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THE INTERFACE OF BREASTFEEDING AND WORK: A PHENOMENOLOGICAL EXPLORATION OF THE EXPERIENCES OF WHITE LOW-INCOME WOMEN

by

Jessica A. Kerby

A Dissertation Submitted to the Faculty of The Graduate College in partial fulfillment of the requirements for the Degree of Doctor of Philosophy Department of Counselor Education and Counseling Psychology Advisor: Mary Z. Anderson, Ph.D.

Western Michigan University Kalamazoo, Michigan December 2010
Vocational psychologists have been called to expand the traditional discourses related to work and career to address the actual work experiences of individuals, especially those of the working class. Breastfeeding rates are on the rise among employed women and mothers of low-income, but little is known about women of low-income who seek to concurrently work and breastfeed. Work-family interface theories suggest employed mothers of low-income may experience conflict and/or enhancement through multiple roles. The purpose of this research was to answer the call to vocational psychologists, give voice to the narratives around breastfeeding and work among low-income mothers, and to evaluate the extent to which work-family interface theories (work-family conflict and role enhancement) were sufficient for understanding and organizing these narratives.

Participants were six WIC-qualified mothers who were currently breastfeeding and intending to return to work within six months postpartum. A longitudinal design was employed; participants were interviewed on three occasions, once prior to their postpartum return to employment and twice after they resumed work. Phenomenological data analysis methods resulted in individual narratives, descriptive themes, interpretive themes, and a collective narrative. The descriptive themes were: 1) Breastfeeding is

In isolation, neither work-conflict theory nor role enhancement theory were sufficient for describing participants' experiences, though some support was found for each theory. This suggests that these theories may function in combination. Three factors were discussed as most salient when it came to breastfeeding duration: 1) personal comfort with breastfeeding, 2) type of intervention implemented when problems arose, and 3) structural and attitudinal support in the workplace. For each of these factors, implications for the practice of breastfeeding support professionals and research on the interface of breastfeeding and work are discussed.
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Jessica A. Kerby
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CHAPTER II

INTRODUCTION

The impetus for this research came during my fifth year of doctoral studies, while I was enrolled in a vocational psychology course. As part of the course requirements, I came in contact with Blustein's foundational book, *The Psychology of Working* (2006). In this book, Blustein placed a call to psychologists to broaden the scope of research related to work and career. He suggested that the traditional discourses within the fields of career counseling, vocational psychology, and industrial/organization psychology have not adequately addressed the real world work experiences of individuals, especially those of the working class.

Blustein (2006) suggested that the multi-disciplinary scholarship on work-family interface was one exception. The work-family literature has provided some understanding into the psychological experiences of work, specifically as it relates to the impact of work and family on one another. However, even within this body of research there has been little exploration of the experiences of working class individuals (Kossek & Ozeki, 1998; Lewis & Cooper, 1999; Marks, 2006; Perry-Jenkins & Gillman, 2000).

At the time of reading Blustein's (2006) book, I was a 27-year-old, married mother of an 18-month-old son. I returned to school within two weeks of my son's birth and returned to a graduate assistantship position when my son was 6-months-old. Prior to the birth of my son, my research interests centered around attachment and interpersonal forgiveness. However, after his birth, and in light of my own experiences
with juggling school, work, and family commitments, I became increasingly interested in
the work-family domain. I therefore decided that this dissertation would answer the call
for attention to the psychological experiences of work and to broaden the work-family
interface literature by focusing on the experiences of individuals with low-income.

As I began to explore the work-family literature, I discovered that a major point
of inquiry has been on the “double burden” on working women who, despite working
comparable hours to their male counterparts, are still disproportionately responsible for
household management and childcare. Numerous authors (Barnett & Hyde, 2001; Betz
& Fitzgerald, 1987; Blustein, 2006; Thompson & Walker, 1989; Yoder, 1999) have
argued that men and women are equally equipped to act as caregivers to children and
therefore suggest that the solution to this burden is for men to increase their household
contributions. However, I found that it was rarely recognized that there are certain
domains (namely pregnancy, childbirth, and breastfeeding) that are biologically restricted
to women. Furthermore, this proposed solution places all of the responsibility for
managing family obligations and work responsibilities on individuals without challenging
the major assumptions of the workplace (Parasuraman & Greenhaus, 1997).

I consider myself to be of middle-class upbringing, but because my husband and I
were both doctoral students and facing the financial constraints of graduate education, we
sought out public assistance when I became pregnant with my son. I received Medicaid
throughout that pregnancy and food vouchers through the Women, Infant, and Children
(WIC) program during the pregnancy and first year postpartum. My participation in WIC
provided opportunity to not only observe, but to experience this program first-hand. One
thing I was particularly struck with at the WIC office was the obvious emphasis on
breastfeeding promotion. Posters on the wall declared "breast is best," the nutritionist offered praise for continued breastfeeding, and the service of a home-based breastfeeding peer-counselor was offered.

I found myself wondering about the breastfeeding experiences of other WIC participants. I had faced a number of lactation-related struggles in the early postpartum months. Due to prematurity, my son had difficulty latching in the beginning. Plus, I developed an overabundant milk supply which left him sputtering, coughing, and gasping for breath during early feedings. When I returned to school, I hid away in a library study room on class breaks to express milk, hoping that no one would see me through the glass pane window on the door. Plus, I worried about whether my son would take a bottle for my husband on a given night and how my husband would handle his wailing if he did not.

My breastfeeding struggles led me to seek breastfeeding specific support. During the first year postpartum, I participated in the Michigan State University Breastfeeding Extension Program, utilized hospital lactation services, and became a member of a local La Leche League group. At one La Leche League meeting, a representative from WIC came to elicit ideas from league mothers who had combined breastfeeding and work. She was working on a brochure for WIC moms that would provide information about combining breastfeeding and work. The (almost exclusively middle-class) moms spoke up about the elements that helped them combine work and breastfeeding such as having a private room for milk expression, using an efficient electric breast pump, and taking breaks every 3-4 hours to pump. This left me wondering about the work experiences of mothers with low-income. Do these moms have access to a private room to express
milk? Can they afford to purchase an efficient breast pump? Are they able to take breaks for the purpose of pumping milk? Are they interested in trying to combine breastfeeding and work? What happens if they approach their employer and ask for special accommodations to do so?

These questions, along with Blustein's (2006) call, led me to begin to explore the available literature on breastfeeding and work. In doing so, I became increasingly aware of: 1) the health related benefits associated with breastfeeding, 2) the potential conflict that exists between breastfeeding and work, and 3) the dearth of research specifically related to low-income women attempting to combine breastfeeding and work.

Breastfeeding literature clearly demonstrates that breastfed babies are at an advantage when it comes to health. Individuals who were breastfed have a reduced risk of various infections and illnesses including, but not limited to the following: respiratory tract infections, gastro-intestinal infections, type 1 and type 2 diabetes, leukemia, Hodgkin's disease, obesity, and asthma. (American Academy of Pediatrics, 2005; Lawrence & Lawrence, 2005). The innumerable health benefits associated with breastfeeding have led many national and international health entities to endorse breast milk as the preferred infant feeding method. This means that health professionals are likely to provide the message “breast is best” to women during their pregnancy and hospital stays. Low-income women are particularly likely to encounter this message through contact with the Women, Infant, Children (WIC) Program given the increased emphasis in this program on breastfeeding promotion (Schweers, 1992).

Mothers of young children are participating in the workforce in greater numbers than ever before (Boris & Lewis, 2006; Gerstel & Sakisian, 2006) and there is at least
some evidence that an increasing number of women are attempting to continue breastfeeding after returning to work (Lindberg, 1996a). Indeed, breastfeeding rates have been climbing in recent years, even among working mothers (Ryan, Zhou, & Acosta, 2002; Ryan, Zhou, & Arensberg, 2005). However, a number of studies have shown that women frequently cite returning to work/school as a reason to stop breastfeeding (Alexy & Martin, 1994; Arlotti, Cottrell, Lee and Curtin, 1998; Chalmers, Ransome, & Herman, 1990; Chezam, Friesen, & Parker, 2004; Chezam, Montgomery, & Fortman, 1997; Guttman & Zimmerman, 2000; Hill, Humenick, Argubright, & Aldag, 1997). This suggests that some mothers perceive breastfeeding and their work arrangement to be incompatible. Working women who have chosen to breastfeed necessarily require certain accommodations in the workplace if they are to be successful in continued breastfeeding. In order to maintain an adequate milk supply, employed breastfeeding mothers need equipment for expressing milk, a private location to express milk, and a 15-30 minute break every three to four hours for doing so (Bar-Yam, 1998; Dodgson & Duckett, 1997; Wyatt, 2002). A variety of workplace characteristics may affect the availability of these accommodations and therefore the feasibility of combining breastfeeding and work.

Authors have suggested that since low-income work tends to have less autonomy and flexibility, it is likely to be less conducive for breastfeeding (Cardenas & Major, 2005; Lindberg, 1996b). However, at the time of proposing this research, there was only one study identified that actually examined breastfeeding and work among low-income women (i.e., Thompson & Bell, 1997). Given the dearth of research related to breastfeeding and work among low-income women it is not known whether their work is actually less amenable to breastfeeding. If it is, the children of low-income families are
likely to be placed at greater disadvantage in the area of health, which may contribute to the perpetuation of class differences.

Given the health benefits of breastfeeding, the potential challenges low-income women might face with combining breastfeeding with work, and the current dearth of research in this area, I felt convicted that this subject warranted greater exploration. As such, this phenomenological study on the work and breastfeeding experiences of low-income women was born. Participants for this study were low-income mothers who had recently given birth to a child, were currently breastfeeding, and were planning to return to work within 6 months post-partum. Mothers were interviewed on three occasions, once prior to returning to work, and twice after returning to work. The primary aim of this research was to give voice to the narratives around breastfeeding and work in a sample of mothers with limited income.

I ended up breastfeeding my son for 23 months. Even after weaning, I continued to balance work, school, and family responsibilities, including work as a graduate assistant, one year as a full-time pre-doctoral intern, and one and half years as a part-time instructor. In the last year of this project (during the data analysis and writing stage), I gave birth to a daughter and began to breastfeed once again. After the birth of my daughter, I returned to working on this project at two weeks postpartum and to part-time teaching at two months postpartum. I found it fascinating to revisit the participants’ stories related to breastfeeding and work as I was living my own. I sought to be continuously aware of my own experiences and perspectives such that they did not unduly impact the outcomes of the analysis. At the time of this writing, I am continuing to breastfeed my daughter, now 11 months old. I am grateful that I have been able to
concurrently fulfill my work commitments while providing optimal nutrition to my children. I am hopeful that this research will contribute to the cause of helping other women do the same.
CHAPTER II

LITERATURE REVIEW

In the literature review to follow, several domains will be considered to place this research in context and demonstrate a need for this study. First, a brief history of work and breastfeeding will be provided, including a discussion of factors related to increased rates of breastfeeding in the post-industrial era. Second, various aspects of breastfeeding will be addressed, including a discussion of breastfeeding definitions, breastfeeding rates, and the social, emotional, and psychological aspects of breastfeeding. Third, the contribution of theory concerning work-family interface will be considered. Finally, the specific literature related to the interface of breastfeeding and work will be reviewed. Given that breastfeeding has been a focus within the medical field as well as the social sciences, the literature for this chapter was located by searching within three major databases: PsychINFO, Social Sciences Abstracts, and Medline. Thus the limits to the literature described in this chapter refer to the breadth and depth of scholarship on breastfeeding in the disciplines associated with these databases.

Brief History of Work and Breastfeeding in 21st Century United States

Prior to the industrial revolution, most families in the United States operated out of a household economy model. In these times, the home was often the site of a family’s work and everyone in the household was expected to contribute. As such, there was significant overlap between the domains of work and family (Boris & Lewis, 2006).
Prior to the industrial revolution, breastfeeding was normal and universal (Fildes, 1986; Palmer, 1988). Due to the overlap between work and family domains, women were often able to combine the roles of breastfeeding and working. However, significant changes have occurred relating to both women's work and breastfeeding since that time. This section will highlight some of the major changes that have occurred during the industrial and post-industrial eras of the 21st century.

**Industrial era.** With the industrial revolution came the movement of work to locations outside of the home. In this era, the “breadwinner family” model became predominant. It was expected that the husband/father would provide a living wage for his nuclear family and that the wife/mother would be responsible for childcare and household management (Gallay & Flanagan, 2000). Paid labor outside of the home became masculinized and valued while domestic work became feminized and less valued (Boris & Lewis, 2006; Wharton, 2006). Throughout the 1930s, 1940s, and 1950s women's participation in the workforce was generally frowned upon and many businesses had explicit policies against hiring married women (Marshall, 1991). Women tended to work only if it was out of economic necessity and therefore, the women who were working tended to be those of the working class (Barnett & Hyde, 2001).

Toward the end of the industrial era, economic factors as well as the force of feminism began thrusting greater numbers of women into the workforce. The early feminist movement called for political, sexual, and occupational equality between men and women. For many women, this meant rejecting homemaking roles and tasks, including breastfeeding. Therefore, breastfeeding rates began to drop, first among middle to upper-class women and later among the working class (Jelliffe & Jelliffe, 1978).
During this time period, infant formula began to be widely produced and advertised. The advertising of formula often presented it as a woman’s ticket to freedom from the childrearing role and portrayed it as being equivalent to breast milk in terms of the quality of nutrition it offered (Jelliffe & Jelliffe, 1978).

A number of other factors contributed to the decline of breastfeeding during this time period. One factor was the movement of births out of the home and into hospitals. Hospital routines were such that babies were often required to stay in a nursery apart from the mother and were often put on a feeding schedule such that they were only brought to the mother every 3-4 hours for feeds (Jelliffe & Jelliffe, 1978). We now know that the separation of mother and infant in the early days of the child’s life and infrequent nursing makes it more difficult to establish an adequate milk supply for breastfeeding (Buxton et al., 1991; Fein & Roe, 1998). Palmer (1988) further noted that the very nature of the hospital environment may have made it more difficult for women to relax enough to stimulate the “let-down” reflex necessary for producing milk.

An additional factor is that the nuclear family became its own separate entity, such that individuals were less likely to live in an extended family household. This decreased the opportunity for women to learn from each other and assist one another in the establishment of breastfeeding (Jelliffe & Jelliffe, 1978). This trend has continued through today. Indeed, a number of women report that they have never seen another woman breastfeed (Ertem, Votto & Leventhal, 2001; Palmer, 1988), especially in public (Guttman & Zimmerman, 2000).

Post-industrial era. During the postindustrial era, the proportion of female participation in the labor force continued to rise (Wharton, 2006) with the largest increase
among mothers of young children (Emmons, Beirnat, Tiedje, Lang, & Wortman, 1990; Gerstel & Sarkisian, 2006). Nearly 80% of all mothers in the United States are now employed (Boris & Lewis, 2006) and women are much less likely to drop out of the labor market after the birth of a child than they were in previous eras (Gerstel & Sarkisian, 2006). A greater number of working class mothers have also been pushed into the workforce by changes in the welfare system. In 1996, the Aid to Families with Dependent Children (AFDC) was eliminated and a new program, Temporary Assistance for Needy Families (TANF) was put in its place. This new program limits life-time assistance to a total of five years, forcing individuals to work.

Not only are a greater number of women participating in the labor force, but they may also be working a greater number of hours. The post-industrial era has been characterized by rapid change, with accompanying uncertainty and job insecurity (Cooper & Lewis, 1999; Wharton, 2006). In this context, many middle-class individuals feel pressured to work a greater number of hours in an attempt to demonstrate commitment and thereby increase job security (Lewis & Cooper, 1999). At the same time, the difficulty of finding a low or unskilled job that pays a living wage has forced many working-class individuals to work more than one job and therefore more hours (Lewis & Cooper, 1999; Wharton, 2006).

Interestingly (and somewhat counter-intuitively), the post industrial era has seen not only an increase in women’s workforce participation, but also in women’s breastfeeding rates (Ryan, et al., 2002; Ryan, et al., 2005). A number of factors have been suggested to explain this trend. These can be organized according to those that have occurred within the medical field and outside of it.
Factors within the medical field contributing to increased breastfeeding rates.

In the last several decades, developments in medical science have led to a greater understanding of the properties of breast milk and its associated benefits. We now know that human breast milk is metabolically unique, which is to say nutritionally different, than the breast milk of any other species and is, therefore, easier for human babies to digest than breast milk substitutes (American Academy of Pediatrics, 2005, Jelliffe & Jelliffe, 1978). It contains at least two proteins, nine essential amino acids, nine non-essential amino acids, seven minerals, seven trace minerals, twelve vitamins, fat, and lactose. In addition to easier digestion, research suggests that human milk feeding decreases the likelihood of a variety of infections including “bacterial meningitis, bacterimia, diarrhea, respiratory tract infections, necrotizing enterocolitis, otitis media, urinary tract infection, and late-onset sepsis” (American Academy of Pediatrics, p. 496). Correlations have also been found between breastfeeding and “reduction in incidence of insulin-dependent (type 1) and non-insulin-dependent (type 2) diabetes mellitus, lymphoma, leukemia, and Hodgkin disease, overweight and obesity, hypercholesterolemia, and asthma” (p. 496-497), though the research is less conclusive with respect to these conditions due to the possibility of confounds. Also, human milk changes in volume and composition over time to adjust to the needs of the infant (Jelliffe & Jelliffe, 1978; Lawrence & Lawrence, 2005).

Additionally, breast milk contains antibodies produced by the mother, which change over time in response to the pathogens the mother and child are exposed to (Jelliffe & Jelliffe, 1978; Lawrence & Lawrence, 2005). The outcome of the anti-infective properties of breast milk is most obviously seen in under-developed or third
world countries, where formula-fed babies have a much higher infant mortality rate as compared to their breastfed peers (Jelliffe & Jelliffe, 1978). However, in developed countries, with clean water supply and adequate refrigeration, the disparities are much smaller.

