Running head: AN EVIDENCE-BASED OVERVIEW

An Evidence-Based Guideline for Optimal Breastfeeding Education for Mexican-American Mothers: A Best Practice Project

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Abstract

The purpose of this paper was to develop a best practice protocol for breastfeeding education among Mexican-American mothers. The author will first identify and present the problem in regards to nursing and public health. She will then discuss the physiology of lactation; the specific focus will be on the physiologic and psychosocial advantages to the mother and infant. A brief overview of culturally specific values to people of Mexican heritage affecting motherhood, pregnancy, and childbearing will be presented. This will be followed by discussion of culturally specific attitudes and values affecting breastfeeding as well as the effects of acculturation on breastfeeding. The author will then present and discuss the available research pertaining to previously attempted interventions followed by her recommendations for best practice protocol, implementation, and evaluation of the proposed protocol.

Chapter 1

Introduction

The purpose of this paper was to develop a best practice protocol for breastfeeding education among Mexican-American mothers. This chapter will identify and present the problem, discuss background information that is fundamental in understanding the problem, and discuss the significance of the problem to nursing and public health as a whole.

Background

The World Health Organization (WHO) recommends that newborns exclusively breastfeed for the first six months of life and then continue to breastfeed for the next two years or more with complimentary foods added (World Health Organization, 2003). The American Academy of Pediatrics (AAP) recommends exclusive breastfeeding (see Table 1) for the first six months of the infant's life and continued breastfeeding with complimentary foods for at least the first 12 months of life (American Academy of Pediatrics, 1997). In a document put out by the United States Department of Health and Human Services (USDHHS, 2000) called *Healthy People 2010,* the goals for breastfeeding were that 75% of postpartum women should initiate breastfeeding with 50% continuing at six months, and 25% continuing at one year. In addition to these goals, the USDHHS (2000) also established goals for breastfeeding exclusivity stating that 40% of mothers should be exclusively breastfeeding at three months and at least 17% should be exclusively breastfeeding at six months. These global and national organizations have created the above recommendations and goals because breastfeeding is the optimal source of nutrition for infants and has multiple advantages for mothers, families, and their children as well as larger scale advantages for the society as a whole (WHO, 2003; AAP, 1997; USDHHS, 2000; Black, Jarman, & Simpson, 1998; Ladewig, London, & Davidson, 2006).

Breast milk is the perfect combination of nutrients and has the needed bioavailability for the infant to absorb and utilize (Black, et al. 1998; Ladewig et al. 2006). It also offers the infant a plethora of immunological advantages and promotes a protective barrier against many common infections (Black, et al. 1998; Ladewig et al. 2006). Breastfeeding provides the optimal environment for the mother and infant to build trust and a secure attachment as well as providing closeness through skin to skin contact (Black, et al. 1998; Ladewig et al. 2006). In addition to advantages for the infant and mother, breastfeeding is economically efficient, inexpensive to the family and society, and is not a source of infection due to contaminated water (Black, et al. 1998).

Despite these advantages and recommendations, the Centers for Disease Control and Prevention (CDC, 2006) show the United States still stands at 74% of all mothers initiating breastfeeding, 41.5% of mothers breastfeeding at six months, only 11.3% of mothers exclusively breastfeeding at six months, and 22% still breastfeeding at 12 months (CDC, 2006). In comparison, Mexico has a 92% breastfeeding initiation rate with 31% of those mothers still breastfeeding at one year (Gonzalez-Cossio, Moreno-Marcias, & Rivera, 2003). These statistics show the clear disparity between breastfeeding practices among American women and Mexican women. The breastfeeding initiation rate of Hispanic (see Table 1) mothers is 79.8%, with 42 % of those mothers breastfeeding at six months, only 12.6% exclusively breastfeeding at six months, and 21.7 % still breastfeeding at 12 months (CDC, 2006). As demonstrated by this statistic, the prevalence of breastfeeding rates among Hispanic mothers is comparable to that of the general U.S. population. However, they still fall short of the duration and exclusivity targets of *Healthy People 2010*. Mexican-American mothers are included in these statistics and as seen above, in comparison to their Mexican counterparts their breastfeeding rates are much lower.

Multiple research studies done with populations of Mexican-American women strongly support an association between increased acculturation to the society of the United States with decreased breastfeeding initiation and duration rates (Beck, 2006; Gibson, Diaz, Manious, & Geesey, 2005; Gibson-Davis & Brooks-Gunn, 2006; Gill, 2009; Gorman, Madlensky, Jackson, Ganiats, & Boies, 2007; Harley, Stamm, & Eskenazi, 2007; Balcazar, Trier, & Cobas, 1995). The evidence suggests that Mexican-American women may be losing their cultural breastfeeding practices the more time they assimilate to the American culture and hold residence in the United States. Thus, culturally competent and comprehensive breastfeeding education is needed to increase the rates and duration of breastfeeding among Mexican-American mothers as well as maintain cultural values that promote breastfeeding.

Purpose

The purpose of this paper was to develop and present a best practice protocol for breastfeeding education among Mexican-American mothers. In order to fulfill the purpose of this project, a literature review was conducted and highlights of that will be presented in the latter chapters. The author will also present recommendations for best practice as well as implementation and evaluation of the best practice protocol.

Significance

This research topic is important to the field of nursing and general public health because it effects the population of the United States as a whole. Hispanic peoples are currently the fastest growing minority group in the country (Witt, 2008). The U.S Census Bureau shows that the Hispanic population in the United States grew by 1.4 million in the year of 2007, causing their population to reach 45.5 million (Witt, 2008). People of Mexican heritage make up the largest sub group in the Hispanic population numbering 29.3 million making up approximately

64% of the Hispanic population and 10.3% of the U.S. population as a whole (United States Census Bureau, 2006-2008). The Hispanic population also has the highest birth rate of any ethnic group in the country (McGlade, Saha, & Dahlstrom, 2004). As stated above, breastfeeding is the healthiest feeding choice for infants and has multiple advantages to families and societies as well (WHO, 2003; AAP, 1997; USDHHS, 2000; Black, Jarman, & Simpson, 1998; Ladewig, London, & Davidson, 2006). If a large percentage of the fastest growing minority group in the nation is choosing the healthiest feeding option for their infants, this nation will have healthier children, healthier adolescents, and ultimately healthier adults. Hispanic people, notably Mexican Americans, have a large effect on this country's public health especially in the maternal child area; therefore their choice to breastfeed will significantly effect the population as a whole.

Summary

Chapter one brought to light the problem; Mexican-American mothers fall short of the *Healthy People 2010* breastfeeding guidelines and as their acculturation status increases, their rates of breastfeeding decrease. This is a significant health concern because the larger and faster the Hispanic population grows, the greater of an effect they will have on the health of the U. S. Promoting healthy feeding choices and nutrition for infants with breastfeeding has the potential to improve the health of the nation as a whole.

A table of relevant definitions as shown in Table 1 provides the reader with a resource in which they can refer to throughout the paper for specific meanings of terms used.

Table 1. Definitions of Key Vocabulary

	Definition
Acculturation	The process by which a non-dominant culture adapts to a new or dominant culture; this includes adopting the values, beliefs, attitudes, and practices of the new or dominant culture (Beck, 2006; Gill, 2009).
Cultural value	A belief about the social world that is shared by a conjoined group of people; most people groups are commonly found to be categorized as national, ethnic, or racial groups (Campos, Schetter, & Abdou 2008).
Exclusive breastfeeding	The consumption of only breast milk with no complimentary foods introduced (Gill, 2009).
Familism	Collectivistic nature; an orientation towards the welfare of the group; the importance that is placed on close family relationships (Romero, Robinson, Haydel, Mendoza, & Killen 2004; Campos et al., 2008).
Hispanic/Latino	People who classify themselves as Cuban, Mexican, Puerto Rican, Central or South American, or Dominican origin regardless of their race (Gill, 2009). It is important to keep in mind that 64% of the Hispanic population in the United States is of Mexican origin, nine percent are of Puerto Rican origin, 7.6% are of Central American origin, 5.5% are of South American origin, 3.4% are of Cuban origin, and 2.8% are of Dominican origin (Gill, 2009).
Social support	Actions or activities that are aimed at supporting and assisting others in dealing with emotional distress, examples of these activities may include sharing tasks, giving advice, teaching coping skills or other needed skills, and providing resources or material needs (Martinez-Schallmoser, MacMullen, & Telleen, 2005).

