A Positive Deviance Inquiry On Communicative Acts And Behaviors That Enable Working Mothers To Breastfeed

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A POSITIVE DEVIANCE INQUIRY ON COMMUNICATIVE ACTS AND BEHAVIORS
THAT ENABLE WORKING MOTHERS TO BREASTFEED

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Dedication

I would like to dedicate this thesis to my beautiful daughter Juliette. You taught me what it means to be a mother and showed me what true love is. The bond we shared while breastfeeding was breathtaking. I will forever be grateful. I cherished the fact that while I was the source of your daily nutrition you snuggled close to feed and calm yourself. Despite the presence of felt resistance from others around us, you were breastfed for 22 months. You are my inspiration and motivation to become a better mother. I only hope this research will pave the way for society to normalize breastfeeding and encourage working mothers to breastfeed for a longer period of time. Mommy loves you. To the son that I currently carry in my womb, I love you and I cannot wait to nurse you as I did your sister. To my husband Jay, I would not be a mother without you. Thank you for being my main supporter while I nursed. Thank you for giving me the greatest gift anyone can ask for. I love you.
A POSITIVE DEVIANCE INQUIRY ON COMMUNICATIVE ACTS AND BEHAVIORS
THAT ENABLE WORKING MOTHERS TO BREASTFEED

by

JESSICA RAQUEL MOLINAR MUNOZ, B.A.

THESIS

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Abstract

The benefits of breastfeeding have been well documented for both mother and child. Breastfeeding provides optimal nutrition for an infant and includes decreased risk for numerous diseases and illnesses. However, there is evidence that when mothers return back to work from maternity leave, they often stop breastfeeding. The present research project utilizes the Positive Deviance approach to find working mothers who have successfully breastfed their children exclusively for six months and to determine what enables these mothers to continue to breastfeed past one year of birth while working full time. The purpose is to understand why some working mothers, who face resistance and odds, succeed in effectively breastfeeding while most others do not.

Working mothers who continued to breastfeed past one year were found using snowball sampling through a local El Paso charter of an international organization, Mothers of Preschoolers (MOPS). MOPS is a support group for mothers with children under the age of five. Mothers were also found after attending a meeting for the Bi-National Breastfeeding Coalition. For a mother to be considered a Positive Deviant (PD), she will have to meet the following criteria: located in El Paso, TX, working full-time, must have exclusively breastfed for six months and introduced solid foods at six months while continuing to breastfeed for one year or beyond, and to have done so in the face of resistance from one or more friends, family or colleagues. After the PD mothers were identified, in-depth interviews were conducted to help understand what enables the working mother to breastfeed past one year. The identified communicative acts were both intrapersonal and interpersonal in nature.

Temporally, these communicative acts occurred for the working mothers, before the child was born, immediately after the child was born and in preparing to return to work. Before the
child was born, the working mothers who were positive deviants made an active decision to 
breastfeed. These PD mothers would discuss their decisions with their partner and they would 
both come up with a “game plan” on how to make it work. In fact, a mutual decision was 
reached that baby formula will not be in the picture. Lastly, the PD mothers would purchase a 
breast pump before the birth of the child.

After the birth of their child, the PD mothers regularly sought the advice of lactation 
consultants to learn how to nurse properly. Many even called the lactation consultant after being 
discharged from the hospital. Mothers also learned their child’s feeding routines and cues, 
charting the feeding schedule, including carefully noting, which breast the child nursed from and 
for what duration. Mothers also figured out ways to deal with painful breasts and cracked 
nipples with over-the-counter products and holistic remedies. Some PD mothers worked out a 
night schedule with their husbands enabling them to bottle-feed the child breast milk that was 
pumped in advance. This allowed them to get at least three days of adequate sleep during the 
week.

In their preparation to return to work, most of the PD mothers were aware of their legal 
rights to pump milk in the workplace. Also, the PD mothers would build up a stock of pumped 
breast milk before returning to work. At work, the PD mothers used creative strategies to use the 
breast pump, and at home train caregivers on how to properly handle and administer breast milk 
to their child. The mothers would remind caregivers on a daily basis that her child was 
breastfed. If the child was under the care of a relative, the mother would go over how to 
properly administer breast milk through a bottle. PD mothers also nursed their child before 
leaving the house in the morning and soon after on arrival from work. The PD mothers clearly 
demonstrated the important role of communication in the various stages of breastfeeding their
children. Whether it was with their spouse to gain support, or seek the advice of a lactation consultant, or train caregivers, the PD mothers employed communication as a strategic tool to engender effective breastfeeding outcomes.
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Chapter 1: Introduction

“You can get a ticket and be reported for indecent exposure,” a Target employee told Michelle Hickman who was breastfeeding her infant in the back of a Houston, TX store in December 2011. The following day “nurse-in” protests were held at more than 100 Target stores in 35 States (Jaslow, 2011). As with Ms. Hickman, nursing and working mothers all over the country have been asked to stop breastfeeding or to move to another location.

Consider the case of a young mother who returned to work at a news station in a Southwestern city in the U.S. after completing her maternity leave. Before availing her maternity leave, she let the upper management know that she would be pumping breast milk when she returned to work, and would need a suitable location to do so. Upon returning, when she asked where she should pump, she was ushered into the restroom. Knowledgeable of her rights, she re-requested the Human Resources manager to provide her a suitable location. Another day passed with no action. The woman then let the HR manager know that the company was in violation of Section 7 of the Fair Labor Standards Act by failing to provide a place for her to express milk. The women was given a key to a conference room and told to lock the door every time she needed it to express milk. Notwithstanding that the employee in question was the Director of News Content and Assistant News Director of a television station, she was often harassed by her employees when she needed to express milk. Eyes would roll when she would carry her large black bag with yellow trim to the other side of the building where the conference room was located. If for some reason she was expressing milk before the five-o’clock newscast her co-workers could be overheard saying: “She should be supervising the last minute details of the newscast, instead of pumping milk.”
The woman continued expressing milk for one year after the birth of her child. When her child started walking at ten months her family would say “If your child is old enough to walk up to you and pull your shirt, it’s time to stop.” Ignoring her family’s remarks, the mother continued to nurse her child. When her child reached 18 months, the child would often ask in public to nurse. The child asked for “Ti Ti” because the child could not say “Chi Chi” which is Spanish slang for breasts. Her family would say, “Okay, she’s too old. If she can ask you for it, you need to stop.” The woman continued to breastfeed her child despite resistance from coworkers and her family. She quickly realized that breastfeeding was not as socially accepted as she had imagined. She became an advocate for breastfeeding mothers and decided to help other working mothers who faced resistance for breastfeeding.

The above narrative is mine. I, Jessica Molinar Muñoz, am this woman. There have been countless instances where I was embarrassed, ridiculed or mocked for nursing my daughter. My purpose – professional, personal and political – is to help shed light about the benefits of breastfeeding in the El Paso, TX area, and beyond. In this research project, my purpose is to find working mothers who are Positive Deviants or “positive outliers” who have found more effective ways to overcome such resistances to breastfeeding. I am especially interested in investigating what communicative acts, interactional behaviors, and micro-practices explain their effectiveness. Once discovered, these communicative acts can help teach other mothers about how to embrace breastfeeding without social or workplace support.

Why Breastfeeding?

“Breastfeeding is the normal way of providing young infants with the nutrients they need for healthy growth and development,” (World Health Organization, 2014). The WHO also recommends initiating breastfeeding within the first hour after birth and believes colostrum, the
yellowish, sticky breast milk produced at the end of pregnancy, is the perfect food for the newborn (WHO, 2014). WHO recommends "exclusive breastfeeding" (EB) for the first six months. EB means the child gets no other food or drink, not even water. They only get breast milk (including milk expressed or from a wet nurse) for six months of life, and can receive oral rehydration salts (ORS), drops and syrups (vitamins, minerals and medicines).

The American Academy of Pediatrics (AAP) recommends “exclusive breastfeeding for about six months, followed by continued breastfeeding as complementary foods are introduced, with continuation of breastfeeding for one year or longer as mutually desired by mother and infant” (Eidelman, 2012). The World Health Organization (2014) echoes this sentiment by suggesting “Exclusive breastfeeding is recommended up to six months of age, with continued breastfeeding along with appropriate complementary foods up to two years of age or beyond.” According to AAP, the benefits of breastfeeding include decrease risk in asthma, respiratory infections, diabetes, obesity, leukemia, celiac disease, gastrointestinal tract infections and sudden infant death syndrome (Eidelman, 2012, p. 831). The AAP also states “exclusive breastfeeding for more than three months reduces the incidence of otitis media by 50%. Serious colds and ear and throat infections are reduced by 63% in infants who exclusively breastfeed for 6 months” (Eidelman, 2012, p. 832). Other advantages of exclusive breastfeeding include “a lower risk of gastrointestinal infection for the baby, more rapid maternal weight loss after birth, and delayed return of menstrual periods” (WHO, 2014 p. 342). Conradi et al. (2014) concludes that breastfeeding for more than four months may be protective against Multiple Sclerosis. A recent study found that mothers who breastfed lowered their risk for Alzheimer’s disease versus women who did not breastfeed (Fox et al., 2013). Breastfeeding also has neurological benefits. Optimal
brain development was found in babies who were exclusively breastfeed compared to their peers who were bottle-fed or never breastfed (Herba et al, 2013).

**Breastfeeding: More Work Needs To Be Done**

The problem of children not being adequately breastfed goes beyond a specific area or country. It is a global issue. Data shows that a lot more work needs to be done to support breastfeeding mothers and children. The WHO states, “Globally, less than 40% of infants under six months of age are exclusively breastfed.” The WHO declares “adequate breastfeeding counseling and support are essential for mothers and families to initiate and maintain optimal breastfeeding practices” (2014). In the annual Breastfeeding Report Card the CDC states, “the percent of US infants who begin breastfeeding is high at 79%” (CDC, 2014, p. 2.). This percentage is up two percent from 2013 where initiating breastfeeding was at 77%, and up from 2012 where breastfeeding was at 75% (CDC, 2013, 2012). “Of infants born in 2010, 49% were breastfeeding at 6 months, up from 35% in 2000. The breastfeeding rate at 12 months increased from 16% to 27% during that same time period” (CDC, 2013). Although there is a slight increase in mother’s breastfeeding in 2014, the CDC states more work needs to be done. “In 2011, 79% of newborn infants started to breastfeed. Yet breastfeeding did not continue for as long as recommended. Of infants born in 2011, 49% were breastfeeding at 6 months and 27% at 12 months” (CDC, 2014). The state of Texas remains lower than the national average. 78.4% of infants are initially breastfeed, 42.9% of babies are breastfeeding at 6 months, 20.9% are breastfed at 12 months, 38.9% are exclusively breastfed at 3 months while 16.8% are exclusively breastfeeding at six months, (CDC, 2014).

Statistics about breastfeeding in the El Paso Region are not widely available or updated. Fullerton 2004 states “previous local studies for the El Paso Border Region showed that only
32% of the new mothers breastfed exclusively at discharge and only 13% of them were still breastfeeding after 6 months [not published data].” According to a case report by Texas Tech University Health Science Center, El Paso lags “far behind” in the “Healthy People 2010” goal of having 50% of all mothers breastfeed through six months of age of their babies, and more than 25% of all babies to be breastfed through their 1st year of life” (Akins, 2008). The CDC finds that no state in the United States met the “Healthy People 2010” goal of having 75% of infants breastfeed immediately after birth and having 50% of babies breastfeed exclusively at six months. So there is a tremendous need to understand the motivations, intentions and struggles nursing mothers encounter, and especially so in the border region. The U.S. Department of Health and Human Services created “Healthy People 2020” which raises the percentage of infants who are breastfed and various stages including birth, at six months, one year, exclusively for three months and exclusively at six months (U.S. Department of Health and Human Services, 2014). Also needed are increased proportions of employers who have worksite lactation support programs, reduce the number of infants receiving formula supplementation in the first two days of life and increase the proportion of live births that occur in facilities that provide recommended care for lactating mothers and their babies (U.S. Department of Health and Human Services, 2014).

**Health Communication**

Communication is a vital component of a healthy lifestyle. Researchers have found that communication in health can be valuable in multiple arenas e.g. patient-provider communication, prevention and care services, and counseling and social support. The Institute for Healthcare Communication conducted a review of literature that found communication skills with a patient have a strong and positive correlation with the patient’s ability to correctly follow the provider’s
medical recommendations. Researchers also found that when a health care provider took the patients diagnosis and concerns seriously, patient satisfaction increased (IHC, 2011). Patient satisfaction also increased when information about his or her medical condition was explained clearly, options were provided and when the medical team tried to understand the patient’s experience. Researchers highlight that communication skills can be learned and medical teams should undergo training to improve these skills (IHC, 2011).