Breastfeeding mothers may also experience health benefits including: decreased postpartum bleeding and more rapid uterine involution, decreased menstrual blood loss, increased child spacing, earlier return to pre-pregnancy weight, decreased risk of breast cancer, decreased risk of ovarian cancer, and possibly decreased risk of hip fractures and osteoporosis in the postmenopausal period (American Academy of Pediatrics, 2005).

Endorsement by health entities. Indeed, the health benefits of breastfeeding are so compelling that numerous health entities, including the American Academy of Pediatrics, the World Health Organization, the United Nation’s Children Fund (UNICEF), the American College of Obstetricians and Gynecologists, the American Academy of Family Physicians, the Academy of Breastfeeding, and the United States Department of Health, have recommended exclusive breastfeeding for the first 6 months of a child’s life (American Academy of Pediatrics, 2005). The American Academy of Pediatrics states that “breastfeeding should be continued for at least the first year of life and beyond for as long as mutually desired by mother and child” (American Academy of Pediatrics, 2005, p.499).

In 1991, the World Health Organization helped to launch an international program called the baby friendly hospital initiative, with a goal to make maternity facilities more “friendly” towards babies (Wright, Rice, & Wells, 1996). According to the initiative, hospitals ought to take ten specific steps to promote breastfeeding, including having a
written breastfeeding policy, informing all pregnant women about the benefits of breastfeeding, getting the infant to the breast within one half hour of delivery, and encouraging on-demand breastfeeding. In 1997, Baby-Friendly USA was formed to advocate for the assessment of United States hospitals for baby-friendly hospital status. As of April 2007 there were 56 baby friendly hospitals in the United States (UNICEF/WHO, 2007).

The United States Department of Health gave specific attention to breastfeeding in the Healthy People 2010 initiative. This initiative stated goals to have 75% of all mothers breastfeeding at birth, 50% continuing on for 6 months, and 25% breastfeeding up to one year of the child’s life, by the year 2010 (United States Department of Health and Human Services, 2000). In the midcourse review of this program, two additional goals were added. These were to have 60% of mothers exclusively breastfeeding through 3 months of age and 25% exclusively breastfeeding through 6 months (United States Department of Health and Human Services, 2006). This addition seems to emphasize that breastfeeding is most beneficial when done exclusively, but also the greater difficulty of doing so.

The medical field’s influence on employed breastfeeding mothers. The medical field has helped to highlight the benefits of breastfeeding for employers. The American Academy of Pediatrics (2005) has stated that employers may benefit from decreased absenteeism of parents of infants, when the child is breastfed. One study found that breastfed babies were six times more likely to be free of any illness during their first year of life than formula-fed babies and formula-feeding mothers were significantly more likely to miss work due to the illness of their child (Cohen, Mrtek & Mrtek, 1995). It has
been estimated that increased breastfeeding could lead to a potential savings in health care costs of $3.6 billion dollars yearly (American Academy of Pediatrics, 2005.) Ball and Bennett (2001) reviewed studies assessing the health care costs for formula fed and breastfed babies. They found that formula-fed babies cost HMOs anywhere from $200-400 more in the first year of the child’s life in direct medical costs. It has also been suggested in popular press material that employers may benefit from increased loyalty, satisfaction, and productivity of breastfeeding mothers, which in turn may lead to reduced employee turnover and decreased costs for hiring and retraining (Pryor, 1997), but there appears to be an absence of empirical work which has examined these assertions.

Specific attention has been given in the medical field to increasing the breastfeeding rates of employed mothers. There have been numerous conceptual publications aimed at medical and nursing professionals who may work with such mothers. These publications have been directed at nurses in general (Greenberg & Smith, 1991), midwives (Auerbach, 1990), occupational health nurses (Gates & O’Neill, 1990), perinatal and neonatal nurses (Bocar, 1997), pediatricians and pediatric nurses (Meek, 2001), and pediatric health care workers (Corbett-Dick & Bezek, 1992). These articles provide information about how health care workers can educate and assist mothers in combining work and breastfeeding beginning with prenatal education and continuing through postnatal support. Several of the authors emphasize the importance of helping the mother find a time and a place for expressing milk at work (Auerbach, 1990; Bocar, 1997; Corbett-Dick & Bezek, 1992; Gates & O’Neill, 1990). A few also provide tips about selecting a high-quality breast pump, learning to use it, and storing expressed milk safely (Bocar, 1997, Corbett-Dick & Bezek, 1992).
Bocar (1997) also provides specific strategies for maintaining one's milk supply, increasing one's milk supply, and maintaining the infant's interest in breastfeeding. While these articles offer a number of helpful suggestions, there are a number of assumptions that go unaddressed. For example, none recognize that the choice for childcare and breast pumps may be limited by financial constraints. Only two articles (Greenberg and Smith, 1991; Meek, 2001) recognize that in some workplaces it may not be possible to find time or an appropriate place to pump. Certain authors (Auerbach, 1990; Corbett-Dick & Bezek, 1992) suggest counseling women to advocate for changes in their workplace to support breastfeeding. However, no attention is given to the reality that some women may not feel empowered to advocate for changes in their workplace.

These articles fail to adequately challenge workplace norms or to give mention to the psychological and social challenges women might face in attempting to combine work and breastfeeding. The message seems to be that women should become selfless, supermom, pumping queens. Blum (1999) has suggested that messages such as these, while attempting to promote infant health, often lose sight of the health of the mothers.

That being said, there does appear to be increasing recognition that systemic changes are needed to make it more feasible for women to combine work and breastfeeding. The International Pediatric Association has urged commerce and industry to provide facilities for breastfeeding, allow flexibility in the work-day to allow for breastfeeding, and extend the maternity leave (Jelliffe & Jelliffe, 1978). General family-friendly workplace policies and workplace lactation programs are also on the rise (Betz & Fitzgerald, 1987; Marshall, 1991; Rubin, 1994; Guttmann & Zimmerman, 2000).
A few authors (Bar-Yam, 1998; Dodgson & Duckett, 1997; Wyatt, 2002) provided information to occupational health nurses and lactation consultants to assist in the development of workplace lactation support programs. All have agreed that employed breastfeeding mothers need: a breast pump, a place to pump, time to pump, a way to store pumped milk, and support from the employer. Wyatt (2002) also recognized the need to attend to women’s psychological well-being, noting that women may experience role overload when combining breastfeeding and employment. Bar-Yam (1998) also advocated for the establishment of on-site day care, such that mothers can travel to their infant to breastfeed. Bar-Yam provided specific tips for lactation consultants in working with companies, such as identifying the gatekeepers in a company, documenting and presenting a cost benefit analysis to the human resources department, attending as well as presenting at supervisory meetings, and having knowledge of the applicable legislation in the area of interest.

Certain studies have examined the impact of workplace lactation programs (Cohen & Mrtek, 1994; Ortiz, McGilligan, & Kelly, 2004) on women’s breastfeeding rates. Cohen and Mrtek (1994) found that employed women who participated in a lactation program were able to achieve breastfeeding rates comparable to the national average for non-working mothers. Ortiz et al. (2004) found that when a program was in place, 79% of new mothers who returned to work after the birth of their child attempted pumping at work and 98% of these mothers were successful at pumping for at least two weeks. Ortiz et al. also found that salaried women were more likely to express milk at work than women who were paid hourly, and this difference was statistically significant.
Other factors contributing to increased breastfeeding rates. There have been at least three forces outside of the medical field which may have contributed to the increase in breastfeeding rates during the post-industrial era: the organization of La Leche League, the development and distribution of the breast pump, and changes in WIC policies. La Leche League International was founded in 1956 and experienced substantial growth over the next several decades. This organization’s primary objective is to provide mother-to-mother breastfeeding support and counsel. La Leche League is now one of the largest self-help groups in the United States, second only to Alcoholics Anonymous (Blum, 1999).

Another factor with particular ramifications for working mothers is the invention and increased availability of the breast pump. Popular press breastfeeding books in the 1970s and early 1980s provide no mention of breast pumps (Eiger & Wendkos, 1972; Messenger, 1982). However, in the late 1980s, publications of the same vein discussed women’s breast pump options and the how-to’s of expressing milk with a pump (Dana & Price, 1987). In 1997, in the book Nursing mother, working mother: The essential guide for breastfeeding and staying close to your baby after you return to work, Pryor proclaimed that the double electric breast pump was the preferred tool for breast expression by working moms. The increased availability and decreased costs of electric breast pumps have made it more efficient to express milk and therefore made it possible for a greater number of women to continue breastfeeding upon returning to work.

The Women, Infants, and Children (WIC) program is a federally-funded program which was established through the Child Nutrition Act in 1966, with the intent to improve the health of women and children who are at nutritional risk due to low-income.
This is accomplished through nutrition education and provision of coupons for specific food items (Schweers, 1992). The WIC program has received criticism over the years because of the extremely low-rate of breastfeeding among its participants (Chezam et al., 2004; Ryan & Zhou, 2006). It has been suggested that a preference for formula has been created in program participants due to the distribution of free formula vouchers (Chezam et al., 2004; Schweers, 1992). In 1989, a bill was passed which required that a large portion of the WIC education budget be directed at breastfeeding education and promotion (Schweers, 1992).

There are a number of studies which have assessed the changes in breastfeeding rates of WIC recipients following the implementation of pro-breastfeeding programming. Long, Funk-Archuleta, Geiger, Mozar & Heins (1995) studied the changes in breastfeeding rates of Native American WIC recipients after the implementation of a peer counseling program. They found that breastfeeding initiation rates were 15% higher and duration was longer in WIC mothers after the program was established, as compared to historical controls, who did not participate in a peer counseling program.

Arlotti et al. (1998) reported the process of creating a pro-breastfeeding peer counseling program for WIC recipients and preliminary outcomes of the program. The peer counselors were all financially eligible for WIC themselves, had personally breastfed, and had a desire to help low-income mothers with breastfeeding. All peer counselors went through a training program on breastfeeding and communication. A diverse sample of 36 WIC participants was assigned to receive or not receive peer counseling. Analysis focused on predicting breastfeeding and exclusive breastfeeding based on a number of predictor variables, including group membership. The most
significant predictor of the duration of breastfeeding was the career plans of the mother, such that those who planned to return to school or work had a shorter duration of breastfeeding compared to those who planned to stay home. Other significant predictors of breastfeeding duration included support from significant others, attending a breastfeeding class, and knowing others who had breastfeed. Mother’s career plan was also the largest predictor for exclusive breastfeeding, followed by attending a breastfeeding class, and group membership.

Gross et al. (1998) examined the influence of peer counseling and motivational videotapes on the duration of breastfeeding of WIC mothers. Women who received some sort of intervention (video, peer counseling, or video combined with peer counseling) had significantly longer breastfeeding durations than women who did not receive any intervention. There were not significant differences depending on the type of intervention given.

Caulfield et al. (1998) studied the effects of motivational videotapes and peer counseling on breastfeeding initiation and continuation rates of African American WIC recipients. Four WIC sites were assigned to provide video intervention, peer counseling intervention, video and peer counseling intervention, or no intervention. The rates of breastfeeding of African American recipients from the four sites were then compared. As in the research of Gross et al. (1998), it was found that those receiving any sort of intervention had higher initiation rates and longer durations of breastfeeding, compared to those receiving no intervention, but there were no significant differences between the various interventions employed.
Chezam et al. (2004) examined the infant feeding practices of WIC recipients, receiving or not receiving lactation support. They found no differences in breastfeeding rates between those receiving lactation support and those not receiving breastfeeding support. They found race to be a significant predictor of breastfeeding, such that Caucasian women were significantly more likely to still be breastfeeding at 16 weeks compared to African American women. In exploring the reasons given for cessation of breastfeeding the two most frequently given answers were return to work/school and inadequate milk supply.

Petrova, Ayers, Stenchina, Gerling, and Mehta (2009) studied the impact of prenatal and postnatal breastfeeding education and support on exclusive breastfeeding rates in a sample of mostly Hispanic (90%) WIC mothers. Participants were randomly assigned to the intervention group or the control group. The control group received routine hospital lactation services, while the intervention group received additional breastfeeding education and support during the prenatal and postnatal periods. Exclusive breastfeeding rates were assessed at 1 week, 1 month, 2 months, and 3 months postpartum. At each assessment, the intervention group showed higher rates of exclusive breastfeeding, though the differences were not statistically significant.

Taken together, these studies suggest pro-breastfeeding programs have the potential to increase breastfeeding rates, although these findings were not entirely consistent across studies. A major focus of the programs discussed in these articles was on providing greater breastfeeding education for low-income mothers. Arlotti et al. (1998) concluded that “a greater emphasis should be placed on prenatal breastfeeding education for low-income women” (p. 174). Kloeblen, Thompson and Miner (1999)
similarly encouraged breastfeeding educators, working with low-income women, to extol the benefits of breastfeeding, while pointing out the hazards and minimizing the benefits of formula feeding.

The inconsistent findings of the studies on WIC participants, suggests that greater education may not be the only factor needed to increase breastfeeding rates. Guttman and Zimmerman (2000) found that breastfeeding and formula feeding mothers had comparable knowledge of the physical and psychological benefits of breastfeeding. Rempel and Fong (2005) found that women’s intentions to breastfeed were more strongly predicted by their affective and schema-related reasons, rather than by rational or consequential reasons. Affective and schema-related reasons are those having to do with an individual’s core beliefs and values as well as the emotions associated with them. By contrast, rational reasons are rooted in evidence and consequential reasons are based on beliefs about personal consequences. Similarly, Leeper, Milo, and Collins (1983) found that the feeding decisions of low-income women were influenced not only by knowledge, but also “covert” attitudes of the mothers. Taken together these findings suggest that many women make infant feeding decisions “from the gut,” rather than through rational thought process. Hence, merely knowing more about the benefits and rational reasons to breastfeed may not be enough to encourage breastfeeding.

Breastfeeding and work today. Given the current emphasis on breastfeeding promotion, mothers giving birth today are extremely likely to receive the message “breast is best” (Blum, 1999). Low-income women may encounter encouragement to breastfeed from several entities, including medical professionals and WIC staff.
Additionally, there are a number of popular press books available which offer recommendations for successfully combining work and breastfeeding. These books encourage pregnant moms to talk with their employers prior to going on maternity leave about the plan for maternity leave and to make efforts to extend the leave if possible (Dana & Price, 1987; Pryor, 1997). Suggestions about the best time for introducing the bottle to the infant and how to talk with child care providers about providing expressed milk feedings are also given (Pryor, 1997). Regarding the expression of milk, working breastfeeding mothers are encouraged to buy a pump and learn how to use it, reschedule breaks so that they have time to pump, find a private and comfortable place to pump, and obtain clothes they can easily nurse or pump in. Additional suggestions include expecting the transition to be difficult or even confusing, getting as much rest as possible, and eating well (Dana & Price, 1987, Pryor, 1997). These books may provide significant encouragement to the mothers who read them. However, the encouragement for breastfeeding may not extend into the workplace.

Indeed, the policies and procedures in the vast number of workplaces are still based on the breadwinner model which assumes a full-time male worker and full-time wife in the home (Berciauskas & Hull, 1989; Boris & Lewis, 2006; Marks, 2006). There has been some movement towards creating family-friendly workplace policies and lactation programs (Betz & Fitzgerald, 1987; Marshall, 1991; Rubin, 1994), but this has occurred in very few industries “such as hospitals, insurance companies, financial service companies, high-tech firms, and pharmaceutical companies” (Ball and Bennett, 2001, p. 259). Not only that, but family-friendly policies and lactation programs have often failed to address the needs of minorities and the poor (Boris & Lewis, 2006; Guttman &
Zimmerman, 2000) and the typical focus of minimizing the intrusion that family has on the work domain, without challenging the major assumptions of the workplace (Parasuraman & Greenhaus, 1997).

Additionally, women may perceive a lack of encouragement for breastfeeding from greater society, for our societal norms suggest that it is inappropriate to breastfeed in public. As put by Lawrence and Lawrence (2005):

The breast has been regarded as a sex object in the Western world for more than a century, and its biological benefits have been downplayed. This is clearly demonstrated by the conflicting mores that permit pornographic pictures in newspapers, movies, and nude theaters, but insist on the arrest of a mother for indecent exposure who is discreetly nursing her baby in public (p. 215).

A number of states have now passed laws which clarify that breastfeeding in public is not indecent exposure, even if the nipple is inadvertently exposed during the process. It is good to know that breastfeeding mothers are being protected by law, but it is a bit odd that our societal norms are such that we even have to clarify that feeding one’s infant is not a crime!

If the current promotional strategies are successful in increasing breastfeeding rates, there is little doubt that infants would benefit. In addition to the health benefits noted above, there is also mounting evidence that breastfeeding correlates with greater proximity between infants and caregivers (Kuzela, Stifler, & Worobey, 1990; Lavelli & Poli, 1998; Newton, Peeler, & Rawlins, 1968; Wiesenfeld, Malatesta, Whitman, Granose, & Uili, 1985), which may in turn lead to increased infant attachment. But what of the mothers? Schmied, Sheehan, and Barclay (2001) raised concerns about the current promotional breastfeeding strategies. They expressed concern that such strategies have caused such an intensity of commitment to breastfeeding that women have constructed
their identity of motherhood around it. As such, breastfeeding has come to be a symbol of good or successful mothering. The danger in this is that when there is a breakdown in the breastfeeding relationship, this may cause significant distress and/or disruption. Schmied et al. suggested that midwives and other health care professionals have contributed to such state of affairs by pushing breastfeeding too vehemently. Women may be receiving the message that breastfeeding is best for their child and they may desire to breastfeed as a result, but systemic factors in their lives (such as lack of workplace support, societal discomfort with public breastfeeding) may make it difficult to do so. These forces could lead women to formula-feed, but with negative emotional consequences. In order to fully understand whether such consequences might exist, it is necessary to turn to the literature on breastfeeding.

