

The Effects of Breastfeeding and Breastfeeding in Public: Looking at Nursing Nooks

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CHAPTER 1

INTRODUCTION

Breastfeeding is beneficial to both mother and infant, yet rates are not as high as WHO (2014) and AAP (2012) recommendations. Investigation of why more women do not breastfeed their infants focus on challenges to breastfeeding, including issues related to breastfeeding in public. Strategies to support breastfeeding in public and change the stigma surrounding breastfeeding in public need to be implemented in order to help increase the duration of breastfeeding in the United States. The goal of this project was to examine the research evidence that documents the benefits of breastfeeding for infants and mothers, the current rates and challenges of breastfeeding, and programs that support breastfeeding in public. .

Research shows that health benefits of breastfeeding for infants include: fewer rates of respiratory tract infections, gastrointestinal tract infections, necrotizing enter colitis, allergic diseases, celiac disease, and inflammatory bowel disease; as well as SIDS, obesity, diabetes, and leukemia (AAP, 2012). Infants who are breastfed for at least one month, despite differing home environments and SES, also experience cognitive benefits (Stewart and Dunne, 2010). Further, breastfeeding may act as a buffer for a negative relationship between the mother and infant (Else-Quest, Hyde & Clark 2003). In addition to these benefits for infants, breastfeeding can lead to a reduced risk of breast cancer, ovarian cancer, and type 2 diabetes in mothers (Godfrey & Meyers, 2009), as well as, positively affect a mother's emotional well-being (Mezzacappa, Guethlein, & Katkin 2002).

Although research does show benefits to breastfeeding, there are various factors that affect a mother's decision about whether or not to breastfeed, or for how long to breastfeed. One group of researchers found that women who had a higher level of education or their partner had a higher level of education, were more likely to initiate breastfeeding and breastfeed longer (Heck, Braveman, Cubbin, Chávez, & Kiely 2006). Other researchers found that mothers with higher education levels were less likely to exclusively breastfeed their infants than mothers with lower levels of education (Liu, 2013). Age is another factor seen to influence a mother's choice to breastfeed, and teenage mothers' decisions and experiences with breastfeeding are often influenced by those around them (Nesbitt, 2012). Biro (2014) found that by the time an infant is 6 months of age, only 40% of younger mothers are still breastfeeding whereas 65% of older mothers continue to breastfeed. Finally, SES, focusing on income, is also seen as playing a role in breastfeeding duration; mothers with overall lower SES scores usually wean their babies before 6 months of age in comparison with mothers with higher SES scores who tend to wean after the infant is a year old (Flacking et al., 2007).

In addition to various demographic factors playing a role in breastfeeding rates, there are also challenges to breastfeeding that mothers who choose to breastfeed must face and that can have an impact on breastfeeding rates. Personal struggles to overcome include physical and emotional struggles, such as, discomfort while breastfeeding, and levels of perceived success while feeding the infant (Kelleher, 2006; Marshall et al., 2007; Brown & Davies, 2014). Working and attempting to engage in breastfeeding can also inhibit the continuation of breastfeeding. Skafida (2012) shows that mothers who were self-employed or worked part time were more likely to exclusively breastfeed for 6

or more weeks than were unemployed mothers or mothers working full-time. One final challenge, the focus of this project, relates to breastfeeding in public and the stigmas that surround this. Acker (2009) found three prominent explanations for a negative view of breastfeeding in public: unfamiliarity of this action, sexist attitudes, and hypersexualization of breasts in society. In addition to society's views, many young women have already internalized cultural taboos surrounding breastfeeding and women who rate higher on self-objectification questions are more likely to anticipate feeling embarrassed or concerned about breastfeeding in public as compared to their counterparts with a lower rating of self-objectification (Johnston- Robledo et al., 2007). Extending on these challenges, men saw breastfeeding as a sexual activity and believed that it might receive negative public attention; men felt that the media supported these beliefs and they also felt that their lack of exposure to breastfeeding in public contributed to these views (Henderson et al., 2011).

To address challenges related to breastfeeding in public, interventions have been created such as the Marin Breastfeeding Coalition campaign that involves life-size cutouts of mothers breastfeeding placed in public locations, with the purpose of normalizing breastfeeding in public and educating the community on the benefits and laws regarding breastfeeding in public places (Farooq, 2009). In an effort to educate men, empower women, and lessen the stigma surrounding breastfeeding, another campaign travels nationwide taking pictures of mothers breastfeeding, fathers holding their children, and various family photos that are then displayed nationwide (Cruz, 2013). "Breastfeeding Welcome Here" is a campaign in which businesses display a sticker in their window that lets mothers know they have a supportive environment for them to

breastfeed their child. Mothers who participated in this campaign explained that the increased support was essential for their longer duration of breastfeeding and they found it very beneficial to have stickers in the windows letting them know where they would be welcomed (Lobley and Walker, 2000). For future programs, researchers suggest that in order for breastfeeding attitudes and rates to change, society needs to be educated about the benefits of breastfeeding and the stigmas that surround breastfeeding (Vari et al., 2013).

Due to this research, I decided to focus on a current campaign in San Luis Obispo, CA called “Nursing Nooks.” These nooks are located in various businesses in the community and are a welcoming place for mothers to breastfeed their child while they are out. I developed the “Breastfeeding in Public” survey to use as a front-end evaluation, which I distributed to mothers in various places throughout the community and in online groups. The results of the survey suggested that a map of Nursing Nook locations may be beneficial in increasing mothers knowledge and use of the nooks. The surveys revealed that 46% of breastfeeding mothers (n=134) had heard of a Nursing Nook, but only 37% of mothers had been to a Nursing Nook in San Luis Obispo.

Based on this perceived need, I created a paper map of all Nursing Nook locations and added these locations to Google Maps. However, results also suggest that further research needs to be done to determine if increasing knowledge of Nursing Nooks, and even the amount of nooks in San Luis Obispo, would be beneficial or detrimental to increasing comfort level and rates of breastfeeding in public, and in turn increasing breastfeeding duration. Of the mothers who chose to respond to what their least favorite part of Nursing Nooks was (n=41), 41% mentioned that Nursing Nooks limit mothers to

certain areas when they feel nursing in public should be accepted anywhere. It appears that there may be some form of scaffolding occurring for mothers with different levels of comfort with breastfeeding in public. For instance, mothers who reported not feeling comfortable at all with breastfeeding in public may find that they are comfortable enough to feed their child at these Nursing Nook locations. When they reach a certain comfort level, they may no longer feel the need to use these specific locations. With this idea comes the challenge of what the next step towards normalizing breastfeeding in public in San Luis Obispo should be. I approached this issue by creating a protocol for use in a potential “re-launch” of Nursing Nooks in San Luis Obispo that will better support breastfeeding in public. This is a first step in what I hope will be a sustained effort to destigmatize breastfeeding in public and overall increase breastfeeding rates. .

CHAPTER 2

LITERATURE REVIEW

Evidence supports claims that there are numerous beneficial outcomes of breastfeeding for both mother and child (Allen & Hector, 2005). The American Academy of Pediatrics (AAP, 2012) and the World Health Organization (WHO, 2014) both recommend that infants be exclusively breastfed for the first six months of life and then breastfed along with the introduction of solid foods until one year of age (AAP, 2012) up to two years or more (WHO, 2014). The reality, however, is that most mothers do not breastfeed their infants for the recommended amount of time. According to the CDC National Immunization Survey in 2011, 49.4% of babies were being partially breastfed at 6 months of age and only 18.8% of babies were being exclusively breastfed at 6 months old in the United States (Center for Disease Control and Prevention, 2014). There are many potential reasons that a mother may not continue to pursue breastfeeding or not breastfeed at all, such as personal struggles (Kelleher, 2006), partner support (Brown & Davies, 2014), and returning to work (Skafida, 2012). Another potential challenge for mothers who are considering this approach to feeding their child, however, may be hesitancy to breastfeed in public. Research points to perceptions of social disapproval as one of the main reasons that breastfeeding in public is so uncommon, which in turn gives mothers less opportunities to breastfeed during their busy lives, and can have an influence on the rates of breastfeeding (Acker, 2009). Efforts to encourage mothers to breastfeed in public require clear understanding of the benefits of breastfeeding, breastfeeding rates, and the personal and social difficulties surrounding breastfeeding, especially those of

breastfeeding in public. Further, it is important to examine lessons learned from existing campaigns that are in place to support breastfeeding to develop future programs.