Street et al. (2009) found clinician-patient communication influences health outcomes. This communication involves patient understanding, trust and clinician-patient agreement. Researchers highlighted seven different pathways where communication led to better health, increased access to care, greater patient knowledge and shared understanding, higher quality medical decisions, enhanced therapeutic alliances, increased social support, patient agency and empowerment and better management of emotions (Street et al. 2009). Studies such as the ones listed above highlight the importance of communication between patients and their clinicians.

Communication has also been used in marketing campaigns to influence health behavior change. Snyder, (2007) found that the average campaign, which focused on health topics such as fat intake, vegetable consumption and breastfeeding, could affect a community by five percentage points. Researchers suggest that campaigns that pay attention to specific behavioral goals of the intervention, target populations, communication activities and channels, message content and presentation, and techniques for feedback and evaluation should be able to change nutrition behaviors (Snyder 2007).

**Benefits of Communication during Breastfeeding**

Researchers have also emphasized the benefits of communication while breastfeeding. Taveras et al. (2004) conducted a cohort study of low-risk mother-newborn pairs and the
discussion of breastfeeding with their doctors during routine visits. Mothers conducted a telephone interview at four and twelve weeks postpartum. Their answers were then compared to their obstetric and pediatric clinician responses. Researchers found that only 15% of mothers spoke with their obstetric clinicians or pediatricians during their two-week visit about their breastfeeding duration (Taveras et al., 2004). Researchers found a communication gap between the patient and her health care providers when discussing breastfeeding. Nearly all the obstetric (91%) and the pediatric (97%) said they discussed if the mother continued to breastfeed after returning to work but only a little more than half of the mothers (55%) reported that the topic was discussed (Taveras et al., 2004).

Social support is an important factor for mothers to continue to breastfeed. Researchers have linked social support for mothers to a longer duration of breastfeeding. Breastfeeding mothers in a peer counselor group have higher rates of exclusive breastfeeding than mothers without a counselor (Arlotti et al. 1998). Researchers also found the peer-counseling group also breastfed for an overall longer duration than their counterparts without a counselor (Arlotti et al., 1998).

Communication in the workplace is also crucial for a working mother who breastfeeds her child. Researchers used focus groups and found three themes about interpersonal communication and breastfeeding support in the workplace (Anderson et al., 2015). Researchers found that interpersonal communication is more important than written communication in regards to breastfeeding support, and positive interpersonal communication may improve the success of workplace breastfeeding support (Anderson et al., 2015).
Positive Deviance Approach

It is abundantly clear that while mothers in the U.S. may begin to breastfeed, the vast majority stop breastfeeding before the recommended time frame has been reached. There are mothers, however, who are able to nurse their children while in the face of adversity. “Be faithful in small things, because it is in them that your strength lies,” said Mother Teresa. In other words, Mother Teresa believes that the small things are the ones that make a big difference. This is the core of the Positive Deviance approach.

The Positive Deviance approach or PD is a relatively new approach to problem solving (Pascale & Sternin, 2010; Durá & Singhal, 2009) that believes that often the solutions to the toughest problems in an organization or community have already been solved. That is, some individuals, often hidden from plain view and facing high odds, may have already overcome the problem. These Positive Deviants have the same resources available to them as their peers and yet they manage to succeed by overcoming obstacles (Pascale & Sternin, 2010; Durá & Singhal, 2009). The conventional approach is to begin with what is not working, while the Positive Deviance approach flips the paradigm on its head and looks at what is working. The Positive Deviance Initiative defines the PD approach as “a strength-based, problem-solving approach for behavior and social change,” (2014). Effective outcomes have been yielded by the PD approach in more than 40 countries in the past 20 years. Childhood malnutrition, girl trafficking, female genital cutting (FGC), and hospital acquired infections (HAI) are only a few of the complex issues where the PD approach has been proved effective.

Childhood Malnutrition in Vietnam

In 1990, Jerry Sternin was appointed as the Director of Save the Children in Vietnam. Upon his arrival, Sternin was asked to find a solution to rampant childhood malnutrition in
Vietnam. Under a tight deadline of six months, Sternin worked closely with local health experts and development partners. Together they found families in Thanh Hóa Province who had managed to avoid malnutrition. These families did not have access to special resources but rather were actively engaged in using resources that were often discarded by other families as a solution to keep their families healthy. These families were labeled as PD’s: “‘Positive’ because they were doing things right, and ‘Deviants’ because they engaged in behaviors that most others did not” (Singhal, Sternin, & Durá, 2009).

The PD families collected tiny shrimp and crabs from paddy fields and added them to their children’s meals. These crabs and shrimps are foods are rich in protein and minerals (Pascale & Sternin, 2010). Adding this protein to the meals was not a normative practice. PD mothers also added greens of sweet potato plants to their children’s meals. These greens are rich in essential micronutrients. “Both the shrimp and the greens were accessible to everyone, but most community members believed they were inappropriate for young children,” (Pascale & Sternin, 2010). PD families were also feeding their children smaller meals three to four times a day, rather than the customary two a day. PD mothers also actively fed their children, rather than placing food in front of them, making sure no food was wasted,” (Pascale & Sternin, 2010). PD families would also have a caregiver like an older sibling, a grandparent or neighbor to feed these children regularly.

Following the discovery of these PD behaviors, a two-week nutrition program was held for surrounding villages. During the program, participants learned how to incorporate the tiny shrimps and greens into their meals. As previously mentioned, these resources were available to the local families. The mothers also learned how to “actively feed” their children rather than placing a bowl in front of them. Mothers also learned to give smaller and more frequent portions.
The weight of the participating children was monitored for two weeks. During this time period the mothers visibly saw their children becoming healthier. This nutrition program was able to teach the mothers to “act their way into a new way of thinking rather than think their way into a new way of acting” (Singhal, Sternin, & Durá, 2009). “The Positive Deviance intervention became a nationwide program in Vietnam, helping over 2.2 million people, including over 50,000 children improve their nutritional status” (Singhal, Sternin, & Durá, 2009).

**Using PD to stop the spread of Hospital-Acquired Infections**

Between 2005 and 2008, the PD approach was first tried out in the U.S. to address another complex problem: to stop the spread of hospital-acquired infections, notably the superbug MRSA (resistant to commonly-used antibiotics). The Veterans Administration hospital in Pittsburgh, PA had been trying to fix the problem for years, but without much success. Top management believed that infections came with the territory of working in a hospital, and the challenge was to get people to actually comply with hand-hygiene, gowning and gloving, and isolation protocols. In 2005, more than 100 hospital staff employees attend a PD kick-off presentation. The following day, approximately forty “nurses, doctors, cleaners, lab technicians, orderlies, clergy, pharmacists, and others showed up to form what became the core PD MRSA team” (Pascale, 2010 p. 93). Sessions were created for staff to express their personal experiences with MRSA and how it affected their lives. These sessions reveled the solutions were within the organization. Examples of PD behaviors found at the hospital include:

- A “squish alert” where a patient refused to make eye contact with a doctor or nurse if he did not hear the tap run or the sanitizer’s dispensing swish. He then alternatively looked at the wash basin and the health care provider until the non-verbal equivalent of “please
wash your hands” was understood. The patient’s behavior was not the norm. Unlike his peers, he was a positive deviant for he had found a way to keep himself safe.

- Veterans who attended bingo sessions were given a squirt of alcohol-based foam after their game and before their snack. The social services assistant would say, “Zap before you snack.”
- The pastoral department introduced disposable bible covers and “God’s emissaries began to gown and glove to ensure they were spreading nothing more than spiritual guidance.”
- A shuttle driver transporting patients to long-term facilities throughout the hospital system asked for sanitizing soap dispensers to be installed in the van (Pascale, 2010 p. 105)

The solution to stop the spread of MRSA would traditionally have a top down approach where experts tell staff members what needs to be done to stop the spread of infections. Such had been happening for years, but without much success. Health care workers often become complacent in their day-to-day routines and do not follow proper hygiene protocols. This PD case exemplifies that solutions to critical issues can be solved by first identifying the hidden wisdom that lurks among some actors, and then in sharing it more widely so other community members can follow it. Ordinary people in the community are identified as positive deviants and their replicable practices can be used to achieve extraordinary results.

The Vietnam malnutrition case of the 1990s and the more recent case of hospitals in the U.S. are examples of how the Positive Deviance approach has been applied to find solutions to even the most difficult, complex, and sometimes life-threatening problems. In Vietnam, the PD mothers would pro-actively hand-feed her child ensure consumption of the full meal, eliminating waste. In U.S. hospitals, a simple action that introduced a disposable bible covers to the pastoral staff, helped stop the transmission of infections. In essence, we realize the value of small actions
taken by mothers to keep their children healthy and micro-behaviors of hospital staff to stop the spread of hospital-acquired infections. In a similar vein, the PD approach can be useful to discover what enables some mothers to nurse their babies against all odds. That is, find the small enabling actions and interactions that are making the big difference.

**Summary**

This research study seeks to discover and investigate the positive deviant behaviors and communicative acts of working mothers, who against all odds, were able to nurse their children past the recommended guidelines by the AAP. This study defines PD mothers as those who exclusively breastfed their child (or children) for six months, then introduced solid foods, returned to work full-time after maternity leave and continued to breastfeed their child past one year. These mothers needed to overcome obstacles and had no extra resources than their peers. Instead of focusing on why mothers are not breastfeeding exclusively for six months, this study will look at what enables some mothers, against all odds, to do so. As I explain in the next chapter, this study will draw upon the Theory of Planned Behavior to assist in identifying sources of support and barriers to breastfeeding.
Chapter 2: Literature Review

Would you eat a meal in a restroom? As crazy as it may seem, that is exactly what some mothers and children are forced to do. A campaign created by two students from the University of North Texas brought the issue of breastfeeding in public in a thought-provoking way. Print ads with young mothers nursing inside restroom stalls (Figure 1.1) were placed inside public restrooms to highlight this issue in Texas. The students, Jonathan Wenske and Kris Haro began the campaign as a class assignment but quickly garnered attention through its controversial ads. The posters read:

"Would you eat here? By law, breastfeeding mothers are not protected from harassment and refusal of service in public, often forcing them to feed in secluded spaces such as public bathrooms. Contact your state and/or local representative to voice your support for breastfeeding mothers, because a baby should never be nurtured where nature calls."
Figure 1: Breastfeeding Campaign.

Campaigns such as the above referenced one are a testament to the controversy surrounding breastfeeding in the workplace and in public. The present chapter provides an overview on the history of breastfeeding, including an analysis of factors that may explain why breastfeeding has been on a slow decline in recent decades. This chapter then examines breastfeeding trends in the United States, along the border, and also discusses how the positive deviance approach has been applied to breastfeeding. The Theory of Planned Behavior is proposed as a framework to better understand what motivates (or not) a nursing mother’s decision to breastfeed. The research question guiding the present study is also posed.

History of Breastfeeding

The public perception of breastfeeding’s benefit is interesting to review. Weinberg (1993) notes an English document from the 17th Century in which mothers objecting to breastfeeding because “it was troublesome, it soiled their clothes, and made them look old.” During this era, some mothers would even resort to putting their children to suckle from animals such as goats and donkeys (Weinberg, 1993).

The use of “wet nurses” goes back even further. A wet nurse is “a woman who breastfeeds another’s child,” (Stevens et al. (2009) citing Davis (1993). According to Stevens et al. (2009), wet nursing began as early as 2000 BC, and in certain areas (e.g. Palestine), breastfeeding was as a religious obligation (Stevens et al. (2009) citing Wickes (1953). During this time breastfeeding was not always possible because of a mother dying during childbirth or lactation failure (Stevens et al., 2009). Different types of vessels were also used to feed infants and date back to ancient times. They came in a variety of shapes and sizes, were made from
different materials -- “wood, ceramic and cows horns,” and these vessels were often found in the graves of babies (Stevens et al., 2009). Also, different breastfeeding practices arose in different places Stevens et al. (2009) citing Wickes (1952) noted that some primitive tribes in Greek and Roman times would wait an average of four days before allowing an infant to nurse from their mother. In the 19th Century artificial feeding, from animals and infant formula became a prevalent part of society thus leading to the decline of “wet nursing.”

The Industrial Revolution brought new developments in infant feeding practices including the use of bottles. The first bottle, it seems, was created in France in 1851 and an open-ended boat shaped bottle was developed in England in 1896, and were popular until the 1950s (Stevens et al., 2009). Milk from goats, sheep, donkeys, camels, pigs and horses have historically been used as an alternative to breast milk and dating back to about 2000 BC until the end of the 19th Century (Stevens et al., 2009). The first marketed infant food comprised of cow’s milk, wheat and malt flour, and potassium bicarbonate and it was labeled as the perfect infant food in 1865 (Stevens et al., 2009). Soon manufacturers of milk formula “began to advertise directly to physicians,” touting the health benefits to a baby (Stevens et al., 2009).