Breastfeeding

At first glance, breastfeeding appears to be a basic, physiologically sanctioned behavior. Women, along with all female mammals, are biologically equipped with the ability to breastfeed (Jelliffe & Jelliffe, 1978). Indeed, the very name “mammal” is a reference to the mammary gland (Palmer, 1988). Human infants are born with reflexes which facilitate breastfeeding, such as rooting, sucking, and swallowing. In most mammalian species, the breastfeeding process appears to be completely instinctual. Even in human babies, it has been observed that when a newborn infant is placed on the mother’s abdomen, the infant will wriggle up to the breast, root around, latch on and begin to nurse unassisted (Lawrence & Lawrence, 2005).
However, it would be erroneous to view breastfeeding as purely a biologically driven, instinctual behavior. Consider the case of a new primate mother in captivity. This primate, never having seen another breastfeeding primate, failed to nourish her infant leading to the infant’s death (Jelliffe & Jelliffe, 1978). In another instance, a primate successfully learned to breastfeed by watching videos of other primates nursing (Jelliffe & Jelliffe, 1978). Hence, social learning is essential to the success of primate lactation.

In humans, breastfeeding behavior is a complex process, which is influenced by contextual and social factors. These factors exist on both the macro- and micro-level. Macro-level influences include medical research and practices, media as well as advertising, and women’s organizations. Information from these sources contributes to the shaping, defining, and confining of breastfeeding behavior. These entities convey ideas about who should and should not breastfeed, how frequently and for how long babies ought to be breastfed, and where breastfeeding behavior is acceptable (Blum, 1999).

The micro-level encompasses the specific life experiences of mothers. This includes the voices and opinions of significant others, family members, employers/co-workers, and medical practitioners. It also incorporates financial, work, and family obligations in women’s lives. Working together, these factors influence whether a mother plans, attempts, and persists with breastfeeding her child.

This section will seek to answer three major questions related to breastfeeding: What is it, who’s doing it, and how do they feel about it? To answer the first question, literature related to the defining of breastfeeding will be discussed. The second question
will be addressed through a discussion of the information available on breastfeeding intention, initiation, and duration. Finally, the third question will be approached by detailing what is known about the social, emotional, and psychological aspects of breastfeeding.

**What is it? Breastfeeding definitions.** There has been limited consistency in the way that breastfeeding has been defined, making it difficult to compare results from various studies (Labbok & Krasovec, 1999). Many authors (Chezam et al., 2004; Gross et al., 1998; Long et al., 1995; McGovern et al., 2006; Rempel & Fong, 2005; Visness & Kennedy, 1997; Wilkinson & Scherl, 2006) have categorized breastfeeding dichotomously, such that a mother is considered to be breastfeeding or formula-feeding. This type of categorization ignores the fact that many mothers combine breast and formula-feeding. Further, studies using this type of categorization tend to group together women who engage in any daily breastfeeding behavior, despite the fact that there may be great variation within this group. Others have distinguished between mothers who exclusively breastfeed, women engaging in any breastfeeding behavior, and women who exclusively formula-feed (Arlotti et al., 1998; Ertem et al., 2001; Ryan et al., 2002; Ryan, et al., 2006; Scott, Binns, Oddy, Graham, & Diet, 2006; Wright et al., 1996). Still others have come up with their own categorization system for defining breastfeeding. For example, Cohen et al. (1995) considered a woman to be breastfeeding if she supplemented with no more than two bottles of formula per day. Dennis (2006) employed six categories: exclusive breastfeeding, almost exclusive breastfeeding, high breastfeeding, partial breastfeeding, token breastfeeding, and bottle-feeding.
In response to the inconsistency of how breastfeeding has been defined, Labook and Krasovec (1999) proposed a schema for breastfeeding definition. According to this schema, breastfeeding can be divided into three major categories: full, partial, and token. Full breastfeeding exists when breast milk is the essential component of an infant's diet, and is further divided into two subcategories: exclusive and almost exclusive. Exclusive breastfeeding means that no other liquid or solid has been given to the infant. The almost exclusive designation is given when certain liquids (water or juice), vitamins, minerals, or ritualistic feeds have been given infrequently to the infant. Partial breastfeeding is that which is supplemented with artificial breast milk (formula) or solid foods and it is divided into three subcategories. Partial breastfeeding is defined as “high” if more than 80 percent of feeds are breastfeeds, “medium” if 20-80 percent of feeds are breastfeeds, and “low” if less than 20 percent of feeds are breastfeeds” (p. 227). Finally, breastfeeding is said to be “token” when the breastfeeds are occasionally provided. These authors also suggest that it may be useful to consider a number of other factors when describing breastfeeding behavior such as the age of the infant, the frequency of feeding, and the use of expressed breast milk.

One additional note about breastfeeding definitions: Occasionally, such as in the case of Celi, Rich-Edwards, Richardson, Kleinman, and Gillman (2005), authors will specify that breastfeeding includes not only putting the infant to breast to feed, but also expressing milk and providing it to the infant in some other form (typically by bottle). In most cases, the authors will not specifically indicate whether breastfeeding includes providing a bottle containing breast milk. However, as will be seen in the review of
literature on working and breastfeeding, it is generally accepted that a woman is still considered to be breastfeeding, even if the child receives only expressed milk by bottle. In this current research, the schema of Labook and Krasovec (1999) will be used to describe and categorize the intensity of breastfeeding for participants at different points in time. However, this research is aimed at understanding how women themselves define and label their breastfeeding experiences. Hence, it seems less important to determine whether bottle-feeding a child with breast milk is truly “breastfeeding,” than to examine meanings that women make of expressing milk and having an alternative caregiver provide it to their infant in their absence.

Who’s doing it? Breastfeeding rates. In recent times there has been considerable research interest in the examination of breastfeeding rates. There are at least nine entities which have monitored breastfeeding behavior including the National Survey of Family Growth, The Pediatric Nutrition Surveillance System, the WIC Participation Characteristics Study, and the Ross Laboratories Mothers Survey. The Ross Laboratories Mothers Survey is the survey that has been designated as the official survey for monitoring progress towards the meeting of the Healthy People 2010 objectives for breastfeeding (Grummer-Strawn & Li, 2000).

The entities noted above have surveyed breastfeeding women on a national level. There have also been a large number of smaller-scale studies that have examined specific factors related to breastfeeding likelihood in a designated sample. The results from the large and small-scale studies are combined and summarized here. This review will be organized around three concepts: breastfeeding intention, initiation, and duration.
Breastfeeding intention is typically examined in the prenatal period and most often refers to the woman’s intention to breastfeed or not breastfeed (Bentley et al., 1999; Kloeblen et al., 1999; Lee et al., 2005; Mitra, Khoury, Hinton, & Carothers, 2004).

Breastfeeding initiation refers to whether a mother ever attempted breastfeeding, typically during the hospital stay (Celi et al., 2005; Fein & Roe, 1998; Ryan et al., 2002; 2005). Breastfeeding duration is generally accepted to be length of time from breastfeeding initiation until the time when the infant receives no breast milk (Arlotti et al., 1998; Chezam et al., 1997; DiGirolamo, Thompson, Martorell, Fein, & Grummer-Strawn., 2005; Fein & Roe, 1998; Grossman, Fitzsimmons, Larsen-Alexander, Sachs, & Harter, 1990; Hawkins, Nichols, & Tanner, 1987; Kerney & Cronenwett, 1991; McKinley & Hyde, 2004; Quarles, Williams, Hoyle, Brimeyer, & Williams, 1994).

Authors have sought to specify the duration of exclusive breastfeeding in addition to the overall duration of breastfeeding (Ryan et al., 2005; Scott et al., 2006).

**Breastfeeding intention.** Six studies that examined variables related to breastfeeding intention were identified (Bentley et al., 1999; Chabrol, Walburg, Teissedre, Armitage, & Santrisse, 2004; Lee et al., 2005; Mahoney & James, 2000; McKee, Zayas, & Janowski, 2004; Mitra et al., 2004). Chabrol et al. (2004) represented a variety of socioeconomic backgrounds. All the rest of these studies specifically targeted low-income mothers. Sample sizes ranged from 66 at the smallest (Mahoney & James, 2000) to 2,690 at the largest (Lee et al., 2005). Methods for each of these studies consisted either of a structured interview (Bentley et al., 1999; Lee et al., 2005), a paper and pencil survey instrument/questionnaire (Chabrol et al., 2004; Mahoney & James,
Women who intend to breastfeed are more likely to be married (Bentley et al., 1999; Lee et al., 2005), older (Bentley et al., 1999), and more highly educated (Bentley et al., 1999; Lee et al., 2005; McKee et al., 2004; Mahoney & James, 2000; Mitra et al., 2004). Those intending to breastfeed also tend to have higher incomes (Mitra et al., 2004), greater social support (Mahoney & James, 2000), and less children (Lee et al., 2005; Mitra et al., 2004). Breastfeeding intention is also related to greater knowledge about breastfeeding (Mitra et al., 2004), greater belief in the advantages of breastfeeding (Chabrol et al., 2004; Mahoney & James, 2000), and less embarrassment about pumping at work or school (Mitra et al., 2004). Individuals who are Hispanic (Lee et al., 2005) or foreign born (Lee et al., 2005; McKee et al., 2004) are more likely to intend to breastfeed while individuals who smoke (Bentley et al., 1999; Lee et al., 2005) or live in public housing (Lee et al., 2005) are less likely to intend to breastfeed. Previous breastfeeding experience (Bentley et al., 1999; Mitra et al., 2004) and greater confidence in one’s ability to breastfeed (Mitra et al., 2004) also increase likelihood of breastfeeding intention.

**Breastfeeding initiation.** Ten studies were identified which examined the variables related to breastfeeding initiation (Baranowski, Rassin, Richardson, Bee, & Palmer, 1990; Buxton et al., 2001; Celi et al., 2005; Fein & Roe, 1998; Grossman et al., 1990; Guendelman et al., 2009; Kimbro, 2006; McKinley & Hyde, 2004; Rempel & Fong, 2005; Visness & Kennedy, 1997). Three of the studies (Fein & Roe, 1998; McKinley & Hyde, 2004; Rempel & Fong, 2005) had samples consisting primarily of
White, middle-class women. Baranowski et al. (1990) and Kimbro (2006) specifically targeted low-income women, while the remaining studies had samples which were diverse in regards to income, education, and race. Samples sizes ranged from 220 at the smallest (Grossman et al., 1990) to 9,087 at the largest (Visness & Kennedy, 1997). The methods for data collection were paper and pencil surveys/questionnaires (Baranowski et al., 1990; Fein & Roe, 1998; Rempel & Fong, 2005; Visness & Kennedy, 1997), structured interviews (Buxton et al., 2001; Celi et al., 2004; Grossman et al., 1990; Guendelman et al., 2009; Kimbro, 2006) or a combination of these methods (McKinley & Hyde, 2004). Major findings follow.

Initiation of breastfeeding is highly related to breastfeeding intention (Buxton et al., 1991; Grossman et al., 1990). Mothers who initiate breastfeeding are more likely to be married (Buxton et al., 1991; Grossman et al., 1990; Kimbro; 2006; Visness & Kennedy, 1997) older (Buxton et al., 1991; Fein & Roe, 1998; Grossman et al., 1990; Rempel & Fong, 2005; Visness & Kennedy, 1997) and more highly educated (Buxton et al., 1991; Celi et al., 2005; Fein & Roe, 1998; Grossman et al., 1990; Visness & Kennedy, 1997). They also tend to have higher incomes (Buxton et al., 1991; Celi et al., 2005; Grossman et al., 1990; Visness & Kennedy, 1997), higher occupational status (McKinley & Hyde, 2004), and greater support from the infant’s father (Grossman et al., 1990). Mothers are also more likely to initiate if they are an immigrant and if it is their first child (Kimbro, 2006).

Prenatal care also seems to play a role in breastfeeding initiation as mothers who received earlier prenatal care and attended a prenatal class are more likely to initiate breastfeeding (Grossman et al., 1990). Those who are better informed about
breastfeeding (Grossman et al., 1990) have greater belief in the benefits of breastfeeding (Baranowski et al., 1990), have friends who breastfeed and are less embarrassed about it (Fein & Roe, 1998) are also more likely to attempt. Maternal and infant health factors also appear to have an influence as mothers who smoke (Fein & Roe, 1998; Grossman et al., 1990), have complications in pregnancy and delivery (Buxton et al., 1991; Fein & Roe, 1998), and those who have a low-birth weight baby (Visness & Kennedy, 1997) are all less likely to initiate.

Guendelman et al. (2009) and Kimbro (2006) specifically examined the relationship between work and breastfeeding initiation. Kimbro (2006) found that mothers who were planning to return to work were less likely to initiate breastfeeding, though this effect failed to hold when demographic characteristics were taken into account. Guendelman et al. (2009) found that breastfeeding initiation was related to the length of postpartum maternity leave such that mothers who returned to work within 6 weeks of delivery were less likely to initiate than mothers who returned within 12 weeks who, in turn, were less likely to initiate than mothers with a maternity leave in excess of 12 weeks. Guendelman et al. also found breastfeeding initiation to be associated with the nature of mothers’ work, such that those who considered their job to be managerial, fulfilling, or high in autonomy were more likely to initiate breastfeeding.

Breastfeeding duration. Twenty-three studies were found which examined factors related to breastfeeding duration (Buxton et al., 1991; Chuang et al., 2010; DiGirolamo et al., 2005; Ertem et al., 2001; Fein, Mandal & Roe, 2008; Fein & Roe, 1998; Grossman et al., 1990; Guendelman et al., 2009; Hawkins et al., 1987; Kearney & Cronenwett, 1991; Kimbro, 2006; McKee et al., 2004; McKinley & Hyde, 2004; Piper &
Seven of these studies primarily sampled White, middle-class women (DiGirolamo et al., 2005; Fein et al., 2008; Fein & Roe, 1998; Kearney & Cronenwett, 1991; McKinley & Hyde, 2004; Roe et al., 1999; Vandiver, 1997), six specifically targeted low-income mothers (Ertem et al., 2001; Hawkins et al., 1987; Kimbro, 2006; McKee et al., 2004; Racine et al., 2009; Whaley et al., 2002), and eight had a diverse sample (Buxton et al., 1991; Chuang et al., 2010; Grossman et al., 1990; Guendelman et al., 2009; Piper & Parks, 1996; Romito, 1998; Schwartz et al., 2002; Visness & Kennedy, 1997). Two studies did not provide enough information about their sample to categorize it (Quarles et al., 1994; Scott et al., 2006). Sample sizes ranged from 47 at the smallest (Hawkins et al., 1987) to 21,248 at the largest (Chuang et al., 2010).

Methods tended to be either structured interviews (Buxton et al., 1991; Chuang et al., 2010; Grossman et al., 1990; Guendelman et al., 2009; Hawkins et al., 1987; Kimbro, 2006; Quarles et al., 1994; Schwartz et al., 2002), paper and pencil surveys/questionnaires (DiGirolamo et al., 2005; Fein, Mandal & Roe, 2008; Fein & Roe, 1998; Piper & Parks, 1996; Racine et al., 2009; Roe et al., 1999; Romito, 1988; Visness & Kennedy, 1997; Whaley et al., 2002) or a combination of these two methods (Kearney & Cronenwett, 1991; McKee et al., 2004; McKinley & Hyde, 2004; Scott et al., 2006). Additionally, Ertem et al. (2001) used both structured and unstructured interviews while Vandiver (1997) utilized a combination of questionnaire and observation. Major findings follow.
Actual breastfeeding duration is related to planned duration of breastfeeding (DiGirolamo et al., 2005; Grossman et al., 1990; Kearney & Cronenwett, 1991; Scott et al., 2006; Whaley et al., 2002) as well as marital status (Ertem et al., 2001; Hawkins, Nichols, & Tanner 1987), age (Ertem et al., 2001; Grossman et al., 1990; Hawkins et al., 1987; McKinley & Hyde, 2004; Piper & Parks, 1996; Quarles et al., 1994; Racine et al., 2009; Roe et al., 1999; Schwartz et al., 2002; Scott et al., 2006; Visness & Kennedy, 1997), education (Ertem et al., 2001; Grossman et al., 1990; Hawkins et al., 1987; McKee et al., 2004; McKinley & Hyde, 2004; Quarles et al., 1994; Roe et al., 1999; Visness & Kennedy, 1997), income (Hawkins et al., 1987; Schwartz et al., 2002; Visness & Kennedy, 1997), and occupational status (McKinley & Hyde, 2004). Being a smoker or having a smoker in the home is correlated with shorter breastfeeding duration (Racine et al., 2009; Scott et al., 2006). Other factors that contribute to earlier weaning include having a low-birth weight child (Scott et al., 2006), and WIC participation (Racine et al., 2009).

Previous breastfeeding experience (DiGirolamo, et al., 2005), greater certainty about the breastfeeding decision (Buxton et al., 1991; Piper & Parks, 1996), a more positive attitude towards breastfeeding (DiGirolamo, et al., 2005; Scott et al., 2006), greater confidence in one’s ability to breastfeed (Buxton et al., 1991; Ertem et al., 2001), greater enjoyment (McKinley & Hyde, 2004), and less embarrassment about breastfeeding (Roe et al., 1999) all contribute to longer duration of breastfeeding. Postpartum depression (Racine et al., 2009) and perception of insufficient breast milk (Chuang et al., 2010) are both correlated with shorter duration of breastfeeding.
A number of in-hospital factors are also correlated with longer durations, including having a vaginal delivery (Grossman et al., 1990; Romito, 1988), earlier timing of first breastfeeding (Buxton et al., 1991), and having the newborn “room-in” in the hospital (Buxton et al., 1991). Those who nurse more frequently in the early weeks (DiGirolamo, et al., 2005; Schwartz et al., 2002; Vandiver, 1997) and do not introduce a pacifier (Scott et al, 2006) or bottle (Schwartz et al., 2002) in the first four weeks also tend to breastfeed longer. Those who have less egalitarian gender-role attitudes and greater family salience are also more likely to breastfeed for longer durations (McKinley & Hyde, 2004). Mothers tended to have shorter durations for breastfeeding if their doctor did not encourage breastfeeding, if they did not receive breastfeeding instructions at the pediatric office, and if they did not attend postpartum office visits (Racine et al., 2009).

