold” foods (e.g., cactus, fresh fruits, raw vegetables) rather than breast milk, which is considered a “hot food” (and in the same grouping as meats and grains), thereby re-establishing balance (Lipsky et al., 1994). Another important finding from this study was that the majority of women interviewed stated that no one individual influenced their decisions about infant feeding, rather many of the traditional beliefs of their culture about breastfeeding have been passed down through generations of mothers (Lipsky et al., 1994). Other investigations have documented similar findings in cohorts of urban economically disadvantaged pregnant adolescents (Wambach & Koehn, 2004), in low-income Mexican American mothers (Gill et al., 2004). Bunik et al. (2006) in their study of infant feeding decisions in low-income Latinas found that “susto,” a traditional illness caused by a sudden disturbance of emotions (also known as ‘soul loss’), harmed breast milk and thus breastfeeding was avoided when negative emotions were present. Kannan et al. (1999) conducted a quantitative study of infant feeding decisions among Asian-Indian mothers living in India and Asian-Indian-American mothers living in the southeastern U.S. using an infant feeding belief questionnaire developed by the researchers. The Likert-scale questionnaire contained 19 belief statements about infant feeding practices and was generated from literature resources and personal interviews with women representing each group. Results of the study found that participants felt that there were harmful effects of colostrum and that there were positive functional benefits of pre-lacteal feedings; for example, giving “sugar water”
(p. 89) in the first 24 hours following birth to enhance the infant’s “health” (p. 89) and giving “glucose water” (p. 89) to help the infant’s “flow of the urine” (p. 89) were considered important practices for mothers to implement. Similar results regarding pre-lacteal feedings were also found by Fishman et al. (1988) in their study of in Indochinese women. In summary, the generational and traditional beliefs of mothers can have a strong influence on their decisions about infant feeding. Attempts to discourage these beliefs and practices may only serve to discredit the HCP and place a barrier between the mothers and HCPs (Lipsky et al., 1994). However, the HCPs’ awareness of the unique cultural, generational, and traditional beliefs of a woman is essential in order to provide the necessary information about infant feeding in a sensitive and respectful manner while still conveying the current scientific evidence about the infant feeding methods.

**Psychological, physical, and logistical aspects.** In addition to socio-cultural issues that influence decisions about infant feeding, there are a number of other factors that may contribute to the mother’s ultimate choice. Among these are psychological (e.g., embarrassment, pressure, guilt), physical (e.g., physical pain associated with breastfeeding), and logistical (e.g., inconvenience at school or work) aspects that can deter mothers from choosing breastfeeding as the best choice for feeding their infants.

**Embarrassment.** Perceived embarrassment around breastfeeding emerged from the literature as an influence in maternal infant feeding choice. Guttman and Zimmerman (2000) conducted a mixed methods study on post-partum low-income African American, Hispanic, and Asian participants and found that breastfeeding in public evoked strong opinions from both breastfeeding and formula feeding mothers, with one mother even referring to breastfeeding in
public as “nasty” (p. 1466). Similar responses were found in Corbett’s (2000) study of urban low-income Black women in the Southeastern U.S. Researchers conducting a study comparing the cultural differences in infant feeding practices in two rural communities (one in Rostov-Velicky, Russia and one in Stevens-Point, Wisconsin in the U.S.) found that all of the Russian mothers had initiated breastfeeding prior to post-partum discharge in comparison to 60% of the U.S. mothers (Miner et al., 1994). The new mothers in Rostov-Veliky reported societal support for breastfeeding (e.g., fathers of their babies provided marriage and breastfeeding encouragement) however, had the Russian respondents opted to formula feed, the formula would have been provided free of charge from the government. The U.S. mothers cited formula feeding as an attractive alternative to breastfeeding because participants felt that they could feed in public without the risk of revealing a breast (Miner et al., 1994). These results indicate that there is a concern among U.S. mothers about embarrassment or modesty with regard to breastfeeding. Libbus and Kolostov (1994) found similar results in their cross-sectional descriptive study of infant feeding choices in low-income Missouri women. In several studies of women from different cultures living in the U.S. (e.g., African American, Latina, Hawai‘ian, Samoli), young mothers were particularly uncomfortable with the idea of breastfeeding in public because it was perceived as embarrassing and lacked maternal modesty (e.g., public breast exposure) (Hannon et al., 2000; Morrison et al., 2008; Textor, Tiedje, & Yawn, 2013; Wambach & Koehn, 2004).

Pressure. Lee (2007) conducted a mixed method study of British women’s experiences of formula milk use in the early weeks of life and found that 50% of participants said that they were pressured to breastfeed and that some mothers felt the pressure was “unwarranted” (p. 1083) and “unhelpful” (p. 1083), leading to maternal feelings of anger. One participant stated
“every single thing says breast is best…the pressure is massive, this is what you must do and if you don’t do it you’re harming your child” (Lee, 2007, p. 1083). Feeling significant pressure to breastfeed was also found in the Mozingo, Davis, Droppleman, and Merideth (2000) phenomenological study \((N = 9)\) that investigated the experiences of a convenience sample of women in Tennessee who initiated breastfeeding but stopped within two weeks postpartum. A consistent finding was the women’s description of a clash or incoherence between the highly idealized standards of breastfeeding and the reality of their personal breastfeeding experience (Mozingo, et al., 2000).

**Guilt.** Guilt has been reported to be associated with infant feeding decisions in a number of studies and articles (Labbok, 2008; Lakshman, Ogilvie, & Ong, 2009; Lee, 2007; Rojjanasrirat, 2004; Textor, Tiedje, & Yawn, 2013; Wilson-Clay, 1996). Lee (2007) found that 33% of participants felt guilty about using formula and that 44% said they were “made to feel guilty” (p. 1082) by external forces (e.g., media campaigns). In an article exploring the physician’s role in promoting guilt among mothers who do not breastfeed, Labbok (2008) suggests that an important parental right is to choose what is best for the health of the child. Some investigators posit that it is the HCP’s responsibility to present accurate information about healthy behaviors while supporting the parents’ efforts to achieve them (Labbok, 2008; Lakshman et al., 2009). Labbok (2008) notes that in some instances, HCPs use parental guilt to reinforce adherence to recommended behaviors (e.g., use of car seats, immunizations) but that these strategies are inappropriate if the parent is unable to conform. If a mother cannot breastfeed or a mother stops breastfeeding due to barriers, despite accurate and sensitive education by the HCP, parental feelings of frustration and anger may develop if the HCP uses guilt as an approach.
to have a mother breastfeed (Labbok, 2008). The guilt the mother feels may result in the initiation and continuation of breastfeeding for a short time but it may not result in the duration of breastfeeding that is recommended by the AAP or WHO (e.g., for a minimum of 6 months).

**Physical pain.** Pain emerged as an influence in infant feeding choice, specifically as a barrier to breastfeeding. In the Wambach and Koehn (2004) study of infant feeding decisions among urban disadvantaged pregnant adolescents, participants frequently cited concern about pain as a reason to not breastfeed. Similar responses in several other investigations also documented pain as a barrier to breastfeeding (Gill et al., 2004; Hannon et al., 2000; Shepherd et al., 2000). Gill et al. (2004) studied infant breastfeeding beliefs among low-income Mexican Americans and found that, although all study participants knew the benefits of breastfeeding, this knowledge did not overcome the barriers of embarrassment, pain, and inconvenience that were believed to be caused by breastfeeding. In this study, the participants identified formula as a “suitable alternative” (Gill et al., 2004, p. 46).

**Inconvenience.** Inconvenience of breastfeeding while attending work and school or having the ability to receive help with feedings was often cited as a reason for choosing to formula feed an infant (Fishman et al., 1988; Gill et al., 2004; Guttman & Zimmerman, 2000; Hannon et al., 2000; Miner et al., 1994; Morrison et al., 2008; Shepherd et al., 2000; Wambach & Koehn, 2004; Wiemann et al., 1998). Shepherd et al. (2000) conducted a quantitative study investigating \( n = 126 \) breastfeeding and bottle-feeding \( n = 101 \) couples’ infant feeding attitudes. The researchers collected socio-demographic characteristics of the sample, Likert scale responses to 14 infant feeding attitude statements (agree, disagree, undecided) and responses to 4 infant feeding case scenarios (Shepherd et al., 2000). The researchers found that many
participants in their study avoided breastfeeding because of the perceived inconvenience and lack of freedom associated with this method. Similar results were found in studies of influences of infant feeding choices among adolescent mothers (Hannon et al., 2000; Wambach & Koehn, 2004) and in low-income African American and Hispanic mothers (Guttman & Zimmerman, 2000). In one study, both African American and Latina participants were reluctant to use a pump at school due to perceived inconvenience (e.g., logistical issues with carrying a pump to school and leaving a sufficient milk supply for the infant’s caregiver) (Hannon et al., 2000).

Additionally, some participants in the study felt that breastfeeding was a barrier to parental freedom (Hannon et al., 2000). Lack of independence and personal freedom related to breastfeeding were also noted in the Fishman et al. (1988) qualitative study of Indochinese women in California (N = 110). As noted previously, modesty surrounding breastfeeding in public has been identified as a barrier to breastfeeding for certain cultural groups.

**Health care providers’ roles in infant feeding decisions.** Health care providers have commonly assumed that they have a significant influence over a mother’s infant feeding decision; however, the results of this literature review found conflicting information about this perspective. The research of Libbus and Kolostov (1994) on breastfeeding and infant feeding choice in low-income women (N = 69), found that the feeding decisions in their cross-sectional descriptive study were not influenced strongly by HCPs. Similarly, Rose et al. (2004) conducted quantitative research investigating factors that influence decisions about infant feeding methods in an urban community utilizing an 84 item survey instrument (N = 70). The investigators found little or no influence of the HCP on the choice of feeding method, regardless of the provider’s discipline. Further, Hally et al. (1984) study investigating influences on mothers’ choices about
infant feeding method found no association between the health professional and the infant feeding method ultimately chosen by the mothers. However, the results of a qualitative study conducted by Archabald, Lundsberg, Triche, Norwitz, and Illuzzi (2011) that utilized structured interviews with women (N = 130) suggests that HCPs may not be adequately addressing maternal concerns about breastfeeding in prenatal health care discussions. During the structured interviews in this study, the majority of women (81.5%) identified at least one breastfeeding concern (e.g., lifestyle/flexibility issues, breast pain, confidence, work), yet only 25.4% of the participants reported that their concern had been addressed by their HCP during prenatal care (Archabald et al., 2011). Furthermore, the researchers found that there was a “significant gap between the rates at which providers reported their commitment to promoting breastfeeding and patient reported rates of being counseled” (p. 6) suggesting a critical barrier in communication between the HCPs and their patients. Textor, Tiedje, and Yawn (2013) had similar conclusions in their descriptive study of Mexican and Somali immigrant breastfeeding initiation and counseling. They found that barriers in communication combined with the patients’ and nurses’ differing cultural beliefs and practices impacted the initiation of breastfeeding.

**A paradox.** This literature review also revealed studies in which participants identified breastfeeding as healthier than formula, but the participants still opted to formula feed their infants. Hally et al. (1984) conducted a quantitative study of maternal influences in infant feeding methods utilizing a questionnaire developed by the researchers and found that 27% of participants who identified breastfeeding as healthier for the baby still planned to bottle-feed their infants. Guttman and Zimmerman (2000) found similar results in their mixed-method investigation of urban low-income multi-ethnic mothers (N =154) in the U.S. Corbett (2000)
conducted a qualitative ethnographic study of the infant feeding beliefs, values, and attitudes among low-income Black women in the Southeastern U.S. and found that 50% of the participants had heard that breastfeeding was “best for the baby” (p. 77) yet they still opted to formula feed. Maternal appreciation that breastfeeding is best, yet intending to bottle-feed, may reflect the multiple factors that are influencing them to choose formula over breast milk for their infants. It is a paradox that warrants further investigation (Hally et al., 1984; Desantis, 1986; Textor, Tiedje & Yawn, 2013).

Summary of influences in minority mothers. Figure 2 is based upon the review and synthesis of the literature and illustrates the potential influences of infant feeding decisions in the minority mother. These influences include: socio-cultural (e.g., maternal racial, cultural, socio-economic, and educational characteristics), psychological (e.g., embarrassment), physical factors (e.g., pain), and logistical issues (e.g., convenience). This literature review indicates that the minority mother’s most dominant influence in choosing an infant feeding method is that of generational and traditional perspectives. This was documented in several studies focusing on various aspects of maternal infant feeding decision-making including maternal education level, prenatal decision-making, the influence of family, and the customs and practices of the mother’s culture related to infant feeding method (Gill et al., 2004; Hally et al., 1984; Hannon et al., 2000; Joffe & Radius, 1987; Libbus & Kolostov, 1994; Lipsky et al., 1994; Morrison et al., 2008; Rose et al., 2004; Scrimshaw et al., 1987; Swanson & Power, 2005; Wambach & Koehn, 2004; Weller & Dungy, 1986; Wiemann et al., 1998). In figure 2, the circle containing generational and traditional influences is larger and bolder than the other circles of influences because, according
to this literature review, they have been identified as critically important and the most dominant influence impacting minority mothers’ decisions about infant feeding.

Figure 2. Framework of potential influences on the minority mother’s infant feeding decision.
Clinical implications. Women are often provided extensive information about the benefits of breastfeeding by HCPs and multi-media campaigns throughout pregnancy and the postpartum period. The AAP and WHO recommendations are appropriately driven by the scientific evidence; however, these guidelines do not take into consideration cultural or personal perspectives that may promote barriers to breastfeeding. Since infant feeding decisions are often made prior to the birth of the infant, cultural or family traditions and/or expectations can impose a significant influence that establishes or embeds an infant feeding preference during the time of a woman’s pregnancy (Shepherd et al., 2000).

The BFHI policy positively promotes and impacts breastfeeding initiation, however, it also assumes that people from all cultures want to breastfeed their infants when, in reality, this may not be the case. The background research on the BFHI took place in developing countries where the lack of safe alternative methods of infant feeding requires mothers to exclusively breastfeed their infants. However, in the U.S., the existence of and easy access to safe human milk substitutes provides other infant feeding options for mothers (Wagner & Wagner, 1999).