A review of literature suggests that scientists started becoming interested in studying the benefits of breast milk in the last 1800s. Citing Hanson et al., Koerber (2006), notes that in Germany in 1892 it was argued that breast milk provided some type of immunity protection. Forman, (2001) however, notes that attractive bottle shapes, including soft compressible plastic nipples and fortification of formula with vitamins and nutrients contributed to a steady decline in breastfeeding after the 1970s. The convenience of the bottle, the heavy marketing of artificial milk formula, and the promotion of a modernistic lifestyle associated with it, contributed to this decline, especially in the United States.
Key Studies on the Discontinuation of Breastfeeding

Numerous studies have looked at determinants of breastfeeding practices. Most studies have tried to figure out the main reasons for a mother to stop breastfeeding before the recommended timeframe. The overwhelming majority found that mothers believe that her infant is not completely satisfied (or satiated) on breast milk alone (Li et al., 2008). In Sweden, researchers found the majority of mothers who stopped breastfeeding within four weeks of birth had breastfeeding problems that included poor sucking technique, lack of support within the maternity ward, and perceived poor weight gain (Almqvist-Tangen et al., 2012). Mothers in Canada who switched to formula four weeks postpartum perceived their milk supply to be inadequate and the pain and discomfort associated with sore nipples as being the key drivers to quit (Sheehan et al., 2001).

A 2013 article published by the American Academy of Pediatrics analyzed data from more than 1,300 mothers and looked at reasons why mothers stopped breastfeeding during the first year of the child’s life. The top reason: women believed that breast milk alone did not satisfy the infant and this reason was more frequently cited by Hispanic women whose household incomes were above the federal poverty level. Concerns about lactation and under-nutrition were deemed the second most important reason. The AAP found that after three months of nursing, women would cite other reasons such as biting, self-weaning, and the infant not being satisfied on breast milk. Mothers from low socioeconomic status (SES) were also associated with early discontinuation of breastfeeding.

Camurdan et al. (2008) used a cross-sectional study to evaluate the factors associated with early discontinuation of breastfeeding in Turkey. In Turkey, women receive paid maternity leave for up to 91 days, and can remain on maternity leave for up to six months without pay.
Mothers who had a plan to breastfeed prior to the birth actually breastfed their child longer than mothers who did not have a plan. A variety of reasons were cited by mothers to discontinue breastfeeding before her child reached one year of age including, insufficient milk production, the ease of introducing a bottle, baby is old enough, maternal illness, infant refusal of solid foods, and next pregnancy as the main reasons for early discontinuation of breastfeeding the child. The reasons cited in this study, like many others, remain the core reasons why mothers decide to stop breastfeeding.

In addition to the reasons discussed above, family support and work place arrangements can contribute to, or hinder, whether or not mothers can breastfeed for an extended duration. Anyanwu et al. (2014) studied the breastfeeding practices of health care workers at a federal teaching and baby friendly hospital in south-eastern Nigeria. The study found that 3% of the respondents exclusively breastfed all of her children while the majority at 62% cited a busy work schedule for not exclusively breastfeeding for six months. Understanding the attitudes and personal practices of health care workers was important, as health care workers are highly influential in persuading others to breastfeed (Anyanwu et al., 2014). This study shows that even though the health care workers are in an environment where they are teaching students and mothers the importance of breastfeeding, employees themselves cannot exclusively breastfeed (Anyanwu et al., 2014). This study reiterates that working mothers need to be empowered and supported to breastfeed.

Mothers hailing from a lower socioeconomic class may also not fully know the recommended guidelines on breastfeeding, and may stop early. Goosen et al. (2014) found a lack of knowledge about breastfeeding and formula use is common within low-income areas of the Western Cape Province of South Africa. Mothers who introduced formula to their children
were not properly using formula by diluting to make it last longer. Mothers also mixed a large quantity to use throughout the day, or were used a flask with formula to be kept at the mother’s bedside during the night (Goosen et al., 2014). All of these behaviors can contribute to low birth weight and sickness for the infant.

The country of Indonesia, like the rest of the world, has struggled with declining breastfeeding rates but it enacted a law in 2009 to increase its uptake. The law called for “every baby to be breastfed or to be given breast milk from donors and milk banks exclusively for the first six months of life, unless there are medical reasons not to do so,” (WHO 2014). Information from the Indonesian Demographic Health Survey of 2012 found that rates of exclusive breastfeeding rose from 32% to 42% in 2012. Health experts “in the country say that implementation of the law remains poor and that formula companies continue to push breast-milk substitutes to mothers of very young infants,” (WHO 2014).

**Breastfeeding in the United States**

Many have studied the practice of breastfeeding in the United States. In a two year study, researchers found that only half of mothers exclusively breastfed for four months, not the recommend six months, and solid foods were introduced at five months, a month earlier than is recommended (Shealy et al., 2008). A risk assessment from researchers concluded “younger women and those with limited socioeconomic resources were more likely to stop breastfeeding within the first month,” (Ahluwalia et al., 2005). However, when peer counselors are rarely used to promote breastfeeding, as was the case with low-income Latina population breastfeeding rates increased (Chapman et al., 2004).

In 2012, Save the Children ranked the U.S., among economically-advanced countries, last on their “State of the World’s Mothers Report.” While the U.S. is one of a handful of
economically advanced countries worldwide, the lack of support for breastfeeding working mothers explains this dismal showing.

Nguyen and Hawkins (2013) examined the current state of U.S. laws in relation to working and breastfeeding mothers. The study found that not all states have the same laws protecting breastfeeding mothers and the level of protection varies greatly across states. The Patient Protection and Affordable Care Act became the first piece of U.S. legislation to support breastfeeding in 2010. This legislation requires employers to provide a private place to express milk and provide break time for a nursing mother for up to one year after a child is born. Nguyen and Hawkins (2013) noted the following:

Laws were coded into five categories: (1) employers are encouraged or required to provide break time and private space for breastfeeding employees; (2) employers are prohibited from discriminating against breastfeeding employees; (3) breastfeeding is permitted in any public or private location; (4) breastfeeding is exempt from public indecency laws; and (5) breastfeeding women are exempt from jury duty. By May 2011, 1 state had enacted zero breastfeeding laws, 10 had one, 22 had two, 12 had three, 5 had four and 1 state had laws across all five categories.” The state of Texas only enacted one law that permits mothers to breastfeed in a public or private location (p. 352).

A 2001 U.S. Department of Agriculture (USDA) study estimated that at least $3.6 billion (in year 1998 dollars) would be saved if breastfeeding rates were increased overall (Weimer, 2001). The study indicated that the figure is an underestimation of the cost savings (Weimer, 2001). Even though the Bureau of Labor Statistics states, “mothers with younger children are less likely to be in the labor force than mothers with older children,” statistics
clearly show that women are still a prevalent part of the workforce even with children (2014). In 2013, 64% of the labor force was made up of mothers with children under six years old and 57% had an infant under one year old. These data clearly shows that mothers make up a large part of the workforce. If women are returning to work after the birth of her child it would be imperative to support the mother if she chooses to breastfeed her child.

The Affordable Care Act was signed into law on March 23, 2010. The law amended section 7 of the Fair and Labor Standards Act which requires employers with 50 or more employees to provide “reasonable break times” to nursing mothers to allow them to express milk for up to one year after the child’s birth (WHD, 2014). Furthermore, the law states that employers are required to provide “a place, other than a bathroom, that is shielded from view and free from intrusion from coworkers and the public, which may be used by an employee to express breast milk.” The law then states,

Employers are not required under the FLSA to compensate nursing mothers for breaks taken for the purpose of expressing milk. However, where employers already provide compensated breaks, an employee who uses that break time to express milk must be compensated in the same way that other employees are compensated for break time. (DOL, 2014).

Since the law has gone into effect, the Labor Department has conducted investigations of dozens of complaints filed by nursing mothers. Investigators found merit in a vast majority of the complaints (Jamison, 2014). Mothers have been forced to express milk in dirty bathrooms, have been walked-in on by co-workers, faced (subtle) retaliation by managers and bosses, or not allowed to express milk when their bodies needed it (Jamison, 2014). A lot more needs to be done for working mothers to understand their breastfeeding and expressing rights.
Breastfeeding along the Border

The city of El Paso, TX, the site of the present study, resides along the U.S. Mexico border. Cultural influences from Mexico are present in the El Paso area and it is important to review breastfeeding trends and practices in this area. A recent study looked at two national independent surveys on breastfeeding in Mexico. The study found “breastfeeding trends in Mexico were poor in 2006 and did not improve in the years since 1999 (Gonzalez de Cossio et al., 2013, p. 670). The study also found “breastfeeding practices either stagnated or decreased in certain subgroups, most notably among the poor (Gonzalez de Cossio et al., 2013, p. 669). A recent study confirmed findings of older studies that women in the poorest areas of Mexico breastfeed for a longer duration than their peers of more affluent areas (Cupul-Uicab et al., 2009 p. 135). According to the Secretaría de Salud de Mexico y Encuesta Nacional de Salud y Nutrición (Ensanut), Mexico has the lowest breastfeeding rates in all of Latin America. Only 14% of children are exclusively breastfed at six months. Experts have called the drop in breastfeeding rates a “public health crisis” and blame an influx in baby food ads, little regulation on formula companies and failure of doctors promoting breastfeeding as contributing factors in the dramatic decline of breastfed babies (Gomez Licon, 2013, p. 1). Statistics regarding breastfeeding on the U.S. Mexico border is not widely available or studied. According to the U.S. Census Bureau (2014) El Paso County has a Hispanic population comprised of 81.1%. Schlickau et al. (2005) states that only 32.8% of Hispanic women breastfeed for six months or more.

Kimbro et al. (2008) examined whether the “breastfeeding initiation and duration differences between whites and Mexican immigrants, Mexican-Americans, and blacks are explained by differences in levels of acculturation, including language of interview, cultural
engagement, traditional gender views, and religiosity.” Kimbro et al. (2008) found that Hispanic mothers are more likely to breastfeed (86.4%) than whites (67.8%). The study also found that Mexican immigrants will breastfeed for more than six months compared to whites at 5.24 months and Mexican-Americans at 3.68 months. The study also found factors associated with successful breastfeeding such as having a high school degree and living with the baby’s father.

Alarcon (2013) studied the impact of interpersonal communication practices on breastfeeding with women in the El Paso area. The study found that communication with the mother influences her to breastfeed more. When the mother would want to stop breastfeeding, she looked for acceptance from her family members to do so. Alarcon (2013) “found that the support of other breastfeeding mothers (their peers) and experts was invaluable to their success at breastfeeding” (p. 49). Mothers also stated “once they had gotten to a comfortable place in breastfeeding, they were able to continue successfully with the help of a supportive employer and workplace” (Alarcon, 2013, p. 49). Understanding behaviors of breastfeeding mothers on the border can be helpful to physicians and other researchers. While there is a dearth of data on breastfeeding practices in El Paso, TX, the trends in Mexico may suggest that the problem of not exclusively breastfeeding is likely rampant on the border.

**Positive Deviance Approach and Health**

As previously mentioned in Chapter 1, the Positive Deviance approach has been used to tackle some of the most complex and intractable social problems. In the past 25 years, the Positive Deviance approach has addressed a wide variety of social and health issues in more than 40 countries. A review of more applications of the PD approach in tackling health issues can be found below.
The Save the Children Foundation used the PD approach in North-West Frontier Province, Pakistan to reduce infant mortality rates. In this area, one of every 20 newborns dies within the first year of life (Pascale & Sternin, 2010). The vast majority of villagers believed when a child died it was “Allah’s will” (Pascale & Sternin, 2010). An epidemiological map was created by the village men to show the households where a newborn that died recently. They then subcategorized for the cause of death. For example, low birth weight, umbilical cord infection, asphyxia, diarrhea and hypothermia (Pascale & Sternin, 2010). Weeks after discussions began on the infant mortality rates, the women were allowed to join the conversation even though the mixing of the sexes was limited. Villagers told stories of their children’s births and used rag dolls for reenactment.