Benefits of Breastfeeding

Research reveals that benefits of breast milk and breastfeeding for infants occur in physical, cognitive, and social-emotional development. In addition, breastfeeding is related to positive outcomes for mothers (WHO, 2014).

Benefits of Breastfeeding for Infants

Claims regarding the benefits of breast milk and breastfeeding for infants center on positive physical, cognitive, and social-emotional developmental outcomes associated with breastfeeding. The reduction of diseases and illnesses is among the long-term benefits of breastfeeding. Godfrey and Meyers (2009) review findings that support links between breastfeeding and lower rates of Sudden Infant Death Syndrome (SIDS), childhood obesity, type 2 diabetes and leukemia. Furthermore, in their latest policy statement, the American Academy of Pediatrics (2012) summarizes many benefits including: fewer rates of respiratory tract infections, gastrointestinal tract infections, necrotizing enter colitis, allergic diseases, celiac disease, and inflammatory bowel disease; as well as SIDS, obesity, diabetes, and leukemia. In addition to the previously mentioned benefits, neurodevelopmental outcomes are also positively linked to breastfeeding. A report published by the Agency for Healthcare Research and Quality (AHRQ, 2007) of the US Department of Health Human Services, suggests that intelligence scores are significantly greater in breastfed infants who exclusively breastfed for 3 months or longer. A common concern regarding using correlational methods to argue for cognitive benefits is that the higher intelligence scores seen in the infants may

be due to many factors, including home life and socioeconomic status (SES). Sloan, Stewart and Dunne (2010) address this concern in an observational study of 137 infants and their mothers that accounts for differing lives at home. Differences in the home included stimulation, responses from mother, avoidance or punishment, physical environment, appropriate play materials, maternal involvement, and opportunities for the child; these were assessed using the HOME inventory. Socioeconomic status was determined using the National Statistics Socio-economic Classification method. In addition, personal interviews were used to look at the length of breastfeeding between each dyad and this was compared with the cognitive scores of the infant, calculated using the Bayley Scales of Infant Development. Results showed that infants who breastfed for at least one month, despite differing home environments and SES, experience cognitive benefits. This trend continued linearly supporting the idea that the longer an infant is breastfed for, the greater the cognitive benefits may be.

Although breastfeeding has been shown to be beneficial both physically and cognitively for the infant, research on social-emotional benefits does not seem to be as conclusive. Else-Quest, Hyde and Clark (2003) measured the bond that mothers reported between mother and infant at 4 months and 12 months. Of 570 mother-infant pairs, 77% breastfed for the first week, 16.5% of mothers never attempted to breastfeed, and 6.5% did not respond about breastfeeding. After reviewing video recorded interactions of the mother-infant dyad bond during these two different ages, researchers found that at 4 months of age, breastfeeding mothers reported better attachment with their infant and more quality interactions were observed than those that were bottle-feeding, but by 12 months, attachment reports were similar between the two groups. Else- Quest et. al found

that breastfeeding was associated with less parental negative affect, parental intrusiveness, and infant dysregulation, which led them to believe that breastfeeding is associated with less negative interactions. To further this, researchers found that at 4 months and 12 months of age, breastfeeding could act as a buffer for a negative relationship between the mother and infant, but did not necessarily appear to create a more positive relationship. Although there were certain times where breastfeeding is beneficial to social-emotional development, these benefits were not necessarily seen as long term. Because the measures were self-reported by the mothers, results may not accurately reflect the strength of the bond between mothers and infants.

Benefits of Breastfeeding for Mothers

In addition to positive outcomes for the baby, breastfeeding has also been shown to benefit the mother in a variety of ways. As previously mentioned, Godfrey and Meyers (2009) reviewed previous research to compile a thorough list of the major benefits of breastfeeding. In regards to benefits for mothers, they determined that there is a reduced risk of breast cancer, ovarian cancer, and type 2 diabetes if the mother breastfeeds. AAP (2012) supports these findings and includes other benefits such as increased child spacing, decrease in postpartum depression, lower risk of rheumatoid arthritis, reduction in hypertension, hyperlipidemia, and cardiovascular disease. Breastfeeding can also positively affect a mother's emotional well-being. Mezzacappa, Guethlein and Katkin (2002) conducted a study in which 561 breastfeeding mothers and 452 mothers who had previously breastfed self-reported their perceived stress level at the time of breastfeeding and after breastfeeding. The researchers found that these mothers reported low levels of stress during times of feeding, which may be explained by the increased release of

oxytocin, an antidepressant, during breastfeeding. Thus, breastfeeding seems to have both physical and mental health benefits for mothers.

Rates of Breastfeeding

Although the benefits of breastfeeding are relatively undisputed, rates of breastfeeding are still not where one would hope to see them. The CDC (2014) reports that breastfeeding rates continue to rise, but as of 2011, infants in the U.S. were still not being breastfed for the AAP recommended length of one year. According to the CDC (2011), 49% of infants born in the United States were being breastfed at 6 months of age and 27% were being breastfed at 12 months of age. These statistics vary by mother's education level, age, and socio-economic status.

Education Level

Heck, Braveman, Cubbin, Chavez and Kiely (2006) looked at the results of 10, 519 Californian women who had been a part of the California Maternal and Infant Health Assessment. Specifically they looked at SES factors, including maternal and paternal education levels, and the length of time the infant was reportedly breastfed. The results seemed to indicate that women who had a higher level of education or their partner had a higher level of education, were more likely to initiate breastfeeding and breastfeed longer. The results of this study suggest that paternal education is important in addition to the mother's education. Contradictory to this research, Liu, Shi, Spatz, Loh, Sun and Grisso (2013) conducted a study in which 1, 385 mothers in China answered questions about their breastfeeding practices. They found that mothers with a higher education level were less likely to exclusively breastfeed their infants than mothers with lower levels. Some reasons for this include that having a higher level of education allows mothers to

have professional careers that may make it difficult to exclusively breastfeed. Further, having a higher income, based on their education level, allows mothers to buy a breast milk substitute, such as formula. Finally, the idea that if they are a working mother they would want to uphold a professional image which may not include pumping at work or breastfeeding in public. The outcomes of these two studies seem to vary greatly, which could be due to the differing locations or the different social norms of the two cultures. Despite the two contrasting results, it is seen that education level does have some sort of impact on breastfeeding.

Age

Research suggests that age can affect the initiation and duration of how long a mother breastfeeds. Nesbitt, Campbell, Jack, Robinson, Piehl and Bogden (2012) interviewed 16 Canadian mothers between the ages of 15 -19 years about their decision to breastfeed, personal experience with breastfeeding, and factors and barriers that influenced their decisions to start and stop breastfeeding. Findings indicated that adolescents' decisions and experiences with breastfeeding are unique to this life stage and are often influenced by those around them. The biggest influences on breastfeeding for these mothers included the impact of breastfeeding on social relationships, social support, physical demand of breastfeeding, mothers' knowledge of breastfeeding and mothers' comfort while breastfeeding. The researchers suggest that the development and achievement of self concept, role attainment, and decision making skills are occurring while the adolescent is taking on motherhood and this greatly affects whether or not and for how long she breastfeeds her baby. Additionally, Biro, Yelland, and Brown (2014) surveyed 4,366 Australian mothers 6 months after they had given birth. The survey

included questions about the infants feeding, maternity care experiences, and sociodemographic characteristics. They looked at the number of women who initiated breastfeeding at 1 week, 6 weeks, and 6 months in order to compare the rates of younger mothers to older ones. Researchers deemed mothers under the age of 25 as “younger” and over the age of 25 as “older.” Results showed that younger women were just as likely as older mothers to initiate breastfeeding within the first week, but by the time the infant was 6 months of age, only 40% of younger mothers were still breastfeeding whereas 65% of older mothers continued to breastfeed. This study revealed that the younger women were more likely to be single, be on welfare, have a lower education level, smoke, and be having their first child than the older mothers. These factors could also play a role in the mothers’ decision to discontinue breastfeeding.