The scientific evidence supporting the benefits of breastfeeding from the research (e.g., higher IQs, decreased rates of ear infections) is often presented to mothers as a means of encouraging breastfeeding as their infant feeding choice. While it is appropriate to inform mothers about the benefits of breastfeeding, there is evidence in the current scientific literature that indicates that for those mothers who are experiencing cultural or personal barriers to breastfeeding (e.g., family tradition, return to work or school challenges, fear of or experiences of pain associated with breastfeeding), the persistent presentation of this information in order to influence the woman to breastfeed can create tension and frustration between the mother and her
HCP. Moreover, it may create feelings of parental guilt about an infant feeding choice that is contrary to that being promoted by the HCP and others (Lee, 2007). It also has the potential for withdrawal from health care by the mother (Guttman & Zimmerman, 2000; Hausman, 2008; Lee, 2007). There is also the possibility that when a mother chooses to formula feed her infant instead of breastfeeding an unintentional message may be conveyed by the HCP and others that the mother does not consider her infant’s health a priority (Hausman, 2008).

Health care providers should have meaningful discussions with mothers about their infant feeding choices that address any and all concerns that they may have about breastfeeding (Archabald et al., 2011). Health care providers should also recognize and address the multiple influences (e.g., customs and beliefs of the mother and her family) that are integrated into her decision-making about infant feeding (Textor, Tiedje, & Yawn, 2013). Whenever possible and acceptable to the mother, including influential members of the mother’s family (e.g., father of the baby, mother’s mother or her mother-in-law) may increase these individuals knowledge about infant feeding, especially breastfeeding. These approaches could increase breastfeeding initiation rates, strengthen the relationship between the HCP and the mother, and increase support for the mothers’ feeding goals (Archabald et al., 2011).

The risk of making assumptions based upon socio-cultural stereotypes such as maternal education level and race may limit the HCPs ability to provide individualized nursing care. For example, in the Archabald et al. (2011) study, the maternal breastfeeding concerns of well-educated and middle-income women, who have historically had higher breastfeeding initiation rates, were not adequately addressed by HCPs in prenatal health care discussions. However, the results of the study also revealed that the majority of women, regardless of socio-cultural
demographics, had concerns about breastfeeding that were not addressed by HCPs (Archabald et al., 2011).

The benefits of breastfeeding found in the review of the literature were primarily focused on the infant’s health (Anderson et al., 1999; Drane & Logemann, 2000; Heinig, 2001; Uhari et al., 1996) and, therefore, the benefits of breastfeeding for an infant’s health is often the focus of a HCP’s patient educational efforts. However, studies also demonstrate that breastfeeding is beneficial to the mother’s health, including reducing the risk of breast cancer (Awatef et al., 2010; De Silva, Senarath, Gunatilake, & Lokuhetty, 2010) and ovarian cancer (Danforth et al., 2007; Jordan, Siskind, Green, Whiteman, & Webb, 2010). The maternal benefits of breastfeeding should also be included in breastfeeding promotion and education. Encouraging and promoting breastfeeding is clearly important as it is collectively recognized as the optimal feeding method for infants. It is within this context that HCPs must also reflect upon the literature regarding “pressure” and “guilt” that many mothers experience when they do not breastfeed, especially mothers who wanted or planned to breastfeed, but were unable to do so for a variety of reasons (Labbok, 2008; Lakshman et al., 2009; Rojjanasrirat, 2004). For example, Lakshman et al. (2009) conducted a systematic review of qualitative and quantitative internationally published studies (N = 23) that explored mothers’ experiences of bottle-feeding and identified five studies where women described “pressure” (p. 598) to breastfeed. The researchers found that mothers in all qualitative studies felt guilty about not doing what was best for the baby (breastfeeding) and for having placing their own desires over breastfeeding their infants (Lakshman et al., 2009). An important role for HCPs is the exploration of such maternal feelings in order to support mothers’
decisions and help them work through any feelings of guilt that they may have about their infant feeding decisions.

Breastfeeding can be challenging for many mothers especially during the establishment of lactation when pain may occur. Many mothers choose to continue to breastfeed despite pain that they may experience while others may find the pain intolerable. Some of this pain may be avoided with good positioning of and latch by the infant. However, for some mothers the pain is too much of a challenge for them to successfully breastfeed. The literature about pain indicates that the level and tolerance of the pain is what the patient says it is regardless of how others may observe or perceive it. Health care providers should ensure that they have provided the mother with the education about and support of breastfeeding techniques she needs to prevent pain (e.g., latch and positioning) but should not disregard or minimize the significance of the pain that the mother may be experiencing. Implementing pain relief measures for mothers (e.g., milk massaged into the nipple, warm water compresses applied to the breast/nipple, modified lanolin application to the nipple) is another important nursing care strategy to optimize successful breastfeeding (Joanna Briggs Institute, 2009). Finally, while it is critical for HCPs to promote breastfeeding, the educational needs of mothers who decide to formula-feed their infants should also be considered (e.g., proper preparation of formula, risks of overheating formula in microwave ovens, etc.) (Lakshman et al., 2009; Lee, 2007). It is possible that a non-judgmental approach to educating these mothers about formula feeding preparation may also provide opportunities for some of them to gain more knowledge about breastfeeding and lead to further consideration of this option for feeding their infants.
Conclusions of literature review and future directions for research. Three key conclusions can be extrapolated from the review and analysis of the literature about infant feeding decisions in minority mothers. First, the “breast is best” perspective has dominated the context of research and practice. Second, infant feeding decisions are a complex, multifaceted part of human processes, and are generationally and traditionally influenced. Third, HCPs should consistently initiate infant feeding education and support and promote breastfeeding while using caution to avoid excessive pressure and guilt.

There is an increase in studies examining vulnerable populations such as low-income minorities and their feeding decision process. However, thus far, studies have failed to adequately examine the generational and traditional meaning and context behind maternal infant feeding decisions. In this context, researchers need to look beyond “race” and “demographic” characteristics that are inherent to quantitative research approaches. For example, Tenfelde, Finnegan, Miller and Hill (2012) note that additional studies are needed to examine the cultural factors that contribute to breastfeeding duration among women of Mexican descent. Using a solely quantitative approach can limit the researcher’s ability to gain a holistic understanding of the beliefs, attitudes, meanings, and practices that minority women hold concerning infant feeding practices (Schlickau & Wilson, 2005). The use of qualitative approaches, specifically ethnography, in infant feeding decisions among minority mothers could increase our understanding because it would be focusing on maternal perceptions and/or experiences within the mother’s cultural and social context (Simmons, 2007). Health care providers need to understand mothers’ perceptions about their infant feeding choices without judgment, bias, and assumptions about maternal experiences (Pinder, Sackin, Samuel, Salinsky, & Suckling, 2004).
Focusing on breastfeeding promotion and success, regardless of breastfeeding duration, coupled with culturally sensitive and knowledgeable support is essential (Hally et al., 1984). Meaningful discussions with patients about their infant feeding decisions can not only increase breastfeeding rates among minority women has the potential to strengthen the patient’s relationship with the HCP (Archabald et al., 2011).

**Theoretical Considerations in Breastfeeding Decisions**

Many theories have been developed to predict behavior but few have been applied to breastfeeding as a behavior (Risica, 2011). This section will examine three theories that can be utilized to better understand breastfeeding decisions including the *Theory of Planned Behavior*, the *Social-Ecological Model*, and *Symbolic Interactionism*.

**Theory of planned behavior.** The *theory of planned behavior* (TPB) was introduced in 1985 by Icek Ajzen and is a frequently used model in research for the prediction of human social behavior (Ajzen, 2011). A central component of the TPB is an individual’s intention to perform a behavior (Ajzen, 1991). Intentions capture motivational factors that influence a behavior; indications of how hard people are willing to try and how much of an effort they are planning to exert in order to perform a certain behavior (Ajzen, 1991). The stronger the individual’s intention to engage in a behavior, the more likely should be its performance (Ajzen, 1991). Behavioral intention can transcend to the behavior only if the behavior in question is under “volitional control” (Azjen, 1991, p.181). In volitional control, “the person can decide at will to perform or not perform the behavior” (p.182). The performance of most behaviors depends to some degree on non-motivational factors as availability of necessary opportunities and resources (e.g., time, money, skills, cooperation of others) and collectively, these factors represent the person’s actual
control over the behavior (Ajzen, 1991). The TPB posits that there are three independent
determinants of intention (Ajzen, 1991):

1. *Attitude toward the behavior*: “the degree to which a person has a favorable or
   unfavorable evaluation or appraisal of the behavior in question” (p.188).

2. *Subjective norm*: “the perceived social pressure to perform or not perform the
   behavior” (p.188).

3. *Perceived behavioral control*: “the perceived ease or difficulty of performing the
   behavior and it is assumed to reflect past experience as well as anticipated
   impediments and obstacles” (p.188).

In the TPB, perceived behavioral control, combined with behavioral intention, can be used
directly to predict behavioral achievement (Ajzen, 1991). Figure 3 depicts the TPB.

To predict behavior using the TPB, three conditions must be met (Ajzen, 1991):

1. The “measures of intention and of perceived behavioral control must correspond to or be compatible with the behavior that is to be predicted” (p.185).
2. The “intentions and perceived behavioral control must remain stable in the interval between their assessment and observation of the behavior” (p.185).
3. Accuracy of the perceived behavioral control. The “prediction of the behavior from perceived behavioral control should improve to the extent that the perceptions of behavioral control realistically reflect actual control” (p.185).
Wambach and Koehn (2004), conducted focus group interviews using the TPB to guide their questions which examined the influencing factors in disadvantaged urban pregnant adolescents’ decision making in relation to infant feeding choices. According to the TPB, the performance of a behavior (e.g., breastfeeding) is a combined function of an individual’s intentions (e.g., attitude towards breastfeeding; social pressures) and their perceived behavioral control (e.g., self-efficacy) (Ajzen, 1991). Wambach and Koehn (2004) noted in their background work that attitudinal, social, perceived control, and commitment factors were influential in selecting and initiating a feeding method. Because these factors were congruent with the TPB, they felt that the theory could guide future interventional efforts (Wambach & Koehn, 2004). Thematic analysis was conducted on the focus group data ($N = 14$) with two distinct themes identified: benefits (e.g., benefits versus barriers of breastfeeding and bottle-feeding); and independent choice versus social influences (Wambach & Koehn, 2004). This study was considered pilot work with the results from the study used subsequently to develop educational and support interventions in a randomized controlled clinical trial. In the clinical trial (Wambach et al., 2011), the researchers conducted prenatal education and counseling with adolescent participants that included the benefits of exclusive breastfeeding as well as overcoming common barriers to breastfeeding. Post-partum, the researchers provided support interventions for initiation and maintenance of breastfeeding (Wambach et al., 2011). The intervention was partially effective in that breastfeeding duration within the experimental group was significantly longer ($p < .001$); however, breastfeeding initiation and exclusive breastfeeding rates were not significantly affected.
**Social-ecological model.** The foundation of the social ecological model (SEM) is rooted in examining the interrelationships among varying environmental conditions and human behavior (Stokols, 1996). The term “ecology” refers to the study of interrelationships among organisms and their environment (Merriam-Webster Dictionary, 2012). Social ecology emerged in the mid 1960s and early 1970s. The model attempts to address the complexities between socioeconomic, cultural, political, environmental, organizational, psychological, and biological determinants of health (Stokols, 1996; Whittemore, Melkus & Grey, 2010). The SEM posits that individual behaviors are supported and influenced by many other systems and groups (Wandersman et al., 1996).

There are four levels of influence in the SEM model (Figure 4) including individual, interpersonal, community and societal (CDC, 2012a; Stokols, 1996; Whittemore, Melkus & Grey, 2004).
Figure 4. Level of influence in the social ecological model

Each level can have an influence on the mother’s infant feeding decision (CDC, 2012a; Stokols, 1996; Whittemore et al., 2004):

- **Individual influence**: the mother’s knowledge, skills, attitude, ability and beliefs related to infant feeding.

- **Relationship influence**: the influence of relationships with family, friends, peers, neighbors, and colleagues on the mother related to infant feeding.

- **Community influence**: the influence of organizational structures and processes including workplace and school on the mother related to infant feeding.

- **Societal influence**: the influence of social and cultural norms, health, economic, educational and social policies, religious or cultural belief systems on the mother related to infant feeding.
**Symbolic interactionism.** Blumer (1997, p. 4) states that “the symbolic interactionist approach rests upon the premise that human action takes place always in a situation that confronts the actor and that the actor acts on the basis of defining the situation that confronts him.” Thomas and Znaniecki's significant study, *The Polish Peasant in Europe and America* (from 1918-1920), was an early application of the main themes and concepts of symbolic interactionism (jrank.org, 2010). This study “focused on the adjustments and transformations in personality and family patterns in the Polish peasant community in the course of immigration to the United States during the early 1900s” (jrank.org, 2010, p.1). The development of socialization, adaptation, definition formation, role-making, and self-concept were the major themes identified in their investigation (jrank.org, 2010). More recently, Ruffner (2005) explored the application of the theory of symbolic interactionism to questions of professional ethics involving relationships between nurses and their patients. Ethics violations in the form of boundary crossings were analyzed through the viewpoint of the nurses' and patients' conflicting definitions of the situation (Ruffner, 2005).

The TPB and the SEM both offer frameworks that HCPs can use to attempt to understand the multiple perspectives that influence behavior (Whittemore et al., 2004). The symbolic interactionist approach is commonly used by ethnographic researchers in the analysis of data to understand human behavior and was used by the researcher in this study (described in Chapter Three).

**Summary**

As a result of the review of existing scientific evidence, gaps in knowledge were evident in terms of the influences in infant feeding choices of first and second generation Mexican-
American mothers. As a result, the following questions were developed to address the existing gaps in the scientific literature.

1. How do first and second generation Mexican-American mothers make infant feeding decisions?
2. What meaning does the mothers’ cultural group ascribe to breast feeding or formula feeding?
3. How do culture and/or family traditions influence Mexican-American mothers’ choice of infant feeding method(s)?

Chapter Three describes the qualitative study that was designed to answer the research questions.
CHAPTER 3. METHODOLOGY

Chapter Three presents the methodology for the study. Details of the general methodological components, a brief methodological history, and specific application of the methodology to the focus of the study will be presented in order to answer the following research questions:

1. How do first and second generation Mexican-American mothers make infant feeding decisions?
2. What meaning does the mothers’ cultural group ascribe to breastfeeding or formula feeding?
3. How do culture and/or family tradition influence Mexican-American mothers’ choice of infant feeding method(s)?