A few studies have specifically examined the relationship of work factors and breastfeeding duration. Those who do not return to work (Chuang et al., 2010; Kimbro, 2006; Racine et al., 2009; Scott et al., 2005) and those who do not intend to return to work (DiGirolamo, et al., 2005) have longer durations of breastfeeding. Longer maternity leave (Guendelman et al, 2009; McKinley & Hyde, 2004; Piper & Parks, 1996; Roe et al., 1999; Scott et al., 2005; Visness & Kennedy, 1997), part time work hours (Fein & Roe, 1998; Racine et al, 2009), job flexibility (Guendelman et al., 2009), and availability of worksite breast pumps (Whaley et al., 2002) contribute to longer durations of breastfeeding. Longer durations of breastfeeding have also been found among mothers in manager positions (Guendelman et al, 2009) and those in professional or service occupations (Kimbro, 2006). It has been found that women are most likely to quit breastfeeding within two months before or after returning to work and that once working...
mothers have passed the two month mark after their work return date, the rate of weaning significantly decreases (Kimbro, 2006). Additionally, women who are able to feed their child directly for all feeds (by having the infant brought to them at work or traveling to the infant to nurse) had longer durations of breastfeeding than those who pumped and provided expressed breast milk to the child, who in turn had longer durations than those who did not pump or feed during the workday (Fein et al., 2008).

**Summary of breastfeeding rates.** Overall, the research on breastfeeding rates paints a picture of the prototypical breastfeeding mother as a 30-something, middle-class, educated, married woman who has had consistent prenatal care, is well-informed about breastfeeding, and has a positive attitude towards breastfeeding. Conversely, younger mothers with less education, less income, less encouragement to breastfeed, and less prenatal care are less likely to intend to or to initiate breastfeeding and, when breastfeeding, tend to breastfeed for shorter durations. Working mothers are less likely to initiate or persist compared to non-working mothers. Among employed mothers, increased rates of initiation and longer duration are related to greater work autonomy and flexibility, longer maternity leaves, part-time work hours, and greater access to the infant during the workday.

**How do they feel about it? The psychological experience of breastfeeding.** Authors of popular press books have suggested that breastfeeding may increase mothers’ confidence and contribute to a sense of pride from the knowledge that the infant is receiving the best possible nutrition (Dana & Price, 1987; Granju & Kennedy, 1999).
However, little scholarly attention has been given to exploring the psychological and social aspects of breastfeeding. As put by Schmied and Barclay (1999):

The professional literature is inundated with breastfeeding rates, identifying the characteristics of women who do not breastfeed, examining the impact of institutional practices and policies on breastfeeding, as well as implementing promotional strategies to increase breastfeeding initiation and duration while empirical work that focuses on women’s social and emotional experience of breastfeeding is less common (p. 325).

Else-Quest, Hyde, and Clark (2003) further noted that “researchers have become increasingly interested in the physiological and immunological aspects of breast milk while largely ignoring the psychological experience of breastfeeding” (p. 495). In this section, the limited amount of research that has been conducted on the social, emotional, and psychological aspects of breastfeeding will be explored.

Eight studies were found that addressed the psychological experience of breastfeeding (Blum, 1999; Ertem et al., 2001; Guttman & Zimmerman, 2000; McKee et al., 2004; Mogan, 1986; Romito, 1988; Schmied & Barclay, 1999; Wilkinson & Scherl, 2006). One of these studies focused on middle class mothers (Wilkinson & Scherl, 2006), three focused on working class mothers (Guttman & Zimmerman, 2000; Ertem et al., 2001; McKee et al., 2004) and two included both (Romito, 1988; Blum, 1999). The remaining two studies (Mogan, 1986; Schmied & Barclay, 1999) did not provide information on the socioeconomic status/income level of participants.

Sample sizes ranged from 25 at the smallest (Schmied & Barclay, 1999) to 174 at the largest (McKee et al., 2004). Several of the studies were longitudinal in nature, (Romito, 1988; Mogan, 1986; Schmied & Barclay, 1999; Ertem et al., 2001; McKee et al., 2004) involving anywhere from three to six contacts with each of the participants. All of the studies employed a qualitative approach, with maternal interview being the
primary mode of data collection (Blum, 1999; Ertem et al., 2001; Guttman & Zimmerman, 2000; McKee et al., 2004; Mogan, 1986; Schmied & Barclay, 1999; Wilkinson & Scherl, 2006). Romito (1988) used questionnaires with both open and closed ended questions. Several of the studies used some other method in addition to maternal interviews such as observation of feedings (Mogan, 1986), paper-and-pencil psychological assessment (McKee et al., 2004; Wilkinson & Scherl, 2006), participant-observations (Blum, 1999), analysis of publications (Blum, 1999), and examination of medical records (Ertem et al., 2001).

The majority of research concerning the psychological experiences of breastfeeding was conducted in the United States (Blum, 1999; Ertem et al., 2001; Guttman & Zimmerman, 2000; McKee et al., 2004; Schmied & Barclay, 1999). Studies also took place in Canada (Mogan, 1986), France (Romito, 1988) and Australia (Wilkinson & Scherl, 2006). All of the studies recruited participants who were either pregnant or had an infant, but most did not require that participants be planning to breastfeed, be currently breastfeeding, or have ever breastfed (Blum, 1999; Guttman & Zimmerman, 2000; Mogan, 1986; Romito, 1988; Schmied & Barclay, 1999; McKee et al., 2004). By contrast, Ertem et al. (2001) required that participants had initiated breastfeeding. In addition, though Wilkinson and Scherl (2006) did not mention whether formula-feeding mothers were excluded from the research, given that all of their participants had initiated breastfeeding, this may have been the case.

Differences between breastfeeding and formula-feeding mothers. Differences and similarities have been found between breastfeeding and formula-feeding mothers. Guttman and Zimmerman (2000) found that breastfeeding and formula-feeding mothers
were equally knowledgeable about the benefits of breastfeeding and both felt that the community approved more of breastfeeding. Mothers who had breastfed were less likely to see breastfeeding as inconvenient and felt that breastfeeding was more enjoyable than formula-feeding. Formula-feeding mothers felt that breastfeeding and formula-feeding were equally enjoyable, but that breastfeeding was much less convenient than formula-feeding. They were also more likely to agree that breastfeeding was restrictive for mothers (Guttman & Zimmerman, 2000).

Guttman and Zimmerman (2000) presented four themes to describe the explanations formula feeding mothers provided for choosing not to breastfeed: work and school, life circumstances, social support, and sexual connotations and embarrassment. Regarding work and school, participants felt it would be too difficult to combine work or school and breastfeeding. Formula-feeding allowed others to feed their infant in their absence. The theme of life circumstance centered on stressful life situations, including economic poverty, which made it difficult to breastfeed. The theme of social support, suggested that many of the participants felt that breastfeeding was discouraged by their friends and family members. Finally the theme of sexual connotations and embarrassment, dealt with discomfort of breastfeeding in public, or even in front of family members, because of the possibility of exposing one’s breasts.

Romito (1988) found that at five weeks postpartum, breastfeeding mothers were less likely to go out without their infant, less likely to have resumed sexual activity, and more likely to report symptoms of depression than formula feeding mothers. However, McKee et al. (2004) showed no differences in reported levels of depression or social support between these two groups. In Romito's study, the relationship between
breastfeeding and depression may have been mediated by father's involvement, because depression was also found to have an inverse relationship with the father's participation in child care. Furthermore, Wilkinson and Scherl (2006) detected no differences between breastfeeding and formula-feeding mothers on measures of psychological distress. They did find that breastfeeding mothers had significantly higher levels of secure attachment, though the levels of maternal attachment to the child were comparable. They explained this finding by suggesting that securely attached mothers are more likely to initiate and persist with breastfeeding, but that breastfeeding does not actually contribute to greater levels of attachment between mother and infant. However, McKee (2004) found that partially or exclusively breastfeeding mothers did report greater closeness to the infant at three months, as compared to women who were exclusively formula-feeding.

Guttman and Zimmerman (2000) created a typology of emotional states based on feeding choice and perceptions of the health advantages of the feeding method. Mothers who chose to formula-feed and thought that formula-feeding was equally as good for the infant were characterized as being content with their feeding decision. Mothers who formula-fed while believing that formula-feeding was not as good for the child expressed feelings of guilt or deprivation. Breastfeeding mothers who believed breastfeeding was best expressed positive feelings about breastfeeding, but also noted feeling socially constrained, because they did not think others thought it was appropriate to breastfeed in public. Finally, there were two respondents who breastfed their baby despite feeling that formula feeding was just as good for babies. These two participants expressed feeling coerced into breastfeeding.
Feelings about weaning. Several studies demonstrated that the rates of breastfeeding among their sample decreased over time (Ertem et al., 2001; McKee et al., 2004; Mogan, 1986; Romito, 1988). Mogan (1986) found that the biggest drop in breastfeeding was between two and four months. Despite evidence that many women discontinue breastfeeding, very little attention has been given to the feelings women have about weaning. Romito (1988) did find that participants who intended to breastfeed, but had weaned by five weeks expressed resentment towards the hospital staff for giving their infant a bottle without their consent or failing to give appropriate and accurate guidance about breastfeeding. Additionally, the women who weaned earlier than intended had significantly higher levels of reported depression at five weeks postpartum than breastfeeding mothers and mothers who had used formula since birth.

Feelings about breastfeeding. Romito (1988) found that women who were succeeding at breastfeeding expressed great pride and pleasure in doing so, but the participants in Schmied and Barclay's (1999) study had more varied experiences. Schmied and Barclay reported that women found breastfeeding to be either a “connected, harmonious, and intimate embodiment” (p. 328), a “disrupted, distorted, and disconnected experience” (p. 329), or a mixture of these two sentiments. The first group expressed pleasure in being able to provide for their child, confidence in their ability to breastfeed, and synchronicity with their infant. Some of these women described breastfeeding as a sensual and intimate experience with their child. By contrast, the second group said they found breastfeeding to be painful, uncomfortable, demanding, exhausting, and even disgusting. These women described breastfeeding as a “battleground” or a “fight” which gave them a sense that they were working in opposition
to their child. The mixed group struggled “with the ambiguities and contradictions between the embodied experience of breastfeeding, the pro-breastfeeding discourses of professionals and public rhetoric, and the prominent notions of rational autonomy that prevail in contemporary western society” (p. 329). Many of these women were awed in their own lactation ability, but were bothered by the intensity of the dependency of their infant on them. They often felt that their personal freedom to do what they wanted was restricted by breastfeeding.

Blum (1999) discussed the impact of class and race on women’s thoughts and feelings related to breastfeeding. Middle class (mostly White) mothers who were involved with La Leche League held strong beliefs about women’s abilities to breastfeed and expressed pride in their own breastfeeding experiences. Many of these women expressed value in the “naturalness” of breastfeeding and they expressed sensual pleasure in doing so. The White working-class mothers expressed desire to live up to the White middle-class ideals of “good mothering” with which breastfeeding was closely connected. However, many told painful stories of having their bodies fail them in some way, which interfered with breastfeeding. Many expressed concerns about the discomfort of breastfeeding in public places and this discomfort contributed to the decision of some to reject breastfeeding. White working-class women who continued to breastfeed often expressed enjoyment. However, in contrast to the La Leche League mothers, the descriptions of enjoyment were typically couched in language of “motherliness” and not in sensuality. African-American working-class mothers were also knowledgeable that “breast is best” and many had similar concerns about health issues
and public nursing. However, the African American working-class mothers expressed less conflict over the decision to formula-feed.

Ertem et al. (2001) similarly found that working class breastfeeding mothers were knowledgeable about the benefits of breastfeeding, but most were lacking in knowledge about the basic practice of breastfeeding (such as that the quantity of milk production is related to the frequency of nursing). Additionally, about a third of the sample had never seen anyone else nurse before and less than a third said that they would feel comfortable breastfeeding in public. Over half believed it would be easier to formula-feed and less than half of the mothers expressed confidence in their own ability to breastfeed for two months.

**Concerns of breastfeeding mothers.** Minimal investigation has been focused on the specific concerns of breastfeeding mothers. At two weeks, some of the most common breastfeeding concerns were: breast/nipple problems, baby-related problems, perception of insufficient milk supply, inconvenience for mother, and medical problems (Ertem et al., 2001). Mogan (1986) demonstrated how breastfeeding concerns changed over time. At two to three days postpartum, mothers expressed worry about pain during nursing, difficulty getting the baby to latch, and uncertainty about how long or often to nurse. The two most common concerns at two weeks, one month, two months, and four months postpartum were insufficient milk supply and fatigue. By six months, the breastfeeding mothers in the sample had no concerns about breastfeeding.

**Summary of the psychological experiences of breastfeeding.** The studies reviewed above offer a positive step towards understanding the social, emotional, and
psychological aspects of infant feeding. The qualitative means of data collection used in these studies provides rich descriptions of the experiences of participants. Those with open-ended questioning (i.e. Blum, 1999; Guttman & Zimmerman, 2000; Mogan, 1986; Romito, 1988; Schmied & Barclay, 1999) allowed participants to express sentiments that might not have been captured by other means. Furthermore, those using a longitudinal approach (i.e. Romito, 1988; Mogan, 1986; Schmied & Barclay, 1999; Ertem et al., 2001; McKee et al, 2004.) allowed for an examination of the changing nature of breastfeeding mothers' concerns. The studies with diverse samples (Blum, 1999; Romito, 1988) and those who targeted low-income women (Ertem et al., 2001; Guttman & Zimmerman, 2000; McKee et al., 2004) helped to frame a discourse about the unique experiences of breastfeeding, low-income mothers.

Taken together, these studies suggest that when mothers meet their goals related to breastfeeding, positive outcomes, such as pride and pleasure, follow. However, when mothers feel unsuccessful with breastfeeding or fail to meet their breastfeeding goals, they tend to express negative emotions such as disappointment, frustration, and anger. These studies also suggest that mother’s breastfeeding concerns change and decrease over time. In the earliest weeks, concerns tend to focus on getting the baby to latch and managing physical discomfort. Later, concerns shift to worries about fatigue, milk supply, and weaning.

The research focused on the breastfeeding experiences of mothers with low-income suggests that there are a variety of reasons why these women may not initiate or persist with breastfeeding. Factors influencing breastfeeding range from physical/medical (such as physical discomfort and infections), to social (such as not
having seen others breastfeed), to emotional (such as feeling embarrassed about breastfeeding), to psychological (such as lacking confidence in one’s ability). This research also suggests that the psychological impact of feeding choices is largely connected to the extent to which mothers “buy-in” to the dominant discourse about the advantages of breastfeeding over formula-feeding. Mothers who believe breastfeeding is “best,” but do not initiate or persist with breastfeeding are more likely to have negative emotional consequences than non-breastfeeding mothers who believe formula-feeding is just as good as breastfeeding.

An overarching limitation in the majority of the studies reviewed above was the omission of maternal employment as a variable of interest, raising the possibility that it confounded findings. For example, McKee et al. (2004) found that mothers who were formula feeding at 3 months had lower perceived closeness to their infants, but did not address the role that employment might play in this relationship. It is possible that returning to work might decrease a woman’s likelihood of breastfeeding at three months as well as reduce her perceived closeness to her infant. Similarly, Romito (1988) found that at five weeks postpartum, formula feeding mothers demonstrated higher levels of depression than breastfeeding mothers. It is plausible that mothers who had already returned to work or were planning to do so, would be more likely to be using formula and also more prone to depression.

We know that women are working and we know that women are breastfeeding, but we know little about women who seek to combine these life roles. In addition to the lack of focus on maternal employment, there is a lack of systematic exploration of the breadth of family context within which breastfeeding mothers live. This lack of attention
to family constellation may reflect the gendered and heterosexist bias of societal images of families. Research on the work-family interface may help provide an understanding of women who seek to combine breastfeeding and work. As such, attention will now be turned to scholarship on the work-family interface. Studies which specifically address breastfeeding and work will then be addressed.

The Work-Family Interface

The Work-Family Interface refers both to an individual’s experience of navigating work and family roles as well as to the body of research that exists on the interplay of family and work. The Work-Family Interface emerged as a distinctive area of research in the 1960s, as a greater number of women, particularly middle-class married women, began to enter the workforce (Marshall, 1991). This may indicate that as a society we did not care about the work of poor women, but that we also began to show interest in women’s employment when middle-class women went to work (Rubin, 1994). Two major themes in the work-family research have been the impact of maternal employment on children and the implications of managing multiple roles (Perry-Jenkins, Repetti, & Crouter, 2000).

Research on the effects of maternal employment on children has been mixed (for reviews see Hoffman, 2000 and Vandell, Dadisman, & Gallagher, 2000). Part of the inconsistency in findings may rest in research design. Research has neglected to consider the variety of factors related to maternal employment and children’s well-being, such as home environment, stability of childcare arrangements, and maternal anxiety (Gottfried & Gottfried, 1998). In the area of anxiety, one study found the highest anxiety among
women who were employed, but preferred to stay home (Hock, DeMeis, & McBride, 1998). Additionally, maternal anxiety has been found to bear an inverse relationship with parental sensitivity and animation, reciprocal interaction, and infant security (Owen & Cox, 1998). The fact that this area of inquiry has received so much attention over the years speaks to the collective fear that women’s work is harming children. Maternal anxiety may be related to internalized fears about harm to children due to their absence during work. If this anxiety leads to less parental sensitivity and decreased infant security, it may become a self-fulfilling prophecy. Owen and Cox’s (1998) research points to the value of understanding the internal experiences of the working mother, not only out of interest in maternal well-being, but by extension, children’s well-being.