Positive Deviants were identified and the micro-practices they engaged in to assist in the survival of their newborn were discovered. For example, mother-in laws would cover the baby with a handmade quilt when it is born to reduce chances of hypothermia (Pascale & Sternin, 2010). One PD husband said he made sure he had a clean razor to cut the baby’s umbilical cord and would create a “clean delivery kit” (Pascale & Sternin, 2010). Investigators found that it was a custom to give a newborn child honey for three days until putting the baby to the mother’s breast. PD families “violated this custom” (Pascale & Sternin, 2010). After these discoveries were made, presentations and workshops were held at neighboring villages to share this knowledge creating more conversations between men and women about family health issues (Pascale & Sternin, 2010). After the PD inquiry was conducted more than 500 men and women attended a “Healthy Baby Fair” showcasing the more effective maternal newborn care practices (Pascale & Sternin, 2010). The percentage of mothers who stopped giving the infant food before breastfeeding significantly dropped from 75% to 25% (Shafique, Sternin & Singhal, 2010). The
percentage of families using clean blades to cut the child’s umbilical cord significantly increased from 19% to 33% (Shafique, Sternin & Singhal, 2010).

The Positive Deviance approach was also used to find solutions to the taboo topic of female circumcision in Egypt. Female Genital Mutilation or FGM “is the surgical removal of part or all of the external female genitalia,” (Pascale & Sternin, 2010). In 1997, a staggering 97% of women had undergone some part of the procedure. The practice is widely accepted by three-quarters of Egyptian women who believe it assists in health and hygiene along with social obligations of purity, honor and marriage ability because men refused to marry uncircumcised girls (Pascale & Sternin, 2010). The act is also conceived in secrecy from its victims. Older women, often grandmothers and mothers, decided on a day for girls often between nine to 13 will undergo the procedure (Pascale & Sternin, 2010).

Monique Sternin, the PD facilitator who guided this inquiry, wanted to find the three percent (the PDs) who were not circumcised to help convince other families to stop the FGM tradition. After a lot of digging, the core FGM-prevention team found a “grandmother, parents who refused to circumcise their daughters, a man married to an uncircumcised woman and a medical doctor who had stopped practicing FGM” (Pascale & Sternin, 2010). The Positive Deviants were videotaped during interviews that would later be played at a workshop with community development partners from two villages (Pascale & Sternin, 2010). Those attending the workshop then realized they knew other PD’s and could learn more from their stories (Pascale & Sternin, 2010). The identification of PDs started conversations on the “brutality” of FGM, encouraging more people to talk about it. Five years after the project got underway, Monique Sternin returned to Egypt and found the government began implementing a Female Genital Mutilation Abandonment program (Pascale & Sternin, 2010). While in 2000 93% of
Egyptian women were circumcised the number dropped by four percent nationally in the next three years (Pascale & Sternin, 2010). Pascale and Sternin, (2010) noted that by 2007, the program had spread to over 40 communities.”

Some researchers have used the Positive Deviance approach in breastfeeding. Ma et al. (2012) investigated the breastfeeding initiation process of first time enrolled the nutrition program for Women, Infants, and Children or WIC mothers in Louisiana. Previous research has shown that first time enrolled WIC mothers are less likely to initiate breastfeeding (Ma et al., 2012). According to the CDC, the state of Louisiana has the lowest breastfeeding rate in the country (CDC, 2010).

Ma et al’s study analyzed data collected from 2000 to 2004 and used quantitative methods as a strategy to interpret the data. Previous data indicated that the lower a mother’s socioeconomic class, the less likely she would be to initiate breastfeeding. The Positive Deviants were identified using several sociodemographic variables then entered into a multivariate logistic regression model. PD mothers were more likely to have had a job prior to delivery and were likely to have breastfed in the hospital and received information about breastfeeding from the hospital staff after delivery (Ma et al. 2012). African-American with children born with a low birth rate were more likely to initiate breastfeeding, perhaps on account of encouragement from the hospital staff. In general, African-American mothers the previous research indicated were less likely to follow the recommended breastfeeding guidelines (Ma et al., 2012).

Dearden et al. (2002) found working outside of the home as the primary barrier to exclusive breastfeeding for mothers in rural Vietnam. However, this study found a set of positive deviants who worked in the farm yet exclusively breastfeed her child. The PD’s believed that it was okay to feed the child expressed milk while other moms believed it could
PD mothers also believed they had enough milk to provide adequate nutrition to their child and that their personal nutritional status had little to do with the quality of their breast milk. Non-PD mothers believed that if they were not receiving proper nutrition, the quality of their breast milk would deteriorate. Additionally, PD mothers believed the correct time to introduce water and solid foods to their children was at six months while non-PD mothers believed it was sooner. A limitation of this study is that it does not identify the uncommon and replicable behaviors of PD mothers, rather chose to focus on closely-held beliefs that allowed mothers to exclusively breastfeed while working in the field. The key in conducting a PD inquiry is to identify the uncommon behavioral practices of positive deviants that are replicable.

**What the Theory of Planned Behavior Can Offer**

In applying the PD approach to breastfeeding, the Theory of Planned Behavior (or TPB) can be useful. The TPB framework can help identify what sources of support and what barriers to breastfeeding exist. Further, the framework can help us understand the normative beliefs and behavioral practices that influence working mothers’ decision to breastfeed on the U.S.-Mexico border. Specifically, employing the TPB frame will illuminate how working mothers continued to breastfeed for an extended period of time, even without the presence of support from families, co-employees, or the public.

The proponents of TPB – Ajzen and Fishbein, (1980) and Fishbein & Ajzen (1975) note that TPB revolves around gaining a deeper understanding of what makes it possible for an individual to perform an intended behavior. Intentions are guided by motivational factors and indicate hard people are willing to try or how much effort they will exert to perform the behavior. “The stronger the intention to engage in a behavior, the more likely should be its
performance” (Ajzen, 1991, p. 181). Based on such understandings, barriers and motivating factors can be identified to the practice of behaviors.

For such reasons, TPB can be useful in the PD implementation process. As in the FGM case in Egypt, the more people were identified as survivors of FGM, or its advocates, the normative beliefs began to shift, allowing some people to say “no” to FGM. Such could work in reverse with breastfeeding. That is, the more mothers will see that breastfeeding while working is possible, the more likely they may be able to try and succeed at breastfeeding.

Theory of Planned Behavior has been used extensively in the field of health communication. Researchers have used TPB to study, for instance, mammography screenings. Griva et al. (2013) found that intention became the most proximal determinant of a behavior. The study also found the effects of other factors including attitudes and perceived behavioral control on a certain behavior would be mediated through intention, (Griva et al., 2013). Fisher et al. (2013) used TPB to understand adoption of HPV (Human Papilloma Virus) vaccine among women and men who were in the vaccine target age (Fisher et al., 2013). TPB has also been used to study HIV counseling and testing in Ethiopia, (Griva et al., 2013). TPB has been used to look at the link between materialism and aggressive driving, (Efrat et al., 2013). TPB was also used by Dyson et al. 2010 to understand infant feeding decisions made by pregnant teenagers hailing from a low socioeconomic class. The study interviewed the teens in focus groups and found that using formula feeding was the “moral form” and became the largest predictor of how a mother intended on feeding her child. Rhoades et al. (2013) examined adolescents’ beliefs towards being overweight through the TPB framework. In essence, the TPB frame that has been applied to a variety of health communication topics. Rhoades adapted Ajzen’s TPB model (Fig.
2) to include beliefs about outcomes, beliefs about social referent, barriers and facilitators and beliefs about behavior control.

Rhoades et al. (2013) noted that TPB, Hypothesizes that behavior is a function of the salient beliefs a person holds about a specific behavior. These beliefs that are considered to be the determinants of a person’s intentions and actions include the following: beliefs about the outcomes or other attributes of the behavior (behavioral beliefs), beliefs about the normative expectations of other people concerning the behavior (normative beliefs) and beliefs about the presence of factors that might facilitate or hinder performance of the behavior (control beliefs). Behavioral beliefs produce a favorable or unfavorable attitude towards the behavior, although normative beliefs result in a perceived social pressure (subjective norm) either to perform or not to perform the behavior. Control beliefs lead to perceived behavioral control or the perceived ease or difficulty of doing the behavior.

Using the TPB framework, the act of breastfeeding can be viewed as a behavior and the duration of breastfeeding as its performance. A mother can intend to breastfeed for an extended period of time but could discontinue the practice because of lack of support within the family dynamic or the public. Literature has suggested that support of a nursing mother is crucial to continuance. Normatively, mothers tend to discontinue breastfeeding after they return to work.

A gap in literature exists to understand what enables working mothers to breastfeed, and that is the core of the PD framework. The PD approach can help identify mothers who have successfully breastfeed against all odds and their specific practices can assist other working women who are about to embark on the journey of motherhood. Identifying communicative acts and behaviors of nursing and working mothers can thus be highly revealing. TPB can allow a
PD inquiry for a deeper dive into the decisions that working mothers make to breastfeed for extended periods of time, while also allowing an understanding of what reasons contributed to the having to stop mother breastfeeding. This rich information and data can be collected while conducting in-depth interviews with positive deviants.

Figure 2: Theoretical Framework of the Theory of Planned Behavior
Source: Rhoades et al., 2013

While explaining the construct for TPB, Ajzen suggests that if a person has the “required opportunities and resources and intends to perform the behavior, he or she should succeed in doing so” (Ajzen, 1991). This theory is critical to determining if the resources were available to mothers in order to breastfeed for an extended amount of time. TPB can help fill the gap in literature that exists in the lack of communication between nursing mothers and their performance of breastfeeding. Ajzen continues, “intentions would be expected to influence performance to the extent that the person has behavioral control, and performance should
increase with behavioral control to the extent that the person is motivated to try” (Ajzen, 1991). If mothers are motivated to try and breastfeed and also have intentions to breastfeed, this theory can also help develop what other contributing factors could have resulted in the early discontinuation of breastfeeding. Since the PD mothers will be successful at breastfeeding, it is important to understand what factors were associated with continuing to breastfeed.

From a breastfeeding standpoint, the TPB model sheds light on beliefs, outcomes, motivations, and barriers to breastfeeding. Behavioral beliefs and outcome evaluation can result in, for instance, a mother who on her own accord decides to breastfeed. She may come to this decision after reading books or articles about the benefits of breastfeeding, or being inspired by a friend, who followed a similar path, such as Alarcon (2013) found. Normative beliefs and motivation to comply can be associated with a mother’s surroundings. For example one mother can decide to breastfeed because her mother and aunts all breastfed their children and thus gives the woman motivation to comply. Control beliefs will be indicative of any obstacles in which a mother may encounter during her time to breastfeed.

Mothers have cited the infant crying or constantly being hungry as reasons to stop breastfeeding, but these theories will see if misinformation from family members or lack of resources from the community and lactation consultants plays a role in a PD mother continuing to breastfeed aside from these factors. Literature also shows that mothers believe that their child is still hungry and thus will introduce formula to assist. This study can show why PD mothers do not face these issues or what she did in spite of them. Literature also shows that mothers also believe they do not create enough milk for their child, this study will ask why the mother believes that statement is true if during breastfeeding a mother cannot see her milk flow. Understanding these factors can contribute to the behavior and its performance.
In essence, TPB can assist in identifying what sources of support and what barriers to breastfeeding exist. This theoretical framework can be usefully layered with the positive deviance approach to have a richer understanding of the behavioral, normative and control beliefs on the U.S. Mexico border and their influences on a mother’s decision to breastfeed. These norms can then be used to implement a plan to introduce change. (Interview questions for positive deviants in Appendix C draw upon Rhoades et al., 2013.) TPB also has limitations. The Boston University School of Public Health (2013) notes the theory assumes that the person has the resources to be successful in performing the behavior regardless of intentions and does not consider environmental or economic factors when deciding to perform the behavior.

**Research Question**

Based on the review of literature on breastfeeding practices, this study will use the positive deviance approach to investigate what enabled working mothers to exclusively breastfeed her child for six months and beyond. The following research question will allow us to identify and discover the enabling acts, communicative behaviors and micro interactions of Positive Deviant mothers.

RQ1: *What are the specific communicative acts, behaviors and practices that enable a PD working mother to exclusively breastfeed for six months and continue to breastfeed for one year or beyond?*

**Summary**

The benefits of breastfeeding have been previously noted and this study will aim to provide insight for a current gap that exists in its practice. Although statistical data is available
for the United States and its current progress in breastfeeding, statistics are not widely available or updated with information regarding breastfeeding along the U.S. - Mexico border. Moreover, literature suggests that mothers who return to work will stop breastfeeding shortly thereafter. This study identifies positive deviants who are able to successfully breastfeed, and will help future working mothers to achieve their professional and personal objectives. The following chapter will discuss the methodological approach and procedures used to answer the above research question regarding the TPB and PD.
Chapter 3: Methodology

According to Forbes Magazine, Gisele Bündchen is the World’s Highest Paid model for eight years in a row and ranked in $47 million in 2013 alone. The Brazilian beauty is not only known for her fierce strut down the runway, she is also married to Tom Brady, NFL Quarterback for the New England Patriots. Bündchen sparked controversy over a picture she shared on social media site Instagram. The photo shows Bündchen nursing her one-year-old daughter while sitting in a chair getting her hair, nails and make up done.