Socioeconomic Status

In addition to mothers’ level of education and age, studies suggest that the socioeconomic status (SES) of the mother also plays a role in breastfeeding rates. Flacking, Nyqvist and Ewald (2007) gathered information on initiation and duration of breastfeeding as well as the SES of 37, 343 Swedish mother-infant pairs using the Medical Birth Registry and Statistics Sweden. Results showed that maternal education level, maternal unemployment benefit, and social welfare were strongly associated with breastfeeding choices. Mothers with overall lower SES scores usually weaned their babies before 6 months of age in comparison with mothers with higher SES scores who tended to wean after the infant was a year old. . In addition, Guttman and Zimmerman (2000) conducted interviews with 154 low-income, U.S. mothers in which they asked mothers questions regarding the benefits and drawbacks associated with breastfeeding

versus formula feeding, which benefits mattered most to the individual mother, how did the mother view social norms and social support regarding breastfeeding, and how did the low-income women who seemed to favor breastfeeding, but formula fed their babies explain this choice and how did they feel about it. Findings suggest that most mothers believed breastfeeding held more benefits for their baby, but the level of importance of these benefits varied mother to mother. They also felt that society encourages breastfeeding, however, the mothers felt that there was social disapproval of breastfeeding in public, reported ridicule by friends and lack of support from health professionals which often led mothers to discontinue breastfeeding at an earlier age. Overall, the low-income mothers who felt that breastfeeding was best for their child, but did not engage in breastfeeding, felt guilty and deprived. These results suggest that intervention and education for low-income mothers may help them to feel more comfortable and successful with breastfeeding.

Challenges to Breastfeeding

Many challenges can arise that may hinder a mother who is breastfeeding or lead a mother to not breastfeed at all. According to the CDC (2011), mothers' cited personal challenges, such as pain, inadequate milk production, and the concern of infant satisfaction, lack of breastfeeding support, the need to return to work, and breastfeeding in public as challenges to breastfeeding initiation and duration.

Personal Struggles with Breastfeeding

A woman can have challenges with breastfeeding personally in regards to her breasts and discomfort she feels, as well as how the practice affects her emotionally.

Physical struggles. There are individual differences in the pain and discomfort a woman feels while feeding her newborn. Kelleher (2006) interviewed 52 American and Canadian women who had one-month-old infants that were breastfeeding. The interviews lasted roughly an hour and focused on exploring the mothers' experience of pain and discomfort while breastfeeding. The results of this study indicated that 63% of these women experienced more pain during breastfeeding than they had expected or prepared themselves for. The results suggest that the level of pain and physical vulnerability can cause some women to stop breastfeeding, as was the case with 10% of the moms in this study.

Emotional struggles. In addition to physical discomfort, a mother can have an emotional experience with breastfeeding that can lead them to question their success as new mothers. Marshall, Godfrey and Renfrew (2007) surveyed 158 English mothers with regards to their experience with breastfeeding, the meanings they gave to these experiences, and the information and support they gathered from various sources. The study found that women who chose to breastfeed saw themselves as good mothers when the baby appeared happy and they were supported in their efforts to breastfeed, but felt unsatisfactory in their new role when their baby was unsatisfied or they did not feel supported by those around them. Results suggest that the quicker the mother learns the skills of breastfeeding, and the more support and reassurance they receive from medical professionals, the sooner the sense of failure as a mother diminishes. Additionally, Brown and Davies (2014) explain that previous research shows the importance of fathers' support in breastfeeding success, but they went on to study how the fathers themselves felt about this support. The study included 117 men from the UK, who had a child age 2

or younger; they completed a questionnaire that measured their experiences with breastfeeding, the information and support they received with breastfeeding, and their ideas on future breastfeeding education. Overall, the findings show that fathers are excited and willing to support their partner in breastfeeding, but that they feel excluded in the process and unsure of how to help. These results suggest that fathers are in need of more direct support and education in this area so that they can better support their partner and child with breastfeeding.

Working and Breastfeeding

Regardless of the support from their partner, at some point many mothers return to work if they had a previous job, whether it is soon after the birth of their child or a few years later on, this affects their ability to successfully breastfeed. Skafida (2012) gathered data from 3,034 Scottish mother-infant dyads whom were a part of a national longitudinal cohort study. She looked at their maternity leave, return to work, and breastfeeding experience and duration. She found that mothers who were self-employed or worked part time were more likely to exclusively breastfeed for 6 or more weeks than unemployed mothers or mothers working full-time. She determined that those working full-time did not have enough free time to commit to prolonged breastfeeding, and mothers that were unemployed were less likely to have a higher education, which correlated with them giving up breastfeeding earlier than those with a higher education level. Overall, the results of her study suggest that employment and early return to work are associated with a shorter duration of breastfeeding, but being unemployed also has some risk relating to the extent in which a mother breastfeeds. Similarly, Ryan, Zhou, and Arensberg (2006) surveyed 40,015 U.S. mothers in regards to what they fed to their baby

at different ages from birth to six months. They also were asked to indicate whether they worked full-time, worked part-time, were on maternity leave, or did not work outside the home. Although the rates of initiating breastfeeding were very similar between all four groups of women, mothers working part-time or not at all were more likely to continue breastfeeding than those working full-time. Researchers propose that this may be due to the mothers' occupation since different jobs offer differing amounts of flexibility and support. They also suggest that without an increase in support from the community and job sites, breastfeeding rates of mothers working full-time are not likely to increase.

Stigmas of Breastfeeding in Public

Not only are personal challenges, partner support, and working all detrimental to the success of prolonged breastfeeding, but breastfeeding in public is also seen as an obstacle to overcome. Society has its own set of norms, values, and standards, and it is important to be aware of these if one hopes to overcome them or change them. Acker (2009) conducted a study that included 106 college students and 80 other adults who were shown a series of nine pictures of people doing various things in public and in private, two of which included breastfeeding. The pictures were identical except that in one the woman was in the privacy of her own home and in the other the woman was breastfeeding in public. The participants were asked to answer questions regarding positive evaluations, negative feelings, and normalcy of the activities shown. Based on participants' answers, Acker found three prominent explanations for a negative view of breastfeeding in public: unfamiliarity of this action, sexist attitudes, and hypersexualization of breasts in society. Participants rated the picture of the mother breastfeeding in public much more negatively than the one of the mother breastfeeding in

her own home, suggesting that women are simultaneously encouraged and discouraged to breastfeed and that the message being sent to mothers is that it is best to breastfeed as long as other people don't see it. She states that normalizing the image of breastfeeding in public would make it easier for mothers to imagine themselves this and would encourage community members to support this.

Research shows that there are social stigmas surrounding breastfeeding in public, additionally it has been seen that personal challenges can come up when one considers breastfeeding in public. Johnston- Robledo, Wares, Fricker, and Pasek (2007) studied 275 American undergraduate women by having them complete a survey that included questions regarding their plans for feeding their babies, attitudes towards breastfeeding, concerns about breastfeeding, and self-objectification. The study found that many young women had already internalized cultural taboos surrounding breastfeeding and women who rated higher on self-objectification questions were more likely to anticipate feeling embarrassed or concerned about breastfeeding in public as compared to their counterparts. Researchers advise that in order for women to have the freedom to have positive and fulfilling breastfeeding experiences, the message of shame and self-consciousness that arises from society's restrictive and sexist cultural norms needs to be changed.

Consistent with this research and information is another study that was conducted in the UK. Boyer (2012) conducted 11 interviews, surveyed 46 people, and investigated 180 website postings on a parenting website in search of women's experiences with breastfeeding in public. She found that many mothers reported negative experiences breastfeeding in public, including glares and negative comment from surrounding people.

She also found that the breastfeeding mother's feelings are often influenced by what the mother thinks others around her feel. Boyer found that this led the breastfeeding mothers to feel that breastfeeding in public is something to be embarrassed or ashamed about. The results of her research implicate that making breastfeeding easier to do in public will be a matter of cultural change and a shift in the current norms.