Chapter 2

Introduction

This chapter will present a review of literature. The chapter will begin with a discussion of the physiologic advantages of breastfeeding. Additionally chapter two will address the developmental and psychological benefits of breastfeeding to the mother and infant. It will include an overview of the Mexican-American culture, starting with an overview of pregnancy and childbearing practices in people of Mexican heritage. This will be followed by a more focused discussion on the specific values of familism and social support and how these cultural values affect breastfeeding. The issue of acculturation will be addressed and a review of literature will be presented regarding how acculturation is affecting breastfeeding in the Mexican-American culture. Interventions reported in regards to promoting breastfeeding in populations of Mexican American mothers will also be discussed, and the chapter will conclude with an evidence based discussion proposing the need for a culturally specific protocol to enhance breastfeeding practices in the Mexican American population.

Physiologic Advantages of Breastfeeding

The fact that breastfeeding is the healthiest feeding choice for infants and has multiple benefits to the infant and mother is a well supported fact (AAP, 1997; Black, 1998; Ladewig, et al., 2006; USDHHS, 2000; WHO, 2003). Breast milk is full of physiological benefits for the infant because it is specific to the human species (Black, Jarman, & Simpson, 1998). Some of those species specific nutrients include: Docosahexanoic acid (DHA) needed for myelanization of the nervous system, citrate needed for absorption of iron, choline a B vitamin needed for memory development, taurine an amino acid needed for bile acid conjugation, inositol a

component of the phospholipid membrane that aids in surfactant secretion, and over 100 enzymes including lipases which are critical in digestion and absorption (Black et al.).

As well as containing the exact amount of needed nutrients, human breast milk also has the needed bioavailablity for the nutrients to be adequately absorbed (Black, et al.). For example, 50% of iron from human milk is readily available for absorption as opposed to only seven percent from iron fortified formulas and cereals (Black, et al.). Breast milk also contains optimal caloric needs for the growing infant thus, breastfed infants have to consume less kilocalories per kilogram (kcal/kg) of body weight in the first year than do formula fed infants (Black, et al.). In breast milk, the percentage of calories that come from fat is greater than the percentage of calories that come from protein which means that burning those calories is producing less nitrogen waste and creating less strain on the infant's immature renal system (Ladewig, et al). This results in a lower renal solute load helping protect the infant from hypernatremic dehydration, diarrhea, and life threatening water losses (Black, et al.).

In addition to being species specific, breast milk also has many immunological advantages to the infant by providing passive immunity from mother to infant (Ladewig, et al.). Mammary glands are surrounded by lymph nodes which drain through the axillary, subclavicular, and internal thoracic nodes providing superficial drainage to the areola creating nipple drainage of lymph fluids (Black, et al.). Lymph fluid contains a lifetime of maternal responses to antigen exposure and is made up of macrophages, lymphocytes, granulocytes and secretory antibodies (Black, et al.). In human milk, macrophages are responsible for recognizing foreign materials, phagocytosis, delivery of IgA and lysozyme to the infant, and comprise 90% of living cells in human milk (Black, et al.). Lymphocytes are responsible for the transfer of systemic immunity from mother to infant and comprise five to ten percent of living cells in

human milk (Black, et al.). Secretory IgA is a vital immunoglobulin secreted in breast milk which has antiviral, antibacterial, and antigeneic-inhibiting properties that specifically play a role in the infant's small intestine or gut (Laedwig et al.).

Breastfeeding also promotes protective barriers against many common infections such as gastroenteritis, diarrhea, sepsis, otitis media, respiratory infections, and urinary tract infections (Black, et al.). Gastroenteritis and diarrhea are thought to be prevented due to the benefits of IgA and bacterial flora in the gut promoted by breastfeeding (Black, et al.). The upright position the infant is held in during breastfeeding is the primary protective factor against otitis media because pooling of milk in the Eustachian tube of the ear is minimized with this position (Black, et al.).

One physiologic advantage for the nursing mother is that an increased number in months of breastfeeding has been found to correlate with a decreased risk of breast cancer (Black et al., 1998; Gill, 2009). Other physiologic advantages for the mothers include more rapid uterine healing resulting in decreased postpartum bleeding and blood loss and a more rapid return of the uterus to its original pre-pregnant state (Gill, 2009).

Developmental and Psychosocial Advantages of Breastfeeding

Some developmental advantages of breastfeeding include: development of the central nervous system by enhancing myelanization of nervous tissue, strengthening of facial-mandibular muscles, and promotion of dental and periodontal health in the infant (Black, et al.). In Erickson's Trust vs. Mistrust stage of development for newborns to children one year old, the primary task is for the infant to gain trust in the primary caregiver and to build a secure attachment (Boyd & Bee, 2006). Breastfeeding allows for an optimal environment to build trust and attachment because the infant's nutrient needs are being met, the act of sucking is soothing to the infant, and the skin to skin contact provides a sense of security (Black, et al.).

Breastfeeding also provides psychosocial advantages to the mother as well as the infant (Ladewig, et al.). Breastfeeding is associated with enhanced maternal-infant attachment because not only does it promote trust building in the infant, it also promotes and increases the maternal feelings of accomplishment in satisfying her infant's needs (Ladewig, et al.).

Breastfeeding can have psychosocial advantages for the parents in many ways. During breastfeeding, hormone levels of prolactin and oxytocin are elevated (Black, et al.). Prolactin can help to promote feelings of closeness and mothering behaviors and oxytocin is associated with even mood responses and general maternal feelings of well-being (Ladewig, et al.). Follicle-stimulating hormone (FSH) and luteinizing hormone (LH) are also elevated during breastfeeding which help to produce lactational amenorrhea aiding as a natural form of contraception (Black, et al.). Maternal weight loss is also promoted by breastfeeding because body fat gained during pregnancy is used by the body to cover a portion of the energy requirements needed to feed the new infant (Black, et al.). In addition to physiological processes that can result in psychosocial advantages, breastfeeding is very economical and inexpensive for the parents (Black, et al.). It is three times less expensive than formula feeding, convenient because it is always available, and always at the right temperature (Black, et al.).

Overview of Pregnancy and Childbearing Practices in People of Mexican Heritage

Pregnancy, in the Mexican culture, is viewed as natural and desirable (Purnell & Paulanka, 2008). A large number of children in the family is proof of the man's virility and is an honorable family characteristic (Purnell & Paulanka, 2008). Traditional Mexican culture tends to be modest and thus the father is generally not included in the delivery but is able to see the mother and infant when they are both cleaned and dressed (Purnell & Paulanka, 2008). Fathers who are involved in the delivery and are supportive of the woman during that time may be

subject to teasing from their friends because they are viewed as taking the supportive role of the woman's mother (Purnell & Paulanka, 2008). This aspect of the culture is especially important to understand when considering breastfeeding as well because it demonstrates the cultural perception of who the new mother's main support system should be.