Research on the implications for managing multiple roles has highlighted the “double burden” or “second shift” dilemma often faced by employed women. Studies through the 1950s, 1960s, 1970s, 1980s, and 1990s consistently documented that heterosexually married women continued to devote a greater amount of time to household management and child rearing than their spouses, even if working outside of the home the same number of hours per week as their spouse (Davidson & Fielden, 1999; Leslie, Anderson, & Branson, 1991; Marshall, Chadwick, & Marshall, 1991). This area of research has led to the development of two theories: the work-family conflict perspective and role enhancement theory (Barnett & Hyde, 2001).

Work-family theories. The work-family conflict perspective, which has also been called role accumulation theory, role strain theory, or role theory, is rooted in the scarcity hypothesis which states that human energy is fixed and that too many roles leads to stress, conflict and strain (Barnett & Gareis, 2006; Greenhaus & Parasuraman, 1999;
Thompson, Beauvais, & Allen, 2006; Yoder, 1999). This theory suggests that work and family demands are likely to be in opposition to one another.

According to a work-family conflict perspective there are two general types of conflicts: 1) work-to-family conflict, which occurs when elements of the working experience interfere or intrude upon the family and 2) family-to-work conflict which occurs when family interferes with work (Barnett & Gareis, 2006; Cinamon, 2006). When the term "work-family conflict" is used, this typically refers to any sort of conflict between work and family, whereas "work-to-family conflict" and "family-to-work conflict" imply a directional relationship. Within these two broad types of conflict, three specific conflicts might arise. One, time-based conflict occurs when the time-demands of one role infringe upon another role (Greenhaus & Parasuraman, 1999; Parasuraman & Greenhaus, 1997). Two, strain-based conflict takes place when the psychological stress from one role "spills over" into the other (Greenhaus & Parasuraman, 1999; Parasuraman & Greenhaus, 1997). And three, behavior-based conflict takes place when the expected behavior in one role is different from the behavior that is expected in another (Greenhaus & Parasuraman, 1999; Parasuraman & Greenhaus, 1997).

Role enhancement theory, which has also been called expansionist theory, assumes that human energy is an expandable quantity, and that having multiple roles is not inherently harmful, but may even be beneficial (Barnett & Gareis, 2006; Barnett & Hyde, 2001; Greenhaus & Parasuraman, 1999; Yoder, 1999). The primary principles of role enhancement/expansionist theory are as follows. One, multiple roles tend to be beneficial for both men and women. Two, the benefits of multiple roles are related to a number of factors including, but not limited to: increased self-complexity, opportunity for
social support and income, and the possibility that success in one role may help to buffer the effects of stress or failure in another role. Three, there are certain upper limits to human energy and available time, such that overload may still occur. And four, men and women are more similar than different with psychological gender differences not being immutable (Barnett & Gareis, 2006).

Both theories have generated a substantial amount of research and resulted in interesting findings. Work-family conflict has been found to be related to negative outcomes such as decreased life and job satisfaction, increased incidence of psychiatric symptoms (depression, anxiety, anger), and increased substance use (Adams, King, & King, 1996; Bedeian, Burke, & Moffett, 1988; Grandey, Cordeiro, & Crouter, 2005; Kossek & Ozeki, 1998; Noor, 2004; Perrone, Ægisdottir, Webb, & Blalock, 2006; Thomas & Ganster, 1995; Thompson et al., 2006). Work-family conflict has further been found to be related to decreased work performance and increased absenteeism, tardiness, and turnover (Butler & Skattebo, 2004; Frone, Yardley, & Markel, 1997; Thompson et al., 2006).

Research on role enhancement theory, on the other hand, indicates that multiple roles contribute to greater happiness, optimism, satisfaction, self-esteem, overall physical well-being, and decreased anxiety and depression (Barush & Barnett, 1987; Coleman, Antonucci, & Adelmann, 1987; Gove & Ziess, 1987). Research supports the idea that the greater the number of roles one has, the better their psychological state tends to be (Gove & Ziess, 1987). However, it has also been suggested that it is not necessarily the number of roles that an individual occupies, but the quality and the meaning individuals make of their roles (Baruch & Barnett, 1987; Gove & Zeiss, 1987). One study found that the...
psychological advantages of working were most pronounced for those in the working class (Hoffman, 2000). However, it has also been shown that women may not psychologically benefit from working if they do not have spousal support (Eckenrode & Gore, 1990b).

There has been a limited amount of research that has examined both work-conflict/role strain theory and role enhancement/role accumulation theory within the same study, with mixed results. Certain research has found support for role enhancement theory, but not for role conflict (Burr, McCall & Powell-Griner, 1997; Fuller, Edwards, Vorakitphokatorn & Sermsri, 2004; Rozario, Morrow-Howell, & Hinterlong, 2004). Alternately, evidence has been found for role conflict theory, but not for role enhancement (Edwards, Zari, Stephens, & Townsend, 2002; Kim, Baker, Spillers & Wellisch, 2006). Others failed to find support for either perspective (i.e. Aldous & Klein, 1991; Eisenhower & Blacher, 2006). Still others have found some evidence for both theories (Mastekaasa, 2000; Penning, 1998; Stack, 1998). Interestingly, it has been suggested that both role conflict and role enhancement theory may be at work and that the effects of one may offset or counterbalance the effects of the other (Mastekaasa, 2000; Stack, 1998).

Authors have suggested that the relationship between life roles, psychological, and health related outcomes is more complex than either one of these theories suggests (Eisenhower & Blacher, 2006; Elgar & Chester, 2007). In a review of maternal employment research, Elgar and Chester (2007) stated that neither work-conflict theory nor role enhancement theory were sufficient to capture "the complexities associated with maternal employment and psychological functioning" (p. 6). They proposed that a
unified approach be taken, integrating both theories. Voyandoff (2002) offered a model for explaining the links between the work-family interface and outcomes, which included both work-family conflict and role enhancement. Voyandoff argued that social categories (race, social class, and gender) and coping resources serve as moderators between work and family characteristics and work-family conflict or role enhancement. That is, the social categories to which an individual belongs and the availability of coping strategies may determine whether conflict or enhancement is experienced. This current research will seek to evaluate the utility of these theories for understanding the narratives of women related to breastfeeding and work, while being open to the fact that both theories may be contributing.

**Work-family interface research and the working class.** A number of authors have noted that the work-family scholarship has had a bias towards the middle-class experience (Kossek & Ozeki, 1998; Lewis & Cooper, 1999; Marks, 2006; Perry-Jenkins & Gillman, 2000). As put by Perry-Jenkins and Gillman (2000):

> Little information is available on how parents, with fewer financial resources and in less upwardly mobile occupations than their dual-career counterparts, experience the work-family interface. Even less is known about the linkages between employment experiences and family life in single-parent families (p. 124).

Indeed, most of the research on work-family conflict and role enhancement has focused on the experiences of women in professional positions (Bromet, Dew, & Parkinson, 1990). This research has shown that employees with young children are the most likely to have conflict (Eckenrode & Gore, 1990a), women experience more conflict than men (Eckenrode & Gore, 1990a; Emmons et al., 1990; Grandey, Cordeiro, & Crouter, 2005; Greenberger & O’Neill, 1990; Thompson et al., 2006), and single mothers
experience more conflict than their married counterparts (Perry-Jenkins & Gillman, 2000). Certain individual factors make a person more likely to develop conflict such as inadequate coping behaviors, lack of social support, background and concurrent stressors, dispositional characteristics, and role salience (Eckenrode & Gore, 1990b; Goldberg, Greenberger, Hamill, & O’Neil, 1992; Hemmelgarn & Laing, 1991; Noor, 2004).

Research has also shown that the greater number of hours worked, the greater the likelihood of conflict (Thompson et al., 2006) and that job characteristics such as inflexibility, low job security, unpredictability, monotonous work, greater workplace demands, and lack of supervisory or organizational support have the effect of increasing conflict likelihood (Thomas & Ganster, 1995; Thompson et al., 2006; Voydanoff, 2004). Also, it has been found that work-to-family conflict is more prevalent than family-to-work conflict (Eagle, Miles, & Icenogle, 1997). Rubin (1994) found inflexibility, low security, and monotony to be common characteristics of the working of low-income individuals. One might expect, therefore, that employed mothers of low-income would be likely to experience work-family conflict.

The minimal amount of research on the work-family interface of low income women has demonstrated the presence of conflict. Bromet et al. (1990) found that women working in a factory experienced work-family conflict and that this conflict was associated with depressive symptoms, anxiety symptoms, and alcohol use. Rubin (1994) found that many working class mothers expressed anxiety over being a “good mother” and worried about not being present enough to their children. At the same time these mothers indicated that they felt compelled to work out of economic necessity.
However, there is at least some evidence that working class individuals experience role enhancement as well. Hoffman (2000) found that the psychological advantages of working were most pronounced for those in the working class. Gerstel and Sarkinsian (2006) suggested that for minorities and those of lower socio-economic status, work may actually be seen as a part of good mothering, rather than being opposed to it. Thompson and Walker (1989) suggested that “although their jobs are often worrisome and wearisome, most working-class women take pride in their trade, welcome contact with other people, and enjoy the recognition and respect that accompanies a paycheck” (p. 852).

Hence, there is some evidence that the principles of both work-conflict theory and role enhancement theory may help to understand and describe the working experiences of low-income women. However, there has simply not been enough research on the work-family interface of working class families to make any conclusions. As will be seen in the section to follow, there is also a limited amount of research on the interface of breastfeeding and work. Further, there appears to be even less research on the interface of breastfeeding, work, and women of low income.

The Interface of Breastfeeding and Work

Interestingly, in the literature on the work-family interface, breastfeeding is almost entirely ignored, even in studies that are specifically about mothers during the first year of their infant’s life (i.e. Glass & Riley, 1998; Gottfried, Gottfried, & Bathurst, 1998; Hock et al., 1998; Owen & Cox, 1998). Yoder (1999) discussed the biological similarities and differences between men and women and differential work-family issues
faced, but at no point was breastfeeding mentioned. Similarly, Thompson and Walker (1989) reviewed the research on the roles of men and women across three domains—marriage, work, and parenthood—but never mention breastfeeding. They concluded that “researchers should never assume that any domain of family life belongs exclusively to either women or men” (p. 864). However, breastfeeding is a domain that is clearly exclusive to women. Therefore, it seems important to examine the implications that breastfeeding might have on how a mother experiences the work-family interface.

Despite the silence of work-family scholarship on breastfeeding, a number of authors in the breastfeeding domain have used the language of the work-family interface to discuss the experiences of employed breastfeeding mothers. For example, Bar-Yam (1998) suggested that women who are both breastfeeding and working may experience significant role conflict and that “these conflicts are both psychological/emotional and logistical” (p. 322). Lindberg (1996b) similarly framed the difficulties of working breastfeeding mothers as that of role conflict and suggested two types of role conflicts: structural and attitudinal.

Cardenas and Major (2005) specifically suggested that the work-family conflict framework may be useful for understanding the experiences of women who seek to combine breastfeeding and work. They provide examples of the three types of work-family conflicts (time-based, strain-based, and behavior-based) that might be experienced. A primary example of a time-based conflict is difficulty finding enough time in the workday for pumping milk or directly breastfeeding one’s child. An example of a strain-based conflict would be if the stress of the job impedes lactation. This could occur because stress-based hormones tend to decrease milk production and make let-
down more difficult. Finally, a behavior-based conflict might occur if the breastfeeding behaviors (such as using a breast pump to express milk) are not permitted or acceptable in the workplace.

**Breastfeeding and work: Middle-class mothers.** Ten studies were identified that examined the work-related experiences of breastfeeding mothers, eight of which primarily focused on middle-class mothers. Auerbach (1984) was interested in studying the problems encountered by working breastfeeding mothers. Requests for participants in the study were published in five widely-read magazines and journals, catering to mothers or to working women. A total of 660 women responded to the requests and were sent a four-page questionnaire. The questionnaire consisted primarily of open and closed-ended questions about the logistics of combining breastfeeding and work and the challenges faced in doing so. A total of 567 breastfeeding employed mothers completed the questionnaires. The majority of the sample was married (94%) and White (95%). The women represented a variety of occupations including “factory workers, police officers, attorneys (sic), physicians, teachers, nurses, flight attendants, secretaries, writers, engineers, bill collectors, and waitresses” (p. 18). Questions about income level of the participants did not appear.

The majority of the sample (75%) returned to work within 12 weeks of the birth of their child. About half (48%) returned to work full-time, 30% returned to work between 20-39 hours a week, and the remaining 22% worked less than 20 hours a week. Respondents identified 30 obstacles to combining the roles of employee and breastfeeding mother. The most frequently cited obstacles were fatigue (cited by 184 respondents; 32% of the sample), difficulty finding time to express milk (164
respondents; 29%), worry about milk supply (153 respondents; 27%), no time for self (132 respondents; 23%), unhappy leaving the child (88 respondents; 16%), and breast engorgement (83 respondents; 15%). Despite the number of obstacles encountered, the overwhelming majority (82%) of participating mothers said they would breastfeed while working again (Auerbach, 1984).

Strengths of this research (Auerbach, 1984) include the representation of an impressive number of respondents and variety of occupations. However, the research is limited by sample characteristics, in that the sample was almost entirely White and no information about the incomes of the participants was provided. Furthermore, given the manner of participant recruitment, the sample was limited to the readership of those magazines and journals (which likely over-represents women of higher educational attainment). Another limitation is that no attempt was made to determine if the obstacles faced by women differed in quantity or quality based on occupation. A final limitation is that the sample consisted of self-selected women who had combined breastfeeding and work and were willing to talk about it. Therefore, this research cannot speak to the experiences of women who faced such significant obstacles that they were unable to breastfeed or to those who had a negative experience and may be less likely to want to share it.

Morse and Bottorff (1988) examined the emotional experiences of women who express breast milk. No information is given about the manner in which participants were recruited for this research; merely that it is part of a larger longitudinal study on the experiences of breastfeeding mothers. However, it is stated that the sample consisted of 61 highly-educated breastfeeding women whose mean age was 29.8 years old (range 19-
Monthly semi-structured telephone interviews were conducted with participants beginning in the first two months of their infant’s life. This particular article focuses on the interview responses that related to the expression of breast milk.

Grounded theory was used to analyze the dominant themes in the data. Three themes were identified. The first theme was called “tolerating the objectionable” and captured the idea that though the expression of milk was an unpleasant, uncomfortable, and even an embarrassing task that the mothers saw it as a “necessary evil.” Morse and Bottorff (1988) labeled the second theme “loosening the ties” which spoke to the idea that women saw expression of milk as a way for them to have greater freedom from their infant without the guilt of providing less-than optimal nutrition by resorting to formula. The third theme, “proving the milk is there,” encapsulated the idea that mothers saw the quantity of milk as being an indicator of the success (or failure) of lactation.

Morse and Bottorff (1988) also studied the data with an eye to understand the stories of breastfeeding success and failure. Mothers who told stories of failure experienced breast expression as messy, painful, animal-like, and embarrassing. Many reported having difficulty achieving a letdown and getting enough milk. These experiences were accompanied with feelings of inadequacy, failure, and anger. Women who “failed” at breast expression, chose between two courses of action: adjusting one’s life such that one was always present to the infant for feeding or using mixed methods of feeding, such that the infant received formula when the mother was not present, but the mother continued to breastfeed when they were together. Mothers who indicated success with breast expression were confident in their ability to express milk and comfortable
with the idea of expressing. For them, expressing was “an essential part of breastfeeding bringing additional rewards and gratifications” (p. 169).

A major limitation in the research of Morse and Bottorff (1988) was the failure to describe how their sample was obtained and the limited information about the demographics of the sample. No information was provided about the income level or the ethnic/racial make-up of the participants. However, given the high level of education of the women, it is likely that the sample was middle-class. It therefore adds to the understanding of the experiences of middle-class women who breastfeed and work, but does not provide insight into the experiences of low-income mothers who attempt to do the same.

The following year (1989) Morse and Bottorff published another study, which appears to draw from the same sample, but this time focused on the overall process of returning to work while breastfeeding. Again, little information is provided about the manner in which participants were recruited. The sample characteristics are the same as the previous study. Monthly interviews were conducted with the mothers beginning within two months of delivery and continuing until the infants were weaned or turned one year, whichever occurred first. For eight of the participants, a prenatal interview was also conducted. For all others, information about their prenatal thoughts about breastfeeding was assessed retrospectively in the postnatal interviews.

Of the 61 women sampled, 36 of these women “successfully” combined breastfeeding and employment. Nineteen stopped breastfeeding before returning to work and four stopped breastfeeding within four weeks of returning to work (one participant quit her job and an additional one moved out of the area). Many of the mothers who
weaned before returning to work reported obstacles to working and breastfeeding, such as having no time or space for expressing milk at work. Many mothers who continued to breastfeed felt that continued breastfeeding would help to ease the transition back to work (Morse & Bottorff, 1989).

Grounded theory analysis was performed to code the data and identify conceptual categories. This analysis resulted in four conceptual themes. The first concept was “playing it by ear” which centered around the idea that women expressed their preferences for breastfeeding as hopes and resisted setting firm goals for breastfeeding because they felt they could not predict what obstacles they would encounter or how they would feel when returning to work. The second theme, “preparing for the worst” encapsulated the idea of making detailed plans and back-up plans to prepare for worst case scenarios such as infant illness or reduction of milk supply. The third concept was “timing it right.” This meant that women felt it was necessary to resist returning to work until they and their infant were ready. For some mothers this meant not returning to work until the infant had weaned, while for others this meant delaying the return until they were prepared to express milk. The final conceptual theme was “gearing up” which dealt with the preparations mothers made, prior to returning to work, so that they were ready to face the transition. This included personal organization and seeking support from others in their life, such as husbands and child care providers (Morse & Bottorff, 1989).