Henderson, McMillian, Green, and Renfrew (2011) extended on the challenges of breastfeeding in public by investigating men's perceptions and beliefs of breastfeeding and formula feeding. They conducted focus groups with 28 fathers in England in which the participants looked at media and writings about infant feedings and also discussed explicit knowledge about the topic. Results determined that in all five groups, men were concerned about sexuality, embarrassment, and social conduct. The men saw breastfeeding as a sexual activity and believed that it might receive negative public attention; the men felt that the media supported these beliefs and they also felt that their lack of exposure to breastfeeding in public contributed to these views. The researchers suggest that until breastfeeding in public becomes a common practice and is normalized, it will remain a controversial issue and rates will remain low. In order to create this change they explain that sociocultural changes would need to take place to create an environment where women feel safe and comfortable breastfeeding in public and men feel the ability to support them.

Interventions and Promotion of Breastfeeding in Public

Because there are so many challenges that come along with breastfeeding in public, it is crucial to look at programs that exist to help break these stigmas, as well as think about future programs that could encourage and support women to breastfeed

wherever and whenever they feel necessary.

Existing Programs

Some breastfeeding in public campaigns already exist and are working to educate society on the benefits and stigmas surrounding breastfeeding in public. In California, the Marin Breastfeeding Coalition has launched a campaign that involves life-size cutouts of mothers breastfeeding placed in public locations. Each mother holds a sign that reads, “When breastfeeding is accepted, it won’t be noticed.” The purpose of the campaign is to normalize breastfeeding in public, as well as educate the community on the benefits and laws regarding breastfeeding in public places (Farooq, 2009). Another campaign, Project: Breastfeeding, includes both mothers and fathers in the support of breastfeeding in public. The campaign was created by one father, Hector Cruz, in the U.S., who now travels nationwide taking pictures of mothers breastfeeding, fathers holding their children, and various family photos. In an effort to “destigmatize public breastfeeding, educate men, and empower women,” Cruz hopes to educate men on breastfeeding and the important role they can play in this relationship, support women struggling with breastfeeding, and create billboard campaigns in cities to encourage breastfeeding in public and promote awareness of the laws surrounding breastfeeding in public (Cruz, 2013). Campaigns to support and encourage public breastfeeding are beginning to take off, in hopes that breastfeeding in public will become normalized in the United States.

Increasing breastfeeding rates to meet AAP (2012) recommendations is important and since it has been shown that rates have the potential to increase when the mother feels supported (Boyer, 2012), it is important to have knowledgeable supporters. Mitra,

Khoury, Carothers and Foretich(2003) evaluated whether a pilot program in Mississippi, Loving Support Makes Breastfeeding Work (LSMBW), had a beneficial impact for WIC breastfeeding coordinators who were trying to promote breastfeeding to their clients. The LSMBW program includes family education, staff training, public awareness, health professional outreach, and community partnerships in regards to breastfeeding. The study included all 82 state Women, Infants, and Children (WIC) Program sites and was in the form of a self-administered questionnaire. Results determined that the staff education of the program, community outreach, and the educational videotape all had a positive impact on the coordinators of the program who were then able to share this information with their patients. Although there was no data collected on the effect of the LSMBW program on the rates of breastfeeding, the research does show that supporters became more educated and knowledgeable on the topic, possibly leading to a cultural shift in the way breastfeeding is approached.

Pertaining specifically to breastfeeding in public, Lobley and Walker (2000) hoped to identify businesses and services in a particular area of Australia that supported breastfeeding and had a suitable environment for this, as well as increase women's awareness of breastfeeding-friendly areas that existed in their community. A campaign, "Breastfeeding Welcome Here," in which businesses display a sticker in their window that lets mothers know they have a supportive environment for them to breastfeed their child, was created. The mothers created a list of criteria they believed created a suitable space for breastfeeding that the company had to provide in order to put a sticker in their window. The list included: welcoming attitude, non-smoking environment, moveable chairs, privacy, warmth, ventilation, and easy access to a toilet. Over 217 companies

eventually joined the campaign. After a number of interviews and focus groups, researchers found that support outside of the home and baby-friendly communities are crucial to a longer duration of breastfeeding. The mothers explained that the increased support was essential for their longer duration of breastfeeding and they found it very beneficial to have stickers in the windows letting them know where they would be welcomed.

Future Programs

Although there are a few programs in existence, it is important to look ahead to the future and determine what more can be done to support public breastfeeding. Vari, Vogeltanz-Holm, Olsen, Anderson, Holm, Peterson, and Henly (2013) used an online survey of 754 students and faculty of a university in the United States to determine what factors are important in future breastfeeding campaigns. The Infant Feeding Questionnaire was used to determine beliefs and attitudes towards breastfeeding of the participants. Based on these results, researchers suggest that in order for breastfeeding attitudes and rates to change, society needs to be educated about the benefits of breastfeeding and the stigmas that surround breastfeeding. They also were able to conclude that more exposure to breastfeeding in public and increasing positive attitudes towards breastfeeding in public were important to include in breastfeeding campaigns.

Conclusion

The benefits of breastfeeding for both the infant and mother are numerous; such benefits include positive development physically, cognitively, social-emotionally, and in overall well-being, as seen in much of the research that has been presented. Although these benefits exist and are usually not disputed, current rates of breastfeeding in

developed countries are not as high as government health agencies recommend. Some factors that are seen to affect these rates are mother's education level, age, and SES. In addition to these factors are the challenges that a mother faces when breastfeeding. Such challenges include personal physical and emotional issues, support of a partner, working while breastfeeding, and breastfeeding in public. In regards to breastfeeding in public in particular, social stigmas and the mother's personal struggles prove to be at the root of this challenge. In order to defeat or lessen the extent of this problem, some interventions do exist. However, because there is still not a fully functioning solution to the difficulty of breastfeeding in public, I explored mother's access and feelings surrounding locations in the community of San Luis Obispo that welcome breastfeeding. Further, this project aims at creating the best public spaces (2009), possible for mothers to breastfeed, in hopes that the number of mothers breastfeeding in public will rise, increasing society's exposure to and support of breastfeeding in public, with the overall goal of normalizing breastfeeding.

CHAPTER 3

METHODS

The purpose of this project was to explore basic breastfeeding behaviors and the use of Nursing Nooks in San Luis Obispo, CA. , as well as elicit ideas about how the nooks can be improved upon. Accomplishing this required a process that involved two steps. The first step was a front-end evaluation survey, and the second was designing a map of Nursing Nook locations. Details on these two activities are provided below.

Part One: Front End Evaluation

My first step in this project was to conduct front-end evaluation to examine the success of the current “Nursing Nook” program. I evaluated community knowledge of these locations, mothers’ use of the nooks, and mothers’ overall satisfaction with the services provided.

Participants. The participants in the front-end evaluation of this project included 138 mothers. Some mothers agreed to participate after learning about the study via online Facebook pages, including: The San Luis Obispo Breastfeeding Coalition, La Leche League of San Luis Obispo, and SLO Mommies. Other mothers learned about the study from the SLO Parent Participation Program, mothers of the ASI Children’s Center, mothers that visit Growing With Baby, and mothers that attend Baby Hour at the French Hospital Breastfeeding Clinic. Because of the anonymous nature of participation, the exact number of participants that came from each source is unknown. However, it is known that 66% of the surveys came from online respondents and 34% came from hard copy surveys that participants received at these various locations.

Materials. In order to determine the benefits and success of “Nursing Nooks”, I created a survey to target participants’ knowledge and use of “Nursing Nooks,” as well as to evaluate whether and how participants perceived them to be beneficial. I also gathered information on participants’ ideas for improvement (See Appendix A). Questions on the survey began very broad to get a sense of the mothers’ experience with breastfeeding; these were followed by more specific questions regarding “Nursing Nooks.”

Procedure. I created this survey with the input of Lactation Consultant, Merrilee Costello, from The French Hospital Breastfeeding Clinic, as well as the feedback from Cal Poly Child Development Professor, Dr. Jennifer Jipson. I invited mothers who learned about the front-end evaluation from these sources to participate in an online survey. Ninety-one mothers voluntarily completed hard copy surveys and were recruited. After finalizing the survey, I used surveymonkey.com to create an online version of the survey and posted the link to various Facebook pages. In addition, I took hard copies of the survey to locations in the community that serve mothers of young children. After approximately two weeks, I collected the hard copy completed surveys and gathered results from the online survey.

Part Two: Resource Development

The target audience for this portion of the project was mothers with young children in the San Luis Obispo community that breastfeed. Upon completion of the front-end evaluation, it seemed valuable to give mothers a resource for finding nooks and to create a re-launching, including a specific protocol, for the designation of “Nursing Nooks.”