The Mexican culture has a complex belief system integrated into their cultural practices surrounding pregnancy called the cold/hot theory (Santos-Torres & Vasquez-Garibay, 2003). This theory derives from an ancient culture in America called the Nahuatl and views the environment or situation as either hot or cold (Santos-Torres & Vasquez-Garibay, 2003). Pregnancy is viewed as a hot state therefore during the delivery and postpartum periods, heat is lost, and the woman is in a very vulnerable, fragile state (Santos-Torres & Vasquez-Garibay, 2003). Eating "cold foods" during this time, which would include the time when the woman should be breastfeeding, is discouraged (Santos-Torres & Vasquez-Garibay, 2003). Cold foods include fruit juices, poultry, some fruits and vegetables, avocado, corn, and beans where as hot foods include red meats, onions, and aromatic beverages (Santos-Torres & Vasquez-Garibay, 2003). As seen by this list, it could potentially be detrimental to the breastfeeding mother if she does not eat cold food such as beans, vegetables, or poultry since these are protein staples of the Mexican-American diet.

Another important postpartum tradition in the Mexican culture is called "*la cuarentena*" or the quarantine, which is a 40 day family ritual followed immediately after birth incorporating specific guidelines about maternal diet, daily activities, self care, and infant care (Niska, Synder, & Lia-Hoagberg, 1998). It is a family ritual that not only engages the immediate family, but also the extended family; it crosses generational boundaries, and is extremely helpful is assisting families to adapt to the new lifestyle of parenthood (Niska et al., 1998). During *la cuarentena*,

the new mother is free from many of her responsibilities in the home which allows her to focus on caring for herself and her new infant (Niska et al., 1998). The couple is to abstain from sexual relations during this period and the father is responsible for household tasks such as washing the floors, doing the dishes, taking out the trash, washing the clothes, making the bed, ect. (Niska et al., 1998). All heavy lifting and straining physical activity are restricted for the mother during this time as well as many foods including: greasy, cold, spicy, and agitating foods, and also foods that cause gas (Niska et al., 1998). Many women have specific guideline for dress as well which include wearing an abdominal binder, socks, loose fitting warm clothes, and head coverings (Niska et al., 1998).

The primary responsibility of the new mother during this 40 day quarantine is to learn skills in caring for herself and her infant including: breastfeeding, diapering, bathing, and comforting the infant (Niska et al., 1998). These skills are normally taught by the mother's own mother, her mother-in-law, and possibly her aunts; many times the women's mother will stay with her for the first two weeks postpartum to assist with household chores and teaching (Niska et al., 1998). During the first month of *la cuarentena* the new mother helps the father to learn basic care for the infant as well and by the second month, the father is able to start playing a vital role in the infant's care (Niska et al., 1998). This traditional practice can have multiple positive implications for breastfeeding education; encouragement of breastfeeding as an integral part of the 40 day preparation for parenthood is essential.

Libbus (2000), found in her study that Hispanic women generally had a positive attitude towards breastfeeding and 90% of the women surveyed were intending to breastfeed. Chubby, robust babies are viewed as healthy in the Hispanic culture where as thinner babies are looked upon as frail and not as likely to survive (Clark, 2003). This aspect of the culture greatly affects

women's breastfeeding habits; because they desire for their infants to have enough to eat in order to be healthy and robust, if they do not feel they are able to produce enough milk to meet the infant's nutritional needs, they are predisposed to give supplemental feeding (Clark, 2003; Santos-Torres & Vasquez-Garibay, 2003). During pregnancy, the mother is encouraged to satisfy her cravings because it is viewed that the baby is indirectly causing those cravings, the baby essentially wanted whatever the mother was craving (Clark, 2003). This also relates to a cultural concept of satisfying the baby's needs as well as preferences; satisfying the baby's preferences was comparable to satisfying a pregnant mother's cravings (Clark, 2003). Clark (2003, p. 25) states that this aspect of the culture could be used to encourage "on-demand" breastfeeding by health care professionals.

Gill, Reifsnider, Mann, Villarreal, and Tinkle (2004) found in their study entitled *Assessing Infant Breastfeeding Beliefs Among Low-Income Mexican Americans* that there were three predominant barriers to breastfeeding identified by Mexican-American women. The first was that breastfeeding was embarrassing to do in public and they did not want to expose their breasts to anyone but their partner; this would correlate to the cultural value of modesty (Gill et al., 2004). The second barrier identified was pain, which was correlated with lack of support as seen by many women stating they "did not know what to do", and mentioning they had heard from relatives or friends that it was painful (Gill et al., 2004, p. 44). The third barrier identified was inconvenience related to going back to work or school (Gill et al., 2004). The mindset that was identified by these mothers was if they chose to breastfeed, they would have to stay home with the baby and have limited times when they could go out in public (Gill et al., 2004). Optimal education addresses the needs of the learner, thus these specific barriers need to be addressed in the best practice protocol.

Familism and Social Support as Cultural Values Affecting Breastfeeding

Familism (see Table 1) is a culture mindset of collectivism; an orientation towards the welfare of the group as a whole (Romero et al., 2004). It is also defined as a cultural value (see Table 1), or belief about society shared by a conjoined group of people, emphasizing close family relationships (Campos et al., 2008). Familism is a strong component of Latino (see Table 1) cultures and is distinct from other cultures in the fact that they highly value warm interpersonal relations and place great emphasis on emotionally positive and supportive family relationships (Campos et al., 2008). Three factors are thought to build the dispositional framework of familism in Latino cultures: family support, family obligation, and family as a social referent (Campos et al., 2008). These cultural values and the framework for familism is important to understand when creating a education protocol for breastfeeding mothers because it can give the healthcare workers insight to the barriers, distractions, strengths, and situations they may encounter when educating Mexican-American mothers.

Higher levels of familism are associated with positive health outcomes; when families maintain cultural values such as familism, it assists to decelerate the acculturation process leading to less intergeneration conflicts, resulting in better health outcomes (Romero et al., 2004) Campos et al. (2008) found in their study that pregnant Latinas (88% of those being of Mexican-American descent) reported higher levels of familism than their European-American counterparts. They also found that higher rates of familism were positively associated with overall social support and were negatively associated with perceived stress and anxiety during pregnancy (Campos et al., 2008). Thus, supporting the cultural value of familism during breastfeeding education can help Mexican-American women feel more socially supported and less stress and anxiety.

Social support (see Table 1) is defined by activities that assist others in dealing with emotional distress (Martinez-Schallmoser et al., 2005). As it pertains to breastfeeding support, these activities could include sharing tasks such as assisting with daily household tasks, giving advice or information, teaching coping skills or other needed skills, providing for material needs, giving positive feedback, and encouraging positive social interaction (Martinez-Schallmoser et al., 2005). Social support helps to decrease stress hormones, encourage health promotion behaviors, and adjust one's perception of stressful events (Martinez-Schallmoser et al., 2005). Knowledge and education that breastfeeding is the optimal feeding choice for infants is not enough to encourage women in general to breastfeed; support is an imperative factor (Gill, 2009; Gill, Reifsnider, & Lucke, 2007; Gill et al., 2004; Harley & Eskenazi, 2006; Libbus, 2000; Martinez-Schallmoser et al., 2005).

Libbus (2000) found that education was positively associated with breastfeeding among white non-Hispanic women, but findings were not significant among Hispanic women. Gill et al. (2004) found that among low income pregnant Hispanic women, the influence of their health care professional was not as great on their feeding decisions as was the woman's informational support network. In traditional Mexican-American culture, family and extended family members are considered the primary social support system for an individual member who is in crisis (Martinez-Schallmoser et al., 2005). Gill et al. (2004) found in her study assessing Mexican-American families through focus groups, that pregnant women would first consult their female family members for breastfeeding advice including their mother, sisters, mother in law, grandmothers, and cousins. In addition to the support from their mother and mother in law, it is common in the Mexican American culture to have a "*la partera*" or a lay midwife (Martinez-Schallmoser et al., 2005, p. 757). In creating a best practice protocol for breastfeeding

education, it is vital to know who the culturally accepted support system is when addressing the new mother regarding this topic.