Methodology

Based upon the gaps identified in the literature review and the research questions that were to be answered, an ethnographic study design using participant observation and interviews was employed. Ethnography is the study of “social interaction, behaviors and perceptions that occur within groups, teams, organizations, and communities” (Reeves, Kuper, & Hodges, 2008, p. 512); and its foundation is consistent with the socio-ecological theory and symbolic interactionism. The roots of ethnography can be traced back to anthropological studies of small, rural and often exotic societies that were conducted in the early 1900s, when researchers such as Malinowski and Radcliffe-Brown participated in these communities over long periods of time and recorded their social arrangements and belief systems (Reeves et al., 2008). Members of the Chicago School of Sociology (e.g., Hughes and Park) later adopted ethnography to studies of
social life in a variety of urban settings (Reeves et al., 2008) The central goal of ethnography is to provide rich, holistic insights into people’s views and actions through detailed observations and interviews (Reeves et al., 2008).

**Brief History of Ethnography**

Bronislaw Malinowski was one of the most influential anthropologists and is considered a founding father of British social anthropology (Atkinson, Coffey, Delamont, Lofland, & Lofland, 2008; MacDonald, 2008; Porth, Edwards, & Neutzling, 2012). Following the receipt of his doctorate in anthropology, he spent two years in the Trobinand Islands in New Guinea (MacDonald, 2008). While there, he spent large amounts of time immersed in the field developing extensive field notes and diary entries (MacDonald, 2008). Malinowski’s subsequent 1922 published work- *Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea*, is considered a sentinel publication and established the importance of participant observation to generate specific anthropological knowledge (MacDonald, 2008; Porth et al., 2012).

Since Malinowski’s time, the ‘method’ of participant observation has enacted a delicate balance of subjectivity and objectivity. The ethnographer’s personal experiences, especially those of participation and empathy, are recognized as central to the research process, but they are firmly restrained by the impersonal standards of observation and ‘objective’ distance (Clifford, 1986, p. 13).

Radcliffe-Brown also founded British social anthropology along with Malinowski, however, he is most well known as the father of structural-functionalism (Porth et al., 2012). Following his studies on moral science at Cambridge, he conducted fieldwork in the Andaman
Islands and Australia (Porth et al., 2012). His analysis of the kinship and social organization culminated in many infamous anthropological publications including *The Andaman Islanders* (1922) and *Social Organization of Australian Tribes* (1931) (Notable Names Database [NNDB], 2010). “Structural-functionalism views society as an entity composed of functionally interdependent institutions. Structural-functional analysis, although later viewed as reductionist, deeply influenced the development of social anthropology and continues to influence the subfields of economic and political anthropology” (NNDB, 2010, p. 1).

Ethnographic fieldwork development in sociology is directly connected with the rise of the discipline within the University of Chicago (Atkinson et al., 2008). The Chicago School of Sociology was the epicenter through which a rich tradition of urban sociology developed that was characterized by the detailed investigation of social settings and cultures (Atkinson et al., 2008). Some of the most famous ethnographic studies and trained ethnographers were developed under the guidance of Robert Park and Ernest Burgess of the Chicago School of Sociology (Deegan, 2008). Park and Burgess “dramatically shaped and honed the skills of their students and colleagues and contributed collectively to the identifiable theory and style of scholarship known worldwide as ‘Chicago Sociology’” (Deegan, 2008, p. 13). The Chicago Ethnographies are often explicitly associated with Park and Burgess, however the theoretical foundations of these ethnographies extended beyond the University of Chicago to include others such as William James at Harvard and Cooley at the University of Michigan as well as the famous ethnographers Dewey and Mead (Deegan, 2008). Mead’s (1934) highly significant book on human behavior, *Mind, Self, and Society*, “establishes the social nature of the self, thought and community as a product of human meaning and interaction. Each person becomes human
through interaction with others. Institutional patterns are learned in communities dependant on shared language and symbols” (Deegan, 2008, p. 19). Herbert Blumer (1969, as cited in Deegan, 2008) referred to Mead’s social psychology as “symbolic interactionism” and symbolic interactionism (described in Chapter Two) has become a specialty within the discipline (Deegan, 2008).

Although ethnographic research began in anthropology and sociology, its applicability has evolved into use by a diverse range of professions including nursing, medicine, and education as well as diverse cultural phenomena of interest (beyond ethnic culture) such as the study of operating room culture (Gillespie, Wallis & Caboyer, 2007) and breeding practices and uses of reproductive technology in contemporary farming (Grasseni, 2007).

In the health care field, ethnographies can offer important information to policy makers and practitioners about factors that compromise or promote high-quality care, particularly in the ways in which well-intended actions may provide unanticipated negative consequences (Porth et al., 2012). In nursing, the ethnographic method facilitates the exploration of the context in which people’s health beliefs and practices develop as well as serving to identify the cultural components of health and illness (Roberston & Boyle, 1984).

Ethnographic research in health care is particularly valuable when considering health behaviors that are multi-factoral and or multi-cultural (Hodgson, 2000). Infant feeding as a health behavior, is like any other human activity; it occurs within a cultural context where no part of the context is entirely independent of the other parts (Berreman, 1966). Personal, physiological, social, socio-economical, emotional, cultural, environmental and psychological factors have been identified as influences of infant feeding decisions and in order to better
understand the influences of the Mexican-American mother’s infant feeding decision, research is needed to explore the associated cultural context. Ethnography is a methodological approach well suited to this purpose (Robertson & Boyle, 1984).

**Research Design**

**Data collection techniques.** The study employed data collection techniques used in ethnography including interviewing, participant observation, and field notes.

**Interviewing.** The most important data gathering technique of the ethnographer is interviewing (Fetterman, 1998). Interviews help explain and put into a larger framework what the researcher sees and experiences (Fetterman, 1998; Munhall, 2007). There are several types of interviews including structured and semi-structured interviews (e.g., verbal questionnaires with explicit research goals), informal (e.g., casual conversations without any specific types or orders of questions), and retrospective interviews (e.g., interviews conducted to reconstruct past events—may be structured, semi-structured, or informal) (Fetterman, 1998). As Spradley (1979, as cited in Atkinson et al., 2008) notes in *The Ethnographic Interview*, the researcher’s job in interviewing is “to communicate genuinely, in both subtle and direct ways that ‘I want to know what you know in the way that you know it…..Will you become my teacher and help me understand’” (p.34).

**Participant observation.** The main instrument in participant observation is the researcher (Becker, 1958; Darity, 2008; Hammersley & Atkinson, 1995; Munhall, 2007). Participant observation is a form of data collection where the researcher examines “social behavior as it occurs rather than as it is reported through interviews and questionnaires” (Darity, 2008, p.14). When conducting participant observation, the researcher is able to join the members of a culture
so that relationships, events, patterns and socio-cultural contexts can be examined (Jorgenson, 1989; Munhall, 2007). Observation activities focus on the behaviors in addition to the setting and circumstances in which the behaviors are seen (Robertson & Boyle, 1984). Qualitative researchers have assumed multiple roles in participant observation. The type of participant observation varies but generally falls within the following typology of researcher roles developed by Gold (1958) and that have been summarized by Mulhall (2003, p. 308):

- **Complete Observer**: the researcher maintains some distance, does not interact and whose role is concealed.
- **Complete Participant**: the researcher interacts within the social situation, but again whose role is concealed.
- **Observer as Participant**: the researcher undertakes intermittent observation alongside interviewing, but whose role is known.
- **The Participant as Observer**: the researcher undertakes prolonged observation, is involved in all the central activities of the organization and whose role is known.

In the ethnographic examination of the health aspects of a culture, the observation activities would focus primarily on the specific health and illness issue and the meaning and relationship to the applicable environmental context (Robertson & Boyle, 1984). In this study, participant observation was accomplished through observing participants during the process of the in-person interviews.

**Written and electronic information.** Written and electronic information can be a source of data collection about a group to an ethnographer (Fetterman, 1998). In infant feeding; flyers,
brochures, news media, magazine articles, or other educational materials related to infant feeding that the mother receives or uses could be valuable sources of information for the researcher.

**Field notes.** Field notes were recorded by the researcher. In ethnographic research, the researcher tries to gain an extensive picture of the group under study (Munhall, 2007). One of the main data sources of ethnographic records is field notes (Munhall, 2007). Field notes allow published results to adhere to the *thick description* standard championed by Geertz in 1973 (Munhall, 2007). Field notes contain written construction and re-construction of observations and interviews conducted in the field (Munhall, 2007). Field notes provide great detail and “use concrete language to reveal physical and social details of each observational episode” (Munhall, 2007, p.304). The data that are recorded are based in the realities of the situations and events witnessed by the researcher and help the researcher to reflect, describe, and analyze cultures (Munhall, 2007). Munhall (2007) posits that field notes with the best *thick description* reveal “the abstract and general patterns and traits of social life in cultures. Readers get a sense of the emotions, thoughts, and perceptions of informants” (p.305). Field notes also show *reflexivity*. *Reflexivity* identifies the ethnographer’s role in the social world that is under study (Hodgson, 2000). The researcher notes *reflexivity* in the form of descriptions of the ethnographer’s ideas and experiences as well as the relationship that the researcher shares with the cultural group and participants (Reeves et al., 2008). *Reflexivity* can be used by readers to assess the potential impact of these influences on the study (Reeves et al., 2008).

**“Emic” and “etic” distinction.** Good ethnographic research necessitates the use of both the emic and etic perspectives (Fetterman, 1998) and both perspectives were used by the researcher in the study. The “emic” perspective and understanding is the insider’s or native’s
viewpoint of reality – the worldview of the members of a culture that is being studied (Fetterman, 1998; Munhall, 2007). These perceptions help the researcher to understand why members of the group behave the way that they do (Fetterman, 1998).

The “etic” dimension stems from the intent of the researcher to understand unspoken and implicit knowledge that lies beneath the surface and is hidden (Munhall, 2007). The “etic” perspective is rooted in the researchers’ interpretation of the experiences of the culture being studied (Munhall, 2007).

Although at one time, there was conflict about whether the causes of human actions were motivated primarily by an ideational or an emically oriented perspective or by a materialistic, often etic perspective, most ethnographers today see the emic and etic perspectives along a continuum used for style or analysis (Fetterman, 1998).

**Non-judgmental orientation.** A non-judgmental orientation is necessary to help ethnographers from making inappropriate and needless value judgments about what they observe (Fetterman, 1998). Ethnographers should not make personal judgments and assessments of any cultural practice in order to avoid ethnocentric bias (Fetterman, 1998). In the present study, the researcher provided *reflexivity* in field notes that were reviewed by the researcher and a member of the researcher’s dissertation committee experienced in qualitative research methodologies to assess for signs of ethnocentric bias.

**Structure and function.** Structure and function are classic concepts used in the examination of social organization in ethnographic research. Fetterman (1998) refers to structure as “the social structure or configuration of the group, such as the kinship or political structure” (p.25) and function is referred to as “the social relations among members of the group” (p.25).
Identifying the internal structure and social relationships of the group helps the researcher to understand how behavior within the group under study is regulated and further provides the ethnographer with a framework to construct an ethnographic description (Fetterman, 1998; Munhall, 2007).

Symbol and ritual. Ethnographers seek to identify symbols that aid in the understanding and describe the culture being studied (Fetterman, 1998). Fetterman (1998) describes symbols as “condensed expressions of meaning that evoke powerful feelings and thoughts” (p.26)….for example a “cross or menorah represents an entire religion…a flag represents an entire country, evoking both patriotic fervor and epithets” (p.26). Symbols are not limited to movements or organizations, rather, they are part of everyday life and can also be part of a ritual (Fetterman, 1998). Rituals are recurring patterns of symbolic behavior and like symbols, they occur in everyday life (e.g., religious ceremonies, home life, organizations, schools, and health care) (Fetterman, 1998). The ethnographic researcher “views symbols and rituals as a form of cultural shorthand….they open doors to initial understanding and crystallize critical cultural knowledge” (p.27). Symbols and rituals helped to make sense of data and observations generated in the study by providing a framework for the researcher to classify and categorize behavior (Dolgin, Kemnitzer, & Schneider, 1977 as cited in Fetterman, 1998).

Study setting. As described in Chapter One, this study was conducted in Pierce County, Washington State, where the majority of study participants were recruited and where participant observations primarily occurred. Pierce County is located in the Pacific Northwest Region of Washington State and its 2011 estimated population was 802,150 (the population in unincorporated areas was 372,110 and in incorporated areas the population was 430,040) (Pierce
As noted in Chapter One, up to 13.8% of the Pierce County population is identified as being Hispanic (U.S. Census Bureau, 2009) with 62% of Hispanics identifying themselves being of Mexican origin (U.S. Census Bureau, 2009). Furthermore, approximately 15% of Mexicans in Pierce County speak a language other than English in their homes (U.S. Census Bureau, 2009) and 20.5% live below the poverty level. Pierce County is primarily urban in nature with 24 cities and towns located within its boundaries (Pierce County, 2012). There are 17 school districts with over 300 schools and seven colleges and universities (Pierce County, 2012). Pierce County has two large hospital based health care organizations that serve the community as well as a plethora of private health care providers (Pierce County, 2012).

**Protection of human subjects.** The study was reviewed by the University of Hawai‘i (UH) Institutional Review Board (IRB). The UH IRB is a mandated compliance committee guided by federal regulations and institutional policies (UH, 2012). The purpose of the IRB is to review and provide initial and continuing approval and ongoing oversight to research involving human subjects” (UH, 2012, p.1). Prior to commencement of research, the study was reviewed by the Social and Behavioral Sciences section of the UH IRB which approves and provides oversight to research studies in the fields of psychology, education, sociology and nursing (UH, 2012). The study was also reviewed prior to study commencement by the Division Manager assigned to review research proposals at the Tacoma-Pierce County Health Department and was determined to be exempt from review by the Washington State Institutional Review Board.