Map Making. I created a map that shows the locations of “Nursing Nooks” in San Luis Obispo that is available for anyone to view using Google Maps and typing “Nursing Nooks” in the search bar. Additionally, I created a hard copy of this map that includes addresses, as well as a view of the streets and locations as pins (See Appendix B). Having both a hard copy map and online resource has the potential to reach more mothers and be more accessible than just one mode of communicating the Nursing Nook locations. To create the online map, I used Google Maps Maker and entered in the locations of the “Nursing Nooks” and created a new pin for each location. This process allows anyone on Google Maps to locate the nooks. In order to make the hard copy map as beneficial as possible, I used the screenshot feature of the map maker to capture the map image that has all the eight “Nursing Nook” pins in view. I then searched on Google Maps for “Nursing Nooks” and took a screen shot of the listed eight locations and addresses and then combined the two to create a more cohesive and descriptive map.

Re-launching. To further the improvement on “Nursing Nooks,” I created a potential re-launching of the nooks that would include a more standard protocol in order for a store to claim that they had a “Nursing Nook,” (See Appendix C). In order to design a standardized protocol and re-launching program, I looked at the results of the front-end evaluation and examined what mothers felt was most important about the nooks and what their concerns were, and made sure to address both of these.

CHAPTER 4

RESULTS

This section includes responses to the front-end evaluation survey, a description of the Nursing Nook map, and an evaluative discussion with Merrilee Costello, a lactation consultant in San Luis Obispo.

Front-end Evaluation

In this section, I summarize the responses of mothers (n= 138) to each question asked in the “Breastfeeding in Public” survey.

Do you breastfeed? Of the 138 mothers that participated in taking the breastfeeding in public survey, 97% of them answered that they do breastfeed and 3% responded that they do not breastfeed.

How comfortable are you with breastfeeding in public? All 138 respondents to the survey answered this question. Results indicated that 31% of mothers who participated in the study are very comfortable with breastfeeding in public, 23% are comfortable, 17% are usually comfortable, 19% are somewhat comfortable, 7% are not comfortable at all, and 3% do not breastfeed at all (See Figure 1). The average comfort level of breastfeeding in public reported by these mothers fell between “usually comfortable” and “comfortable.”

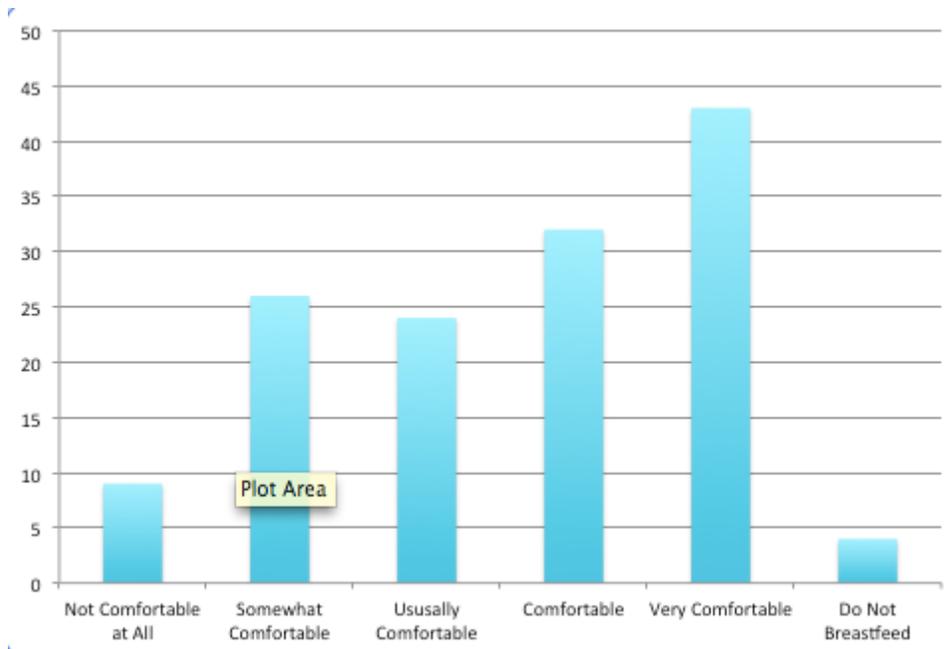


Figure 1. This graph shows the varying degrees of comfort level of breastfeeding in public for mothers.

What is one of the main reasons you do not feel comfortable breastfeeding in public?

Of 42 respondents who answered this open-ended question, 31% answered that making others uncomfortable was a reason they were not comfortable breastfeeding in public, 19% responded with being uncomfortable exposing themselves, 19% stated they were just beginning to breastfeed or had a latch issue, 17% expressed concern of distractions for baby, and another 12% felt embarrassed or unaccepted.

Do you use any breastfeeding resources that SLO County has to offer? Of 71 respondents who answered this question, 54% mentioned the French Hospital Breastfeeding Clinic, 27% mentioned Growing with Baby, 10% mentioned La Leche League, 8% mentioned Lactation Consultants, 7% mentioned Simply Mama, and another 7% mentioned Nursing Nooks.

Have you ever heard of a Nursing Nook? Of the breastfeeding moms (n=134), 54% reported that they had heard of a Nursing Nook and 46% responded that they had not.

Have you ever been to a Nursing Nook in SLO? Of breastfeeding moms (n=134), 37% had been to a Nursing Nook in San Luis Obispo and 63% reported never having been to a Nursing Nook.

How often do you use SLO's Nursing Nooks? Of all mothers that have been to a Nursing Nook (n= 46), 67% reported going to a nook once or twice, 26% reported going once a month, 4% reported going once a week, and 2% reported going multiple times a week (See Figure 2).

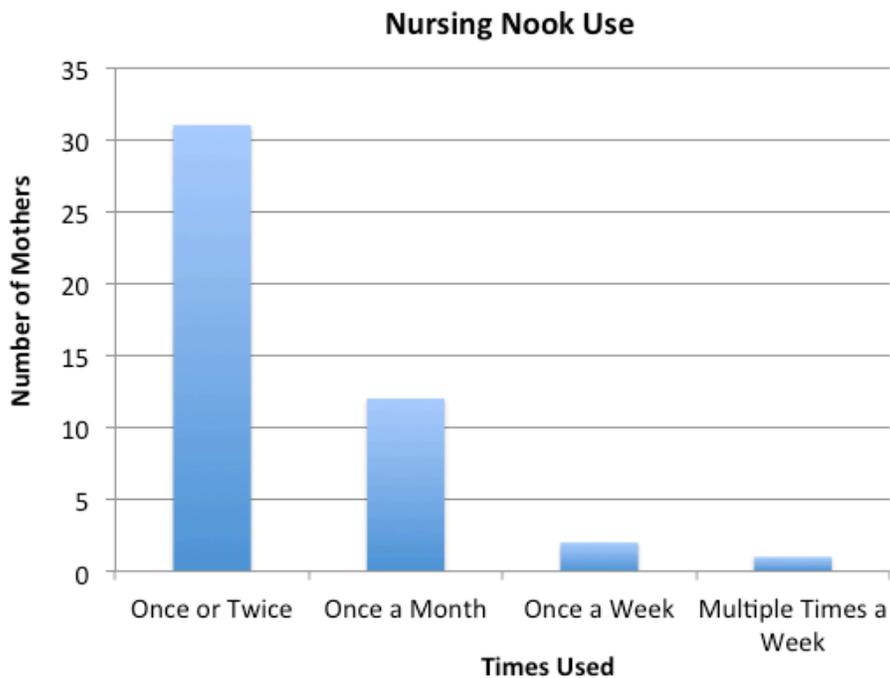


Figure 2. This graph shows the frequency of mothers' use of Nursing Nooks.

What is the best part of Nursing Nooks in your opinion? Of 70 responses, 50% of mothers included a response mentioning something about comfort, 19% mentioned privacy, 14% mentioned feeling welcome or supported, 13% stated that they felt Nursing Nooks were a good idea, and another 6% mentioned convenience. It is important to include that of the mothers that did not respond, it is unknown if they did not have an opinion about the best part of Nursing Nooks because they had never been to one or because they felt there was nothing positive about the nooks. Another note about these results is that although some mothers reported never having been to a Nursing Nook before, they still chose to write an answer about what the best part of Nursing Nooks was.