The Effects of Acculturation

Acculturation (see Table 1) is defined as the process by which a non-dominant culture adapts to a new or dominant culture; this includes adopting the values, beliefs, attitudes, and practices of the new or dominant culture (Beck, 2006; Gill, 2009). Acculturation is a multidimensional process that is experienced by groups and on an individual level as well (Beck, 2006). Groups and individuals can have certain preferences and attitudes towards maintaining their heritage, culture, and identity as well as participating in the dominant society that can affect their progression through the process of acculturation (Beck, 2006). This multidimensional way of addressing acculturation means that there can be more than one variable which will affect the acculturation status of each individual Mexican-American mother who is deciding whether or not to breastfeed. It would be inaccurate to make an assumption about a Mexican-American mother's acculturation status based solely on language, amount of time in the United States, age, education or any other one variable among the multitude of possible affecting factors.

The problem which this paper is addressing is heavily attributed to the topic of acculturation. The research strongly points to the phenomenon that as Mexican-American women become more acculturated to the society of the United States, their rates of breastfeeding initiation and duration in turn decrease (Beck, 2006; Gibson et al., 2005; Gibson-Davis & Brooks-Gunn, 2006; Gill, 2009; Gorman et al., 2007; Harley et al., 2007; Balcazar et al., 1995). Gibson-Davis et al. (2006) found in their study that for every year a foreign-born mother or father held residence in the United States, their odds of breastfeeding decreased by four percent. They also found that U.S-born Hispanic mothers were half as likely to breastfeed then their

foreign-born Hispanic counterparts despite their higher socioeconomic status and levels of education (Gibson-Davis & Brooks-Gunn, 2006). Gibson et al. (2005) found that even after controlling for the variables of education, age, and income, Hispanic mothers who were less acculturated and demonstrated closer ties to their cultural traditions, beliefs, and practices were more likely to initiate breastfeeding than those who were more acculturated. Harley et al. (2007) examined the effects of acculturation on breastfeeding duration past the post partum period and found that increased years of residence in the United States was associated with decreased breastfeeding initiation probabilities and shorter duration of exclusive breastfeeding in women of Mexican descent.

The above evidence suggests that Mexican-American women may be losing their cultural breastfeeding practices the more time they acculturate to the American society and hold residence in the United States. Thus, culturally competent and comprehensive breastfeeding education is needed to increase the rates of initiation and duration of breastfeeding among Mexican American mothers who are more acculturated as well as maintain cultural values that promote breastfeeding within the population as a whole.

Review of Literature and Evidence: Previous Interventions

The decrease in breastfeeding initiation and duration rates that accompanies increasing acculturation among Mexican-American mothers is a recognized issue among the research community, thus there have been a handful of interventions implemented and evaluated addressing this problem. The first of those interventions was a study done by Gill et al. (2007), which was conducted through two public health department maternity clinics in the southwest United States using a sample of 180 participants all of whom were Hispanic women of Mexican descent. The study intervention incorporated a prenatal education program as well as postpartum

telephone calls and home visits (Gill et al., 2007). The women in the intervention group received prenatal education about breastfeeding including discussion of issues such as embarrassment, discrete methods of breastfeeding, and feeding expressed milk (Gill et al., 2007). They also received telephone support calls at four days, two, three, four, and six weeks postpartum as well as three, four, five, and six months postpartum (Gill et a., 2007). At any time during a telephone support call, if a mother requested or a member of the research team felt it was necessary, the woman would receive a home visit from either a bilingual lactation consultant or lactation educator to further assess and meet her breastfeeding needs (Gill et al., 2007). All women in the intervention group received at least one home visit and during each visit, the infant was also weighed (Gill et al., 2007). This intervention was incredibly successful with the results indicating that the intervention group had twice the odds of starting breastfeeding, twice the odds of continuing breastfeeding for six months, and half the tendency to quit at any given point than did the control group (Gill et al., 2007).

Chapman, Damio, Young, & Perez-Escamilla (2004) conducted an intervention evaluating the effectiveness of breastfeeding peer counseling among a low-income Latina population. Peer counselors were women from the community who had completed high school, had breastfed one child for a minimum of six months, and who were trained in breastfeeding management; preference was given to women who were bilingual also (Chapman et al., 2004). Each mother in the intervention group received one prenatal home visit, daily perinatal visits, and three postpartum home visits as well as telephone support calls from their peer counselors (Chapman et al., 2004). Breastfeeding rates were evaluated at birth, one, three, and six months (Chapman et al., 2004). This intervention was found to be successful because Chapman et al. recorded significantly lower rates of breastfeeding initiation in the control group and that the

probability of stopping breastfeeding was much lower in the intervention group at one and three months.

Another intervention developed and tested for breastfeeding education intended for Hispanic women was done by Schlickau and Wilson (2005). This intervention was done with only 25 participants thus yielded inconclusive and insignificant results but the study design itself was interesting and is valuable as a possible idea for future interventions (Schlickau & Wilson, 2005). Breastfeeding education was done prenatally and introduced a concept called "baby quarantine" based off of the cultural practice of *la cuarentena,* where nothing is introduced into the baby's mouth during the 40 days except for the woman's breast (Schlickau & Wilson, 2005, p. 31). This concept helped discourage the use of pacifiers, bottles, and feeding supplementation in the immediate postpartum time period (Schlickau & Wilson, 2005). The researchers predicted that the study would have yielded more significant outcomes if the population size was increased (Schlickau & Wilson, 2005). The fact that the researchers used a cultural model for their creation of the education protocol is a strength and provides a wonderful concept for further research.

Culturally Specific Protocol to Enhance Breastfeeding Practices

"A one size fits all approach to breastfeeding education and support is not effective." (Gill, 2009, p. 249). As seen by the previous discussion of cultural values surrounding breastfeeding and acculturation as a barrier to the continuation of phenomenal breastfeeding rates among Mexican mothers, a culturally specific education protocol could be beneficial to Mexican-American mothers. There are many valuable cultural practices surrounding pregnancy and childbearing in the Mexican-American culture that can be transposed and adapted to assist with breastfeeding education as well. Unless health care workers are familiar with these cultural

practices, they are seldom supported (Martinez-Schallmoser et al., 2005). This statement suggests that a culturally specific protocol to enhance breastfeeding practices in Mexican-American women is not only needed for the benefit of new mothers, but is also needed to enhance the efficacy of the intervention being delivered by the health care workers interacting with and educating this population.

Summary

Breastfeeding is beneficial to the infant, parents, family, and society as a whole encompassing physiologic, developmental, and psychosocial areas of benefit (AAP, 1997; Black, 1998; Ladewig, et al., 2006; USDHHS, 2000; WHO, 2003). People of Mexican-American origin have many specific cultural practices in regards to pregnancy and childbearing including: specific men's and women's roles during the process, the value of having chubby babies, the cold/hot theory, *la cuarentena*, modesty, familism, and social support systems being found in immediate family members as well as extended family (Campos et al., 2008; Clark, 2003; Gill et al., 2004; Libbus, 2000; Martinez-Schallmoser et al., 2005; Niska et al., 1998; Purnell & Paulanka, 2008; Romero et al., 2004; Santos-Torres & Vasquez-Garibay, 2003). Breastfeeding rates, which are highly affected by the benefit of cultural values, are being negatively affected by the process of acculturation or the adaptation from the non-dominant Mexican culture to the dominant culture of the United States (Beck, 2006; Gibson et al., 2005; Gibson-Davis & Brooks-Gunn, 2006; Gill, 2009; Gorman et al., 2007; Harley et al., 2007; Balcazar et al., 1995).