Figure 3: Gisele Bündchen, Courtesy: Instagram
Bündchen captioned the photo as “What would I do without this beauty squad after the 15 hours flying and only 3 hours of sleep #multitasking#gettingready.” The photo started a breastfeeding debate. Even in her glamorous supermodel lifestyle Bündchen is breastfeeding her child and working. While most moms do not have a team getting them ready in the morning what else are they doing to allow them to succeed at breastfeeding?

This chapter discusses the methods and data-collection procedures for this study and how the working mothers or PD respondents were selected, the criteria the respondents were required to meet, where the respondents were found, and how the data were collected, sorted through, and analyzed. Prior to collecting data, the researcher completed training from the Institutional Review Board (IRB). Subsequently after training, an IRB application was filed for the conduct of the present study. After the IRB approval, data collection began and participants filled out and signed a consent form to participate in the study.

With the Positive Deviance approach, the enabling actions, communication behaviors, and micro-interactions that allow working mothers to continue nursing will be uncovered. Hence, the methodological approach to this study will primarily be qualitative in nature. Lindlof and Taylor state that qualitative inquiry in all of the social science disciplines has a long history of examining public problems (2011). Breastfeeding is a vital health topic, providing a child protection from a variety of illnesses and diseases. “By digging deeply into the experiences of the poor, the disenfranchised, the misunderstood, and the outcast, qualitative studies my bring viewpoints to light that have been ignored or silenced,” (Lindlof & Taylor, 2011, p. 83).

**Research Process**

The first contact was with mothers who are a part of an international non-profit organization known as MOPS. MOPS stands for Mothers of Preschoolers and is a support group
for women with children from zero to five years of age. The group meets from September to May twice a month at a church on the Eastside of El Paso, TX. The group has nearly 100 women registered as members. During the first meeting I was allowed to speak to the women about the study being conducted. I explained the criteria to the women and told them to see me after the meeting if they met the criteria. I then gathered the contact information of more than a dozen women after the meeting. The “snowball method” was then used to find more mothers in the area. The method of snowball sampling “yields a study sample through referrals made among people who share or know of others who possess some characteristics that are of research interest” (Lindlof and Taylor 2011 citing Biernacki & Waldorf, 1981 pg. 141). Mothers usually ask other mothers for advice on parenting and other issues and a snowball sample will yield more participants. According to Lindlof and Taylor (2011):

“A snowball sample starts when the researcher locates someone who is willing to serve the dual role of an interview subject and a guide to potential new subjects. After bring interviewed, this person then recruits (or refers the researcher to) people from his or her circle of acquaintances who will fit the criteria for the study sample. Some of the people in this second group will refer the researcher to others who will make up a third group of interviewees. These chains of referral – a “snowball” growing larger over time.” (p. 114).

The snowball sampling method proved useful, as one of the PD candidates was a member of the bi-national breastfeeding coalition. At the invitation of the candidate, the researcher attended the first meeting of the Binational Breastfeeding Coalition for 2015 to speak to the members about the study and possibly find more respondents who fit the criteria. The Binational Breastfeeding Coalition is devoted to promote breastfeeding awareness in the El Paso border region. The members comprise of health care professionals and other associated partners. The
meeting took place in downtown El Paso where more than a dozen women attended the meeting. After the PD mothers were identified, they would then refer me to other mothers who fit the criteria. These were friends or colleagues of the PD mothers.

**Selection of Respondents**

Respondents fit specific criteria to be classified as positive deviants. The Positive Deviance approach looks to find those who have odds stacked against them. The question is how are these breastfeeding mothers able to work full-time and still breastfeed her child past the recommended guidelines? According to Lindlof and Taylor (2011), “Researchers may decide to select persons or activities, events, sites and settings- on the basis of an explicitly stated criterion. Criteria are usually defined in inclusionary terms, although some researchers also state criteria for excluding certain elements from the sample,” (pg. 140).

A screening criterion was used to select PD candidates. Selecting PD mothers would be refined to six criteria (Appendix B): (1) woman from the El Paso area (2) a mother with a child under the age of five, (3) exclusively breastfed for six months, (4) worked full time while the child was under 12 months of age (5) continued to breastfeed past the child’s first year of birth, and (6) struggled to find support, or faced resistance from friends, family (outside spousal relationship), or work colleagues with their decision to breastfeed. Anyone who met these six criteria was deemed as a positive deviant mother.

**Table 1: Participant Criteria**

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<th>Participant Criteria</th>
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<td>1 Woman from the El Paso area.</td>
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<tr>
<td>2 Mother with a child under the age of five.</td>
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Exclusively breastfed for six months.
Worked full time while child was under 12 months of age.
Continued to breastfeed past child’s first year of birth.
Faced active resistance from family, friends or colleagues.

Demographics

As previously discussed, snowball sampling was used to find participants to interview for this study. After the criteria was discussed with the women who had given their information to the researcher at the MOPS and Bi-National Breastfeeding Coalition meetings, a total of 14 women were identified as Positive Deviants. Two of the participants declined to participate in the study. During the interview, the women were asked to identify her ethnicity. The majority, seven, identified as Hispanic, three identified themselves as White and two identified themselves as Black. Of the twelve women, nine had earned her bachelor’s degree, two had earned master’s degrees and one had an associate’s degree. Two of the mothers serve in the United States Army. The participants’ ages ranged from 28 to 43. A total of seven women delivered via cesarean section while five delivered vaginally.

Zanardo et al. (2010) found the method of delivery impacted the rate of breastfeeding when comparing vaginal births and cesarean sections.

“Emergency and elective cesarean deliveries are similarly associated with a decreased rate of exclusive breastfeeding compared with vaginal delivery. The inability of women who have undergone a cesarean section to breastfeed comfort-ably in the delivery room and in the immediate postpartum period seems to be the most likely explanation for this association (p. 279).
The mothers also noted in the interview that seven made the decision to breastfeed long before becoming pregnant and five made the decision to breastfeed during her pregnancy. The mothers also attributed their background in health or science as a major influence in their decision to breastfeed. A total of eight mothers worked in a health related field or in science. Of the twelve participants three were breastfed as children while the remaining nine were not breastfed as children.

**Table 2: Respondent Demographics**

<table>
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<th>Ages</th>
<th>28 - 43</th>
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<tr>
<td><strong>Ethnicity</strong></td>
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<tr>
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**In Depth Interviews**

For the purpose of this study, after the Positive Deviants were identified and asked to participate in the study, a series of in-depth interviews took place. PD mothers were asked the research questions in Appendix C to gather more information about their communicative acts, communicative behaviors and micro interactions they perform that allowed them to successfully breastfeed for the recommended time or beyond the recommended guidelines. Interviews were conducted in a comfortable space where the mother spoke about her experience with nursing her child. The respondents also described what a typical workweek looked like, from waking up in the morning to going to bed at night. Respondents were also asked about any preparation before returning to work after her maternity leave was concluded. When the interviews began, the respondents were asked to read and fill out the IRB consent form. The interviews began with basic conversations including the question, how they were doing, before the formal interview questions began.

**Privacy and Confidentiality**

After the interviews were conducted, the recordings were stored in a location only accessible to the researcher. The names of the respondents were coded to ensure confidentiality.
The sketches drawn by the participants were also stored in a location only assessable to the researcher.

**Participatory Sketches**

It has often been said that “a picture is worth a thousand words.” Although the exact source of this expression has never been disclosed, there is great truth behind the notion of conveying an idea, feeling or thought through a single photograph. Singhal and Durá (2009) have described “participatory sketches” as a low-cost method, which allows the researchers to see data from the point of view of the participants. Participatory sketches (PS) or “photo voice” is an inexpensive tool and methodological approach to obtaining data (Singhal and Durá, 2009). The origins of PS date back to 1973 when Brazilian educator Paulo Freire asked those participating in a barrio literacy project to draw their answers to questions he asked rather than say them out loud (Singhal, Hulbert, & Vij, 2007).

Respondents were asked to think about their nursing journeys: from the moment her breast milk became available after childbirth, to staying home during maternity leave, to nursing at work, to the ending of exclusive breastfeeding, to the introduction of solid food, and to the continuance of nursing after the child’s first birthday. Respondents were asked to think of key individuals that motivated them to breastfeed. Respondents were asked to think of objects or places that allowed her to successfully breastfeed. The mothers were encouraged to visualize their journey as a nursing mother, the salient and most significant events, and to visually draw them.

These sketches can gave the researcher insight to the experiences lived by the respondents. The sketch’s narrative then became a participatory site for wider storytelling, community discussion, and action (Flaherty and Singhal 2009).
Analysis

After the participants were interviewed and their sketches were drawn, key communicative and behavioral acts were identified. PD mothers expressed during the interviews certain replicable behaviors, e.g., expressing milk at home, before coming to work. Understanding the small acts that the mothers perform that allow for better health outcomes for their children can be beneficial for other researchers, clinicians, physicians, and lactation consultants and breastfeeding mothers. In the next chapter, the important role played by communication in allowing mothers to successfully breastfeed their child is discussed.
Chapter 4: Results

This research project investigated the enabling communicative acts and behaviors that allowed working mothers to breastfeed their children for one year or longer. Based on the interviews conducted with the positively deviant working mothers, the enabling communicative acts and behaviors for breastfeeding were identified in three temporal phases: (1) preparing to breastfeed before giving birth (2) learning to breastfeed after birthing and (3) preparing to return to work. These behaviors include both intrapersonal communication and interpersonal communicative actions. Additionally, we discussed how working mothers overcame challenges (such as when traveling) in their breastfeeding journey, placing the health of their child before their personal convenience. Finally, this chapter distilled the key communicative acts that one would consider being uncommon but replicable i.e. the PD acts.

1. Preparing to Breastfeed Before Giving Birth

Mothers discussed how their breastfeeding decision started a series of events that would prepare the mothers for a successful breastfeeding journey. As previously mentioned, seven out of 12 the mothers made a decision to breastfeed years before becoming pregnant. This could have been in college, in high school, or for some even earlier. The other five mothers decided to breastfeed after becoming pregnant and researching the benefits of breastfeeding. Each of the mothers actively made the decision to breastfeed and used intrapersonal communication as an avenue of internalizing their decision. As respondent #12 stated “After I found out what the benefits were, I thought to myself, ‘I think this is what I need to do. No, I’m going to do it.’”

Following the personal decision to breastfeed her unborn child, the mother would then turn to her spouse for further discussion. All of the mothers had highly supportive spouses for
breastfeeding, including before, during, and when the mother returned to work. In preparing to breastfeed before giving birth, the mother shared information about the benefits of breastfeeding with her partner who often responded by becoming strong advocates for their wife and to-be-born child. The couple would then decide to take on the challenge together. As respondent #8 noted: “After I did my research on the computer, I told my husband, ‘look at all of these things that are beneficial for the baby, do you think we can do this?’” The participant viewed this moment with her husband as a major turning point in her breastfeeding journey. She illustrated this important juncture with a sketch:

Illustration 1 of Respondent #8. A participatory sketch showing the mother researching the benefits of breastfeeding before discussing her desire to breastfeed with her spouse.
Interviews indicate that after both parents were on board with breastfeeding, the next decision was to map out a plan before the child arrived. Respondent #9, for instance, delineated spousal responsibilities: “I’m in charge of input while you (spouse) are in charge of output.” This plan would mean that the mother would be in charge of feeding the infant while the spouse would be in charge of changing soiled diapers. This decision allowed both parents to feel responsible for a certain aspect in the child’s life.

PD mothers found that designating duties allowed the spouse to have his time and own responsibilities for rearing the child. According to respondent #11,

Sometimes a husband can feel alienated at the beginning because they can’t feed the baby, but when they are given another task, it makes him feel included. So this meant in the middle of the night, I would feed the baby and later he would change his diaper when he was dirty. It gave us a sense of teamwork too, that we were both responsible for something. And it was nice because I wasn’t the only one getting up in the middle of the night.

To recap, the mothers usually on her own, made the decision to breastfeed, and then shared her enthusiasm with her partner who encouraged and supported her decision. After some planning was done, responsibilities divvied, and then a sort of “pact” was made: No formula. Respondent #6 emphasized:

We said ‘okay, we’re going to do this and we’re not going to give up’ so that meant we aren’t going to even use the word formula, like don’t even bring it up. So when you put yourself in that mindset, when things get tough you know, there is no other way. We have to make this work and that’s it.
Respondent #9 echoed this sentiment:

My body grew this baby, and my body is also going to feed this baby. So why would I want to give my baby something that is man-made, hard to digest, and is full of chemicals when my body is perfectly capable to nourish my child and is full of benefits? I mean it was a no-brainer for me.