What is your least favorite part/concerns about Nursing Nooks?

Of the 41 responses, 41% mentioned that Nursing Nooks limit mothers to certain areas when they feel nursing in public should be accepted anywhere, 32% answered that they did not feel there were enough Nursing Nook locations, 17% felt that it was not convenient to always try to find a nook to breastfeed, and another 7% mentioned concerns about the noise level and cleanliness of Nursing Nooks.

What would you find beneficial to add to Nursing Nooks? From a list of options mothers chose what additions would be most beneficial to Nursing Nooks. Of all responding mothers (n=138), 29% felt a breastfeeding pillow would be beneficial, 47% felt a more comfortable chair would be beneficial, 31% felt a privacy door/curtain would be beneficial, 28% felt sanitation wipes would be beneficial, 49% felt a changing table would be beneficial, 14% felt disposable cloths would be beneficial, and 14% felt breastfeeding resources would be beneficial. An open-ended portion of the question allowed mothers to write in other things that may be beneficial, these included toys for

older children, magazines, water, encouraging words from other breastfeeding moms, and a scale to weigh baby.

Resource Development

A final map was created that lists all eight locations of Nursing Nooks in San Luis Obispo (See Appendix B).

CHAPTER 5

DISCUSSION

Despite many known benefits to breastfeeding, the rates are not as high as the WHO (2014) and AAP (2012) recommendations of 100% exclusive breastfeeding for the first six months of life and then the introduction of supplemental solid foods until the infant is a year old. Among the factors that may dissuade mothers from breastfeeding are personal challenges, such as pain, inadequate milk production, and the concern of infant satisfaction, lack of breastfeeding support, the need to return to work, and breastfeeding in public as challenges to breastfeeding initiation and duration (CDC, 2011). In this project, I focused on breastfeeding in public as a large challenge. It is to be noted that in the research I conducted, 97% of mothers were breastfeeding, whereas in national research conducted by the CDC (2011) only 49% of infants were being breastfed at six months of age. Although my research did not include infant's age as a variable, it is important to keep in mind that my data includes an overwhelming number of breastfeeding mothers and may not be applicable to other populations. Similarly, education level, age, and socioeconomic status were not a part of the data collected in this study, and these are all known factors that impact breastfeeding rates (Heck et al., 2006; Nesbitt et al., 2012; Flacking et al., 2007). It seems that if these factors did have an influence on the mothers that were surveyed, it was a positive influence on the choice or ability to breastfeed for most of the mother-infant dyads. Another limitation to this study is the recruitment methods used to collect data. Links to the "Breastfeeding in Public" survey were posted on Facebook pages that catered to mothers of infants and supported breastfeeding efforts, which helps to explain why the results of this study show such high

breastfeeding rates. In addition, surveys were collected from various mother support groups and parent participation classes. According to California Department of Public Health Genetic Disease Screening Program (2010), 96.2% of mothers were doing some amount of breastfeeding while in the hospital post-birth. This number is similar to that found in this study, and suggests that breastfeeding rates in San Luis Obispo were accurately represented by the sample population.

Of the breastfeeding mothers I surveyed, the majority were “very comfortable” with breastfeeding in public, which is inconsistent with previous research in which breastfeeding in public is seen as a barrier to overcome for various reasons (Johnston-Robledo et al, 2007; Acker, 2009; Boyer, 2012). These reasons include, sexist attitudes, hypersexualization of breasts, cultural taboo, self-objectification, and negative reactions of others. Despite overwhelming comfort with breastfeeding in public, participants in my study did articulate some hesitation. They explained that they were uncomfortable exposing their bodies, which could be linked to self-objectification or feeling as if others see their breasts as sexual objects. Also, 31% of the mothers who responded to why they felt uncomfortable breastfeeding in public expressed that they did not want to make others uncomfortable. As previous research indicates, this perception may be related to negative comments or experiences they have had, as well as seeing breastfeeding in public as a cultural taboo (Boyer, 2012). Other responses to being uncomfortable in public included latch issues or being new to breastfeeding, and having an infant that is easily distracted while feeding. Thus, although the rates of breastfeeding in my study are much higher than the national rates, mothers in my sample provided similar reasons to

mothers who participated in prior studies when asked to reason about why they may not yet be completely comfortable with breastfeeding in public.

In an effort to ease mothers into becoming more comfortable with breastfeeding in public, Nursing Nooks have been created in San Luis Obispo. Although the majority of the mothers I surveyed reported feeling “very comfortable” with breastfeeding in public, suggesting that Nursing Nooks may be doing their job, the results of the survey suggest that this resource is being underutilized and further research would need to be conducted in order to determine the extent to which Nursing Nooks had an impact on mothers comfort level of breastfeeding in public in San Luis Obispo. Over half of mothers reported that they had heard of a Nursing Nook, and only 37% reported that they had used a Nursing Nook,. Of the small set of mothers who had heard of Nursing Nooks, most of them had only visited one once or twice. Early on in my project, I noticed that a map of Nursing Nooks locations was nonexistent, and I saw the development of such a tool to be one potential way to improve upon the use of Nursing Nook resources. Inspection of the results of my survey suggests that I had good reason to believe that a map, as well as adding Nursing Nooks to the Google Maps database, would be beneficial to mothers in San Luis Obispo. Mothers now have quick access online or in hand of the locations of these nooks, and with that they may be more likely to use this unique resource.

Although I did find that there was somewhat of a reason to believe that a map of Nursing Nook locations would be beneficial to breastfeeding mothers of San Luis Obispo, it is important to address the further limitations of the survey. It appears that the results of my survey did give me accurate information on breastfeeding rates and how to

better the quality of Nursing Nooks, based on what mothers felt would be beneficial to add to the nooks, but it leaves me unsure if a map of all the locations is going to be enough to increase the use of these nooks, and more importantly the rates of breastfeeding in public. I feel that had time permitted, it would have been ideal to create a proposal to other San Luis Obispo retailers and shop owners for the inclusion of a Nursing Nook in their store, and then be able to go out into the community with this proposal and create more nook locations. However, because of time constraints, I will address this, as well as a re-launching of a Nursing Nook protocol in the project's future directions.

One response that I had considered and that was affirmed by the participants of the breastfeeding in public survey was the concern that Nursing Nooks may be further perpetuating a stigma of breastfeeding in public by making it seem as if it is only appropriate to do so in these designated locations. It would have been beneficial to do follow up research on Nursing Nooks versus some other breastfeeding in public campaigns. Some of the results I received from mothers seemed to indicate that they felt Nursing Nooks were limiting them to certain places in public to breastfeed, when any public location should be supportive of this. Several campaigns in place across the country address this issue in various ways; some by placing life-size cutouts of mothers' breastfeeding around their community, and others by taking pictures of mothers breastfeeding, fathers holding their children, and various family photos, encouraging the normalization of breastfeeding in public, supporting the education of men on breastfeeding and the important role they can play in this relationship, aiding women struggling with breastfeeding, and promoting awareness of the laws surrounding

breastfeeding in public (Farooq, 2009; Cruz, 2013). Instead of limiting mothers to specific locations in public to breastfeed, these campaigns are suggesting that breastfeeding be done anywhere in public and that the more people are exposed to this and educated on it, the less stigmatized breastfeeding in public will be.

The results of this study show that for some mothers, Nursing Nooks are limiting and perpetuating the idea that breastfeeding should only be done in certain places, but it also suggests that for other mothers the nooks are a great community resource and beneficial to their comfort level and ability to feed their child. This leads to the idea that there may be some form of scaffolding occurring for mothers at certain comfort levels with breastfeeding in public. For instance, mothers who report not feeling comfortable at all with breastfeeding in public may find that they are comfortable enough to feed their child at these locations. When they reach a certain comfort level they may no longer feel the need to use these specific locations. In this instance, this mother used Nursing Nooks as a tool that allowed her easier access to feed her child and may potentially have increased the duration of breastfeeding for that mother-infant dyad. Mothers who start off at a higher comfort level may never find the use of a Nursing Nook beneficial, and as previously mentioned, it may become restricting to them and their beliefs.