Some interventions have been done in order to address this problem and have found that social support through meeting or telephone in home follow up, the support of breastfeeding peer counselors, and the incorporation of cultural practices have been effective and yielded positive outcomes (Chapman et al., 2004; Gill, 2009; Gill et al., 2007; Martinez-Schallmoser et al., 2005;

Schlickau & Wilson, 2005). As seen by the information presented in chapter two, there is a need for a culturally specific breastfeeding education protocol in order to increase physiologic and psychosocial benefits for Mexican-American mothers, and also to enhance the effectiveness of the intervention being provided by health care workers.

Chapter 3

Introduction

The purpose of this paper was to create a best practice protocol for breastfeeding education among Mexican-American mothers. The background and significance of the problem have already been addressed in chapter one, and a comprehensive literature review was presented in chapter two providing a solid base of knowledge in proposing this best practice protocol. Chapter three will discuss the proposed recommendations of the author after careful and detailed review of the literature. Medline Ovid and CINAHL were used as databases for the literature review. The author used Mexican-American, Hispanic, and breastfeeding as key words in her searches and then combined the search results in order to narrow the topic. Once relevant articles were found, she reviewed the reference section of each article and used this to further search for other sources that were possibly relevant to the topic. Due to the limited amount of articles available, the author did not limit the year on the search; despite this, the majority of the articles came from journals published with in the last 10 years.

Recommendations for Best Practice Protocol

The following proposed best practice protocol was modeled after the present breastfeeding support group at Tucson Medical Center (TMC). The best practice protocol incorporates evidence from the research mentioned previously and would be an addition to the present support group now operating at the facility. The proposed best practice is a breastfeeding support group specifically for Mexican-American mothers. Many ideas and activities will be modeled after the current support group at TMC, but others will be newly incorporated and culturally specific.

The present support group at TMC takes place on Thursdays from ten to eleven thirty in the morning and meets in the Patio building fireplace room on campus near the entrance at Beverly and Grant. The support group specific to Mexican-American mothers would take place on a separate day but meet in the same room because it is easily accessible for women who might have to ride the bus, it is not difficult to find, and it has plenty of space. The support group would meet weekly and would be called a "family breastfeeding support group" with emphasis on the fact that the women are welcomed and encouraged to bring their mothers, mother-in-laws, sisters, cousins, aunts or anyone who they would consider an integral part of their support system. Mothers would also be informed that if they have other children at home, they are welcome to come as well. Ideally there would be a separate area for childcare run by one patient care technician (PCT) from the TMC postpartum unit. This service would be provided to the mothers if they so chose to utilize it, but it would not be required. Similar to the present TMC support group, one or two lactation consultants would run the family breastfeeding support group depending on how many women were attending. Preferably the chief lactation consultant leading the group would speak both English and Spanish and would be knowledgeable about the Mexican-American culture. Women would receive information about this support group during their postpartum hospital stay at TMC via their admission packet; if plans to breastfeed were indicated, they would receive the information again during their discharge teaching. They would then be contacted via phone, text, or email depending on their preference indicated for follow up by a lactation consultant. The woman would also be asked if she was planning on observing *la cuarentena*. If she was, the support group would specifically be emphasized as a safe place for her to focus on developing skills to better care for herself as a new mother and her infant which are the key cultural responsibilities of the woman during this time (Niska, et al., 1998).

During the first half an hour of the support group, mothers would have the opportunity to weigh their infants as the lactation consultant keeps a record of the infant's weight as well as the date in a log. The mothers would then be able to see the growth of their infant weekly as they attended the support group. Also during this time, the mothers would have the chance to interact and socialize with each other and their support persons.

The next half hour of the group would be focused on teaching a relevant topic to breastfeeding in the Mexican-American culture. These topics would not be in chronological order, but instead would rotate through so that a woman at any phase of breastfeeding would be able to benefit from the teaching. Please see Appendix A for a visual chart of the *Family Breastfeeding Schedule of Activities and Cultural Significance* to view the teaching topics and the evidentiary support for those subjects chosen.

During the last half and hour of the support group the mothers and their support persons would have the opportunity to ask questions about material that was presented as well as any questions they may have about breastfeeding, childbearing, or pregnancy in general. This leaves time for socialization, discussion, comments, and concerns. During this time, mothers would have an opportunity to address any personal or specific breastfeeding issues they may be having with the lactation consultant. To respect the cultural value of modesty, there would be a corner with a chair and a transportable curtain so that if a mother needed to demonstrate, or show the lactation consultant something, she could do so with out feeling exposed. If the budget allows, the women would also be given positive incentives such as door prizes, a large raffle prize, or small snacks in order to encourage them to come again or bring their friends.

The currently participating women would ideally receive weekly reminder phone calls encouraging them to attend the support group. These phone calls would be done either by the lactation consultant or by non-clinical personnel who were bilingual and knowledgeable about breastfeeding. Based on the findings of Chapman et al. (2004) pertaining to breastfeeding peer counseling, the author would recommend that the reminder calls be preferably done by bilingual non-clinical personnel who have had personal experience with breastfeeding. These weekly reminder phone calls would also be used as an opportunity to encourage and support continued breastfeeding and provide education if needed. After the group was well advertized in the community and there were women who consistently attended, these support calls would theoretically become less necessary.

The author recommends this intervention as best practice not only because it is evidence based, but because it is also quite cost effective. Gill et al. (2007) incorporated a prenatal education program, postpartum telephone calls, and home visits which were all found to be successful and effective. Unfortunately, personalized home visits done upon request are costly to the facility and require more resources including: transportation, gas, funds to compensate for travel time, and a larger pool of available and trained employees. A support group that is lead by one to two lactation consultants and utilizes employees to assist with organizational tasks has no travel costs, no travel time, requires less personnel, and can cost effectively reach more women.

Summary

The best practice protocol recommended by the author is a "family breastfeeding support group" that is specified for Mexican-American mothers and their support persons. The support group would incorporate weighing the infants each session, socialization and discussion among the participants, a weekly teaching topic that is culturally relevant to breastfeeding, and a time

period allotted for general questions. All of the choice interventions are evidence based and cost efficient making this the best practice protocol for optimal breastfeeding education among Mexican-American mothers.

Chapter 4

Introduction

This chapter will discuss the hypothetical implementation of the proposed best practice protocol at TMC in Tucson, Arizona. The theoretical framework that will be used is Everett M. Rogers' (2003) Theory of Diffusion of Innovations which is a five stage process that was formulated to communicate and introduce new ideas developed through research to a specific population. The stages of the theory that will be discussed in this chapter include knowledge, persuasion, decision, and implementation. This will be followed by an outline of the implementation process presented in table format.

Knowledge Stage

In the knowledge stage of the theory, the nurses and lactation consultants of the TMC's postpartum unit will become aware of the existence of the problem and the corresponding new idea to address the problem (Burns & Grove, 2007). In this case, the new idea would be the proposed family breastfeeding support group. The realization of a need for innovation could come from a multitude of factors including: the high volume of Mexican-American mothers seen on the unit, cultural concerns that are unique to this population, lack of a Spanish friendly breastfeeding support group, or the low numbers of Mexican-American mothers attending the current breastfeeding support group. These factors could prompt the staff on the unit to desire to learn more about the problem which can happen through formal or informal communication. Some examples of formal communication that would allow a staff member to gain more knowledge about the problem include research journals, internet sites, or educational presentations (Burns & Grove, 2007). Informal communication is when healthcare workers talk amongst each other resulting in raised awareness of the research knowledge (Burns & Grove,

2007). W. Hendrickson, the unit manager of the postpartum unit at TMC, stated that she believes one-on-one communication is the most effective way to raise awareness on the unit (personal communication, April 26, 2010). However, the postpartum unit at TMC holds monthly staff meetings which are well attended and frequently include a monthly educational topic presented by the lactation consultants (W. Hendrickson, personal communication, April 26, 2010). This would be a great avenue to use for a presentation of the problem and to propose the new support group as an option to the staff. The unit also has a website where all of the information presented in the staff meeting is posted for those who could not attend; regular update emails containing information from the staff meetings are sent out as well (W. Hendrickson, personal communication, April 26, 2010).