An important culminating act in this phase, common to most of the early-committed respondents, was to buy a breast pump before the birth of the child. The mothers would not only purchase the machine, but would figure out how to use it. As respondent #6 recalled: “I bought the pump at Target and I researched which one was the best. I got the Medela brand.”

Respondent #3 said:

I purchased pump before my delivery to make sure it was working, I learned how to use it. Figured out how all of the parts work. I had a lactation consultant look at it and tell me if I was doing it right. Figuring out the strength of the suction was tricky too. I’m glad I looked at it before the baby was born.

In summary, several of the PD mothers committed themselves to breastfeeding their child even before they were born. They proactively researched the benefits of breastfeeding, informed and enlightened their spouses, and jointly created a plan of action, dividing the responsibilities and tasks on a strong platform of mutual support. Then they put their plans into action by, again, pro-actively researching what options existed with respect to breast pumps, and making purchases. The mothers would next learn, often though trial and error, and sometimes through tribulations, how to breastfeed their child after their birth.
2. Learning to Breastfeed After Birth

Immediately following the birth of her child, the PD mothers began to learn how to properly nurse her child. Once the mother gave birth in a hospital, the mothers would begin to ask questions and receive training from the hospital’s on site lactation consultants. Respondent #7 said,

I remember her coming in and telling me, ‘okay, hold the baby this way and hold the head like this.’ (Mimics holding the baby in a cradling position and holding the child’s head.) She also taught me how to open the baby’s mouth by rubbing their jaw to get them to open wider for a better latch. She even taught me how to get the baby to stop sucking if it was hurting. And you put your pinky at the edge of their mouth and stick it in and pull them away from your nipple and it automatically stops the baby from sucking.

Ten of the mothers used the hospital’s lactation consultant as a resource after she was discharged from the hospital. The mothers would call the consultant with questions she had in regards to nursing the child. On average, the mother’s called the consultant three times. Two mothers said they called the consultant ten or more times.

The mothers also needed to figure out her child’s feeding cues. Wiessinger et al. (2010) of La Leche League International writes

A baby starts with subtle nursing cues—eyes moving beneath eyelids, eyelids fluttering before they even open, hands coming toward face, mouth movements. Once she’s crying, she’ll have a harder time latching. Crying is a late sign of hunger. Calm her down before trying to feed her.

Respondent #6 remembered:
That was a bit challenging. Every time the baby cried, my husband was like ‘oh take the baby he’s crying, he’s hungry.’ But I was like, no. Every time the baby cries does not mean he’s hungry. There are other reasons why the baby cries, they can be dirty, or need to burb or just want to be held. It doesn’t mean he’s hungry all the time.

Further respondent #2 said:

When I would see her put her hands close to her mouth and start moving her head around, that’s when I knew that she was getting hungry. I had to look out for those things because once she started crying it was hard for her to latch on because she was mad you know? I mean, looking at the clock, that helped. Like you knew okay it’s been about an hour and a half, so yeah she can be hungry.

Three of the PD mothers thought of the idea to write down when the baby was nursing.

According to respondent #10,

Those first few days are rough man. There can be a point where you’re like ‘what day is this again?’ (Laughs). And when you are thinking like that about days, it get a little confusing trying to remember which breast the baby ate from last. So we thought we need to start righting everything down.

Respondent #9 also found it helpful to write down when the child would nurse.

My husband and I are big charting geeks and from the beginning we charted which side she nursed from and for how long and the time of day. From there we were able to see a pattern in her eating schedule and it helped us out a lot.

One PD mother took the feedings one step further. Her daughter was born ten weeks prematurely. She was adamant about not using formula, respondent #5 said,
They (hospital staff) wanted me to give her formula so she could gain weight fast, but I was very adamant that I did not want to give her formula. So I invested in a medical scale. I would weigh her before she ate and I would weigh her after she ate so I knew she was gaining weight. Then I could show them “see, she is gaining weight.

One uncomfortable aspect in breastfeeding is the physical discomfort the mothers feel when they begin to nurse. Mothers spoke about combating sore nipples and engorged breasts using a variety of remedies. Respondent #10 noted:

That lansinoh gel, or however you say it, aw, that thing was the best. I would put it on before taking a shower so my nipples wouldn’t hurt as much and it just made them feel better. The cool thing with it too is that I didn’t have to wipe it off when I had to feed the baby.

The vast majority of the mothers used this over the counter product that can be purchased at relatively any store or pharmacy. Two PD mothers used cabbage leafs for relief when their breasts were engorged. Respondent #4 was puzzled at one of the suggestions but found relief.

Have you ever heard of using cabbage leaves? A lactation consultant mentioned it to me and I don’t know why or how it works but it does. They would just feel better after I would put them on for a while.

Smith (1999) found “the use of raw green cabbage leaves has been anecdotally reported to reduce engorgement. Mothers who have used this treatment report the use of chilled or room temperature cabbage leaves to be soothing. The advantages of this treatment are its low cost and convenience (p. 135).” Seven working mothers mentioned using ice packs on their breast when they experienced discomfort.
One PD mother, respondent #9, found that adequate rest would allow her to stay motivated to continue to breastfeed, especially while working full time.

We decided we were going to schedule nights when we would get up in the middle of the night with the baby. That way we knew, ‘okay these days I’m actually going to get to sleep.’ So we decided Sunday, Monday Tuesday and Wednesday were my nights and Thursday Friday Saturday were his nights. We would alternate each Wednesday so we could each get three nights of sleep. That’s not to say if something was wrong I wouldn’t get up or whatever. It was just hard to remember okay it’s your turn to get up, because it can all be a blur. So pumping allowed us to be able to get a good night’s sleep. A friend actually recommended the block scheduling to us, because those few nights in a row as opposed to every other night let your body really rest and reenergize. We loved it, we’ve done it with both of our children so far and when we have another we’ll be doing it again.

Once the child was born, the mothers were placed into a position to learn how to breastfeed, learn the child’s hunger cues, find comfort while experiencing discomfort and creating a sleep schedule. The mothers also found it useful to write down when the child ate, which breast the child ate from and the duration of time the child ate. While the mothers were adjusting to their newborn and their new lives as mothers, the clock was ticking as the countdown to returning to work began inching closer. The PD mothers had already begun to think about the steps they needed to take when starting their journey as a working and breastfeeding mother.

3. Preparing to Return to Work

Before returning to work with the newfound responsibilities of an infant, the PD mothers would take careful steps in ensuring she would be able to continue nursing her growing child.
The mothers would be prepared to tackle the workforce with a built up milk supply and knowledge of her legal rights, but she would also need to figure out her new routine on when to express milk and inform those taking care of her child while she was working on how to properly feed the child breast milk.

As previously mentioned, there are current state and federal laws in place to protect breastfeeding mothers and mothers who are working and nursing a child. The Affordable Health Care Act of 2010 requires employers to provide a private place to express milk and provide break time for a nursing mother for up to one year after a child is born. Two of the mothers interviewed discussed these rights with her employer and her desire to breastfeed before she left on maternity leave. Respondent #10 said,

I remember going into my boss’ office and saying ‘I know that I will be leaving soon for maternity leave, but I wanted to let you know that I will be breastfeeding when I come back and I’ll need a space to pump.’ She looked at me and said ‘You know breastfeeding is really hard and let’s see if you are doing it when you come back and we’ll cross that bridge when we get there.’ I remember being in shock. I was appalled but I put a smirk on my face and said ‘okay, sounds good.’ That was a turning point for me, because when someone tells me I can’t do something, I do everything in my power to prove them wrong. I mean, this was the best thing for my child. I was going to let hell freeze over before someone else predicted how successful I was going to be at breastfeeding before I even started! So as soon as I left her office I said to myself, ‘Oh it’s on! I’m going to show you’. I rubbed my belly and I said ‘we’re going to do this!’

Ten of the working mothers interviewed knew they had rights as mothers to express milk when they returned to work. Six mothers were able to close their office doors and pump in the privacy
of their own office. Four of the mothers pumped in either a conference room, locker room, or a place designated for mothers to pump. Respondent #12 said, “I remember going back to work and saying ‘I need a place to pump my milk.’ It was an ordeal, but eventually they gave me a room to do what I needed to do.”

All twelve PD mothers spoke about building up a supply of breast milk before returning to work. Clearly, they were all well educated and well informed about how to effectively manage the breastfeeding process. Eight PD mothers worked in a health or science field, two were in the U.S. Army, and two worked as teachers.

Respondent #8 said, “I had to buy a deep freezer because I had pumped so much milk before going back to work.” The stock pile ranged from a two week supply to a two month supply. All of the mothers found it important to have extra milk in case of an emergency. The mothers also said although similar, there were days when their child would eat more than others. Respondent #2 noted:

You just never know. For me I just wanted to make sure there was some milk in case something happened. Like if I didn’t get out of work on time and the baby was hungry or what if, God forbid, something happened to me, like a car accident or something. I wanted to make sure that there could be enough for the baby to eat so that they wouldn’t have to give the baby formula.

The PD mothers also discussed how they built up a supply. Respondent #6 recalled:

After we got into a routine, like maybe a month after the baby was born, I started to pump to build up a supply. I did a couple of different things, there were times where I just felt engorged so I would pump and save the milk. When the baby would eat on one side, I would pump on the opposite side after he was done eating. Or if I had to move him to the
other side because he was still hungry, I would pump from both sides to drain them completely out. Before I knew it, there was a bunch of milk bags in my freezer!

Respondent #5 stated:

Every time I would pump I would put the milk into bags right, and I would even out the milk so that each bag had the same amount of ounces, like two, three, four ounces, whatever I was able to pump. Then I would label the bags. I would put the amount of milk it was, because after the milk froze, it would move and you couldn’t tell exactly how much was in there. I would put the date and the time. So when I put them in my freezer, the most recent bag of milk would go to the back. The milk was in a row so when we would use it we would be using it from oldest to newest.

The mothers also knew that once frozen milk was defrosted, the milk had to be used within 24 hours. Respondent #7 enthusiastically stated:

The cool thing about breast milk is that it can stay out at room temperature longer than formula and when you take the milk out of the freezer and defrost it, you know that it has to be used within 24 hours so there were times that an ounce or two a day was being thrown out, so it adds up but you just have to keep pumping to replenish the supply.

Much like different brands of breast pumps are available for purchase, the mothers found their own techniques for expressing milk. Respondent #5 recalled:

When I went back to work I would be pumping and typing at the same time. I would use the hair tie trick where you would get two hair ties and pull them through together to get like a figure eight then you put one loop around the funnel and you hook the other side to the clasp of your nursing bra or just your regular bra and the pump stays in place. I was able to get a lot done doing that.
Respondent #6 found a different method to pumping. “Even though I had a double breast pump, where you can pump both sides at the same time, I found it more effective to do one at a time because I would be massaging the breast and I felt like I would get more out when I did one at a time.”

Upon returning to work, the mothers found that a rigorous pumping schedule was key in maintain their milk supply. The mothers all pumped every two to three hours. Respondent #4 remained motivated stating:

You just have to do it. You have to keep pumping or your supply is going to be low. If I had a meeting or something, I would pump before or after. You move stuff around so that you can make sure you are getting your pumping in. And it only takes 15-20 minutes once you get the hang of it so it’s not like you need a crazy amount of time to do it.

Respondent #5 noted:

There was this one time where we had to be in a training all day long and we couldn’t leave so when it was time, I would get up from my seat and go in the back of the room and put my pump together, get my cover on, and start pumping. There were some people who were mad because you could just hear the sound the machine makes, but I didn’t care; I needed to do it to feed my kid.

According to respondent #9 the smell of her daughter helped when she was pumping.

I would bring the clothes that she wore the night before and I would smell them. I know it sounds weird, but I had a hard time for my milk to let down and I started bringing her clothes and I would put it over my shoulder and look at pictures of her while I was pumping and that helped. If my husband was home with her, we would FaceTime so I could see her.
The PD mothers not only had to manage their work schedules by having to fit pumping throughout the day, but the mothers needed to train those who would be taking care of their children while they were working. Respondent #2 details the conversation she would have with her mother who cared for her child while she was working.