This idea leads into further thinking about what else is needed to support women's effort to breastfeed, especially in public. Boyer (2011) suggests in a recent publication that breastfeeding is an example of "care-work activism," meaning that there are efforts needed to challenge existing social norms in relation to places that acts of care are or are not supposed to take place according to society. In an effort to continue this activism, picnics were set up in which mothers' breastfeed their babies and gathered

support to normalize breastfeeding in public. Boyer goes on to suggest that finding ways to change social norms, as well as finding strategies to manage ways of breastfeeding that are both practical and sustainable are necessary to produce longer breastfeeding duration.

Future Directions

Based on these findings, it is important to describe how to further the use of my initial research. I originally focused a lot of my survey on what mothers saw as beneficial to Nursing Nooks and how they could be improved. This was done with the thought that a Nursing Nook protocol would be made and then used in a re-launching of Nursing Nooks. My results suggest that the addition of various materials, such as a comfortable chair, a changing table, and sanitation wipes would create a better environment for breastfeeding mothers. In the future, the Nursing Nook protocol (Appendix C) could be used to enhance current nooks, as well as to create new nook locations throughout the community.

However, upon completing my research, I am hoping to use the results for more than what was previously mentioned. Although I do think it is important to improve knowledge of Nursing Nooks and what constitutes a nook, it appears that another great need of the San Luis Obispo community is a breastfeeding campaign that addresses the stigmas surrounding breastfeeding in public and aims to normalize this action, rather than confine some mothers to certain spaces.

In addition to these ideas, it is important to note that some mothers who reported having never heard of a Nursing Nook, but chose to respond to the benefits of Nursing Nooks, included that they felt the nooks were a “good idea,” which may suggest that they would use them if they knew of the exact locations. However, this further complicates

results from this project. Some mothers who expressed that they had never heard of a Nursing Nook or been to a Nursing Nooks still chose to partake in answering what the best part of a nook was and what additions would be beneficial to Nursing Nooks. This leads me to wonder why they chose to answer these questions and what implications this may have for the future. I am curious as to whether they felt the need to answer or whether they were stating their opinion because they wanted their voice to be heard, and perhaps have other ideas on how to confront the issues surrounding breastfeeding in public.

It is clear after researching this issue and completing this project that mothers in this community still need support when it comes to breastfeeding and the challenge to destigmatize breastfeeding in public still exists. I feel that at this point there are two different paths that can be taken from this project that would have somewhat opposing outcomes. The first would be to publish the Nursing Nook protocol and expand the number of Nursing Nooks in this community to support mothers that find the nooks a place of comfort and support while trying to breastfeed their infant. The second approach would be to change the focus from Nursing Nooks to a new campaign that does not restrict mothers to certain public locations to breastfeed, but instead supports and welcomes breastfeeding anywhere in the community. Either path would somehow leave one group of mothers with less support, and I find that thought quite troubling, so my challenge for San Luis Obispo is to determine how all mothers can be supported and comforted in their experience of breastfeeding, and in particular breastfeeding in public.

REFERENCES

- Acker, M. (2009). Breast is best...but not everywhere: Ambivalent sexism and attitudes toward private and public breastfeeding. *Sex Roles, 61*(7/8), 476-490.
doi:10.1007/s11199-009-9655-z
- Agency for Healthcare Research and Quality. (2007). Breastfeeding and maternal and infant health outcomes in developed countries. Retrieved from website:
<http://archive.ahrq.gov/downloads/pub/evidence/pdf/brfout/brfout.pdf>
- Allen J., & Hector D. (2005). Benefits of breastfeeding. *New South Wales Public Health Bulletin, 16*, 2–46. <http://dx.doi.org/10.1071/NB05011>
- American Academy of Pediatrics. (2012). Breastfeeding and the use of human milk. *Pediatrics, 129*. doi: 10.1542/peds.2011-3552
- Biro, M. A., Yelland, J. S., & Brown, S. J. (2014). Why are young women less likely to breastfeed? Evidence from an Australian population-based survey. *Birth: Issues In Perinatal Care, 41*(3), 245-253. doi:10.1111/birt.12112
- Boyer, K. (2012). Affect, corporeality and the limits of belonging: Breastfeeding in public in the contemporary UK. *Health & Place, (18)*, 552-560. doi: 10.1016/j.healthplace.2012.01.010
- Boyer, K. (2011). “The way to break the taboo is to do the taboo thing” breastfeeding in public and citizen-activism in the UK. *Health & Place, 17*(2), 430-437.
- Brown, A., & Davies, R. (2014). Fathers' experiences of supporting breastfeeding:

- challenges for breastfeeding promotion and education. *Maternal & Child Nutrition*, 10(4), 510-526. doi:10.1111/mcn.12129
- Center for Disease Control and Prevention, (2014). Breastfeeding among U.S. children born 2001–2011, CDC national immunization survey. Retrieved from website: http://www.cdc.gov/breastfeeding/data/nis_data/index.htm
- Center for Disease Control and Prevention, (2011). Breastfeeding initiation and duration at four weeks. Retrieved from website: <http://www.cdc.gov/prams/PDF/Snapshot-report/Breastfeeding.pdf>
- Cruz, H. (2013). About Project: Breastfeeding. Retrieved from <http://www.projectbreastfeeding.com>
- Else-Quest, N. M., Hyde, J., & Clark, R. (2003). Breastfeeding, bonding, and the mother-infant relationship. *Merrill-Palmer Quarterly*, 49(4), 495-521.
- Farooq, S. (2009, January 1). New Breastfeeding Campaign Turns Heads. Retrieved from <http://www.nbcbayarea.com/news/weird/Lactating-Women-Getting-Second-Looks-in-Marin.html>
- Flacking, R., Hedberg Nyqvist, K., & Ewald, U. (2007). Effects of socioeconomic status on breastfeeding duration in mothers of preterm and term infants. *The European Journal of Public Health*, 579-584.
- Godfrey, J. R., & Meyers, D. (2009). Toward optimal health: Maternal benefits of breastfeeding. *Journal of Women's Health (15409996)*, 18(9), 1307-1310. doi:10.1089/jwh.2009.1646
- Guttman, N., & Zimmerman, D. R. (2000). Low-income mothers' views on breastfeeding. *Social Science & Medicine*, 50(10), 1457.

- Heck, K. E., Braveman, P., Cubbin, C., Chávez, G. F., & Kiely, J. L. (2006). Socioeconomic Status and Breastfeeding Initiation Among California Mothers. *Public Health Reports, 121*(1), 51-59.
- Henderson, L., McMillan, B., Green, J. M., & Renfrew, M. J. (2011). Men and infant feeding: Perceptions of embarrassment, sexuality, and social conduct in white low-income British men. *Birth: Issues In Perinatal Care, 38*(1), 61-70.
doi:10.1111/j.1523-536X.2010.00442.x
- Johnston-Robledo, I., Wares, S., Fricker, J., & Pasek, L. (2007). Indecent exposure: Self-objectification and young women's attitudes toward breastfeeding. *Sex Roles, 56*(7/8), 429-437. doi:10.1007/s11199-007-9194-4
- Kelleher, C. M. (2006). The physical challenges of early breastfeeding. *Social Science & Medicine, 63*(10), 2727-2738. doi:10.1016/j.socscimed.2006.06.027
- Liu, J., Shi, Z., Spatz, D., Loh, R., Sun, G., & Grisso, J. (2013). Social and demographic determinants for breastfeeding in a rural, suburban and city area of South East China. *Contemporary Nurse: A Journal For The Australian Nursing Profession, 45*(2), 234-243. doi:10.5172/conu.2013.45.2.234
- Lobley, K., & Walker, E. (2000). 'Can I breastfeed here?' The Blue Mountains breastfeeding initiative. *Australian Journal Of Nutrition & Dietetics, 57*(1), 23-28.
- Marshall, J. L., Godfrey, M., & Renfrew, M. J. (2007). Being a 'good mother': Managing breastfeeding and merging identities. *Social Science & Medicine, 65*(10), 2147-2159. doi:10.1016/j.socscimed.2007.06.015
- Mezzacappa, E. S., Guethlein, W., & Katkin, E. S. (2002). Breast-Feeding and Material

Health in Online Mothers. *Annals Of Behavioral Medicine*, 24(4), 299.