**Risk and benefits to subjects.** This research may have been of no direct benefit to the study’s participants. However, it is possible that the results from this study could provide HCPs with an understanding of how first and second generation Mexican-American women make
infant feeding choices and ultimately this information could help provide culturally specific care to this population of mothers. There was little risk to participants of the study; however, the risks to participants were the loss of privacy and the participants may have found that the study questions made them feel uncomfortable. To protect against psychological risks or breaches in confidentiality, the researcher specifically informed the women interested in participating in the study about the following (also refer to “Process of informed consent section”): 1) their participation in the study was entirely voluntary; 2) they were free to refuse to participate and could withdraw from the study or any portion of the study; 3) they had the right to refuse to any question they feel uncomfortable with; and 4) all information about them will be protected (see “Confidentiality” section and Appendix B for a sample of the study’s informed consent form).

**Inclusion/exclusion criteria.** The following were the inclusion criteria for women to be able to participate in the study:

- Had to be at least 18 years of age
- Was not currently pregnant
- Had given birth to a live child in their lifetime
- Were of first or second generation Mexican descent. First generation is defined as an individual who is the first generation of a family born in the U.S. For example, the research participant’s mother or father is Mexican and was born outside the U.S and the participant was born in the U.S. (Dictionary.com, 2012a). Second generation is defined as the second generation of a family born in the U.S. (Dictionary.com, 2012b). For example, the research participant’s grandmother or
grandfather is Mexican and was born outside of the U.S., her parent(s) were born in U.S. and the research participant was born in the U.S.

- Ability to speak English

The exclusion criteria were:

- Less than 18 years of age
- Currently pregnant
- Had not given live birth to a child in their lifetime
- Were not of first or second generation Mexican descent
- Unable to speak English

**Sample and participant recruitment.** Purposive sampling, convenience sampling, and snowball sampling were employed to recruit and enroll eligible participants. In purposive sampling, the researcher directly sought participants that meet the inclusion/exclusion criteria of the study (Higginbottom, 2004; Munhall, 2007). In convenience sampling, “the participants volunteer, are self-identified by advertising, or are recruited by a third person” (Munhall, 2007, p. 531). In snowball sampling, study participants identified other potential participants for the study (Patton, 2002 as cited in Burns & Grove, 2009). Institutional Review Board approved flyers advertising the study were also posted and/or distributed at and by the Tacoma-Pierce County Health Department locations and sent to private HCPs derived from the researcher’s professional contacts in the community (Appendices C and D). The location and/or distribution of the study flyers in community based clinics were determined by the Tacoma-Pierce County Health Department; similarly, the placement of flyers in private practice settings were determined by the clinicians and staff working at those sites. The researcher also distributed the
flyer to potential participants (e.g., in community based environments). Prior to gaining informed consent, the researcher determined participant eligibility based upon the inclusion and exclusion criteria (e.g., via a confidential phone interview). As compensation for their time in the study, participants were given a $20 Visa gift card. The number of participants anticipated for participating in this study was estimated to be between ten and twenty. The actual number was dependent upon those women willing to participate; and the achievement of data saturation after the completion of participant interviews.

**Process of informed consent.** Women interested in participating in the study contacted the researcher using a confidential phone number or, if a woman preferred, a member of the staff at sites where recruitment flyers were posted contacted the researcher using the same confidential phone number. Once the woman or staff member contacted the researcher and the woman’s eligibility to enroll in the study was established, a face-to-face meeting between the researcher and woman was arranged that took place in a setting that was chosen by the woman (e.g., private office, library, woman’s home, etc.) in order to maintain her privacy. During the meeting, the researcher again explained the study and gave the woman a copy of the informed consent form for her to review. Subsequent to the woman’s review of the consent form, the researcher reviewed the benefits and risks of participating in the study as outlined in the informed consent form. To protect against psychological risks or breaches in confidentiality, the researcher specifically informed the participants about the following: 1) their participation in the study was entirely voluntary; 2) they were free to refuse to participate and to withdraw from the study or any portion of the study; 3) they had the right to not answer any question they feel uncomfortable with; and 4) all information about them will be protected (see “Confidentiality”
section and Appendix B for a sample of the study’s informed consent form). The woman was able to ask questions about the study. All women who agreed to participate in the study and signed the informed consent form were offered a copy of the signed informed consent document.

**Confidentiality.** The risk of loss of privacy was addressed in several ways. Study identification numbers were assigned for each participant after they signed the informed consent form and were used for all data collected (including demographic questionnaires, field notes, records of observations). The signed informed consents and all of the data collected were kept in locked files that are only accessible to the researcher. Data files were stored separately from the informed consent documents to maintain confidentiality of the participants. The participants would not be identified in any manuscripts, abstracts or presentations about the study. All interviews took place in a private setting selected by the participants to maintain their confidentiality.

**Data collection and management.** Completion of the participant demographic questionnaire and semi-structured interviews occurred at a location of the participant’s choosing that maintained the participant’s privacy (e.g., the participant’s home). Each participant was interviewed once for approximately 45-60 minutes. The participant interviews were audio-taped and subsequently professionally transcribed for analysis. The researcher reviewed the professional transcription of each interview for accuracy. Participant observation was accomplished by observing interview participants during the in-person interviews and documenting these observations through participant notes (field notes). All of the data collected are kept in a locked file and are only accessible to the principle investigator. Audio-taped and transcribed interviews are kept in the locked data files separate from the signed informed consent
forms. The audio-taped and transcribed interviews, demographic questionnaires and informed consents will be retained for three years following study completion in accordance with UH Human Studies Program and Procedures (University of Hawai‘i, 2012a).

**Instruments.** There were two questionnaires that were used for this study. The first questionnaire (see Appendix E) collected demographic information about the participants. The second questionnaire (see Appendix F) was used to guide the open-ended, semi-structured participant interviews.

**Analysis.** The aim of data collection in ethnographic studies is to reveal the culture being studied as told by the participants (Munhall, 2007). Data analysis requires that the researcher remain knowledgeable about all of the data throughout the study beginning immediately with field notes and ends with the researcher’s satisfaction with the data interpretation and written report (Fetterman, 1998; Munhall, 2007). In ethnographic studies, data analysis is accomplished through a process of thematic analysis, which is the approach that was used to analyze the qualitative data collected during this study.

Thematic analysis requires that the researcher begin by reading the text in its entirety. Each time that the researcher reviews the text, s/he is trying to “get a feeling for and make sense of the data. Coding assists researchers in indentifying key words, themes, patterns, essences, conceptual models, indexes, concepts, social processes, and descriptive theories” (Munhall, 2007, p. 313). Thematic analysis is dependent upon the data being coded. The researcher reads field notes and interview transcripts line by line and then identifies codes that are later categorized (or grouped) leading to the development of themes (Fetterman, 1998; Munhall, 2007). Coding is a “process of
classifying and interpreting data and reveals deep and surface structures” (Munhall, 2007, p. 313). Munhall (2007, p. 313-314) notes that in analysis meaning and symbols (deep structure, latent, hidden, symbolic, high inference, implicit) are identified as are explicit (surface structure, manifest, overt, explicit, descriptive, low inference) results. Whether major or minor themes (codes, categories), patterns (explanatory or inferential codes or meta-codes, also referred to as clusters or major themes), and clusters (grouped and conceptualized objects with similar patterns or characteristics, using comparisons) (Miles & Huberman, 1984) are identified, nevertheless they serve to produce the narrative of reports along with theoretical formulations.

During analysis, significant statements such as words, phrases, sentences, and paragraphs that correspond with identified themes were highlighted and extracted (Munhall, 2007). The researcher used inference to achieve coherence and link themes and patterns among the different data sources (e.g., field notes, interview transcripts) (Munhall, 2007). The researcher then connected the knowledge to explanations of the culture being researched (Agar, 1986; Munhall, 2007).

Descriptive statistics were conducted to analyze the demographic information collected about the participants using SPSS version 16. Data collected from the interviews and from field observations were analyzed using ATLAS.ti and the principles of thematic analysis outlined previously. The thematic analysis was reviewed with dissertation committee Chair, Dr. Maureen Shannon, to ensure credibility of the interpretation of the data analyses. Based upon the results and rich descriptions of the participants and follow up clarification questions by the PI during the
interviews and in consultation with the researcher’s dissertation advisor during analysis, member checking of the ethnographic thematic analysis results was not needed in the current study.

**Rigor in ethnographic research.** Ethnographers establish rigor in the research study in several ways. For *credibility* to be achieved, the researcher used the following techniques: review and reflection upon the data collected during the study (Munhall, 2007); triangulation - compared one source of information against another as was appropriate (Fetterman, 1998); asked a member of the researcher’s dissertation committee experienced in qualitative research methods to review the data and code every fourth interview in order to strengthen the analysis (Munhall, 2007); the researcher was prepared to and had permission of each participant to contact them for *member check* and *transferability* of the researcher’s ethnographic results if it were needed (Munhall, 2007). Following analysis of the transcripts including the researchers follow up clarification questions as well as the field notes, it was not necessary. To establish *dependability*, an *audit trail* was established and made available to a member of the researcher’s dissertation committee (Munhall, 2007). The researcher used the audit trail to establish rigor by providing details of the data analysis and some of the decisions that led to the research findings to a member of the researcher’s dissertation committee (Wolf, 2003). The audit trail included field notes, transcribed interviews, coding schemes, themes and indicators, and data analysis products (Munhall, 2007; Wolf, 2003). The audit trail provided evidence that the recorded data had “gone through a process of analysis, reduction, and synthesis” (Wolf, 2003, p.175).

**Summary**
In this chapter, the researcher introduced the general methodological components of ethnography, a brief methodological history, and specific application and design of the methodology to the focus of the study in order to answer the research questions.
CHAPTER 4. RESULTS

The purpose of this chapter is to present the results of the research. Descriptive data results generated through SPSS® version 16 will be presented followed by the results of the thematic analysis utilizing ATLAS.ti® version 7. Participants are referred to by an assigned number (e.g., Participant 1 is referred to as P1).

Descriptive Data

Fifteen potential participants contacted the researcher and were interested in participating in the study. All potential participants were screened for study eligibility. Ten were enrolled in the study and five did not meet the inclusion/exclusion criteria and were subsequently screened out. Of these five women, four were excluded from the study because they were not born in the U.S. and one was excluded from the study because she was newly pregnant. The age of the participants enrolled in the study ranged from 18-72 years old with a mean age of 35.9 years and a SD of 17.31. There was broad diversity in the marital status of the participants. Four participants were married (40%), one was engaged (10%), two were divorced (20%), two were single and living with a partner (20%) and one was single and not living with a partner (10%). The participant’s had between 1 and 4 children (Figure 5) with a mean of 1.6 children and SD of .966.
Figure 5. Participant number of children

The age at which the participants (n=10) delivered their first child ranged from 16-34 (Figure 6) with a mean of 20.10 and SD of 5.216.
Figure 6. Participant age at which first child was born

The age at which participants delivered a second child (n=4) ranged from 17 to 32 years of age with mean of 24.25 years old and a SD of 6.185 years. One participant (n=1) had four children and she delivered her third child at age 26 and fourth child at age 27.

Seventy percent of the participants (n=7) self-identified as first-generation Mexican-American and 30% of participants (n=3) self-identified as second-generation (Figure 7).
Upon the researcher’s analysis of the participant’s responses (n=10), 70% of participants (n=7) could have identified as either first or second generation based upon their familial history (e.g., one of the participant’s parents was born in the U.S. and one of the participant’s parents was born in Mexico while the participant was born in the U.S.).

Figures 8 -13 illustrates the familial immigration history of the participants expressed in percentages of which family member had immigrated from Mexico.
Figure 8. Participant mother immigrated from Mexico

Figure 9. Participant father immigrated from Mexico
Figure 10. Participant paternal grandfather immigrated from Mexico

Figure 11. Participant paternal grandmother immigrated from Mexico
Figure 12. Participant maternal grandfather immigrated from Mexico

Figure 13. Participant maternal grandmother immigrated from Mexico
Figure 14 summarizes the work status of the participants (n=10). Fifty percent of the participants (n=5) worked outside the home and 50% (n=5) did not work outside the home. Of the five participants who worked outside the home, two were employed full time and three were employed at part-time.

![Participant Work Status](image)

*Figure 14. Participant work status*

Fifty percent (n=5) of the participants received public assistance and 50% (n=5) did not receive public assistance. Similarly, 50% (n=5) of participants lived with the father of the baby, child, or children and 50% (n=5) of participants did not.

There was diversity in familial Mexican immigration history. All but one participant knew what area(s) of Mexico her family had immigrated from. Three participants familial immigration histories included Sonora (northwest Mexico), three familial immigration histories
included Jalisco (central Mexico), one familial immigration history was noted in each of the following areas: Zacatecas (west central Mexico), Durango (northwest Mexico), Puruandiro (central Mexico), Michioucan (central west coast of Mexico), Zacatecas (central Mexico), La Barca (in Jalisco, central Mexico), Tampico (central east coast of Mexico), Leon (Central Mexico), Chihuahua (north central Mexico), Ahuacatlan (central east Mexico) and Tepic (central west Mexico).

Fifty percent of the participants had either an individual or familial affiliation with the military. One participant had been an active military duty; two participants had partners or spouses that at some point had been active duty military; and three participants had an affiliation through their maternal or paternal side of the family.

Fifty percent of the participants reported having a complicated pregnancy or birth that impacted infant feeding.

**Thematic Analysis**

Through the process of analysis of the transcripts, review of the field notes, and reflection, a total of 46 final codes (reduced from 154 that were associated with the focus of the study) and 21 categories emerged. Five themes were evident and included 1) Influences to breastfeed: Breast is best; 2) The challenges of breastfeeding; 3) Influences for infant formula feeding: It’s an alternative; 4) Disadvantages of formula feeding; and 5) Mexican traditions. Codes that led to the emergence of each theme described multiple factors contributing to that theme (refer to Table 1).

**Influences to breastfeed: Breast is Best.** All participants described what they felt were influences to breastfeed their infants (Figure 15).
Figure 15. Influences to breastfeed

**Influential people.** All participants described at least one person that had an influence in their infant feeding decision to breastfeed. Those that were influential in the decision to breastfeed their infant were described as family (n=55 coded statements), a grandmother (21 coded statements), a partner, spouse or father of the baby (n=20 coded statements), a health care provider (n=18 coded statements), their mother (n=17 coded statements), their spouse’s family (n=13 coded statements), friends (n=6 coded statements), a lactation consultant (n=3 coded statements), a Babies R Us Sales person (n=3 coded statements). For example, participant 1 shared an influential discussion that she had with her mom and mother-in-law about infant feeding,

Yeah, she [her mother] talked to me a lot about it [breastfeeding], about when I was seven months [pregnant]. She was like, ‘Are you going to
breastfeed or formula feed?’ I said I was going to formula feed, and she said, ‘No, you can’t formula feed’. I said, ‘Why?’ And she sat there with me on the phone for like three hours telling me the benefits and everything. My husband’s mom did the same thing, and I said, ‘Oh, my God, ok I’ll just breastfeed’.