The limitations of this research (Morse & Bottorff, 1989) are the same as the 1988 publication of Morse and Bottorff. In this article they also did not describe how the sample was obtained and only provided limited demographic information about the participants. The study does help provide understanding of how some breastfeeding
women experience and cope with the transition back to work. However, little information is provided about the characteristics of the sample.

Chezam et al. (1997) examined the feelings of employed mothers after cessation of breastfeeding. Potential participants were recruited from obstetric clinics and prenatal classes at a large Midwestern hospital. Women were considered eligible to participate if they were planning to breastfeed, planning to return to work within the first year of their infant’s life, had no previous breastfeeding experience, and were between the ages of 18 and 40. A total of 68 women agreed to participate in the study. The demographic make-up of the sample was predominantly White, college-educated, and higher income. Structured interviews were conducted by phone with the participants during their third trimester of pregnancy and then at 6 weeks, 3 months, and 6 months postpartum. The data was coded as quantitative data and a number of descriptive and inferential statistical analyses were conducted.

Fifty-three of the participating women returned to work by six months postpartum, 36 of whom continued to breastfeed while employed and 17 of whom weaned prior to returning to work. Breastfeeding durations were not found to be significantly related to age, education, or prenatal confidence. These authors (Chezam et al., 1997) do not report on whether breastfeeding duration was related to work variables. However, they did report that many of the working mothers who continued breastfeeding did not meet their goals for the duration of exclusive breastfeeding, meaning they introduced formula earlier than they had intended. At six months postpartum, women who did not achieve their prenatal plan for infant feeding were found to have
significantly higher levels of subjective sadness and guilt (each rated on a single likert scale item) compared to women who achieved their prenatal plan for infant feeding.

There are limitations to this study (Chezam et al., 1997). Once again, the sample characteristics are such that the study helps to understand the experiences of middle-class breastfeeding women who are returning to work, but does not address the experiences of working class mothers. Additionally, the quantitative nature of the data collection limited the depth of information about the participants’ actual experiences. The researchers might have considered supplementing with a few open-ended questions to allow the women greater freedom in describing their experiences. One additional limitation is that a single item measure was used to assess emotions. The research might have been strengthened by developing a multiple item scale for each emotion, or using an established measure.

McKinley and Hyde (2004) sought to determine if personal attitudes (such as family salience and gender-role attitude) or structural variables (such as workplace flexibility) were better predictors of breastfeeding duration for employed and non-employed mothers. Potential participants were recruited from private and public medical clinics. Women were considered eligible for participation if they were currently in their second trimester of pregnancy, living with the father of the child, and were over the age of 18. A total of 570 women participated prenatally and 548 were still in the study at 4 weeks postpartum. The authors state that they made an effort to recruit a diversity of respondents, but the majority of the sample was White (93%), highly educated (mean years of education was 15.02) and somewhat older than the average age at childbirth.
(mean 29.36, range 20-43 years). The researchers acknowledged that the requirement of living with the child’s father may have decreased the diversity of the sample.

Participants were assessed during their second trimester of pregnancy and then at 4 weeks, 4 months, and 1 year postpartum. At each time of data collection, an interview was conducted in each participant’s home and additional data was collected through a mail-out questionnaire. Information sought in the interviews included that related to breastfeeding intentions, enjoyment of breastfeeding, length of maternity leave, and perceptions of work flexibility. The mail-out questionnaire included Nevill and Super’s (1986) Salience Inventory (to assess work and family salience) and the Traditional Egalitarian Sex Role Scale (to measure gender role attitudes; Larson & Long, 1988).

Reliability and validity information is provided for two scales used. Data was treated as quantitative and regression analysis was performed to determine whether breastfeeding duration could be predicted better by personal attitude variables or by structural factors (McKinley & Hyde, 2004).

Structural variables (workplace flexibility and length of maternity leave) served as greater predictors of breastfeeding duration than the personal attitudes variables (work salience, family salience, breastfeeding enjoyment, and gender-role attitude). The predictive ability of the structural variables remained significant even when the personal attitude and demographics variables were entered first into the regression model. These authors conclude that “if we construct breastfeeding only as a personal choice, we will not be able to understand how structural factors shape women’s decisions or even determine which behaviors are possible” (McKinley & Hyde, 2004, p. 397).
As is the case with the other articles cited above, a limitation of this study (McKinley & Hyde, 2004) is the lack of diversity within the sample, which limits generalizability of the findings. However, a strength of this study is the recognition that the structural variables of the workplace are influential to the breastfeeding behavior of women. Though the sample did not include many working-class individuals, it might be expected that working-class mothers experience structural barriers in the workplace as well and perhaps to an even greater degree.

Rojjanasrirat (2004) examined the barriers faced and coping strategies used by breastfeeding women returning to work. Participants were recruited from two community-based hospitals and one teaching university hospital in a large mid-western city. Women were considered eligible to participate if they planned to breastfeed, planned to return to work, were 18 or older, and only had one child. A total of 50 women agreed to participate. All participants were White and the vast majority were married (92%). Education levels ranged from completion of some college to holding a graduate degree. Family incomes were above $24,000 per year. At 16 weeks postpartum, participants completed an open-ended questionnaire exploring workplace factors which hinder and/or enhance breastfeeding in the workplace, coping strategies used for maintaining lactation, and suggestions for other breastfeeding mothers.

A content analysis was used to code and categorize the data. Four themes emerged from this analysis. The first theme, support, dealt with the emphasis these participants placed on having emotional, instrumental, and informational support when attempting to juggle breastfeeding and work. The second theme, attitude, surrounded the belief that successful breastfeeding while working requires determination, commitment,
assertiveness, dedication, and belief in the benefits of breast milk. The third theme was labeled “strategic plan” and captured the importance participants placed on having an organized plan for managing one’s time, maintaining milk supply, and keeping up one’s physical health. Finally, the fourth theme, psychological distress, dealt with the experience of stress and guilt faced by many participants when trying to combine breastfeeding and work (Rojjanasrirat, 2004).

Strengths of this research (Rojjanasrirat, 2004) were the open-ended format and qualitative analysis which allowed women the freedom to tell their stories. A major limitation, however, is the demographic make-up of the sample. As with all of the studies reviewed in this section, this study only addressed the breastfeeding and work interface of middle-class mothers.

Gatrell (2007) sought to understand the experiences of mothers of pre-school aged children who were also engaging in professional work. A sample of 20 mothers residing in the United Kingdom were recruited through snowball sampling. Participants met the following criteria: 1) held a first degree, 2) worked in a professional or managerial role, 3) had a preschool aged child, and 4) were living with the father of the child. One in-depth interview was conducted with each participant (interviews lasted 4-8 hours in length).

Gatrell (2007) identified several themes expressed by the participants in this study. These were: giving up, 'veiling' the tired and leaky body, feeding babies from the breast, and expressing milk at work. The theme of "giving up" described how six of the moms ceased breastfeeding in anticipation of returning to work, and another two weaned within one month of returning, all because they felt their work arrangement was
incompatible with breastfeeding. The theme "'veiling' the tired and leaky body" was constructed based on a single participant who described how she felt like she had to hide the fact that she was lactating from her co-workers, hence leading her to wean. The theme "feeding babies from the breast" indicated that two of the participants were able to continue nursing directly during the workday, though they were careful to find a place off-site to do so. Finally, "expressing milk at work" explained how nine of the moms were able to continue breastfeeding by expressing milk at work, though several found it a challenge to find a suitable location. Gatrell concluded that there is significant conflict between health guidance and workplace attitudes when it comes to breastfeeding and that informing employers about the benefits of breastfeeding may not be enough to change workplace attitudes.

A major strength of Gatrell's (2007) research is the depth of information obtained from each of the participants about their breastfeeding and work experiences. However, this research has a few limitations as well. One limitation is that no information is provided about the specific data analysis process. Another is that only a limited number of quotes are provided for a limited number of participants for each of the themes described. In fact, one of the themes only has quotes from a single participant. These two limitations make it hard to determine the credibility of the research findings. Additionally, since this research was conducted in the United Kingdom, it cannot be assumed that the results are readily transferable elsewhere, where broad difference in work may exist.

Payne and Nicholls (2010) reported on the experiences of breastfeeding employed mothers residing in New Zealand. Participants were recruited through flyers,
newspapers, and word-of-mouth. A sample of 20 participants was obtained who had given birth in the last 2 years and had continued to breastfeed upon returning to work postpartum. No information is provided about the characteristics of this sample. Participants were interviewed individually or as part of a focus group about the factors that influenced their decisions related to breastfeeding and work. The transcripts of the interviews and focus groups were examined using "Foucauldian" analysis which uses "notions of subjectivity, technologies of power, and the self" (p. 1811).

The analysis of Payne and Nicholls (2010) concluded that the women used two moral subjectivities to navigate their roles as worker and breastfeeding mother. The first moral subjectivity was that of "the good mother." This meant that mothers saw themselves as promoters of their infant's health through the practice of breastfeeding. The desire to be a "good mother" provided motivation to figure out strategies for continued breastfeeding including stockpiling milk and maintaining supply through milk expression. The second moral subjectivity was that of "the good worker." These mothers sought to minimally disrupt their work routines and environment with the task of breastfeeding so that they could continue to be regarded (by themselves and others) as a "good worker." For many of the mothers this meant that the task of breastfeeding was often hidden from their employer.

A strength of this research (Payne & Nicholls, 2010) is that it provided an in-depth exploration of the experiences of employed breastfeeding mothers. A major limitation of the research is that no information is provided about the characteristics of their sample, making it difficult to know who these results might be transferable to.
However, since it was conducted in New Zealand, even if characteristics were provided, it may not be transferable elsewhere.

**Summary.** Though it has been suggested that a work-family conflict framework may be useful for understanding the interface of breastfeeding and work (Cardenas & Major, 2005), researchers in this area have not made attempts to connect findings to work-family theories. Despite this, careful consideration of the research reviewed above reveals evidence to support both the work-family conflict theory and the theory of role enhancement. In support of work-family conflict theory, working breastfeeding mothers have stated that they often struggle with finding time and places to express milk, they see the task of expressing milk as being unpleasant and unwelcomed in their workplace, and they feel sad and guilty when their plans related to work and breastfeeding are not realized. Working breastfeeding mothers indicate that they have to make extensive plans and back-up plans in order to successfully combine breastfeeding and work, suggesting that they are preparing for conflicts that might arise. The fact that work-place flexibility is related to breastfeeding duration suggests that conflict might be more likely to occur in work settings that lack flexibility, which then impacts a mother’s ability to continue breastfeeding while working. There is also evidence that women experience negative outcomes when they do not see themselves as being successful at combining work and breastfeeding.

Conversely, many mothers noted positive aspects of continuing to breastfeed while working, which suggests that their wellbeing might be enhanced by embracing both of these life roles. Specifically, mothers have suggested that expressing milk relieves some of the guilt of leaving the infant, provides them the freedom to work, reassures
them of adequate lactation, helps them feel like a "good mother," and helps with the transition back to work. Mothers may be motivated to return to work after the birth of a child because it allows them to maintain the identity of the "good worker." Additionally, women who have combined work and breastfeeding, even when facing struggles, have overwhelmingly suggested that they would do it again.

The overarching limitation of this research is that it has almost exclusively been conducted on women who are highly educated, White, and middle-class. In addition, little attention has been given to the family contexts within which these mothers live, including whether they are partnered or married and whether experiences vary across sexual orientation. One study did find that workplace flexibility is related to breastfeeding duration, but the research has not explored whether the types of obstacles faced by mothers differ as a result of job type, nor if women of lower socioeconomic status experience the interface of breastfeeding and work differently than middle-class mothers. As will be seen in the section to come, only two studies were found which addressed the interface of breastfeeding and work for mothers of low-income.

**Breastfeeding and work: Mothers of low-income.** Authors have suggested that low-income women may face greater challenges to combining work and breastfeeding. Lindberg (1996b) suggested that “women in unskilled and blue-collar jobs have greater conflicts with breastfeeding than other women because these occupations have relatively less job autonomy and flexibility that probably relate to the ability to combine behaviors” (p. 248). Cardenas and Major (2005) provided an example of an assembly line worker to illustrate this point. They state that the time demands of jobs like that of an assembly line
worker may make it difficult to find time to express milk at work and therefore create more behavior based-conflict for individuals in these occupations.

Despite the suggestion that low-income breastfeeding women may experience greater conflict when returning to work, only two studies were identified which actually addressed the work and breastfeeding experiences of low-income mothers. Thompson and Bell (1997) recruited participants by mailing out consent forms to 150 mothers who were receiving WIC support and had an infant between the ages of 6 months and one year of age. Individuals who were interested in participating were asked to return a signed consent form along with their contact information. A total of 38 women returned the form and agreed to participate in the study. Data was collected through a telephone-administered, semi-structured questionnaire, with open-ended questions. Questions elicited the participants’ perspectives on the barriers to combining breastfeeding and work, workplace characteristics that would make it possible to combine breastfeeding and work, strategies for maintaining milk supply, and advice they would give to other breastfeeding women returning to work. Demographic information was also gathered.

The majority of the sample was White (68%), and had attended some college or vocational school (53%). The average age of participants was 27.1 years (range 16-36 years). The average number of hours worked per week by these mothers was 32.65. The average age of the infant at the time they returned to work was 3.3 months and the typical length of breastfeeding was 4-8 months (Thompson & Bell, 1997).

The authors (Thompson & Bell, 1997) analyzed each open-ended question separately to identify themes expressed by the participants. Four themes were found related to workplace barriers discouraging breastfeeding: having a boss who was not
understanding or supportive; having difficulty getting break time to use a breast pump; having problems finding an appropriate place to pump other than a shared employee restroom; and not having an appropriate place to store pumped breast milk. For women who were able to continue breastfeeding, there were three workplace characteristics which made this possible: flexibility in the work schedule; support from a superior; and on-site daycare. The participants suggested two strategies for maintaining milk supply: frequent use of a breast pump and eating and drinking enough healthy foods and beverages. The advice offered by these mothers for other breastfeeding mothers returning to work was to keep a good attitude/sense of humor, and to anticipate challenges that might come along.

This study (Thompson & Bell, 1997) demonstrates a positive step in beginning to understand the interface of work and breastfeeding for women of low-income. However, this study does have a number of limitations. One of the limitations of this study was that data collection was limited to the four open-ended questions. Women were not asked to describe their personal experiences with breastfeeding or the feelings that they had about them. Another limitation is that only 10 of 38 participants were still breastfeeding at the time the data was collected, raising the issue of retrospective data collection. Also, data was only collected at one point in time. Richer data might be achieved by following women longitudinally (such as was the case for several of the studies on middle-class women) in order to fully understand their experiences over the course of time.

Rojjanasrirat and Sousa (2010) used a qualitative design to examine the perspectives of low-income pregnant women on breastfeeding and work. Participants were recruited through WIC clinics by use of purposive and snowball sampling. A total
of 17 pregnant women participated in a focus group. Five focus groups were conducted with 3-5 participants in each. Participants ranged in age from 19-35, 11 were single, and most had finished high school or some college. Ten participants were White, six African American, and one Hispanic. Transcripts from the focus groups were coded and themes were identified.

Rojjanasrirat and Sousa (2010) identified five themes. The first theme, "perceived benefits of breastfeeding," described how the participants understood that breastfeeding was beneficial for the health of the infant and mother. The second theme, "general perceptions of breastfeeding," encompassed participants' attitudes towards breastfeeding, which ranged from determination to do it, to uncertainty about it, to discomfort with it. The third theme, "maternal concerns," captured participants' worries about breastfeeding including concerns about maintaining adequate supply, figuring out how to pump at work, and dealing with demand and pain related to breastfeeding. The fourth theme, "having the right support," described how the participants stated that their ability to combine breastfeeding and work would be largely dependent on the amount of support they receive from others. Finally, the fifth theme, "anticipated challenges of combining breastfeeding and work," indicated that the participants were already anticipating specific conflicts they would face related to breastfeeding and work (some expressed uncertainty about how they would handle it, others stated they would have to choose their job over breastfeeding, and others suggested they would sacrifice their job to continue breastfeeding).

The primary strength of the research conducted by Rojjanasrirat and Sousa (2010) is depth of information captured from participants, made possible by the qualitative
design. One limitation is that data was only collected at one point in time, when the participants were pregnant. This provides information on their prenatal perspectives about breastfeeding and work, but does not describe their actual experiences with these roles. A longitudinal design which collects data both before and after the return to work would provide greater information.

**Summary.** These two studies suggest that women of low-income are knowledgeable about the benefits of breastfeeding and are aware of the strategies for maintaining adequate supply. However, these women reported a range in their level of comfort or commitment to breastfeeding and acknowledged challenges in combining breastfeeding and work. Low-income women may struggle to figure out when and where to pump at work. These mothers are most likely to be successful if they have support from others (especially superiors), have a flexible schedule, and have access to their child during the workday.