I would tell my mom, ‘okay you can’t put the milk in the microwave to heat it up, and you can’t boil it either. You have to get the pot, put water in it, let the water warm up, don’t let the water boil either and dip the bag in there until the milk defrosts okay?’ At the beginning she would call me and ask me questions, but it was good because I wanted to make sure she was doing it right. I mean she could have also let the warm water run from the facet until it (the milk) defrosted, but I thought that was wasting water so I didn’t tell her that option.

Two of the mothers researched the day care they would be using and made sure they were certified in the handling of breast milk. Respondent #4 found, “They (the daycare) would use their own crockpot filled with water and would heat the bottle up like that.” Respondent #5 found labeling her child’s bottles was helpful.

I would label the bottles that the baby was going to eat throughout the day, I would label them one through six and I told them to feed her in that order. And I was able to see at the end of the day how much she ate because I would right down how much milk each bottle had in it.

Respondent #11 would remind the daycare staff on a daily basis her child was breastfed.

I would remind whoever was taking the baby and the diaper bag and stuff that he was breastfed. I would say ‘Remember this is breast milk,’ I would say it every day, and if it was someone I didn’t recognize I would specifically tell them a little more, they were
trained on how to handle it, but still it gave me peace of mind to tell them myself. I didn’t want to make any assumptions.

Another similarity between the mothers was their routine at the beginning of their work day and the end of their work day; they would each nurse the child before leaving the house and immediately when they would get home or pick the child up from daycare. Respondent #1 said, I would get up before he did and get ready and get the older one ready and I would nurse the baby right before I left. Then I would take them to grandma’s house and drive to work. When I got off of work, the first thing I would do was nurse him.

Respondent #4 recalls her quiet moments of nursing her child and the comfort it brought to her. That was the best part of my day, when I would get home and sit on the couch and get to nurse him. I wouldn’t start dinner or clean up or anything. And my husband knew, this was the first thing I was going to do, and he had to leave me alone. When I would do that, nothing else mattered all the stress and worries they were all gone. We were in a little bubble protected from everything.

She depicted this in her sketch below.
Illustration 2 of Respondent #4. In this participatory sketch the mother drew a bubble around herself and her child showing that she did not worry about work, stress, or other problems during nursing.

Two of the mothers chose daycare facilities close to their work so if time allowed, they could go nurse their child on her lunch break.

The mothers went through different steps to make their transition to work and breastfeeding as seamless as possible. Even though the mothers faced difficult situations, they were able to persevere and continue to provide their child’s daily nutrition. To recap, the mothers would build up a supply of breast milk before returning to work. The majority of the PD mothers were knowledgeable about her rights to express milk. They would also create a routine for pumping milk when they returned to work. The PD mothers would also take the time
to train their caretakers on the proper use of breast milk or sought out daycares that are certified in handling breast milk. The following section details what the mothers did when traveling without their children, worked in areas that did not provide a space to nurse and what some of the mothers did when their child was hungry while they were out in public. The mothers unselfishly chose the health of their child ahead of their own convenience.

4. Health Before Convenience

As previously mentioned, the majority of the mothers are in a health related field which can be an influence on their decision and motivation to breastfeed. There is controversy in which method of feeding a child is more convenient. The mothers in this study found that at night it is more convenient because they would not have to get up, walk to the kitchen, heat up water, fill the bottle with formula, and wait for it to be the right temperature before feeding the child. There were however, times where breastfeeding was challenging for the mothers. For example, when the mothers would travel, they found it difficult to find a location to pump their milk. Respondent #4 said:

When I was at the airport, I had to pump in the restroom. I had no choice. It was terrible and disgusting but I had to do it. My friend told me to make sure I froze the milk when we got to the hotel because that way TSA couldn’t inspect it. If it wasn’t frozen they would have to put one of those sticks inside it to make sure it wasn’t an explosive or something and I didn’t want the milk to be tainted in any way so of course I froze it and yeah, when we came back TSA couldn’t do anything to the milk.

One PD mother needed to pump milk while working in the field as a nurse in the U.S. Army. This mother would exchange 30 minutes of time with another nurse in exchange for two hours. She would tell the other nurse, to be at her station at a certain time and she would half an
hour later. This meant this mother would need to work two hours more for that person to relive her while she went to pump. The respondent said that it did not happen all the time, but she needed to do it when she was in a jam and could not find anyone to cover for her.

As previously mentioned, four of the PD mothers also made an agreement with their spouse to not bring up formula.

After we said, okay we’re going to breastfeed we also said that meant not to ever bring up the word formula. I mean, I didn’t want to hear the word so we just knew there was no other option and we had to succeed. It was another way I was able to deal with the mommy guilt of working because I knew breastfeeding was the best thing for her to have, respondent #9 said.

According to respondent #6, “I would have gave up if it wasn’t for my husband.” The remaining mothers echoed this sentiment. She said her husband lead her family on the path to success. This participant showed in her sketch that teamwork was a major contributing factor in her success between she and her husband. Although most would view the woman as the driving force and leader when it comes to breastfeeding children, this participant spoke about the difficulties of breastfeeding on her own and therefore credited her husband for keeping her “on
track.” She said her journey was an uphill battle but ultimately proved successful.

Illustration 3 of Respondent #6. A participatory sketch depicting the uphill battle a mother faces to nurse while the husband provides motivation to continue nursing.

Nursing in public is a topic surrounded by controversy. Two cover or not to cover? Two of the mothers did not nurse in public. Nine of the mothers nursed in public but used a nursing cover and tried to sit in an area that was either sheltered from view or in the corner of the room. One mother did nurse in public but chose not to use a nursing cover. Respondent #3 said the first time she breastfed in public was at an IHOP restaurant. She said she covered up out of respect for others.

I recognize people are ignorant and they don’t understand the benefits of breastfeeding. They don’t understand that maybe I have a right and they might not know that. I’m
protecting us from hostile people because they may be ignorant and not know what I have a right to do and not do as a nursing mom. I did it more out of consideration of those ignorant people who maybe walking around. I’m protecting them from their own ignorance in a way.

One mother began an initiative at her place of employment to help new mothers better understand how small their child’s stomach is at birth.

It’s hard for a mother not to visually see how much milk is going into their child’s mouth. So when they look at this bead and see that it is so tiny that even a few drops is going to get the baby full, it helps them relax more. So all of the nurses wear it, and remind the mom ‘look at how tiny their tummy is, even a few minutes at the breast is sufficient.

Visual representation is key.

The bead is about the size of a dime.
Figure 4: **Representation of the size of a newborn’s stomach at birth.** This PD mother began an initiative at the hospital to have nurses wear the bead to show new moms how small their newborn’s stomach is.

**Distillation of Replicable Communicative Acts**

This section reviews the actionable communicative acts the mothers engaged in during their breastfeeding journey. The mothers used communication as a tool to look for support from their spouse and lactation consultants. The mothers trained caretakers to properly administer breast milk in their absence. The mothers also performed breastfeeding in public.

Interpersonal communication with their husbands gave the mothers the opportunity to share their aspiration to nurse the newborn children. That conversation was a pivotal moment for the couple as they devised a strategy on how to make breastfeeding work, and then implemented the plan. The mothers also sought help from the lactation consultant, calling them multiple times.
after being discharged from the hospital. A few of the mothers even spoke with their bosses before leaving on maternity leave that they wished to breastfeed their child and would need a place to pump when she returned to work. This pro-active conversation planted the seed of intentionality, backed by resolve to carry it forward.

Documenting when the child nursed and the duration of time the child was at each breast, allowed the mothers to keep track of their child’s intake. The mothers felt this task kept them organized and allowed them to fall into a routine much quicker. The mothers trained the caretakers often in a step-by-step instructional session. Before the mothers returned to work, the mothers set up a meeting with the child’s caretakers to go over the proper steps to heat up and administer the breast milk to the child. These conversations varied in length from half an hour to two hours. When the mothers returned to work, they would call the caretakers to make sure the child was okay and to ensure that any concerns or questions about the use of breast milk were resolved. Caretakers would also call the mothers with any questions they had about the administration of breast milk. Some mother’s breastfed in public, gaining confidence and feeling empowered to do so with the passage of time. By nursing in public they were also creating the enabling conditions for other mothers to do the same.

**Summary**

This chapter presented the findings for RQ1, which asked “*What are the specific communicative acts, behaviors and practices that enable a PD mother to exclusively breastfeed for six months and continue to breastfeed for one year or beyond?*” The findings suggest that breastfeeding mothers, specifically working mothers, relied heavily on communication practices with their partners and the caretakers of their children. The mothers also exhibited a great deal of intrapersonal communication to motivate themselves to continue to breastfeed. The mothers also used various practices and behaviors that allowed them to successfully breastfeed their
children while working full time. The mothers continued to nurse when traveling, when airports did not offer a suitable and private location for the mothers to express milk.
Chapter 5: Conclusion

This present study investigated the communicative behaviors and practices of working breastfeeding mothers in the El Paso, TX area. The respondents of this study, the positive deviants (PDs), were successful in exclusively breastfeeding their children for six months, and continued to do so for over one year even after returning to work, overcoming numerous barriers and challenges.

The PD mothers convinced themselves to breastfeed after reading and researching the benefits. Their informed decision came with knowing “this is the best thing for my child.” The mothers would continually self-reinforce this message throughout their nursing journey, and especially while facing resistances from others.

Teamwork and spousal understanding was essential between the PD mothers and their husbands. The reaching of a mutual understanding that they were in this together, and for the spouse to constantly support their wife through daily actions e.g. assisting in preparing the bottle or washing and sanitizing the pump parts, were helpful to the mothers. Spouses were viewed as coaches and cheerleaders who motivated them through the long journey. Verbal affirmations such as “Remember this is the best thing for the baby” or “We, can’t give up,” played a vital role in motivating the mothers to continue to nurse.

The PD mothers also forged an understanding with their caretakers and their employers about what actions were needed for the child to receive adequate care, and how to properly handle the expressed milk. Some mothers would be in touch with the child’s caregiver several times a day to monitor the child was breastfed. Forging an early and proactive understanding with employers about their desire to breastfeed and to identify a designated location to pump milk were key determinants of success. After communicating with their employers about their
desire to breastfeed, the mothers used various spaces including their own office, conference rooms, and locker or nursing rooms as pumping locations.

**Implications of the Findings**

This study looked at both the communicative acts and behaviors breastfeeding working mothers used when breastfeeding their children without additional resources. Key findings of this study were presented in three temporal phases: before the child is born, immediately after the child is born and preparation leading up to the return to work. The findings are as follows:

**Preparing to Breastfeed before giving Birth:**

1. The pregnant mother decides to breastfeed. She may have conducted research to come to that conclusion.
2. The pregnant mother speaks to her spouse. This builds consensus, a sense of teamwork, and a collaborative camaraderie between the pair.
3. The couple devises a plan of action. The mothers found it useful to discuss with their partner that there was not going to be an alternative once the decision to breastfeed was made.
4. Mothers also bought a breast pump before the delivery of their child to figure out how to use it and to make sure it was working.

**Learning to Breastfeed After Birth:**

1. The mothers found speaking with a lactation consultant about breastfeeding was useful and allowed them to figure out what they needed to physically do to breastfeed.
2. The mothers needed to figure out the feeding cues of their child to know when the child was hungry.
3. Some of the mothers found that charting when the child was feeding, on which breast and the duration of the feeding allowed them to get more familiarized with a feeding schedule of the child.

4. One PD mother weighed her child after each feeding to ensure the child was gaining the proper weight.

5. Mothers used a variety of products and folk remedies to soothe painful nipples and engorged breasts as suggested by other mothers or lactation consultants during conversations with them.

6. Mothers who started pumping early, found it useful to schedule nights when they or their partner would get up in the middle of the night to feed and change the child. This allowed the mother and partner to get adequate rest on the nights they were “off.”

Preparing to Return to Work:

1. Most PD mothers knew about their legal rights when it came to pumping milk at work.

2. Each of the mothers built up a milk supply before returning to work. The supply ranged from two weeks to two months.

3. The mothers used different pumping techniques to express their milk. These included: hands-free pumping, massage while pumping, viewing pictures of the child and smelling clothes of the child.

4. All of the mothers agreed that pumping every two to three hours was vital in retaining their milk supply and providing enough milk for the child.

5. The mothers would communicate with caretakers on proper handling of breast milk.
6. Mothers also said that nursing the child before leaving in the morning for work and nursing the child immediately upon return of work helped with milk supply and bonding with their child.

The PD mothers also adapted to emerging and unexpected contingencies. If their work required travel, and finding a pumping location was difficult, the airport restroom was always an option. If the child had to be nursed in public, and stares and sneers were experienced, so be it. They found corners to sit and nurse, covered themselves as best as they could, and focused on nursing the child.