Participant 6 also discussed her mother and grandmother as having influenced her decision to breastfeed her infant however, when asked if there were any additional influences in her infant feeding decision, she described both HCPs and community programs/support as having influenced her decision,

Definitely. There was my doctor, of course, gynecologist, who strongly encouraged it [breastfeeding]. There were pamphlets on breastfeeding and the whole thing. So we had a conversation about breastfeeding, and once I said, ‘Oh, yeah, that’s what I’m doing’, he said, ‘Okay, great, there are all these benefits and here is a pamphlet’. So I didn’t really read the pamphlet ‘cause I was already pushed… (laughs). . . And there was one nurse, I can’t remember what agency she was with, I think it was La Leche League, they came and said, ‘Do you know about La Leche and do you want to attend a class, or do you want somebody to come to you?’ I said, ‘Well, I got my grandma, and she had 12 kids, (laughs) and so we’re good’. . . . But they came, I believe it while I was in the hospital that they came, that this gal came around, to give us the information and wanting to know if I would like to get some more information or learn, take a class, or they could come help
support that. That was really great. So it’s definitely encouraged in the medical field.

**Being committed to doing what was best for the infant.** Being committed to doing what the participants felt was the best infant feeding method was a commonly described influence to breastfeed by all of the mothers (n=48 coded statements). For example P2 stated, “Yeah. I thought it was better for her, healthier for her, and I just wanted to do what was good for her.” Participant 3 also described her commitment to breastfeeding, “I wanted to make sure that my kid had all the right nutrition . . . and yeah, ok, formula has been around for a while, but it’s just a created substance where it [breast milk] comes naturally from us and so I really, really, really wanted to breastfeed. I never thought about not wanting to.”

**Maintaining family or cultural tradition.** Choosing to breastfeed their infant because of the influence of breastfeeding as a family or cultural tradition was a commonly described influence to the participants (n=39 coded statements). Participant 1 described her desire to breastfeeding related to familial traditions, “I chose to be breastfeeding, ‘cause it’s more safe for him’ . . . ‘cause my husband . . . his mom had four kids and she did nothing but breastfeeding, so I’m trying to be up there with her and like, well, I’m going to do it, too.” Participant 4 also described tradition as an influence to breastfeed, “Well breastfeeding. That was it. That’s just what you did. What you were supposed to do.” Participant 10 also stated that the Mexican cultural tradition was an influence in her breastfeeding decision, “It [Mexican culture] was an influence…..This [breastfeeding] was part of my culture.” Another participant (P6) described the importance of keeping the cultural tradition of breastfeeding in her own family,
I think being tied to, even though we are second and third generation, it is really neat that we still have that connection with our roots that is tacked down that way [breastfeeding]. You know, a lot of us that are second and third generation tend to lose that. You know with our parents being more Americanized and you kind of follow the mainstream, you know, they push the formula and you take the formula because they are telling you it’s good for you, it’s good for your baby, and things like that, but having a strong connection to your roots and knowing that, you know, that can be passed down, I think is just beneficial for our entire generation. I know I will tell my girls, ‘Breastfeeding . . . that is what you are doing!’ (laughing). ‘I don’t care if they are giving you 50 cans of formula . . . this is what you are doing’ (breastfeeding). (laughs). So . . . and my hope is that my grandchildren will be breastfed as well. I was, I am healthy, my kids are really healthy, grandma was . . . The proof is in the pudding.

**The support of the family.** Participants discussed that the support of family members and how this influenced their decisions about and enabled them to breastfeed their infants (n=25 coded statements). Participant 6 described her family’s support that enabled her ability to breastfeed,

> With my family, I am very thankful for it, but you know, our tradition is that you give the mom and the child the full 90 days to bond and to be together and to do the breast feeding, and to do the changing, and get to know the facial expressions, and get to know each other . . .
and there is this whole thought of the rhythm of the heart and you know, and having your child close when you are breast feeding, and the heartbeat becomes, the rhythm becomes the same . . . so those 90 days are very crucial . . . so I was given those 90 days. And you don’t do housework and there are people who do stuff for you for the 90 days.

Another participant (P7) also reflected on the importance of family support while breastfeeding, “Well, again, I had the family support, that was the number one thing… I remember enjoying her…. I remember having family around a lot, helping out a lot…”

**Community programs/support.** Participants discussed that community programs/support influenced their decision to breastfeed (n=18 coded statements). Participant 1 discussed her experience with a sales person from Babies R Us and with Women Infant and Children’s program (WIC),

I actually registered at Babies “R” Us, and I physically went in there. One of the ladies was breastfed too, and I was asking her about where the formula was and what kind of bottles should I get, and she actually took me to the breastfeeding section; and I was like, ‘oh, I don’t think this is the section I’m looking for’….so I started looking around and she said, ‘no, you are in the right section’. And I’m like, ‘oh, ok’ (laughs). I guess she strongly supported breastfeeding too. So I was like “ok” and so I registered for breastfeeding but I didn’t think that I was going to get a lot of stuff at my baby shower and I was like ‘whoa ok’……. I am in the program at WIC, and they support breastfeeding a lot, too, so when I went in there the other
day, they were telling me the difference between breastfeeding and formula feeding. They gave me some programs that could call and they all said; ‘Breastfeeding is the best way to go’. So I had several places telling me it was a good thing to do, breastfeeding.

Another participant (P2) stated that the WIC program influenced her decision to breastfeed, “well, for one, I actually had to breastfeed because I have WIC, so they wouldn’t give me the Similac until I at least tried it out [breastfeeding].

**Breastfeeding is healthier.** Breastfeeding was seen as the healthiest infant feeding method by the participants. There were 41 quotations that were coded to “breastfeeding is healthier” from among all 10 participants. For example, participant 1 stated, “I decided to do it because it [breastfeeding] is healthier and makes the immune system stronger than being on formula.” Participant 2 stated, “I thought it [breastfeeding] was better for her, healthier for her, and I just wanted to do what was good for her.” Participant 3 stated, “What I believe . . . I think the babies are healthier. They don’t get all the crazy rash side effects that I see, you know.” Participant 6 stated,

They don’t get sick as often as other kids. So, I just think overall . . . their teeth don’t rot out . . . we didn’t have any of that . . . you know, baby rot, you know, things like that that you might get . . . but they are just very healthy.

In addition, participants 6 and 9 also described healthier teeth as a benefit of breastfeeding.

**Breastfeeding allows bonding with the baby.** There were 33 quotations that were coded to maternal infant bonding as a benefit of breastfeeding from participants. For example, participant 1 stated,
Well, I’m not doing breastfeeding because I think it’s cool, I’m doing it because it is actually helping him more in life . . . so okay, I’ll do this. . . his immune system is going to be stronger, he’s going to have that bond with me that nobody else is ever going to have that bond with. I think that’s cool, because if I breastfeed my first kid or my second kid, I can always tell him that, you know, we did have a great bond and now we’re always going to have that bond with each other.

Participant 9 stated, “So I was glad that I could nurse, because it’s a bonding, and I wasn’t a working mom, and it seemed natural to nurse”. Participant 4 noted the importance of breastfeeding compared to formula feeding for maternal bonding to infants when she stated,

Because they don’t know what that bonding is [moms who formula fed their infants]. They think they have bonds with their children, and perhaps they do, you know, you can still have bonding, but there is a different kind of bonding [with breastfeeding].

**Breastfed babies don’t get sick as often.** Participants felt that breastfed babies do not get sick as often (n=13 coded statements). For example, participant 1 stated,

The benefits of breastfeeding is that he won’t be as sick. I get sick a lot, both me and my husband…. we both get sick a lot. And my husband is allergic to penicillin, so he can’t really take anything. So I’m doing it [breastfeeding] so he won’t be as sick…..So he won’t get earaches a lot.

Participant 2 also felt that breastfeeding decreased the risk of illness in the infant and child, “Well, she doesn’t get sick as often, it helps her grow better, it has more and better stuff than what the Similac has.” In addition, participant 6 stated,
So you can simulate it [breast milk] with, you know, powdered mixes and vitamins and all that stuff, but you know….one, the bonding, [and] two, the nutrition….and my children are really healthy. They are not sickly kids, they are not allergic to everything in the world, they won’t have a large allergy list, you know: She can’t touch this or she can’t have that, or she can’t eat this . . . they just do not have that. They don’t get sick as often as other kids.

**Breastfeeding provides complete nutrition.** Participants felt that breastfeeding provided the infant with complete nutrition (n=16 coded statements). Participant 3 stated,

I wanted to make sure that my kid had all the right nutrition . . . and yeah, ok, formula has been around for a while, but it’s just a created substance where it [breast milk] comes naturally from us and so I really, really, really wanted to breastfeed. I never thought about not wanting to.

Another participant 8 stated, “I just felt that it was healthier….you know, just to get what they need basically.”

**Breastfeeding enables better infant growth and/or development.** Participants made statements (n=23 coded statements) describing that breastfeeding enabled better infant growth and/or development. For example, participant 1 stated, “Well, I’m not doing breastfeeding because I think it’s cool, I’m doing it because it is actually helping him more in life”. Participant 2 stated, “….it [breast milk] helps her grow better, it has more and better stuff than what the Similac has.”
Breastfeeding has maternal benefits. Participants noted that there were maternal benefits to breastfeeding in their interviews (n=14 coded statements). Participant 1 stated, “At first I was going to do breastfeeding just to lose the weight. I was like, ”oh, I can lose the weight!””. She continued, “Yes, the benefits for him [infant], and then benefits for me losing weight, so I’m like, ‘Yeah, I can do it!’”. Another participant (P8) felt because she was eating healthier for the purpose of breastfeeding her infant that it also benefited her health, “….. and you stay healthy, too, because you know, I would eat lots of fruits and you know, in order for her to get that”.

Breastfeeding is supported in media, social media and/or publications. Participants felt that an influence to breastfeed was the information or support for the method that they were exposed to through media, social media and/or publications (n=9 coded statements). For example, P1 described talking to her cousin about infant feeding methods and breastfeeding using social media, “Yeah, we talk over facebook all the time about it. This is her second kid, she formula-fed her first kid and she is breastfeeding this one, and she said it is different than formula feeding.” During the interview with participant 10, she asked about what other influences she felt contributed to her infant feeding decision she had not already discussed. She replied, “Yeah, like the media. They would like talk about breastfeeding and stuff . . .”

Other Findings. Although not saturated in the analysis participants 1, 5, and 7 all felt that convenience and economics were influences for them in their decision to breastfeed their infant. Participant 7 had used formula with her older child and when she had another baby, she described how economics impacted her decision not to formula feed; but rather to breastfeed this infant.
Another thing that I didn’t mention before. Now that I’m thinking about it, remember how I told you I didn’t realize how expensive formula was? That’s another reason why I wanted to breastfeed “X” [name deleted] because I was actually buying the formula this time and I was like, ‘Oh, my gosh, a thing like this (she demonstrates with her hands the size of a formula can) is . . . how much?’ (laughs)

**The challenges of breastfeeding.** Participants described what were collectively categorized as challenges to breastfeeding as an infant feeding method (Figure 16).

![Figure 16. The challenges of breastfeeding](image)

*Breastfeeding is physically and/or emotionally demanding.* Breastfeeding was described by participants as a physically and/or emotionally demanding infant feeding method (n=52 codes). Participant 3 stated,
Breastfeeding is hard. It’s hard. It was so frustrating. I mean, I had to use nipple shields. I mean I was doing three jobs and trying to hold the baby…. it was just really frustrating, but at the same time I wanted to breastfeed, but I was like hitting a wall because I was so tired . . . it takes a lot of work, it’s not easy.

Participant 10 also described the physical and emotional demand of breastfeeding, “I was for it, because I know it’s so good for them. I mean I really wanted him to latch on, but he was having a hard time. And so he did latch on a couple times, but we tried and tried, but it wasn’t very consistent, and it was really frustrating”; she continued, “Yeah, I was really tired. I would like cry. It was frustrating.”

**Lack of self confidence about breastfeeding and/or breastfeeding education.**

Participants described a lack of self confidence about their ability to breastfeed, and/or a lack of breastfeeding education as a challenge they faced (n=29 coded statements). For example, participant 3 stated,

I didn’t know how to breastfeed, not that everybody does but . . . you know, I got so many [comments], ‘you have to hold them like a football and you have to hold him like this’ . . . and then, you know, after the fact, after I went back to work and I saw this breastfeeding video, and I’m like, ‘Why didn’t you give me that before’ (laughs). It was just really frustrating, but at the same time I wanted to breastfeed.
Participant 6’s statement reflected her lack of breastfeeding confidence, “I felt like she couldn’t breathe, with my boob was all over her little face, it can’t work and this can’t be right.”

*Getting the correct latch and/or position.* Participants described having their infants have the correct latching on, and/or correct positioning of the infant to breastfeed as a challenge (n=12 coded statements). For example, participant 6 stated,

So with my first daughter I struggled I think the first month to kind of really get her to latch correctly, put her in a position that was comfortable for her and comfortable for me, and then, you know, dealing with gorging and the pain and where to put compresses at, and that sort of thing.

Another participant (P10) also discussed problems that she had with getting the infant to latch, that resulted in her having to provide her infant her breastmilk via a bottle, “So basically when I went home I tried every day. I would try to get him to latch on everyday but for the most part he got breastfed through the bottle…. like I was pumping.”

*Pumping breast milk is a difficult endeavor.* Eight of the participants described using a breast pump to extract milk. All eight of those participants described using a breast pump as a difficult endeavor (n=30 coded statements). For example, participant 1 stated, “I had to pump it [breast milk], and I didn’t know how to work the pump, and it was so boring, I had to sit there and do it”. Participant 3 noted how much work it was to pump when she stated, “It takes a lot of work, it’s not easy. Like a job (laughs). You’re pumping . . . and it’s a lot of work”. Another participant (P7) described challenges in using a breast pump at work, “There wasn’t like a pumping room you could go to; there was a stigma behind it: ‘oh she’s going to go breastfeed’”
Five of the participants noted that they experienced a lack of milk production while using a breast pump or found expressing milk via the pump difficult (n=11 coded statements). For example, participant 2 stated, “She actually didn’t want to be on my breast, so I was pumping . . . and eventually it started to dry up on its own.”