Mitra, A. K., Khoury, A. J., Carothers, C., & Foretich, C. (2003). Evaluation of a comprehensive loving support program among state women, infants, and children (WIC) program breast-feeding coordinators. *Southern Medical Journal*, 96(2), 168.

Nesbitt, S., Campbell, K., Jack, S., Robinson, H., Piehl, K., & Bogden, J. (2012). Canadian adolescent mothers' perceptions of influences on breastfeeding decisions: A qualitative descriptive study. *BMC Pregnancy and Childbirth*, 12(149). doi:10.1186/1471-2393-12-149

Ryan, A. S., Zhou, W., & Arensberg, M. B. (2006). The effect of employment status on breastfeeding in the United States. *Women's Health Issues*, 16(5), 243-251. doi:10.1016/j.whi.2006.08.001

San Luis Obispo County In-Hospital Breastfeeding Rates. (2010). *California Department of Public Health*.

Skafida, V. (2012). Juggling Work and Motherhood: The Impact of Employment and Maternity Leave on Breastfeeding Duration: A Survival Analysis on Growing Up in Scotland Data. *Maternal & Child Health Journal*, 16(2), 519-527. doi:10.1007/s10995-011-0743-7

Sloan, S., Stewart, M., & Dunne, L. (2010). The effect of breastfeeding and stimulation in the home on cognitive development in one-year-old infants. *Child Care In Practice*, 16(2), 101-110. doi:10.1080/13575270903529136

Vari, P., Vogeltanz-Holm, N., Olsen, G., Anderson, C., Holm, J., Peterson, H., & Henly, S. (2013). Community breastfeeding attitudes and beliefs. *Health Care For*

Women International, 34(7), 592-606. doi:10.1080/07399332.2012.655391

World Health Organization. (2014). *Breastfeeding*. Retrieved from website:

<http://www.who.int/topics/breastfeeding/en/>

APPENDICIES

A. "Breastfeeding in Public" Survey

B. Nursing Nook Map

C. Nursing Nook "Re-launch" Protocol

Appendix A. The Breastfeeding in Public Survey

Hi! My name is Morgan Doshier and I am a fourth year **Child Development** major at Cal Poly working in collaboration with the French Hospital Breastfeeding Clinic on my senior project. This survey is completely **anonymous** and has been created as part of my **senior project** on mothers' knowledge of resources and support for breastfeeding in public, specifically, Nursing Nooks in San Luis Obispo. Thank you in advance for taking the time to complete this survey and really help me with my senior project!

1. Do you breastfeed?

Yes No

-If no, thank you for your participation in this survey! It is very appreciated.

-If yes,...

2. How comfortable are you with breastfeeding in public?

Not comfortable at all Somewhat comfortable Usually comfortable

Comfortable Very Comfortable

3. What is one of the main reasons you do or do not feel comfortable breastfeeding in public?

4. Do you use any breastfeeding resources that SLO County has to offer? Please list.

5. Are there other places in the community you feel comfortable nursing? Please list.

6. Have you ever heard of a Nursing Nook?

Yes No

Nursing Nooks are designated areas throughout the city that provide mothers with comfortable and safe places to breastfeed their child. The eight current locations are listed below:

- Apropos
- Bambu Batu
- Barefoot MomEase Wellness Spa
- EcoBambino
- Growing with Baby
- Santa Lucia Birth Center
- Simply Mama
- SLO Wellness Center

7. Have you ever been to a Nursing Nook in SLO?

Yes No

-If yes, which locations are most convenient for you? Please list.

8. How often do you use SLO's Nursing Nooks?

Never Once or twice Once a month Once a week Multiple times a week

9. What is the best part of Nursing Nooks in your opinion?

10. What is your least favorite part/concerns about Nursing Nooks?

11. Which of the following would you find beneficial to add to all Nursing Nooks:

Breastfeeding Pillow More Comfortable Chair Privacy Door/Curtain

Sanitation Wipes Changing Table Disposable Cloths Breastfeeding Resources

Other:

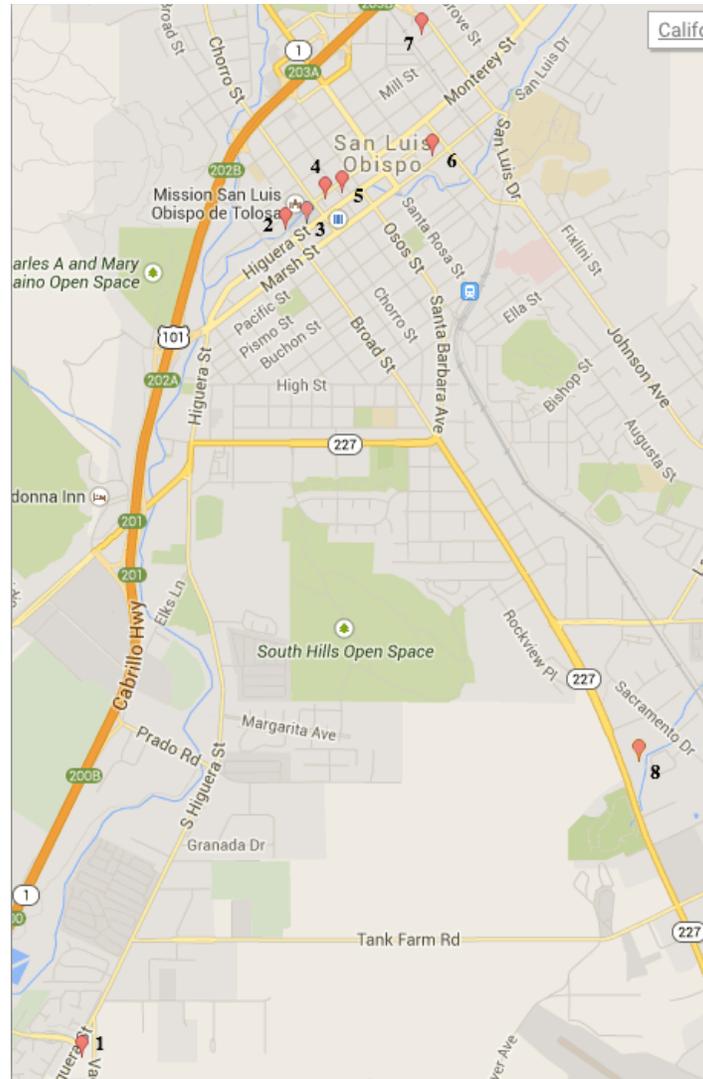
Thank you again for taking the time out to complete this survey and help me with my senior project. My goal is to use this information to determine how to best improve Nursing Nooks for breastfeeding mothers. I also plan on creating a map of all the locations in SLO of these Nursing Nooks. If you wish to be directly emailed with this map, please write your email below.

Email address: _____

Would you find a paper map or electronic map more useful?

Appendix B. Nursing Nook Map

Nursing Nooks of San Luis Obispo



1. Santa Lucia Birth Center Nursing Nook- 4251 S. Higuera St., Suite 300
2. Bambu Batu Nursing Nook- 1023 Broad Street
3. Simply Mama Nursing Nook- 746 Higuera St., Suite 4
4. EcoBambino Nursing Nook- 863 Monterey Street
5. Apropos Nursing Nook- 1022 Morro Street
6. Growing with Baby Nursing Nook- 1230 Marsh Street
7. SLO Wellness Nursing Nook- 1428 Phillips Lane #300
8. Barefoot MomEase Wellness Spa Nursing Nook- 3592 Broad St, Suite 100

Appendix C. Nursing Nook “Re-launch” Protocol

Nursing Nook Protocol

In order to be considered a Nursing Nook in San Luis Obispo, CA, a business must provide all of the following:

- Adequate Space to fit the following (as well as the following materials):
 - Breastfeeding Pillow
 - Comfortable Chair
 - Privacy Curtain/Door
 - Changing Table
 - Sanitation Wipes
 - Optional Inclusions:
 - Disposable Cloths
 - Breastfeeding Resources
 - Toys for Older Children
 - Magazines
 - Water
 - Scale
 - Encouraging Words

A clear sign should be posted near the area to assure that mothers know where the Nursing Nook is located.