**Intervention Design**

While the present research focused on determining the existence of working mothers who were PDs in breastfeeding and the discovery of their PD behaviors, one may pose the questions: What are the implications of what was discovered? How might the discovered PD practices be used to design a breastfeeding intervention to encourage more working mothers to breastfeed?

Designing a Positive Deviance intervention focuses on engagement and is less on “telling” or “showing” people what to do, but to actually encourage them to act their way into a new way of thinking. This research project was an inquiry, but a design of an intervention is proposed as follows. After interviewing the working mothers, it can be projected that the mothers could set up a meeting to discuss their commonalities in regards to breastfeeding. The mothers could then plan a workshop that would be led by the PD mothers. These working mothers could share their knowledge to other expecting or currently working mothers on the techniques and tricks they used to successfully breastfeed while still fully involved in their careers.
Admission to the workshop could be, a breast pump, nursing cover or any other item related to breastfeeding. The mothers could discuss the different areas of preparation in returning to work as highlighted in chapter 4. Mothers could also show the mothers how to pump, while tying as one of the respondents did. The mothers could also teach how to properly store the milk and the communication techniques they used while speaking to their caregivers about feeding their child breast milk. The participants could use water and place the water from the pump into the bag so they can get used to transferring the milk. These PD mothers could also encourage attendees to bring their spouse along to participate. The mothers participating could also practice using their breast pumps in preparation for returning to work. The participants could also mimic nursing with a doll or stuffed animal to learn the different breastfeeding positions. These workshops can be held on a monthly basis to allow other mothers to hear the knowledge these PD mothers have.

The PD mothers could also work in collaboration with different birthing centers and non-profit organizations to bring awareness about these workshops. Mothers could also market the workshops at the various hospitals located in El Paso, TX. Mothers could post information on the hospital’s community board and place flyers in the take home bags the hospitals provide the mothers.

**Thoughts on Theory of Planned Behavior**

This study also used The Theory of Planned Behavior (TPB) a framework to better understand how and when mothers made the decision to breastfeed, and especially why they continued to breastfeed in spite of workplace and or familial resistances. TPB allowed the researcher to figure out when the mothers made the decision and if their family members influenced the decision.
Even while performing their own actions associated with breastfeeding their child, mothers influenced the decision of others (e.g. spouses, care givers, and employers) in becoming partners in this behavioral enterprise. The questions asked of the PD respondents during the interview process helped figure out when the decision was made to breastfeed. As previously mentioned, seven PD mothers decided to breastfeed before becoming pregnant, while five chose to breastfeed when they were pregnant. The mothers expressed that they were not just influenced by the normative beliefs of their family, friends and colleagues. Respondent #1 said:

“A lot of my cousins from Mexico just could not understand why I was breastfeeding. They were like, ‘If you can afford to buy formula, why are you breastfeeding?’ That showed me that it was a class thing like they thought only poor people breastfeed or something. And I got that here too. People don’t view it as the best thing for your baby, they just think you’re doing it because you can’t afford to buy formula.”

Their control beliefs came from their interpersonal communication with their partners about the decision to breastfeed and the constant support and reminder of why they were choosing to do so: “Even when we got in a tough situation, it was like we have to keep going. It’s a small bump in the road and we’ll get through it. My husband being my cheerleader let us be successful,” respondent #6 said. Once the mothers made the decision to breastfeed, their attitude about breastfeeding became positive and therefore resulted in having a strong intention to breastfeed, and eventually in the actual performance of the behavior.

Interview questions about breastfeeding beliefs and outcomes evoked interesting responses. The “meaning” of breastfeeding for the PD mothers was looked upon as “a bond with the child” and “doing the best for the child.” When asked about the advantages of breastfeeding, mothers listed medical evidence on the benefits of breast milk, and the relatively easy access that
mothers have to nurse their children. When asked about the disadvantages, some mothers did not list any disadvantages. Some others said sometimes it was difficult to be the sole person responsible for feeding the child, and the consistent and regular work involved in pumping milk after returning to work.

When the mothers were asked questions about their social referent, the mothers listed family, friends and society as approvers and disapprovers of breastfeeding. When asked questions about barriers and facilitators, the mothers listed, a supportive partner, a mother-friendly workplace, and personal dedication as factors which made it easy to breastfeed. Mothers listed work, resistance from society, traveling, cracked nipples, and breast engorgement as factors which made it difficult to breastfeed. In sum, the Theory of Planned Behavior greatly aided in understanding how the mothers continued to breastfeed in spite of resistance by family and friends, not including their spouse, of course.

**Limitations and Future Research**

This study is not without limitations. The methodological approach undergirding the study was snowball sampling, and therefore only a few mothers in the general population of El Paso found out about this study, and twelve fit the criteria for the study, and decided to participate. In a classic PD inquiry, as for instance, occurred in Vietnam, often the PDs are found through a data-driven approach, beginning with the general population of interest in a geographic area, and then using the PD criteria to systematically find the positive outliers.

Further, this study was limited to mothers who lived in the El Paso area. Future studies may want to look at mothers who work part time or who are homemakers and take care of their children at home or home school their children. When the snowball method was implemented
introduced at the MOPS meeting, several women approached me and said they fit the criteria except for working full time at an office or away from their home. It is important for future researchers to understand what communicative acts these mothers were engaged in that made it possible for them to exclusively breastfeed, while facing resistance and adversity.

The PD working mothers who served as respondents for the study were also not representative of the common El Paso demographics. The overwhelmingly majority of the respondents were educated with two earning masters degrees, nine obtaining bachelors degrees, and one mother having an associates degree.

This study was also different from the more traditional Positive Deviance inquiries where the community members determine the uncommon and demonstrably successful practices of PDs. In the present study, such was done by the researcher with no community input.

That said, the findings of this study, even while an exploratory investigation of “what is working?” can create a framework for more dialogue on how to launch more effective breastfeeding interventions.
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Appendix A – Informed Consent

Informed Consent Form for Research Involving Human Subjects

Protocol Title: A Positive Deviance Inquiry on the behaviors of working mothers who successfully breastfed their children exclusively for six months and continued to breastfeed to the age of one year and beyond.

Principal Investigator: Jessica Raquel Molinar Munoz

UTEP Department of Communication

1. Introduction
You are being asked to take part voluntarily in the research project described below. Please take your time making a decision and feel free to discuss it with your friends and family. Before agreeing to take part in this research study, it is important that you read the consent form that describes the study. Please ask the study researcher or the study staff to explain any words or information that you do not clearly understand.

2. Why is this study being done?
You have been asked to take part in a research study about the behaviors and actions of working mothers that has led to their success in exclusively breastfeeding to six months of age and to one year or beyond after the introduction of solid foods. This project is interested in finding mothers who against all odds have successfully breastfed beyond the recommended guidelines. If you decide to participate in this study, a series of in-depth interviews will be conducted to understand the behaviors and micro-interactions of the breastfeeding mother.

3. What is involved in the study?
The researcher will interview the respondent about your behaviors and actions which led to the success of your breastfeeding. This study will also ask you about your relationship with your
family, friends and co-workers. The interviews will be recorded via an iPhone and the interviews will be coded to protect your identity. The interview can last between one and two hours but you can add as much information as you like to the topic. If you feel uncomfortable answering a question, please tell the researcher and we will move on to the following question.

4. What are the risks and discomforts of the study?
There are no known risks associated with this research.

5. What will happen if I am injured in this study?
The University of Texas at El Paso and its affiliates do not offer to pay for or cover the cost of medical treatment for research related illness or injury. No funds have been set aside to pay or reimburse you in the event of such injury or illness. You will not give up any of your legal rights by signing this consent form. You should report any such injury to Jessica Molinar Munoz at (915-203-5363) and to the UTEP Institutional Review Board (IRB) at (915-747-8841) or irb.orsp@utep.edu.

6. Are there benefits to taking part in this study?
There will be no direct benefits to you for taking part in this study. This research may help us to understand how positive communicative behaviors can motivate Hispanic students to graduate from high school on time.

7. What other options are there?
You have the option not to take part in this study. There will be no penalties involved if you choose not to take part in this study.

8. What are my costs?
There are no direct costs. You will be responsible for travel to and from the research site and any other incidental expenses.

9. Will I be paid to participate in this study?
You will not be paid for taking part in this research study.

10. What if I want to withdraw or am asked to withdraw from this study?
Taking part in this study is voluntary. You have the right to choose not to take part in this study.

If you do not take part in the study, there will be no penalty.

If you choose to take part, you have the right to stop at any time. However, we encourage you to talk to the researcher so that they know why you are leaving the study. If there are any new findings during the study that may affect whether you want to continue to take part, you will be told about them. The researcher may decide to stop your participation without your permission, if he or she thinks that being in the study may cause you harm.

11. Who do I call if I have questions or problems?
You may ask any questions you have now. If you have questions later, you may contact Jessica Molinar Munoz at (915-203-5963) jrmolinar@miners.utep.edu.

If you have questions or concerns about your participation as a research subject, please contact the UTEP Institutional Review Board (IRB) at (915-747-8841) or irb.orsp@utep.edu.

12. What about confidentiality?
Your part in this study is confidential. None of the information will identify you by name. All records will stored in a secure location and heard only for research purposes by the researcher and her associates. Audio tapes of the interviews will be coded so you will not be personally identified.

Audio tapes will be retained for possible future analysis. We may wish to present some of the tapes from this study at conferences or as demonstrations in classrooms.

Please sign below if you are willing to allow us to do so with the tape of your interview.

I hereby give permission for the audio tape made for this research study to be also used for educational purposes.

_______________________________ _________________
13. Authorization Statement

I have read each page of this paper about the study. I know that being in this study is voluntary and I choose to be in this study. I know I can stop being in this study without penalty. I will get a copy of this consent form now and can get information on results of the study later if I wish.

Participant Name: ____________________  Date: _________________

Participant Signature: ________________  Time: _________________

Printed name: Jessica Raquel Molinar Munoz

Date: ________________  Time: ________________
Appendix B – Screening Criteria

Protocol Title: A Positive Deviance Inquiry on the behaviors of working mothers who successfully breastfed their children exclusively for six months and continued to breastfeed to the age of one year and beyond.

Principal Investigator: Jessica Raquel Molinar Munoz. For questions please call (915) 203-5963 or email jrmolinar@miners.utep.edu.

Mothers willing to participate in this research study will be screened to determine if she meets the following criteria.

I. Screening criteria for identifying Positive Deviant mothers

1. Are you a woman located in El Paso, TX?

2. Are you a mother with a child under the age of five?

3. Did you exclusively breastfeed your child for six months?

4. Did you work full time while your child was under 12 months of age?

5. Did you continue to breastfeed past your child’s first year of birth?

6. Did you struggle to find support from family, friends or co-workers with your decision to breastfeed?
Appendix C – Interview Questions

Interview Questions

How many children do you have?
What are their ages?
Was there any type of preparation for nursing before returning to work after maternity leave?

TPB - Beliefs about outcomes

What does breastfeeding mean to you?
What are the advantages of breastfeeding?
What are the disadvantages of breastfeeding?
How long did you plan to breastfeed for? How long did you actually breastfeed for?

TPB - Beliefs about social referent

Are there people who would approve of you breastfeeding?
Are there people who would disapprove of you breastfeeding?

TPB - Barriers and facilitators

What factors would make it easy to breastfeed?
What factors would make it difficult to breastfeed?

TPB - Beliefs about behavior control

How confident are you that you could breastfeed exclusively for six months?
How confident are you that you could breastfeed for more than a year?

Walk me through a typical work day, while you were nursing.
How would you know your baby was full?
Are there any stories or experiences that you would like to add?
What type of deliveries did you have?

What enabled you to continue to breastfeed?
Vita

I am an El Paso native with a love for the border and the southwest. I always had an interest in news-gathering and reporting and was able to fulfill my dreams and work in several newsrooms in the El Paso area over the past six years. I am fortunate to say that my journey in my first newsroom began before I completed my college degree. I received my B.A. in Electronic Media from the University of Texas at El Paso in May of 2009. I quickly moved into managerial roles in the newsroom. I am a skilled and dedicated multimedia expert with proficiency in public relations, communications research, and newscast presentation.

After leaving the media to pursue my M.A., I became the Communication Director for the Centennial Celebration at UTEP. This once in a lifetime opportunity afforded me the opportunity to delve into the rich history at UTEP and work with key community members and stakeholders. The Centennial Office staff worked behind the scenes to promote Centennial events at UTEP and in the El Paso area. I was responsible for maintaining UTEP’s Centennial Celebration website, blog and social media accounts to create public awareness and interest in the Centennial Celebration at UTEP.

I will graduate from UTEP with my M.A. in Communication in the spring of 2015.

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This thesis was typed by Jessica Raquel Molinar Muñoz.