Public acceptance of breastfeeding and privacy concerns. Participants described that public acceptance of breastfeeding and privacy concerns (n=13) as a challenge. Participant 10 stated, “I think personally I would think more about bottles [feeding method in public]. There are not many places like a restaurant or something, not really places for like to breastfeed without other people seeing”. When participant 2 was describing the advantages of formula feeding, she reflected upon the difficulty to breastfeed in public and her concerns about privacy,

And I don’t have to be having to go to the bathroom or go somewhere, like to the car, and start pumping when I’m out in public, or my boobs start leaking. I had to like wait an hour before leaving the house and start pumping to fill as many bottles as I can if I was going to be out on the street.

Participant 5 discussed the difference in public acceptance of breastfeeding between the U.S. and Mexico,

It’s [breastfeeding in public] not a big deal like over here[U.S]. I remember when I was over there[Mexico], we went to…where did we go?...we would go to, ah, the records place and stuff and you’d see the ladies with their kids, breastfeeding, right there in the open (laughs). Like here, they freak out, like cover yourself [while breastfeeding]….and it’s just more accepted
over there….like we were in a vital records place, and nobody said nothing, and it wasn’t looked…like over here they’d be like ‘look’ and ‘cover yourself up or something’. When I stayed there and I lived there [in Mexico], it’s just more accepting, just more normal over there.

Influences for infant formula feeding: It’s an alternative. The two strongest influences to formula feeding were that formula feeding was considered convenient and easier than breastfeeding (n=47 coded statements) and that physical complications influenced the mothers to utilize formula to feed their infant (n=27 coded statements).

Formula feeding is convenient and easier. Participants described formula-feeding as a convenient method and that it was easier than breastfeeding. For example, participant 10 stated,

It’s convenient. I wasn’t able to like produce enough [breast milk], and I could have pumped more . . . and I wish I could have, and if I had another baby I would do that. Just like if you’re kinda going out in public or whatever, it [formula-feeding] is convenient and easier.

Another participant (P3) described similar feelings about the benefits of formula-feeding,

It was like a little bit of a breath of fresh air, because I wasn’t struggling. It was just easy. It was a quick fix, like eating takeout. I was a little relieved because I just felt like I wasn’t sleeping. . . with me having to pump . . . I felt like I was doing everything wrong . . . it was a relief ‘cause I didn’t have to think about it, it was just like, ‘Oh, okay here’.
The impact of physical complications. Participants described physical complications that influenced their decision to formula feed or introduce formula to their infants. One participant (P4) described getting ill post-partum and how this affected the infant feeding method she used,

I was trying, but it was barely coming through, you know, it takes awhile, and it was just…..**Researcher:** The colostrum? Waiting for your milk to come in? Yeah, and then I got sick, so I was unable to. So I was real disappointed in that. Especially since I wasn’t able to be with my son for almost the first two weeks of his life, you know. My mom would bring him over. My mom lived close by, so it wasn’t so bad. **Researcher:** So your mom was kind of caring for him while you were trying to recover. Yeah. **Researcher:** So that delivery really impacted you . . . and getting sick, really impacted, correct me if I’m wrong, it sounds like, really impacted your infant feeding. Yeah. No, no, they just told me, ‘No, you’re sick, you can’t do that [breastfeeding], you’re taking drugs’. **Researcher:** How did that feel? It felt like I didn’t really have any choice because I had an infection. It wasn’t like I could NOT take the antibiotics, and I’m like…..ohhhh. So I just had to deal with it.

Similarly, participant 3 described physical complications post partum that influenced the initiation of formula feeding,

Well, I really wanted to breastfeed and I did for just a little bit. I was a high risk as I was diabetic . . . but not anymore . . . and high blood pressure. So I
delivered him at 36 weeks, so I wasn’t ready to breastfeed, there wasn’t anything there, but I was pumping, pumping, pumping, to try to get something out. So whatever little bit . . . you know half an ounce between both sides that I was able to do . . . I pumped and I fed him and then I had to end up supplementing with formula, but I did breastfeeding for three months, but I wanted to go longer. I just . . . they didn’t want to cooperate. I think it’s a lot of the medication that I was on. Researcher: Okay. You felt there was medication that influenced . . . To stopping it, yeah….. Researcher: Interesting. Now it sounds like you were having a supplement formula since the beginning. From the beginning, yeah. From the very beginning, and I didn’t want to. Researcher: You didn’t want to . . . but you didn’t feel like there was a choice there? . . . Yeah. Cause once his weight wasn’t increasing and he started to lose, the doctor said like: You are going to have to supplement [with formula].

Disadvantages of formula feeding. Participants had variation in what they felt were disadvantages of formula feeding. For example, two participants (P2 and P5) felt there was increased cost with formula feeding. Participant 1 felt that if you formula feed your infant that you will not love them as much. Participant 9 felt that formula feeding was more work and responsibility because of the need to make homemade formula, and another participant (P4) felt that formula “smelled bad”. However, there was saturation reached in the participants’ perceptions about the disadvantages of formula feeding with regard to its nutritional value and/or poorer
infant health outcomes compared to breast milk (n=16 coded statements). For example, participant 3 stated,

> What I believe . . . I think the babies are healthier[breastfed babies]. They don’t get all the crazy rash side effects that I see, you know. I hear . . . they go: Oh, my baby can’t tolerate this formula, they get constipated . . . so there is just so much more problems with formula. To me it’s like a synthetic . . . it’s a man-made product as opposed to a natural one . . . I mean, they just grow differently. Like when you see a fully breastfed baby they have a different look, as to a baby that’s been only formula fed.

Another participant (P6) also did not feel that formula was as healthy as breast milk,

> I don’t really know how beneficial nutrition-wise it was. Because, you know, you read the label and see what it says, but the fact of the matter is -- that it is made somewhere, in a powder form, and I don’t really know, nutrition-wise, what real benefits there really are. Interviewer, ‘So you don’t think it’s equal?’ P6’s response, I don’t think so, no. I feel like you can get close, but I don’t think so.

**Mexican traditions.** All but one participant, participant 2 who opted not to follow Mexican traditions described Mexican techniques or traditions that influenced their infant feeding. Although saturation was not reached in terms of the participants describing one particular technique or tradition that was common to all of them, there were several specific traditions that were described (e.g., wet nursing [P3 and P6];
drinking green tea while breastfeeding [P1]; co-sleeping [P7]; feeding until the infant falls asleep [P1]).

There was clear saturation reached from the analysis of the interviews and field notes about the value placed on continuing Mexican traditions within their families (n=32 coded statements). Participant 1 described one way that family traditions are maintained in her family, “She’ll [participant’s mom] sit down and talk to us and stuff about . . . our family used to do this and our family used to do that . . . and it’s interesting because it’s like something we learn everyday and that’s how we get in the habit of doing it.” Participant 6 described her family’s Mexican traditions regarding infant feeding,

Well, as far as my knowledge of visiting Mexico and my whole family . . . the tradition is just that what your body produces is what you give . . . and what nature produces is what you introduce. So, you know, just from my family and from folks that I have come across, it’s very much, you breastfeed. And some of them breastfeed until the kids are 5 years old. They go for a very long time, and there isn’t a push to stop, or to go up to 5 years old. It is very much whatever your body can handle. Because some women can’t produce. So when you run into that, then there is base for other options, you know what can we do….because, you know, you cannot produce. I’ve seen in some areas, where my family is from, is that other women that can produce will donate…will give breast milk to the other moms so their children can have breast milk as well, so that is done where
my grandfather is from, my mom’s side, in northern Mexico they do that a lot.
CHAPTER 5. DISCUSSION

The purpose of this chapter is to review the purpose of the study, results of the analysis of the interviews and field notes, the study’s contributions, and the study’s limitations.

Purpose of Study

The purpose of the qualitative ethnographic study was to explore what influences first and second generation Mexican-American women’s infant feeding decisions.

Research Questions

The qualitative ethnographic study was designed to answer three over-arching questions utilizing a brief demographic questionnaire and a questionnaire to guide semi-structured interviews. The three over-arching questions explored in the study were:

1. How do first and second generation Mexican-American mothers make infant feeding decisions?

2. What meaning does the mothers’ cultural group ascribe to breastfeeding or formula feeding?

3. How do culture and/or family traditions influence Mexican-American mothers’ choice of infant feeding method(s)?

Interpretation of Results

The influences of infant feeding decisions among first and second generation Mexican-American mothers has yet to be described in the literature and the results of this study adds to the body of knowledge.
The themes that were identified in the analysis of the transcripts and field notes in Chapter Four revealed that the influences of infant feeding decisions among first and second generation Mexican-Americans are multifaceted and include: *Influences to breastfeed: Breast is best*; *The challenges of breastfeeding*; *Influences for infant formula feeding: It’s an alternative*; *Disadvantages of formula feeding*; and *Mexican Traditions*.

**Influences of breastfeed: Breast is best.** The theme *Influences to breastfeed: Breast is best* included the commitment to doing what was best for the infant, maintaining family or cultural tradition, the support of the family, community programs/support, breastfeeding allows bonding with the baby, breastfeeding is healthier, breastfed babies don’t get sick as often, breastfeeding provides complete nutrition, breastfeeding enables better growth and development, breastfeeding has maternal benefits, breastfeeding is supported in media, social media and/or publications. These findings are consistent with literature regarding Mexican American and other minority mothers’ perspectives about breastfeeding their infants. In Gill et al., (2004) study of infant breastfeeding beliefs among low-income Mexican Americans, all participants identified the health benefits and superiority breast milk and its nutrients with one mother stating “breastfeeding is healthier for the baby….the babies get sick less often” (p.43). Similar results were found in the Hannon et al. (2000) qualitative study of African-American and Latina adolescents and Bunik et al. (2006) research study on infant feeding decisions in low-income Latino mothers.

**The challenges of breastfeeding.** The theme *the challenges of breastfeeding* included: breastfeeding is physically and/or emotionally demanding, lack of confidence or breastfeeding education, getting the correct latch or position; pumping breast milk is a difficult endeavor and
public acceptance of breastfeeding and privacy concerns. These findings were consistent with the findings in the literature (Arora et al., 2000; Corbett, 2000; Gill et al., 2004; Hannon et al., 2000; Kong & Lee, 2004; Matthews et al., 1998; McIntyre., 1999; Miner et al., 1994; Scrimshaw et al., 1987; Shepherd et al., 2000; Tuttle & Dewey, 1994; Wambach & Koehn, 2004). For example, the qualitative study of African American and Latina mothers’ conducted by Hannon et al. (2000) identified participants’ perceptions of the challenges of breastfeeding. These included pain, public exposure, unease with the act of breastfeeding, and inconvenience. Bunik et al.’s (2006) qualitative study of low-income Latina mothers found that participants felt that “breastfeeding can be a struggle” (p. 230); and was associated with pain, concerns about modesty, breast changes and the need for dietary restrictions (e.g., avoiding soda and caffeine).

It is important for the HCP to anticipate challenges such as these in order to provide health education about ways to reduce breastfeeding mothers’ experiences of these types of situations (e.g., pain associated with breastfeeding, strategies that will help with breastfeeding in public places, etc.). By providing further information and education on all of these perceived or actual problems, the HCP may have a positive impact on the mother’s decision to initiate and/or continue to breastfeed her infant (Hannon et al., 2000).

**Influences for infant formula feeding: It’s an alternative.** The theme *Influences for infant formula feeding: It’s an alternative* indicates mothers’ view formula feeding as being a convenient and easier method of infant feeding than breastfeeding. In addition, maternal and neonatal physical complications can result in formula feeding as an alternative to breastfeeding. The finding that formula feeding is easier and more convenient than breastfeeding is consistent
with results found in previous studies found in the literature (Bunik et al., 2006; Kong & Lee, 2004; Matthews et al., 1998; McIntyre et al., 2001; Miner et al., 1994; Tuttle & Dewey, 1994).

In Tuttle and Dewey’s (1994) mixed methods study of the determinants of infant feeding choices among Southeast Asian immigrants in northern California, the mothers viewed the convenience and U.S. popularity of formula feeding as major influences in their decisions to formula feed. Miner et al. (1994) investigated the infant feeding practices of women residing in a Russian city and compared them to women residing in a U.S. city. Their results found that U.S. mothers identified formula as more convenient than breastfeeding and allowed the mothers to feed their infants in a public place without the concerns of privacy (e.g., breast exposure). The perception of the first and second generation Mexican American participants in this study that formula feeding is more convenient than breastfeeding is consistent with the results of previous studies conducted in different racial/ethnic groups and in different countries.

**Disadvantages of formula feeding.** In the current study, the theme *disadvantages of formula feeding* emerged. This perception is consistent with findings from Wambach and Koehn (2004) who studied the experience of infant feeding decision making among U.S. urban economically disadvantaged pregnant adolescents. The mothers in their study cited that there were disadvantages to bottle feeding that included the need to wash the bottles and prepare the formula. The explicit discussion of the disadvantages of formula feeding by participants in the current study may be related to the researcher asking the study participants to identify the disadvantages of bottle feeding. Regardless, the perspectives of the mothers in the current study add to the body of knowledge about infant feeding decisions among first and second generation Mexican-American mothers.
**Mexican traditions.** Ninety percent of mothers in the present study described Mexican techniques or traditions that influenced their decisions about an infant feeding method. Saturation was not reached with regard to one particular tradition that all of the participants shared; however, several were described (e.g., wet nursing, co-sleeping) that appeared to be valuable and reflected the importance of continuing Mexican traditions within the family. These traditions were primarily passed down from one generation to the next. The differences among the traditions that the participants reported may reflect variations in customs that are unique to the geographical locations in Mexico where the participants’ parents and grandparents resided prior to immigrating to the U.S.