In addition to different avenues of communication, the knowledge stage is also influenced by the previous practices of the unit, acknowledgement of the problem, and the willingness for the staff to implement change (Burns & Grove, 2007). The current breastfeeding support group has been successfully in place since 2001 (S. Dennis, personal communication, April 15, 2010). It may present a challenge to propose the need for an additional support group when the current group has had long term success.

Other questions and concerns that should be addressed during the knowledge phase are socioeconomic characteristics, personality variables, and communication and decision-making behaviors of the unit (Burns & Grove, 2007). Does the staff see the need for this change and how open will they be to implementing it? Will the change be efficient, effective, and realistic for the unit to implement? Please see Table 2. Implementation Outline for detailed activities and costs of the knowledge stage.

Persuasion Stage

During the persuasion stage, the staff of the unit form an attitude towards the new idea; it can be either positive or negative (Burns & Grove, 2007). The lactation department would be the key proponent of influencing the staff's attitude towards the proposition of a new support group. They would best be able to propose and convince others that this change is positive because they work hand in hand with the nurses to promote breastfeeding support and education. Support, enthusiasm, and recognition of a need for change from the unit's administration and management staff is also a vital factor to the persuasion stage.

The first step in implementing this new change at TMC would be to persuade and gain the support of the clinical practice team which is made up of obstetric and pediatric physicians who currently practice at TMC (W. Hendrickson, personal communication, April 26, 2010). This is done by presenting them with a written proposal which would be collaboratively written by the lactation department and the administration of the postpartum department. The team would then look over the proposal to identify any needs for change or missing information. The second step in the persuasion process is to obtain approval from the official obstetric/pediatric operations meeting which happens on a monthly basis. Factors that would be emphasized in this presentation would be one, the need for change presented from an evidence based perspective and two, emphasizing the fact that there are no other breastfeeding support groups like that of the proposed currently in Tucson.

Decisions Stage

During the decisions stage, the innovation is either accepted or rejected (Burns & Grove, 2007). After gaining the support of the clinical practice team and obtaining approval from the official operations meeting, the written proposal for the breastfeeding support group would then have to be reviewed and accepted by the Director of Women's Services (W. Hendrickson,

personal communication, April 26, 2010). A staff member of the Women's Services Financial Department will do a cost benefit analysis and review the possible budget options to fund the proposed program. They would look at enhancing the budget of either the lactation or postpartum departments to accommodate the new program; they may also look into the possibility of receiving a grant or obtaining a private benefactor who would provide funding. If accepted by the Director of Women's Services, the proposal would then go to the Chief Operating Officer of TMC for approval (W. Hendrickson, personal communication, April 26, 2010). Lastly, the proposal would need to be approved by the Chief Executive Officer (CEO) of TMC in order to move forward with implementation (W. Hendrickson, personal communication, April 26, 2010).

Implementation Stage

The proposal would actually be put into practice by the unit during the implementation stage (Burns & Grove, 2007). After confirmation of proposal acceptance, the unit can start planning the logistics of the family breastfeeding support group. A day and meeting time will be chosen by the lactation department and a unit clerk will reserve a room on the TMC campus. An Information Technology (IT) technician will design a basic advertising flyer in both English and Spanish, post this flyer on the TMC website, and then give the flyer to the postpartum unit. This flyer will be copied by a unit clerk at the main desk and delivered to the newborn nursery where the unit clerk there will stuff all (both English and Spanish) informational admissions packets with one copy each. Extra copies will be kept at the main desk in the newborn nursery with other admission packet information to be included in future admission packets. A unit clerk will deliver copies of the flyer to any obstetric or pediatric offices that have TMC contracted

physicians. These physicians would be a part of the clinical practice team and therefore would have already reviewed the proposal not needing an explanation of the flyer.

Nurses will be informed about the new support group through their monthly staff meetings, unit website, and work email accounts. They will be instructed and required to review the flyer for the family breastfeeding support group with all Hispanic mothers who are breastfeeding upon discharge. The flyer and teaching will be included in their discharge teaching requirements.

A rotation for childcare would be set up, with each of the ten day shift PCTs on the postpartum unit signing up for one week each, the schedule would be filled for the next three months. The assigned PCT would leave the unit for the hour and a half period of time during the support group and the remaining PCTs on the unit would cover their patients. This would benefit the budget because the hour and a half of time the PCT would be assisting with the support group would be included in their already scheduled 12 hour shift for that day.

Each week, a lactation consultant would spend 3 hours the day before the group calling breastfeeding Hispanic mothers and reminding them of the time and location of the group meeting. They would also offer breastfeeding encouragement and support during these phone calls. The reminder phone calls would only need to be done for the first three months or until the breastfeeding support group has at least 15 women attending consistently. Please see Table 2. Implementation Outline for a details on implementation tasks and corresponding costs.

Table 2. Implementation Outline

Stage	Activities	Budget
Knowledge	• Encourage nurses and lactation consultants to attend the current support group in order to observe any needs for change. • Formal Communication: hold an EBP presentation during a monthly staff	Lactation Consultant for EBP presentation: $30/hr x 2 hours = $60

	meeting educating the staff about the problem, post information on unit website, email information as an update to all staff. • Informal Communication: talk with the nurses and staff one on one about the problem and new idea for intervention. • Ask questions about the adequacy of lactation services being provided to all representative groups of the community.	
Persuasion	• Lactation consultants will start promoting new support group as a positive change. • Collaborative team will write a written proposal for a family breastfeeding support group. • Written proposal will be presented to and revised by the clinical practice team. • Unit manager will present the written proposal to the operations meeting for acceptance.	None
Decision	• Financial department will conduct a cost benefit analysis. • Written proposal is presented to the Director of Women's Services, Chief Operating Officer, and CEO of hospital for approval. • Proposal is either accepted or rejected.	None
Implementation	• Set up a day, time, and room for group. • Design and print an advertizing flyer. • Post the flyer on the TMC website. • Add flyer to all new admission packets. • Disperse flyer to TMC contracted physicians' offices. • Inform all nurses of start date for new support group and review flyer with them. • Instruct nurses to review flyer for all Hispanic breastfeeding mothers with discharge teaching. • Set up schedule for weekly PCT childcare rotation • Make support calls encouraging Hispanic mothers to attend group.	Copies of advertising flyers = $.07/copy x 500 = $35 IT tech pay for designing and posting flyer on website: $19/hr x 4 = $76 Unit Clerk pay for organizational tasks: $13/hr x 15 = $195 Lactation Consultant pay for support calls and running the group $30/hr x 6 = $180/week for first 3 months $30/hr x 3 = $90/ week after 3 months

Summary

Diffusion of innovations is a five step guiding process that helps introduce change into the clinical setting (Burns & Grove, 2007). During the knowledge stage of the process, the basic goal would be to raise awareness on the post partum unit that the problem exists. The persuasion stage then is where a written proposal is drafted, management and other influences in the change process such as the clinical practice team are notified, and the new change is positively promoted through out the unit. The decision phase is where the change will actually be accepted or rejected by administration and the implementation stage is where the new family breastfeeding support group would be put into action. It is vital to have the collaboration of the lactation consultants, nurses, and management staff in order to successfully implement this new change.