A limitation of both of the studies exploring breastfeeding and work among low-income mothers was that data was only collected at a single point in time. Furthermore, very few participants were currently breastfeeding. The participants of Rojjanasrirat and Sousa (2010) had not yet had their child and the majority of the participants of Thompson and Bell (1997) had already weaned. Hence, in one case, participants were anticipating what it might be like to combine breastfeeding and work, while in the other case participants were relying on memory to describe what the experience was like. A longitudinal design which follows low-income women as they return to work may provide greater information about the actual experiences of women of low-income who seek to combine these roles.
Conclusion

Medical organizations have endorsed breastfeeding as the optimal method of infant feeding, due to the innumerable health benefits provided by breast milk. Pregnant women and new mothers, particularly those of low-income, are likely to encounter the message "breast is best" due to the promotional efforts in the medical community and WIC program. This has contributed to a rise in the rates of breastfeeding among women of low-income. Concurrently, there has been an increase in continued breastfeeding among working mothers, made possible by greater work-family support in certain industries. Women of low-income may face greater challenges in combining breastfeeding and work compared to their middle-class counterparts, but very little is known about the actual experiences of mothers who have attempted to do so. The research on the psychology of breastfeeding has largely ignored the role of maternal employment. Research on maternal employment has largely ignored the role of breastfeeding. The small amount of research that has explored the experiences of women combining breastfeeding and work have been limited by either focusing exclusively on middle-class women or by methodological shortcomings, especially single point data collection.

Scholarship on the work-family interface has resulted in two theories: work-family conflict theory and role enhancement theory. Support for both theories has been found in research on the working experiences of low-income women. Work-family conflict theory can serve as a framework for understanding the interface of breastfeeding and work, but none of the studies on breastfeeding and work have attempted to actually connect findings to theory.
Purpose

This dissertation will contribute to the literature on the interface between breastfeeding and work by providing additional information about the experiences of women of low-income who are breastfeeding and intend to return to work. This study will move beyond previous studies by employing a longitudinal design and by connecting the findings to the literature on the work-family interface. The purpose of this research is two-fold. The first aim is to give voice to the narratives around breastfeeding and work in a sample of mothers with limited income. The second objective is to evaluate the extent to which current work-family interface theories (namely, role enhancement theory and role-conflict theory) are sufficient for understanding and organizing these narratives.
CHAPTER III

METHODS

The approach of this dissertation study was that of a phenomenological qualitative study. A phenomenology is a study "which describes the meaning of the lived experiences for several individuals about a concept or the phenomenon" (Creswell, 1998, p. 51). Phenomenological research seeks to first describe the investigated phenomenon and then determine the essential structure or essence of it (Creswell, 1998). The phenomenon under current investigation is that of the interface of breastfeeding and work. This research sought to describe and understand the lived experience of low income mothers who were breastfeeding and returning to work.

This approach was selected because it appeared that the work-family interface literature and breastfeeding scholarship would both benefit from the contribution of qualitative research. In a review of the family and work research conducted in the 1990s, Perry-Jenkins et al. (2000) pointed to a need to examine the meaning that individuals make of the multiple roles that they manage. Arguably, such meanings are best accessed and understood through qualitative methodology. Marks (2006) stated that we need research designs which bring to light the "unique stressors" and "everyday obstacles" faced by the most disadvantaged persons of our society (p. 43). In a review of trends in infant feeding research, Van Esterik (2002) noted that the research on breastfeeding and lactation has been "lodged in specific disciplines" which "have not traditionally relied on qualitative research" and that "as a result, breastfeeding has not always been seen as a
complex process shaped by social and cultural forces interacting with local and environmental and political conditions” (p. 258). As noted by Neal, Hamner and Morgan (2006), qualitative methodology can provide a greater amount of depth and contextual information that is “not easily captured using solely traditional quantitative methods” (p. 587).

In addition to describing and understanding the phenomenon, the researcher sought to tie the findings to the work-family theories of work-family conflict and role enhancement. The aim was to determine if the theories of work-family conflict and role enhancement theory were sufficient for understanding and organizing the experiences of low income women who were breastfeeding and intended to return to work.

This chapter describes the methodology employed in this study. The first section discusses the research questions that provided guidance to the study. The second section describes the researcher’s assumptions and biases. This is followed by sections on the participants, procedures, and data analysis. Finally, section six explains the steps taken to assure the rigor of this research.

Research Questions

Although it has been suggested that work-family theories may be helpful in understanding the experiences of women who seek to combine breastfeeding and employment (Cardenas & Major, 2005), little research has actually been done in this area. The literature on the work-family interface rarely mentions the role of breastfeeding and the scholarship on breastfeeding rarely drew from theory. The research that focused on the interface between breastfeeding and work suggested that women alternately
experience conflict or enhancement when seeking to combine these roles. However, even that research was limited by the bias towards the experiences of middle-class women. This present study sought to add to the literature by taking a longitudinal approach, focusing on the experiences of women of low-income, and examining these experiences in light of work-family theory. There are two specific research questions which guided this research, each with a few sub-questions, as follows:

1. What does the interface of breastfeeding and work look like for breastfeeding mothers of low income, as they return to work after the birth of their child?
   A. How do these mothers describe their own experiences with breastfeeding and work?
   B. What impact does the role of breastfeeding have on the work domain?
   C. What impact does the work domain have on breastfeeding?
   D. What thoughts and feelings do these mothers have about the impact of work and breastfeeding on each other?

2. To what extent can these mothers’ experiences be organized and understood by existing work-family theories?
   A. How helpful is role enhancement theory in describing their experiences?
   B. How helpful is work-family conflict theory in describing their experiences?

Researcher Assumptions and Biases

The qualitative research tradition acknowledges that it is not possible for researchers to maintain complete objectivity when conducting a study (Morrow, 2005).
The phenomenological tradition calls for researchers to set aside biases, prejudgments, and hypotheses in order to approach the research with openness (Moustakas, 1994; Wertz, 2005). In this spirit, the background experiences of the researcher were detailed in the introductory chapter and the preconceptions related to the present research are acknowledged here:

1. The role of “breastfeeding mother” is intensely demanding, especially in the first few months of an infant’s life.
2. The work of mothers of low-income is often characterized by a lack of flexibility or autonomy.
3. Low-income women who seek to concurrently breastfeed and work are likely to be met with challenges.
4. Exploring the actual experiences of low-income breastfeeding women when they return to work will provide greater insight into the interface of breastfeeding and work.

Setting out these biases serves two functions: One, it helped the researcher become more aware of her preconceptions, such that measures could be taken to decrease their influence on the data. Two, it gives the reader an opportunity to evaluate the extent to which the researcher was successful in moving beyond the preconceptions to understand the actual experiences of the participants.

Participants

The participants for this research were six low-income mothers who met the following inclusion criteria: 1) WIC qualified, 2) currently breastfeeding, 3) intending to
return to work during the first six months of the infant’s life, and 4) over 18 years of age. The participants ranged in age from 23-32 years of age, were all White and considered the socio-economic status of their family-of-origin to be working class, lower middle class, or middle class. All of the mothers lived with a male significant other (4 married, 2 partnered) who was the father of their infant. Four of the participants had at least one older child who, in all but one case, was fathered by another man. Highest level of education ranged from working on GED to completed associates degree (see Table 1).

To protect the confidentiality of participants, arbitrary pseudonyms were created by the researchers. Participants are referred to by their pseudonyms throughout.

Table 1

<table>
<thead>
<tr>
<th>Participant</th>
<th>Age</th>
<th>Race</th>
<th>Highest Level of Education</th>
<th>Family’s SES</th>
<th>Number of Kids</th>
<th>Relationship Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhonda</td>
<td>23</td>
<td>Caucasian</td>
<td>High School Graduate</td>
<td>Working Class</td>
<td>2</td>
<td>Partnered</td>
</tr>
<tr>
<td>Kathie</td>
<td>24</td>
<td>Caucasian</td>
<td>Some College</td>
<td>Working Class</td>
<td>2</td>
<td>Married</td>
</tr>
<tr>
<td>Tina</td>
<td>29</td>
<td>Caucasian</td>
<td>Working on GED</td>
<td>Lower Middle Class</td>
<td>3</td>
<td>Married</td>
</tr>
<tr>
<td>Ally</td>
<td>24</td>
<td>Caucasian</td>
<td>Some College</td>
<td>Lower Middle Class</td>
<td>1</td>
<td>Married</td>
</tr>
<tr>
<td>Laura</td>
<td>28</td>
<td>Caucasian</td>
<td>Some College</td>
<td>Middle Class</td>
<td>3</td>
<td>Partnered</td>
</tr>
<tr>
<td>Christine</td>
<td>32</td>
<td>Caucasian</td>
<td>Associates Degree</td>
<td>Working Class</td>
<td>1</td>
<td>Married</td>
</tr>
</tbody>
</table>
Participants were considered to be breastfeeding if they were providing breast milk to their child whether it be through direct nursing, pumping and bottle feeding, or a combination of both. At the time of the first interview, four participants were providing all breast milk through direct nursing, one through use of a bottle, and one through a combination of these two methods. Two of the mothers weaned over the course of the study, one around 2 months and the other around 3 months. A third participant was down to token breastfeeding by her last interview (around 4 months). The remaining three mothers were still nursing almost exclusively at the end of the study (babies ranged in age from 5-7 months at that time). Two of the participants had prior breastfeeding experience. One of these had previously attempted to breastfeed for one week before weaning her child to formula. The other had directly breastfed her first child on two occasions and then pumped and provided breast milk in a bottle for two months.

The participants were employed in a variety of occupations including retail clerk, hotel service, library worker, film stripper, and day care director. Prior to delivery, three mothers were working full-time (40 hours), one nearly full-time (32-38 hours), and two half-time (14-24 hours). All worked up to within one week of delivery. The length of the maternity leave was 6-9 weeks for most of the participants, with one arranging a 4 month leave. The workplace of two of the participants offered a formal maternity leave policy; the remaining 4 made informal arrangements with their employer. One of the participants had a fully paid leave, another had partially-paid leave, and the remaining 4 were unpaid. Within a few weeks of returning to work, all of the participants were back to their pre-delivery work hours. Over the course of the study, two participants were laid
off from their job. One of these participants found another job within one week and the other was hopeful that she would find another position at her same company.

Procedure

This research was approved by the Western Michigan University Human Subjects Institutional Review Board (see Appendix A). Potential participants were introduced to the study by one of two means. The first was through a peer-counselor of the Michigan State University Extension Breastfeeding Initiative Program (see Appendix B for the agreement contract). This program provides breastfeeding peer counseling to WIC eligible women. Peer counselors meet with mothers in the hospital or in their homes to provide breastfeeding support and information. Obtaining participants from this program ensured that participants were low-income and that they had already initiated breastfeeding, due to program requirements.

The researcher met with the peer counselor to discuss the recruitment procedures prior to initiating participant recruitment. The peer counselor was provided with an invitation script, which provided basic details about the research. The peer counselor was asked to read the invitation script aloud and provide a copy to each potential participant (see Appendix C for invitation script). The copy provided to the participant included a space for them to sign if they were interested in hearing more information about the study. The signing of this form gave permission to the peer counselor to provide their name and contact information to the researcher. Peer counselors were asked to emphasize to potential participants that whether or not they signed the form or ultimately
agreed to participate in the research would have no impact on the services that they received from the Michigan State University Extension Breastfeeding Initiative Program.

The second way in which participants were introduced to the study was through a WIC waiting room (see Appendix D for WIC permission letter). The researcher sat in the waiting room with information about the study. The researcher approached women in the waiting room and inquired if they were willing to hear about the study. If the woman indicated willingness, the researcher briefly described the study and the listed the inclusion criteria. The researcher then asked if the potential participant met all the inclusion criteria and if she might be interested in participating. This allowed potential participants to opt out of the research without disclosing which of the criteria she did or did not meet. If she expressed interest, the researcher asked her to provide her contact information on a potential participant form (see Appendix E for potential participant form).

Once potential participants' names and contact information were obtained, the investigator contacted individuals by phone to confirm that they met the inclusion criteria and to provide further information about the study. At that time, potential participants were given an opportunity to ask questions about the research. If the individual met the inclusion criteria and was interested in participating, a time and date was arranged for the first interview (see Appendix F for the telephone invitation script).

The primary source of information in this current research was maternal interviews which is consistent with the phenomenological approach (Moustakas, 1994) and is particularly helpful when the phenomenon of interest is complex and/or extensive in scope (Wertz, 2005), as is the case with the interface of breastfeeding and work. A
semi-structured approach was taken, such that the same areas were explored with each participant, but there was enough flexibility to allow for the emergence of each woman’s unique narrative. The maternal interviews consisted of a series of three interviews conducted with each mother during the first six months of the infant’s life. Each interview lasted approximately 60-90 minutes and took place in a location that was convenient for the participant; in all but one instance interviews were conducted in the participants’ homes. All interviews were audio taped. Audiotapes were kept in a locked filing cabinet in the home office of the researcher. Audiotapes were erased after the interviews were transcribed and the transcriptions analyzed.

Each participant was interviewed three times: 2-4 weeks prior to the planned return to work, 2-4 weeks after starting working, and 2-3 months after returning to work. Participants were given a $15 gift card at the conclusion of each interview they participated in to thank them for their participation. Formal informed consent was obtained at the time of the first interview (see Appendix G for consent document). At that time, the researcher read the consent document aloud and provided each potential participant with two copies of the informed consent document. Once the potential participant provided consent, the first interview began. This interview focused on the woman’s early experiences with breastfeeding and motherhood, her work plans, and her feelings and thoughts about the interface of breastfeeding and work (see Appendix H for interview protocol).

At the first interview the researcher gave each participant a questionnaire and asked that they complete it sometime prior to the second interview. The questionnaire asked closed ended questions about the participants’ family, breastfeeding difficulties
faced, and workplace accommodations for breastfeeding. In a few cases, the participants did not fill out the questionnaire prior to the second interview, in which case the researcher completed the questionnaire verbally with them at that time. The questionnaire included closed-ended questions related to participant demographics, breastfeeding experiences, and workplace characteristics (see Appendix I for participant questionnaire). This questionnaire allowed the researcher to collect contextual information about the participant, while keeping the interviews to a reasonable length.

The second interview focused on the adjustment to work and the impact that work and breastfeeding had on one another. Each participant was asked to describe her work experiences and the thoughts and feelings she had about them. She was asked to discuss any changes that had occurred in her infant’s feeding patterns and methods since the first interview, and her associated feelings and thoughts. The second interview was also used to expand on any ideas that were expressed in the first interview, but not fully explored. During the second interview, the researcher shared both verbally and in writing, the individual themes that emerged from the analysis of the participant’s first interview and sought feedback from the participant about these themes (see Appendix H for interview protocol).

The third interview allowed for a more distant reflection on the adjustment to work. Women who were still breastfeeding at that time were able to speak to the strategies they used to continue breastfeeding up to that point and to speak to their emotions related to the combination of breastfeeding and work. For women who had weaned by that time, the third interview focused on thoughts and emotions related to the breastfeeding and weaning process, and the impact of work on it. During the third
interview, the themes resulting from the previous two interviews were shared verbally and in writing with each participant and reactions were sought (see Appendix H for interview protocol).

Once all of the interviews for a particular participant were conducted and analyzed, each participant was mailed their own individual narrative (see Appendix J for cover letter to accompany findings). Participants were then contacted by phone to provide them an opportunity to comment on it. Specifically, the participants were asked to what extent their narrative captured their experiences and if there was anything that they would add, delete, or change (see Appendix K for the final telephone contact script).

Once the collective analysis was completed, a second mailing was sent to participants containing the collective themes and collective narrative (see Appendix J for the cover letter to accompany findings). An attempt was made to contact participants by phone again to elicit feedback on the collective findings (see Appendix K for the final telephone contact scripts). However, by the time that this follow-up was taking place, the phone lines for two of the participants had been disconnected. Feedback was obtained from the remaining four participants, all of whom offered confirmation of the collective themes and narrative.

Data Analysis

Creswell (1998) suggests that phenomenological analysis might involve two components. The first component is a single-participant analysis, which explores the themes from individual participants. The second is the inter-participant analysis which involves exploration of the themes which appear across participants. Due to the interest
in connecting the data to work-family theories, a third component was included. Therefore, the data analysis for this research was conducted in three phases: 1) single-participant analysis, 2) inter-participant analysis, and 3) analysis for theoretical connections. Each of these phases is discussed in detail.

**Single participant analysis.** The single participant analysis was on-going throughout the data collection and examined each individual separately. The goals of this analysis was to allow for communication between the researcher and the participants about the emerging findings and to inform the collective analysis. The audiotapes from each interview were transcribed. The transcriptions were analyzed following the procedural steps for phenomenological data analysis suggested by Colaizzi (1978) and Moustakas (1994). As such, each transcript was read and significant statements coded. Each transcript was then re-read with an eye to code any significant statements which were missed during initial analysis, to recode statements where necessary, and to remove codes from statements that no longer seemed significant. The document was then reorganized to group together like-coded statements. The reorganized document was then reviewed and a list of interview-specific themes generated, highlighting the most salient ideas expressed by an individual participant in that interview. As the study progressed, the accumulating themes were integrated to form a narrative for each participant and the individual themes and narratives were used to develop inter-participant findings.

The interview-specific themes and participant narratives were presented to the participants for member checks. Member checks at the second interview covered the themes from the first interview only. Member checks at the third interview covered the
second interview themes and in-progress participant narrative (which incorporated the themes from the first and second interviews). The final member check, which was completed during the final phone contact, covered the third interview themes and the participant's overall narrative (which incorporated themes from all three interviews). The feedback from participants was almost entirely confirmatory in nature. One participant did request two changes to her narrative. One adjustment involved changing her narrative to indicate that her family was somewhat supportive of breastfeeding rather than somewhat indifferent. The second was to add a statement about the positive aspects of have an unemployed partner (her narrative previously only reported negatives about unemployment).

After each member check was conducted, feedback from the participant was used to make adjustments to the emerging themes, so that they better captured the participant’s experience. Once all the data was analyzed and member checks completed, all of the information was integrated to result in an individual narrative for each participant, highlighting their experiences with the interface of breastfeeding and work.

After the individual data analysis was complete, a master list of codes was created. With the master list in hand, each and every transcript was reread and recoded for consistency. The recoded transcripts were again reorganized to group together like-coded statements. This step was done prior to the inter-participant analysis to ensure that similarities and differences found between participants reflected actual commonalities or differences, not simply discrepancies in coding.