Several studies have found that the customs, practices, and traditional beliefs within cultural groups influence maternal infant feeding decisions (Corbett, 2000; Fishman et al., 1988; Morrison et al., 2008). For example, Weller and Dungy (1986) studied personal preferences and ethnic variations among Anglo and Hispanic post-partum participants in a mixed methods study and found that the family tradition about infant feeding choice was associated with the current infant feeding decision made by the mothers in the study. Gill et al. (2004) conducted a qualitative study of the cultural beliefs with regard to breastfeeding among low-income Mexican Americans. All participants identified and discussed cultural practices that were believed to be essential to a successful breastfeeding experience. These findings are important for HCPs to assess for and be sensitive to so that they can provide culturally appropriate care that respects the unique cultural, generational and traditional influences that mothers may experience when making infant feeding decisions.
Research Question Findings and Discussion

Research question one. Research question one explored how first and second generation Mexican-American women made infant feeding decisions. The results of the thematic analysis revealed that the mothers’ infant feeding decisions were a result of the participants’ individual influences (e.g., family, cultural tradition, what was healthier, HCP advice). Similar findings were described in Wambach et al. (2015) descriptive study of exclusive breastfeeding experiences among Mexican American women. In the current study, the actual process, although not explicitly described by the mothers, was implicitly found to be consistent with the concept of influence. The influences of maternal infant feeding decisions described by the participants were found to be contextually and temporally dependent upon the mother, were perceived as powerful by the mother, and affected or changed the mother’s infant feeding decision (Cambridge Dictionaries Online, 2015, Encarta Dictionary Online, 2009, Oxford Dictionaries, 2015). Given the personal nature of this type of decision, this result was not surprising but reinforces the importance of the HCP’s need to assess each client individually without the bias of assumptions based upon the client’s culture, ethnicity/race, and/or socio-economic status.

These findings are also consistent with the theoretical framework of symbolic interactionism. In the current study, the participants’ influences of infant feeding decisions were significantly tied to family and cultural values. From a symbolic interaction perspective, these mothers’ influences were in a large part impacted by socialization – the “process through which personalities and self concepts are formed, values and attitudes are transmitted, and the culture of one generation is passed to the next” (jrank.org, 2010, p.1). Cross-cultural research has explored how family relations occur within specific ethnic domains and how the cultural context in which
communication occurs shapes the family’s interactions and the individual’s identity (jrank.org, 2010; Luo and Wiseman, 2000).

**Research question two.** Research question two explored what, if any, meaning that the mothers’ cultural group ascribed to breastfeeding or formula feeding. In the current study, breastfeeding was consistently described and symbolized by all of the participants as the “best” or the “healthiest” method of infant feeding. This is consistent with the findings of several studies investigating minority mothers’ infant feeding decisions (Balcazar, Trier, & Cobas, 1995; Bunik et al., 2006; Gill et al., 2004; Guttman & Zimmerman, 2000; Joffe & Radius, 1987; Libbus & Kolostov, 1994; Miner, Witte, & Nordstrom, 1994; Morrison, Reza, Cardines, Foutch-Chew, & Severance, 2008; Rose et al., 2004; Scrimshaw et al., 1987, Weller & Dungy, 1986). These findings are also consistent with professional organizations’ position statements such as the AAP (2008; 2012) and the WHO (2008) (as presented in Chapter Two).

**Research question three.** The third research question explored how culture and/or family traditions influenced Mexican-American mothers’ choice of the method of feeding for their infants. Cultural beliefs that influence infant feeding decisions were an important discovery in the literature review and, similarly, in the current study. In this study, the influence of family or cultural tradition was the strongest and most dominant theme found. Nine out of the ten participants who participated in this study, described their family’s culture and/or familial traditions as having a significant influence on their choice of infant feeding method. This is also consistent with results from previous studies that investigated infant feeding decisions among minority women (Corbett, 2000; Gill et al., 2004; Hally et al., 1984; Hannon et al., 2000; Joffe & Radius, 1987; Libbus & Kolostov, 1994; Lipsky et al., 1994; Mahoney & James, 2000;
Breastfeeding was the dominant feeding method of the women in this study with all women reporting that they had breastfed their infants, although the duration of breastfeeding among the women varied, and cessation of breastfeeding was based on a number of different factors (e.g., maternal and/or infant physical complications). These study results differ from Kimbro et al.’s (2008) quantitative study of Mexican-Americans (defined by the study as those born in the U.S.) where only 56% of the Mexican-American participants began breastfeeding their infant as compared to 86% of the Mexican immigrants. Kimbro et al. (2008) suggests that acculturation of the Mexican-American mothers may have played a role in their lower rate of breastfeeding initiation compared to the Mexican immigrant mothers in the study. Scrimshaw et al. (2008) and Gill et al. (2004) had similar findings related to acculturation among Hispanic participants. The results of the current study differed from the findings of Kimbro et al. (2008), Scrimshaw et al. (2008) and Gill et al. (2004) in that the first and second generation Mexican American mothers’ who participated in this study primarily breastfed their infants; and that cultural and family traditions had a strong influence about their decisions to breastfeed. The perspectives and values of nine out of ten participants about the method of feeding of their infants did not appear to be impacted by acculturation.

Additionally, the findings of this study confirm the results of previous studies which indicate that the majority of women make their infant feeding decision prenatally regardless of method that they choose (Balcazar et al., 1995; Dungy, 1989; Shepherd et al., 2000). Moreover,
the current study confirmed findings from previous studies that revealed that ethnic beliefs and cultural practices influence how mothers make decisions (Fishman et al., 1988; Kanna et al., 1999; Lipsky et al., 1994).

**Unsaturated Findings in the Literature**

Although not saturated in the findings but may be beneficial to explore further in future studies included influential persons in the decision to formula feed. One participant (P7) felt that WIC influenced her decision to formula feed and two participants (P4 and P6) felt that there was a societal push to formula feed infants. Additionally, four participants (P1, P6, P7, and P10) felt that the return to work or school influenced their decision to formula feed and four participants (P5, P6 and, P7) felt that formula feeding companies influenced them to formula feed their infant.

Some additional, unanticipated findings did emerge from the interviews about family traditions that the participants discussed; although, they were not related to the focus of the study, specifically infant feeding decisions (e.g., breastfeeding or formula feeding), and they did not reach saturation. However, these were examples of other traditions that some of the participants shared about the use of traditional Mexican healing methods and the introduction of traditional Mexican foods to infants.

Three participants (P2, P6, and P9) all described traditional Mexican healing methods that were used in their family or spouse’s family. Participant 2 did not agree with what can be inferred as a healing method used in her spouse’s family, “They would do something with her back and I just didn’t like it at all. They were like, ‘oh
we have to crack her back’ or something like that, and I didn’t like it at all . . . when she was a brand new newborn, so I didn’t like that either.”

Another participant (P6) described traditional healing methods used in her family,

We started having trouble . . . well, consistently until she was about nine months old, and they she started having some just kind of gastrointestinal issues and tummy issues so then we did the whole home remedy stuff (laughs). Researcher: ‘Tell me about that.’ It was Karo syrup and chamomile tea. We didn’t know if she was colicky or what was going on, so you know, I picked up the phone and called my grandma, and said she was crying….so she goes like, ‘Well, heat up some water, and put in some chamomile tea, put a little bit of Karo syrup in it, not very much, just to sweeten it for her, and give her an ounce about 45 minutes to an hour before you’re going to feed.’ Researcher: Interesting, this was a traditional Mexican home remedy? ’ Yes. So I said okay . . . so I did, and over a week’s span, she was you know back to eating a little bit more normal, but then we introduced two more ounces, so we went from an ounce to two ounces in a week, and the colic kind of subsided, and she was able to feed… and then I had to go back to work, so then I was pumping and that whole thing, so then we introduced formula I think at about 11 months, I was doing half and half.
In addition, participant 9 described some of the traditional Mexican healing methods used in her family,

My grandmother, she grew mint outside the kitchen window, and when us kids had an upset stomach or whatever, or if somebody was on a baby bottle, you know, we had to drink this mint tea, or it was in the baby bottle or the baby’s water. I remember her using . . . she would slice potatoes . . .

Researcher: Very interesting. So I had a fever, you know, and I think I had the measles or the chicken pox, one of the two things, because it was around the time my mother was delivering my sister, so I was like 8 years old, because there is eight years difference. And my grandmother had to keep me away from the house because the baby was gonna come home, and I was sick, so anyway, she sliced these potatoes lengthwise and she put them on the bottom of my feet and wrapped a strip of bacon around these potatoes around my feet, and then she has bricks in the oven, and then my feet went on top of the bricks that were in a towel to keep them warm, and I guess it was to draw the fever out.

Some participants described the introduction of traditional Mexican foods to their infants. The participant’s descriptions of the cultural introduction of foods revealed additional influences of the Mexican culture on first and second generation women. For example, participant 6 described traditional Mexican food introduction with her infant,
Well, my family introduced solid foods (laughs). . . tortilla dipped in bean juice . . . I think she was about six or seven months, and we were having a barbecue and my mother-in-law came over and got a tortilla and dipped it in the juice and handed it to her so she could suck on it, and I freaked out… ‘she’s going to choke’. She goes, ‘It’s going to build her. She needs vitamins, and the pinto beans will give her the vitamins, and she, you know, it’s all home-made, you know, nothing’s wrong, there is no crap in there’…so I said okay. So my family started this at about six months, so when they would stay at grandma’s house, either grandma, I would end up having bean stains, or they would . . . just all kinds of stuff.

**Limitations of the Study**

This study of first and second-generation Mexican-American women is limited due to the fact that all participants were of Mexican descent and living in the Pacific Northwest; and all of the researcher’s observations occurred in this region. Although all of the participants identified as being first or second-generation Mexican-Americans, the participants’ families came from various regions of Mexico. This can be viewed as being strength of the study; however, it is not known if there are regional variations in cultural traditions with regard to the influences of infant feeding decisions among the participants. Future studies examining whether variations in cultural traditions exist in different regions of Mexico that might influence infant feeding choices would be beneficial. This study also contained limited field work. There was not a way for the researcher of this study to observe women in their daily environments and to be able to distinctly identify which women were Mexican-American and which were descendents of other families.
who immigrated from other Central American or Hispanic countries. Future studies would benefit from additional observations of the participants’ interactions with family members, the participants’ activities within their communities, and the observations of actual infant feeding practices of the participants.

Implications for Practice

Health care providers are involved with health promotion education and support their clients with the goal that clients will be influenced by this education and make decisions that bring about an optimal level of health. In order to effectively plan health teaching, it is critical for the HCPs to have sufficient knowledge of what is influencing a person to undertake or to reject an activity (Hally et al., 1984). By conducting a thorough assessment of a mother’s process about the method of feeding her infant, influences can be identified and integrated into infant feeding education. The concept of influence is abstract and is not easily observed due to the subjective, contextual, and temporal nature of the events, interactions and activities that contribute to what influences a person. Empirical referents that demonstrate that influence does occur in the context of infant feeding decisions include: 1) when a mother is struggling with an infant feeding decision she may first evaluate or “weigh” the influences (e.g., family tradition, what infant feeding method is best for the infant) that she has experienced in her life in the hopes of making a “correct” decision. An indication that this “weighing” process is occurring is that the mother may seek additional information about infant feeding methods from family or a HCP; 2) When an infant feeding decision has been made by a mother it is reasonable to assume she has been influenced to make the decision; and 3) When a mother changes to a different infant feeding method than she had planned or was previously implementing, influence is assumed to
have happened. Understanding the influences that can impact maternal infant feeding decisions can improve the HCP’s ability to target education and interventions that are specific to the mother’s actual situated context in which she is making her decision.

**Implications for Future Research**

Influences of maternal infant feeding decisions have received attention in research; however, there remains a critical gap in the understanding of the influences of infant feeding decisions among first and second generation Mexican-American mothers. Further research needs to be conducted to address this lack of understanding. Moreover, the use of the term “Hispanic” in infant feeding research promotes ambiguity in the interpretation and utility of scholarly work among the many ethnic groups that can be classified as “Hispanic”, but who have specific, unique, and varying cultural practices and traditions about infant feeding.

There is also a need for further examination of the role of the HCP as an “influencer” in maternal infant feeding decisions. The HCP is in an ideal position to provide the breastfeeding mother with information that can influence how to safely and effectively do this. In the current study, some participants described that a HCP influenced their infant feeding decision, and one participant felt that WIC influenced her decision to formula feed. Studies have revealed that some HCPs have not been supportive of nor communicated effectively with new mothers about infant feeding methods (Archabald et al., 2011; DiGirolamo, Grummer-Strawn, & Fein, 2003; Khoury, Moazzem, Jarjoura, Carothers, & Hinton, 2005; Taveras et al., 2003; Taveras et al., 2004; Textor, Tiedje, & Yawn, 2013). Examining how HCPs can positively influence and support mothers in their infant feeding decisions are areas of needed research. In addition,
successfully influencing mothers to breastfeed their infants can positively impact the growth and development of their infants, as well as have beneficial effects on maternal health.

Future work could also examine the influences of maternal infant feeding decisions among specific maternal life stages (e.g., Mexican-American adolescent versus young adult mother versus older age mothers) and any regional variations (e.g., northern Mexico, Southern Mexico) in cultural practices or traditions. If unique or dominant influences were found, it could help the HCP better anticipate the care needs of the mother based upon their developmental stage or regional variations in practices and traditions. Additionally, examining the impact of the electronic environment (e.g., social media, Instagram, Facebook, etc.) on maternal infant feeding investigated in infant feeding research.

Although not the focus of the current study, three first and second generation participants described familial traditional/cultural Mexican healing methods that they utilized during their pregnancy as well as with their infants and children. This is an area recommended for further exploration among first and second-generation Mexican-American mothers. The results from this type of research could help HCPs anticipate culturally congruent and safe health care interventions that incorporate some of these healing methods.