Chapter 5

Introduction

This chapter will discuss the evaluation of the effect of implementing the family breastfeeding support group on the TMC post partum unit. The confirmation stage, the fifth and final stage of Diffusion of Innovations which guides evaluation, will be discussed in this chapter (Burns & Grove, 2007). A table of desired outcomes will be presented and the process for evaluation will be addressed in regards to those outcomes. Limitations to this paper and recommendations for future research will be then be discussed and the chapter will draw to a close with the conclusion of this research project.

Confirmation Stage

During the confirmation stage, lactation consultants, nurses, and management will evaluate if the change in practice was effective and whether it should be continued or stopped (Burns & Grove, 2007). According to S. Dennis, the lactation consultant who was involved in starting the current breastfeeding support group at TMC, it took a period of about three months for the word to get out and to see a consistent group of women attending the support group (personal communication, April 15, 2010). In evaluating the new group, the author recommends that this same amount of time be allotted for advertizing, getting the word out to women, and establishing a solid base.

After a new mother attends the support group for three consecutive weeks, she will receive a short survey that will help the lactation consultants and nurses to evaluate the effectiveness of the group. The survey would be available in either English or Spanish. Please see the *Family Breastfeeding Support Group Evaluation Survey* in Appendix B for English and Appendix C for Spanish. In addition to attendance, this survey will be the chief tool for

evaluating effectiveness and demonstrating the necessity for the new group to continue. The survey would be handed out to the eligible mothers by the chief lactation consultant and collected by her as well. If for some reason a mother left early or did not receive the evaluation survey after three weeks, the survey could be given to her over the phone by a staff member other than the lactation consultant who is proctoring the group. Similarly, if there was an attending mother who was illiterate, she could have the survey read to her by a staff member other than the proctoring lactation consultant.

After a period of six months, a unit clerk will compile the data collected from the surveys and will enter the information onto an excel spread sheet ($13/hr x 4 = $52 biannually). The lactation consultant running the group will then analyze the information and create a biannual report to be taken to the administration ($30/hr x 4 = $120 biannually). This report will include demographic information about the women attending and whether or not they feel that the support group in assisting them to improve their breastfeeding practices. Below is a table that summarizes the desired outcomes upon evaluation in order to continue promoting the family breastfeeding support group.

Table 3. Desired Outcomes

Desired Outcomes
3 months after the start of the family breastfeeding support group:
(1) There will be at least 10 women or more who are attending the family breastfeeding support group on a consistent weekly basis.
(2) 100% of new mothers who have attended for 3 weeks will complete the evaluation survey.
(3) Upon weekly follow up calls and evaluation survey, 80% of attending new mothers will report that their confidence has improved.
(4) Upon weekly follow up calls and evaluation survey, 80% of attending new mothers will report that both theirs and their baby's breastfeeding practices have improved.
(5) Upon weekly follow up calls and evaluation survey, 75% of attending mothers will report that they are still breastfeeding at least four times a day.

Limitations and Recommendations for Future Research

While this paper addressed the benefits of breastfeeding, the cultural beliefs toward motherhood and breastfeeding, and the issues associated with acculturation, the paper did not look at how the culture responds to the idea of support groups. This would be a limitation because if the idea of a support group for best practice intervention was not culturally acceptable, or looked at as strange, the intervention would not be optimally effective. The author's recommendation for future research in regards to this issue is to evaluate the effectiveness of support groups among the Mexican-American culture and uncover the cultural values or beliefs affecting the findings.

The sustainability of the support group was another factor that was not adequately addressed by this research project making it a limitation. There are many mothers delivering at TMC who live a long distance away from the facility making long term weekly transportation a barrier and difficulty. The author's recommendations for future research in this area would be to explore the idea of holding the support group off campus and in the community where many of these women live. Some ideas for possible meeting places would be a church, the local library, or a local community center who would allow TMC to use their space in order to provide this service to their community members.

Summary

The purpose of this project was to develop a best practice protocol for breastfeeding education among Mexican-American mothers. With the support of an evidence based literature review, shadowing experiences, and personal communication with relevant sources, the author suggests the implementation of a breastfeeding support group entitled "family breastfeeding support group" as best practice. This support group would be culturally sensitive and relevant to the concerns of Mexican-American mothers. In addition, it would provide a bilingual support

group for those mothers who are more comfortable with the Spanish language. The hope is that institutions who serve a large population of Mexican-American mothers can recognize the need for a culturally sensitive breastfeeding support group and with the example provided by this project can have an adequate framework for its implementation. This best practice protocol can assist institutions in providing and maintaining culturally competent practices with in their communities.

Appendix A

Family Breastfeeding Support Group Schedule of Activities and Cultural Significance

Time	Activity	Cultural Value	Explanation
10:00-10:30am	1) open time for socialization and discussion among participants 2) Baby weights, record weights in log and review baby's growth pattern with mother if desired	1) Familism, social support 2) Robust children are valued	1) Culture values warm interpersonal relations and places great emphasis on emotionally positive and supportive family relationships (Campos et al.) 2) Robust children are viewed as healthy, thinner babies are looked at as frail (Clark).
10:30-11:00am	Weekly Teaching 1) Baby quarantine 2) Maternal nutrition: Eating for two 3) Breastfeeding on-demand 4) Breastfeeding in public 5) Breastfeeding techniques: Avoiding pain 6) Pumping and storing breast milk: going back to life!	1) modeled after the cultural concept of *la cuarentena* 2) nutritional restrictions seen in *la cuarentena*, and in cold/hot theory 3) satisfying the baby's cravings, or preferences 4) modesty 5) pain was identified as a barrier 6) not being able to work or return to school was identified as a mindset that is a cultural barrier	1) As the woman has many restrictions on her first 40 days after birth, the baby cannot have anything put in his mouth except the mother's breast for the first 40 days (Schlickau & Wilson). 2) Nutritional teaching will include avoiding greasy, cold, spicy, and agitating, and bloating foods (Niska et al.) 3) The need to satisfy the baby's preference is valued (Clark). 4) Modesty is valued, making breastfeeding in public a barrier (Gill et al., 2004). 5) Pain resulting from not knowing how to breastfeed was identified as a barrier (Gill et al., 2004). 6) Women had the mindset that breastfeeding would cause them not to be able to return to work or school (Gill et al., 2004).
11:00-11:30am	1) Introductions 2) Questions and comments about presented materials or about breastfeeding, motherhood, and childbearing in general	1) Familism – able to identify each family member before the group 2) Social support – opportunity for women to voice concerns, receive answers, and relate to other women	1) Culture values warm interpersonal relations and places great emphasis on emotionally positive and supportive family relationships (Campos et al.) 2) The woman's informational support network is more influential on her feeding decisions than the advice of her health care professional (Gill et al., 2004).

*Weekly	Reminder phone calls done by either lactation consultants or non-clinical personnel who are knowledgeable about breastfeeding	1) Social support	1) Knowledge and education that breastfeeding is the optimal feeding choice for infants is not enough to encourage women in general to breastfeed; support is an imperative factor (Gill, 2009; Gill, Reifsnider, & Lucke, 2007; Gill et al., 2004; Harley & Eskenazi, 2006; Libbus, 2000; Martinez-Schallmoser et al., 2005).

Appendix B

Family Breastfeeding Support Group Evaluation Survey

Age (mother):_____ Age (infant):_____

Are you currently breastfeeding? Y_____ N_____ How frequently?_____

Are you giving a bottle? Y_____ N_____ How frequently?_____

1) Has it been easy or difficult for you to get transportation to the support group each week? Please Explain:

_____
_____
_____

Please answer items 2-4 by assigning a number 1 = improved, 2 = not changed, 3 = declined

2) My confidence levels as a breastfeeding mother have… _____

3) My baby and my breastfeeding practices have… _____

4) My feelings of support and encouragement to keep breastfeeding have… _____

5) Have you felt respected by the TMC staff and helped by the staff's guidance and knowledge base? Y____ N_____ comments:

_____
_____
_____

Below is a space for comments, please let us know if there is any way that we can improve this group to better meet your needs. Thank you,

_____
_____
_____
_____
_____

Appendix C

Family Breastfeeding Support Group Evaluation Survey – Spanish

Edad (madre):_____ Edad (bebé):_____

¿Actualmente, usted está dando pecho? Y_____ N_____ ¿Con que frecuencia?_____

¿Está dando la botella? Y_____ N_____ ¿Con que frecuencia?_____

1) ¿Ha sido fácil o dificultoso recibir un modo de transportación para asistir el grupo de apoyo? Favor de explicar.

_____
_____
_____

Favor de contestar del 2 al 4 mientras añida 1 = ha mejorado, 2 = no ha cambiado, 3 = ha empeorado

2) Mi nivel de confianza como una madre que da pecho…_____

3) Mi bebe y practica de dar pecho…_____

4) Mis sentimientos del apoyo y ánimo para seguir dando pecho…_____

5) ¿Has sentido el respeto y la ayuda de los empleados de TMC por el liderazgo y el entendimiento medico demostrado hacia usted? Si____ No____ comentarios:

_____
_____
_____

Hacia abajo encontrará el espacio necesario para escribir cualquier comentario. Favor de enterarnos sobre otras maneras para mejorar el servicio del grupo y usted. Gracias,

_____
_____
_____
_____
_____

References

American Academy of Pediatrics Section on Breastfeeding (1997). Breastfeeding and the use of human milk: Recommendations on breastfeeding for healthy term infants. *Pediatrics, 115*, 496-506.

Balcazar, H., Trier, M. C., & Cobas, J. A. (1995). What predicts breastfeeding intention in Mexican-American and Non-Hispanic White women? Evidence from a national survey. *BIRTH, 22*(2), 74-80.

Black, R. F., Jarman, L., & Simpson, J. (1998). *The support of breastfeeding: Lactation specialist self-study series module 1*. Sudbury, MA: Jones and Bartlett Publishers.

Beck, C. T. (2006). Acculturation: Implications for perinatal research. *The American Journal of Maternal Child Nursing, 31*(2), 114-120.

Boyd, D. & Bee, H. (2006). *Lifespan development*. Boston, MA: Pearson Education Inc.

Burns, N. & Grove, S. K. (2007). *Understanding Nursing Research: Building an evidence-based practice.* St. Louis, MO: Saunders Elsevier.

Centers for Disease Control and Prevention. (2006). *Breastfeeding among U.S. children born 1999-2006, CDC national immunization survey*. Retrieved January 25, 2010, from http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm

Campos, B., Schetter, C. D., & Abdou, C. M. (2008). Familialism, social support, and stress: Positive implications for pregnant Latinas. *Cultural Diversity and Ethnic Minority Psychology, 14*(2), 155-162.

Chapman, D. J., Damio, G., Young, S., Pérez-Escamilla, R., (2004). Effectiveness of breastfeeding peer counseling in a low-income, predominantly Latina population. *Archives of Pediatric and Adolescent Medicine, 158*, 897-902.

Clark, L. (2003). Making new choices possible: understanding differences in infant feeding practices between Latina mothers and Anglo health care providers. *Zero to Three, 23*(5), 22-27.

Gibson, M. G., Diaz, V. A., Mainous, A. G., Geesey, M. E. (2005). Prevalence of breastfeeding and acculturation in Hispanics: results from NHANES 1999-2000 study. *Birth, 32*(2), 93-98.

Gibson-Davis, C. M., & Brooks-Gunn, J. (2006). Couple's immigration status and ethnicity as determinants of breastfeeding. *American Journal of Public Health, 96*(4), 641-646.

Gill, S. L. (2009). Breastfeeding by Hispanic women. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, 38,* 244-252.

Gill, S. L., Reifsnider E., & Lucke J. F. (2007). Effects of support on the initiation and duration of breastfeeding. *Western Journal of Nursing Research, 29*(6), 708-723.

Gill, S. L., Reifsnider, E., Mann, A. R., Villarreal, P., Tinkle, M. B. (2004). Assessing infant breastfeeding beliefs among low-income Mexican Americans. *The Journal of Perinatal Education, 13*(3), 39-50.

Gonzalez-Cossio, T., Moreno-Marcias, H., & Rivera, J. A. (2003). Breastfeeding practices in Mexico: Results from the Second National Nutrition Survey 1999. *Salud Publica de México*, 45(4), S477-489.

Gorman, J. R., Madlensky, L., Jackson, D. J., Ganiats, T. G., Boies, E. (2007). Early postpartum breastfeeding and acculturation among Hispanic women. *Birth, 34*(4), 308-315.

Harley, K & Eskenazi, B. (2006). Time in the United States, social support and health behaviors during pregnancy among women of Mexican descent. *Social Science & Medicine, 62,* 3048-3061.

Harley, K., Stamm N. L., & Eskenazi B. (2007). The effect of time in the U.S. on the duration of breastfeeding in women of Mexican decent. *Maternal Child Health Journal, 11,* 119-125.

Ladewig, P.A.W., London, M. L., & Davidson, M. R. (2006). *Contemporary maternal-newborn nursing care.* Upper Saddle River, NJ: Pearson Education Inc.

Libbus, M. K. (2000). Breastfeeding attitudes in a sample of Spanish-speaking Hispanic American women. *Journal of Human Lactation, 16* (3), 216-220.

Martinez-Schallmoser, L., MacMullen, N. J., & Telleen, S., (2005). Social support in Mexican American chilbearing women. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, 34*(6), 755-760.

McGlade, M. S., Saha, S., & Dahlstrom, M. E. (2004). The Latina paradox: An opportunity for restructuring prenatal care delivery. *American Journal of Public Health, 94*(12), 2062-2065.

Niska, K., Synder, M., & Lia-Hoagberg, B. (1998). Family ritual facilitates adaptation to parenthood. *Public Health Nursing, 15*(5), 329-337.

Purnell, L. D. & Paulanka, B. J. (2008). *Transcultural healthcare: A culturally competent approach.* Philadelphia, PA: F. A. Davis Company.

Rogers, E. M. (2003). *Diffusion of Innovation*. New York, NY: Free Press.

Romero, A. J., Robinoson, T. N., Haydel, K. F., & Killen, J. D. (2004). Associations among familism, language, preference, and education in Mexican-American mothers and their children. *Developmental and Behavioral Pediatrics, 025*(1), 34-40.

Santos-Torres, M. I. & Vasquez-Garibay, E. (2003). Food taboos hmong nursing mothers of Mexico. *Journal of Health Population and Nutrition, 21*(2), 142-149.

Schlickau, J., Wilson, M. (2005). Development and testing of a prenatal breastfeeding education intervention for Hispanic women. *The Journal of Perinatal Education, 14*(4), 24-35.

United States Census Bureau: American Community Survey. (2006-2008) *Hispanic or Latino origin by specific origin – Universe: Total population.* Retrieved on January 25, 2010 from http://factfinder.census.gov/servlet/DTTable?_bm=y&-geo_id=01000US&-ds_name=ACS_2008_3YR_G00_&-mt_name=ACS_2008_3YR_G2000_B03001

United States Department of Health and Human Services. (2000). *16-19. Increase the proportion of mothers who breastfeed their babies.* Retrieved on January 25, 2010 from http://www.healthypeople.gov/document/html/objectives/16-19.htm

Witt, H. (2008, May 1). Latinos still the largest, fastest-growing minority, census shows. *Los Angeles Times.* Retrieved from http://articles.latimes.com/2008/may/01/nation/na-census1

World Health Organization (2003). *Global strategy for infant and young child feeding*. Singapore, Malaysia: WHO Publishing.

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