**Conclusions of the Current Research**

In order for a HCP to provide culturally specific care related to infant feeding choices by the Mexican-American mother, the HCP must have an understanding of how the woman makes infant feeding decisions. Therefore, this study explored what influences first and second generation Mexican-American women’s infant feeding choices. The results of this study contribute to the body of evidence about this important issue. The influences described by the
mothers in this study have not been previously documented among first and second-generation Mexican-American women. It is important for HCPs to consider these potential influences when providing health education with regard to a woman’s infant feeding decision. Understanding the influences in infant feeding decisions can improve the HCP’s ability to target interventions to the actual feeding decision of the first and second-generation Mexican-American mother within the context of her life. The results of the research also revealed the multitude of influences that first and second generation Mexican-American mothers may contemplate and demonstrates that infant feeding decisions are a complex, personal process. The results of this research contribute to a beginning foundation for ongoing scholarly inquiry on the influences that first and second-generation Mexican-American mothers experience and influence their decision making about infant feeding methods. The study’s ethnographic lens, although limited, has still provided a better understanding about the infant feeding decisions made by this group of mothers living in this region of Washington State. Moreover, HCPs can use knowledge that they gain from this study to provide culturally sensitive and holistic care to first and second-generation Mexican-American mothers.
Appendix A

Literature Review Results (N = 50)

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Appendix B

University of Hawai‘i

Consent to Participate in Research Project:

An Ethnographic Exploration of the Influences of Infant Feeding Decisions among First and Second Generation Mexican-American Mothers

My name is Sara Swett. I am a doctoral student at the University of Hawai‘i at Manoa (UH) in the School of Nursing and Dental Hygiene. As part of the work to earn my degree, I am doing a research study under the supervision of my faculty advisor Dr. Maureen Shannon. The purpose of my study is to learn about infant feeding decisions of Mexican-American mothers. You are being asked to be a part of the study because you are of Mexican descent and you have given birth to at least one child.

Activities and Time Commitment: If you are a part of this study, I will meet with you for an interview at a place and time that is convenient for you. The interview will include between 15 to 20 open ended questions, and will take about one hour of your time. The interview questions that you will be asked will focus on how you made decisions about feeding your infant, as well as what influenced you when you were deciding how you would feed your infant. Also, you will be asked to complete a brief demographic questionnaire that includes questions like “How old are you?” and “What is your marital status?”. You and I will meet at a place that you will choose that you feel is private. I will tape-record the interview so that I can listen to it and have the information typed by a professional typist so that I can analyze what you have told me. Once I finish analyzing what you have told me on the tape recording, you will have the option to take part in a short follow-up interview (that will take less than 15 minutes) to discuss the study findings with me. I will contact you about this meeting and we will meet at a place that you feel is private. Or if you prefer, we can talk on the phone. You will be one of about 15 women whom I will interview for this study.

Benefits and Risks: There will be no direct benefit to you for taking part in this study. But, the results from this study could help nurses, doctors and other health care workers with information on how Mexican-American women make infant feeding choices; and this information could help nurses and other health care workers provide care that is specific to a mother’s culture. There is little risk to you for taking part in this study. But, it is possible someone that you know may find out about your being in the study (this may or may not be a problem for you).

If you at any time during the study you become uncomfortable answering any of the interview questions or talking about topics with me during the interview, we can skip the question, take a break, or stop the interview. Also, you can withdraw from the study altogether.

Privacy and Confidentiality: Once you agree to take part in this study and sign the informed consent form your name will not be used on any of the study questionnaires or the tape-recordings. Instead you will be given number that will be placed on the questionnaires and the tape recordings that belong to your information. Also, all of the forms and tape recordings
collected during this study will be kept in a private, secure location. Only my University of Hawai‘i advisor, Dr. Shannon, and I will have access to these materials, although legally authorized agencies, including the UH Human Studies Program, can review research records. The research questionnaires, tape recordings of the interviews, informed consent forms will be destroyed after all of the analysis is completed, my dissertation study has been written, and scientific papers are published. When the results of the study are reported, neither your name nor any other personally identifying information will be included. Rather, your study number will be used in order to protect your privacy and confidentiality to the extent allowed by law.

**Voluntary Participation:** Your taking part in this study is completely voluntary. You may stop taking part in the study at any time without any penalty or loss of health care services.

As compensation for the time you spend taking part in this study, you will be provided a $20 Visa gift card.

If you have any questions about this study, please call me at (253) 255-8845 or email me at sswett@Hawai‘i.edu. You can also contact my advisor, Dr. Maureen Shannon, by calling (415) 531-0632 or emailing her at maureens@hawaii.edu. If you have any questions about your rights as a research participant, please contact the UH Human Studies Program, by phone at (808) 956-5007, or uhirb@hawaii.edu.

If you agree to participate in this study, please sign and date this signature page:

**Signature:**

I have read and understand the information provided to me about taking part in the research study, *An Ethnographic Exploration of the Influences of Infant Feeding Decisions among First and Second Generation Mexican-American Mothers.*

My signature below indicates that I agree to take part in this research study.

Printed name: _____________________________

Signature: _____________________________

Date: _____________________________

If you wish, you will be given a copy of this consent form for your records.
Appendix C

Research Flyer Version 1

Infant Feeding Decisions among Mexican-American Mothers

Chance to Help in Nursing Research

Who can help?

- Women at least 18 years of age who:
  - Have given birth to a live child in their lifetime
  - Are first or second generation Mexican descent (you were born in the U.S. but your mother or father or grandmother or grandfather was born in Mexico)
  - Can speak English
  - Are not currently pregnant

What would I do in the study?

You would meet with the researcher to talk about the study (5 minutes), sign a consent form to participate in the research (5 minutes), fill out a short demographic questionnaire (5 minutes), and complete an interview with the researcher (45-60 minutes). Interview questions will focus on how you made your infant feeding decision.

As compensation for the time spent participating in the research, participants will receive a $20 Visa gift card.

For more information, please contact the Nurse Researcher:
Sara Swett, RN, BSN, MSN at (253) 255-8845, ssweet@hawaii.edu
Appendix D

Research Flyer Version 2

Infant Feeding Decisions among Mexican-American Mothers

Chance to Help in Nursing Research

Who can help?

Women at least 18 years of age who:

- Have given birth to a live child in their lifetime
- Are first or second generation Mexican descent (you were born in the U.S. but your mother or father or grandmother or grandfather was born in Mexico
- Can speak English
- Are not currently pregnant

What would I do in the study?

You would meet with the researcher to talk about the study (5 minutes), sign a consent form to participate in the research (5 minutes), fill out a short demographic questionnaire (5 minutes), and complete an interview with the researcher (45-60 minutes). Interview questions will focus on how you made your infant feeding decision.

As compensation for the time spent participating in the research, participants will receive a $20 Visa gift card.

For more information, please contact the Nurse Researcher:
Sara Swett, RN, BSN, MSN at
(253) 255-8845, sswett@hawaii.edu

For more information, please contact the University of Hawaii Manoa.
Appendix E

Demographic Questionnaire

1. How old are you? __________

2. How would you describe your marital status (please circle one)?
   A. Married
   B. Engaged
   C. Divorced
   D. Widowed
   E. Single – living with a partner
   F. Single – not living with a partner

3. I am currently living with the father of my baby/child/children?
   A. Yes
   B. No

4. Are you a first or second generation Mexican-American (circle one)?
   A. First Generation: My mom OR dad is Mexican and was born outside the United States and I was born in the United States.
   B. Second Generation: My grandma OR grandpa is Mexican and was born outside the United States and I was born in the United States.

5. Which of your family members immigrated from Mexico (circle all that apply)?
   A. Mom
   B. Dad
   C. Paternal grandmother (your father’s mom)
   D. Paternal grandfather (your father’s dad)
   E. Maternal grandmother (your mother’s mom)
   F. Maternal grandfather (your mother’s dad)
   G. Others: __________________________________________

6. Do you know what town, city, area, or region of Mexico that your family immigrated from?
   A. Yes, if yes, please describe ________________________________
   B. No
7. Do you work outside your home?
   A. Yes, if yes, please circle one of the following: 1) I work full time OR 2) I work part-time
   B. No
8. Do you currently receive assistance for food, cash, child care, and/or medical care from Washington State (i.e. TANF-Temporary Assistance for Needy Families)?
   A. Yes
   B. No
9. How many children do you have? ____________
10. How old were you when your child/ren was/were born?
    A. I was ________ years old when my first child was born
    B. I was ________ years old when my second child was born
    C. I was ________ years old when my third child was born
    D. I was ________ years old when my fourth child was born
    E. Age when other children were born:
        __________________________________________________________
        __________________________________________________________
        __________________________________________________________
Appendix F

Research Interview Guide

1. Please tell me about your family.

2. Please tell me about the feeding method or methods that you used with each of your child/children when they were born.

3. Please share with me how you made the decision to feed each of your children?

4. Were you working outside your home when you had your child/children? If so, did you return to work after giving birth? If so, how much time did you take off from work before returning?

5. Please tell me what you think the benefits of breastfeeding are.

6. Please tell me what you think the benefits of formula feeding are.

7. Please share with me your personal experience with ____________ (insert breast or bottle feeding as applicable to the participant’s prior noted feeding method)?

8. How long did you ____________ your child? (insert breast or bottle feeding)

9. What method did you use after stopping ____________ (insert breast or bottle feeding)?

10. Please share with me information about what you know about traditional Mexican infant feeding methods.

11. Please tell me how you think that the Mexican culture influenced your infant feeding decision.

12. Please tell me how your family’s traditions influenced your infant feeding decisions?

13. Was your husband or father of the baby involved in making your infant feeding decision? If so, please share with me in what way he was involved in this decision.
14. Were there other influences (e.g., people or situations, advertisements in magazines or television, etc.) in your infant feeding decision that we have not discussed? If yes, please describe these for me.

15. Are there any other things about infant feeding that I have not asked you that you would like to share?

16. Would you be willing to be contacted for a brief interview (less than 15 minutes) to discuss the study results? If yes, what is the best phone number to contact you at?

17. Can you share with me what it has been like for you to be in this study?
## Appendix G

**Codes, Categories, and Themes**

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*Benefits of breastfeeding_bonding with baby
*Benefits of breastfeeding_matching rythyms of the heart
*Benefits of breastfeeding_you will always love your child
*Benefits of breastfeeding_have a good relationship with the child
*Influence_breastfeeding_first 90 days very

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*Influence_Feeding Decision_what was healthiest
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*Influence_breastfeeding_laws supporting public breastfeeding
*Influence_breastfeeding_LecheLeague
*Influence_breastfeeding_More people in U.S. doing it
*Influence_breastfeeding_societal pressure
*Influence_breastfeeding_WIC
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*Benefits of breastfeeding_safer
*Influence_breastfeeding_can always have baby with her
*Influence_breastfeeding_cost is economical
*Influence_breastfeeding_having a system
*Benefits of breastfeeding_fewer or less coughs
*Benefits of breastfeeding_fewer or no stomachs
*Benefits of breastfeeding_fewer school absences
*Benefits of breastfeeding_less allergies if any
*Benefits of breastfeeding_immune system
*Benefits of breastfeeding_less or no earaches
*Influence_breastfeeding_work or school have support measures in place
*Influence_breastfeeding_able to pump at work or school
*Influence_breastfeeding_participant family
*Influence_breastfeeding_family support_make meals
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*Benefits of breastfeeding_mom produces everything they need
*Benefits of breastfeeding_grow better
*Benefits of breastfeeding_helps more in lifetime
*Benefits of breastfeeding_baby will be smarter
*Benefits of breastfeeding_baby not lazy
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*Benefits of breastfeeding_what isn't a benefit
*Benefits of breastfeeding_weight loss and birth control
*Benefits of breastfeeding_better for the mother
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* Breastfeeding_difficulty_gorging
* Breastfeeding_difficulty_sore nipples
* Breastfeeding_difficulty_very tiring
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<td>Formula feeding</td>
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<td>47</td>
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<td>27</td>
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</tbody>
</table>
*Benefits of formula feeding_anyone can do it
*Benefits of formula feeding_less stress on body
*Benefits of formula feeding_no sore or chapped nipples
*Benefits of formula feeding_less attached to breastmilk
*Benefits of formula feeding_you can put it away
*Influence_formula feeding_employment
*Influence_formula feeding_help with housework
*Influence_formula feeding_lack of familial support
*Formula companies_pushy
*Reason for stopping method_breastfeeding_infant didn’t want to *be on breast
*Reason for stopping method_breastfeeding_lack of milk production
*Reason for stopping method_breastfeeding_medical complications
*Reason for stopping method_breastfeeding_post-partum medications
*Reason for stopping method_breastfeeding_return to work
*Influence_lack of time off of work

<table>
<thead>
<tr>
<th>Codes</th>
<th>Categories</th>
<th>Coded Statements</th>
<th>Number of Participants Making Statements per Theme 4: Disadvantages of Formula Feeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N=13 codes associated with the theme, reduced to n= 5 merged codes)</td>
<td>(N=1)</td>
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126
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<th>Theme 5: Mexican Traditions</th>
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<tbody>
<tr>
<td>Disadvantage_formula feeding_not as nutritous and/or poorer infant health outcomes</td>
<td>Nutrition value and/or poorer infant health outcomes compared to breast milk</td>
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<tr>
<td>Disadvantage_formula feeding_you will not love the baby as much</td>
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<td>Disadvantage_formula feeding_more work/responsibility (home-made formula)</td>
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<td>Disadvantage_formula feeding_bad smell</td>
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<td>Disadvantage_formula feeding_increased cost</td>
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<td>*Disadvantage_formula feeding threesome higher BMI for the infant</td>
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<td>*Disadvantage_formula feeding constipation</td>
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<td>*Disadvantage_formula feeding increased incidence allergies</td>
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<td>*Disadvantage_formula feeding infant cannot tolerate it</td>
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<td>*Disadvantage_formula feeding sick more often</td>
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<td>*Disadvantage_formula feeding teeth rot</td>
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<td>*Disadvantage_formula feeding associated with baby/child being lazy</td>
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<td>*Disadvantage_formula feeding not as nutritious</td>
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(N=7 codes associated with the theme)

(N=1)

Number of Participants: 16

Making: 5
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<thead>
<tr>
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<th>Statements per Category</th>
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<td>• Value in keeping Mexican traditions going within the participants’ own family</td>
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<td>• 9</td>
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<td>Traditional breastfeeding techniques be in a quiet room</td>
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<tr>
<td>Traditional breastfeeding techniques co-sleeping</td>
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<tr>
<td>Traditional breastfeeding techniques drink green tea while feeding</td>
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<tr>
<td>Traditional breastfeeding techniques feed until infant falls asleep</td>
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<tr>
<td>Traditional breastfeeding techniques put feet up</td>
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<tr>
<td>Traditional feeding wet nursing in Mexico</td>
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</tbody>
</table>

*Asterisk codes denotes codes that were merged with other codes in the theme that are not italicized; resulting from synthesis and reduction during the thematic analysis process.*
References


http://dictionary.reference.com/browse/first+generation?s=t


http://dictionary.reference.com/browse/second+generation?s=t