**Inter-participant analysis.** The purpose of the inter-participant analysis was to identify themes that existed across participants. A two-part analysis was employed
during this phase, both drawing on the suggestions for phenomenological data analysis presented by Colaizzi (1978) and Moustakas (1994). First, an analysis was conducted on the interview transcripts across participants, but within-time periods of data collection. That is, the transcripts from all of the first interviews were considered as a group, as were the transcripts from the second interviews, and then the transcripts from the third interviews. The purpose of this analysis was to identify themes unique to each time point and determine if the themes expressed by participants changed across time.

The procedure for completing the within-time period data collection was as follows: First, each of the recoded transcripts were reviewed to determine which codes were used by which participant. Second, taking one code at a time, the coded statements of each participant were read and summarized. Third, the summaries of each participant developed in step 2 were then reviewed and summarized across participants. Fourth, these summaries developed in step 3 were reviewed and within-time period themes were generated. Fifth, as a final check, the original individual theme documents for each participant at each time point were re-read to see if there was anything missed in the within-time period theme summaries, and revisions were made accordingly. The results of this analysis were three time-of-interview theme documents, one for each of the three interviews.

The second part of the inter-participant analysis was collective in nature. The purpose of this component was to bring together all of the transcripts, across participants and across time periods of data collection. The process of this analysis involved examining the data from as many angles as possible. First, the three time-of-interview theme documents were combined into a collective narrative document detailing the
different ideas shared by participants at the different points of contact. Second, all of the
individual participant narratives were re-read to see if anything was missed and revisions
to the emerging collective narrative were made accordingly. Third, the time-of-interview
theme documents were reviewed for "all statements" (those that reflected an idea that was
shared by all participants) to assure that the shared experiences were adequately captured
in the collective narrative. At this point, two important subgroups of participants were
identified: those that weaned early and those that continued to nurse. A fourth step in the
collective analysis drew on participant narratives to develop a combined narrative for
each of these groups. These combined narratives were reviewed to identify similarities
and differences across these two groups. Finally, the collective narrative, the all
statements document, and the weaning versus continuing combined narratives were all
reviewed and a list of collective themes was generated.

The results of the second part of the inter-participant analysis were a list of
collective themes and a collective narrative, both reflecting the essence of the interface of
breastfeeding and work as experienced by the participants. The collective themes and
collective narratives were presented to participants in a final telephone contact. Since the
phone lines of two of the participants had been disconnected, feedback was obtained from
a total of four participants. All of these participants offered confirmation of the collective
themes and narrative.

**Analysis for theoretical connections.** Finally, the data was analyzed for
theoretical connections. Both the individual and inter-participant narratives and themes
were compared to the tenets of work-family conflict theory and the role enhancement
theory. The goal of the analysis was to determine if the narrative stories of these
participants can be understood and described by either one (or perhaps both) of these theories.

This analysis followed the pattern of single participant and inter-participant considerations. Hence, first each individual participant's themes and narratives were compared to the two theories and then the inter-participant themes and narratives were evaluated in light of the theories. The focus was to determine if the ideas of work family-conflict theory (role strain, time-based conflict, strain-based conflict, behavior-based conflict, etc.) or role enhancement theory (benefit of multiple roles, upper limits of time and energy) were helpful in organizing and understanding the individual as well as inter-participant experiences of the study participants.

Strategies for Ensuring Rigor of Research

In quantitative research the rigor of a given study is typically evaluated in terms of internal validity, external validity, reliability, and objectivity (Morrow, 2005). Morrow argues that when evaluating qualitative research it is more appropriate to use the parallel terms of credibility, transferability, dependability, and confirmability. Each of these concepts will be described in turn, along with a discussion of how this study addressed each area.

Credibility parallels the concepts of internal validity and refers to the authenticity of research results. The credibility of this research was supported through prolonged engagement with each of the participants over an extended period of time, which increased the likelihood that the researcher accurately understood the participant’s experiences. Another strategy for ensuring credibility was use of member checks, in
which the participants were given an opportunity to look over the individual and collective themes and narratives and comment on them. The information gathered from the participants during member checks was used to make adjustments to the individual and collective themes and narratives so that they more accurately capture the experiences of participants. A final measure for increasing credibility was use of an internal auditor (the researcher’s advisor/dissertation chair) who was consulted throughout the process. The internal auditor read the transcripts without the researcher’s notes and generated her own thoughts about emerging themes. She also made comments and asked questions related to the summaries of themes resulting from the analysis.

Similar to external validity, transferability refers to the extent to which the findings can be generalized. In order to help readers know who this research can be transferable to, ample information is given about the researcher and the participants. Participant characteristics were obtained through interview questions as well as through the questionnaire. The sample was entirely White, but participants differed in age, childhood socioeconomic status, and educational attainment. Additionally, participants varied in their family-related and work-related characteristics, including relationship status, number of children, type of work, number of weekly work hours, and proportion of household income provided by their work.

Dependability is similar to the quantitative idea of reliability and refers to the extent to which the procedures and findings could be replicated. To increase dependability, notes were kept about research activities and processes. Invitation scripts and interview protocols were developed and used consistently across participants.
Methods for selecting and recruiting participants and collecting and analyzing the data have been described in detail to allow others to fully understand the research procedure.

Finally, parallel to the idea of objectivity, confirmability refers to the idea that, though a researcher is influenced by subjectivity, the findings should not merely be a reflection of the researcher’s biases and assumptions. Three steps were taken to ensure the confirmability of these findings. One, the researcher acknowledged biases and assumptions to herself and to others and sought to set these assumptions aside. Two, an internal auditor was involved throughout to challenge the researcher and help bring attention to any biases. Three, two external auditors, who had not been involved in the research process, were used to evaluate the fit between the original data and the reported findings at the end of the data analysis stage. These auditors were graduate students with knowledge of qualitative research, but who did not have specific knowledge related to the work-family interface or breastfeeding literature. External auditors were oriented to the nature of the documents and the analysis process used. Each external auditor read a minimum of six transcripts, which were of their own choosing, as well as the associated theme and/or narrative documents to help assess whether the themes and narratives reflected the information shared by the participants. The external auditors reported that they were able to track the data analysis process and overall, were confirming of the research findings. Discussion with auditors did result in the renaming of the second descriptive theme from "Breastfeeding 'Feels Good'" to "Breastfeeding 'Feels Good' Emotionally, but may not Physically," in order to clarify the difference between the emotional and physical. External auditors did have additional wonderings about the
experiences of the participants, but when these were reviewed in the context of the data analysis process, were not deemed salient.
CHAPTER III

RESULTS

Data was obtained through the maternal interviews and the participant questionnaires. Over the course of the data analysis, information from both sources was integrated. The resultant findings are presented in this chapter. First, a broad description of contextual information is offered. Second, participant’s individual narratives are discussed. Next, the thirteen identified collective themes are presented, including eight themes that are descriptive in nature and five that are interpretive. Finally, the collective narrative is offered.

Contextual Information

The participants of this study met or exceeded the Healthy People 2010 initiative goals for breastfeeding rates (United States Department of Health and Human Services, 2000). All of the mothers were breastfeeding at birth, two-thirds were breastfeeding exclusively or nearly exclusively at three months, and half were still breastfeeding at six months and were hoping to continue through one year. One participant weaned at two months and another at three months postpartum. An additional participant was down to token nursing by four months postpartum.

Though four of the participants had at least one older child, none had significant prior breastfeeding experience. Two had made a previous attempt to breastfeed, but it was short lived: Rhonda breastfed her first child directly on two occasions, but
discontinued because she felt uncomfortable with it and Kathie tried to breastfeed her first child for a week, but discontinued because she could not get him to latch.

**Breastfeeding support.** Participants were all receiving formal support for breastfeeding from WIC, their peer counselor, and/or other health related entities. However, they varied in the amount of breastfeeding support in their social network. Five of the participants had support from their male partner; the remaining participant's partner was indifferent. Two participants reported having friends who were supportive of their breastfeeding efforts and had breastfed successfully themselves, two participants indicated that their friends were supportive of breastfeeding though they had not done it themselves; and the other two did not have breastfeeding support from friends. Two participants reported having family members who were supportive of breastfeeding and who had breastfed successfully themselves, two had family members who were supportive of breastfeeding, but had not breastfed, and two did not have family support for breastfeeding.

In five cases, the participant's male partner served as the primary caregiver for the infant while she worked, which was made possible because the partner was either unemployed or working opposite shifts. Two of these five participants also enlisted part-time childcare help from friends for times that their partner was not available. The remaining participant brought her baby to work with her. Participants discussed the extent to which their male partner assisted with the work/family juggle. Half indicated that their male partner actively shared childcare and household responsibilities. Two seemed supported by their male partner overall, but made at least one negative comment about him (e.g., he doesn’t do as much around the house, he places demands on her);
while the male partner of the remaining participant appeared to place greater stress on her because of her concern for his emotional well-being.

**Work context.** The participants' workplaces varied in the extent to which they offered general-family support. Two of the six participants had paid maternity leave, but only one mother was covered by a formal maternity leave policy. Half of the participants had some flexibility in their work schedule and half received paid vacation time. Though half of the participants worked full-time (and a fourth was nearly fulltime), only one received health insurance through her employer. One had on-site childcare at her workplace and was also allowed to keep her child with her while she worked. Four of the participants indicated that their boss was understanding when they needed to make adjustments at work in order to meet family obligations. Two of the participants discussed having co-workers or supervisors who also had kids and two others remarked that their supervisors and co-workers seemed interested in hearing about their children.

There was also a range in the feasibility of pumping or breastfeeding at the various workplaces. One participant had virtually none of the workplace factors that are regarded as necessary for successful pumping (adequate breaks, location, support, and storage; Bar-Yam, 1998; Dodgson & Duckett, 1997; Wyatt, 2002). One mother had a place to pump and adequate storage, but had little support and had difficulty finding the time. Three of the participants reported having adequate breaks (two even had paid breaks), support, and storage, but none had a fully private location (two pumped in a public bathroom and one in a storage office). One mother did not need to pump at work because she brought her child with her. She had adequate support, breaks, and places for breastfeeding directly (see Table 2).
Table 2

*Workplace Accommodations for Breastfeeding*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Place to Pump</th>
<th>Time to Pump</th>
<th>Place to Store Milk</th>
<th>Supervisor Support</th>
<th>Peer Support</th>
<th>Lactation Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tina</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Rhonda</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Don't know</td>
<td>Some</td>
<td>No</td>
</tr>
<tr>
<td>Ally</td>
<td>Semi-Private</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Kathie</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
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<td>Yes</td>
<td>Yes</td>
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</tr>
<tr>
<td>Christine</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**Individual Narratives**

An individual narrative was created for each participant. The purpose of these narratives was two-fold. One, they provided a means for communication between the researcher and the participants. The narratives were written in second person with informal language to allow participants to understand and evaluate their own narrative during member checks. Two, consistent with the phenomenological approach to research, these narratives functioned to inform the collective themes and collective narrative. Out of concern for protecting the participants’ confidentiality a decision has been made not to include individual narratives in their entirety. However, excerpts from each narrative, are presented here in order to illustrate the single participant analysis, provide a summary of each participant’s experience and allow the reader to follow the
connection between the individual and collective findings. Excerpt material was selected by identifying the portions of the narratives that were most specific to the interface of breastfeeding and work. Narrative segments that were less central to the purpose of the study were omitted.

These narratives are organized into three groups. The first group, narratives of struggle, contains the narratives of participants who primarily experienced struggle in their attempts to combine breastfeeding and work. The second section, narratives of success, describes the stories of the participants that were successful with combining breastfeeding and work. The third group, narrative of success and struggle, contains information about one participant who experienced both.

**Narratives of struggle.** Two of the participants, Rhonda and Kathie, primarily described a narrative of struggle related to breastfeeding and work. Rhonda had numerous stressors in her life and a lack of breastfeeding support in her workplace. These factors made it extremely difficult for her to continue breastfeeding after returning to work and she therefore weaned her infant around two months of age. Kathie struggled with insufficient milk supply throughout her breastfeeding experiences. Additionally, she was laid off from her job upon returning from maternity leave. She was able to obtain additional employment, but struggled to balance work obligations and breastfeeding at her second job. She weaned her baby around three months of age. Excerpts from Rhonda and Kathie's narratives are as follows.

**Rhonda's narrative.** Since your workplace did not have an actual maternity leave policy, you worked out an informal arrangement with your employer that you would take
off six weeks of work... You anticipated that it would be difficult to pump at
work... Emotionally, it was very difficult to return to work because you missed your kids
so much and worried about them and your partner while you were away. You also
expressed worry about a number of other things, including bills/money, your relationship
with your parents, the kids health and safety, and not having enough quality time with
your partner. You suggested that you and your partner felt alone, unsupported, and not
understood.

You attempted to pump at work on 3-4 occasions, mainly to relieve pressure and
pain. As you had anticipated, pumping at work was difficult. The only place you had to
pump was in a cold bathroom. You did not have a place to store milk because they got
rid of the refrigerator while you were on maternity leave. One co-worker said a few
positive things about breastfeeding. Everyone else did not seem to care one way or
another, and you longed to have greater support than that... You therefore, opted to only
pump at home, before and/or after work and also in the middle of the night. Due to
fatigue, you dropped the night pumping and soon after found that your milk was starting
to dry up. You knew that you could get your supply back up by increasing how often you
pumped, but you were tired and overwhelmed with everything on your plate... You
therefore opted to stop pumping and wean your baby at 2 months.

Overall, weaning was positive for you. Spending less time on infant feeding gave
you more time to do other things. You found that you were more calm and relaxed and
not as hungry as you were before... you wished you could have breastfed longer, but you
felt that your current life circumstances did not make it possible to do so. You seemed to
feel good for breastfeeding as long as you did, especially when you saw some moms who
did not breastfeed at all. Your advice to other moms like you was to “go for it,” “do the best you can,” and “see what happens.”

Kathie’s narrative. Since your baby had jaundice and your milk had not yet “come in” you were advised by medical professionals to supplement with formula. . . . You soon found that you were struggling with low supply. Your baby did not seem satisfied after nursing so you continued to supplement with formula in order to meet her hunger needs. You talked to lactation consultants about your low milk supply and they recommended using a feeding tube and taking an herbal supplement. Because the feeding tube was a hassle you only did it a few times. You did take the herbal supplement, but you continued to struggle with your supply...

During your maternity leave, you expressed excitement about going back to work. You looked forward to doing something other than caring for the baby and said it was good for you to work since you are a “busybody.” Though you had not yet talked with your supervisor, you were optimistic that you would be able to find time and a place to pump at work... On the first day back, you found out that you were being laid off... You ended up having difficulty finding the time to pump and that, combined with the stress of being laid off, made your supply decrease even more...

Soon after being laid off, you found another job... Though the job was a step down in responsibility and pay, you were comfortable with that because you thought it might give you more energy for the responsibilities of home... You pumped at your second job for three weeks, twice a day. At your new job you had a private room that you could use to pump and a refrigerator for storing milk. However, the set up of your work made it difficult to pump without interruptions, because you had to manage the
phones at all times and you could not reach the phones while hooked up to the pump. Your co-workers and supervisor seemed indifferent to your breastfeeding efforts and unwilling to assist you in covering the phones.

Ultimately, it became too difficult to continue pumping at work and you therefore weaned your baby at three months. Overall, you seemed to feel good about how long you breastfed...Your advice to other moms like you was to not get down on oneself because it could lead to postpartum depression and to simply “do the best you can.”

**Narratives of success.** Other participants told narratives of success related to breastfeeding and work. One of these participants was Tina, who discovered a greater amount of support for breastfeeding from her supervisors than she expected, but did have to take a pay cut in order to take breaks to pump. Another participant, Ally, had a flexible work schedule that provided enough time for milk expression, but her pumping location (a shared employee restroom) was less-than-ideal. Christine was permitted to bring her infant with her to work. This appeared to facilitate continued breastfeeding, but did create some unique work-family conflicts. All three of these participants put forth considerable effort in order to continue breastfeeding after returning to work. Excerpts from their narratives are as follows.

**Tina’s narrative.** Prior to returning to work you started to store up some breast milk in your freezer and began to think about how to coordinate breastfeeding with work. You recognized that you needed to talk with your supervisors about pumping and figure out where and when you would pump. You were nervous about it, because you did not know if anyone at your work had ever done this before or if your supervisors would be
supportive... As it turned out, your work supervisors were extremely supportive. They adjusted your schedule to provide for more breaks, were flexible with your clocking in and out times, and said encouraging things. Not only that, all of them had wives who breastfed! You were able to find a nearly private room to pump in. This allowed you to make good use of the WIC pump that you received. A downside of pumping at work is that your pay went down because you do not get paid for your pumping breaks. Plus, one time a co-worker walked in on you while you were pumping!

You worked hard to be successful with combining breastfeeding and work. You were faithful with pumping. You sacrificed your hours and pay to be able to do it. And you took the time to put a big “Do Not Enter!” sign on the door of the room where you were pumping. Your efforts, along with the support of your supervisors have made it possible for you to continue to pump. You appeared to feel proud of yourself for continuing to breastfeed and especially good about managing to juggle all the demands of work, school, motherhood, and breastfeeding. You seemed determined to continue breastfeeding for one year. Your advice for other working and breastfeeding moms was: “Just keep at it, don’t give up!” And that is just what you have done!

Ally’s narrative. During your pregnancy, you heard about the benefits of breastfeeding and decided to breastfeed your baby. At the very beginning you had a couple of challenges. It was painful when your milk came in and you struggled with getting him to latch.... You planned to return to work and school when your baby was around 4 months. There was a big part of you that wished that you did not have to work, so you could be home with your baby and not miss anything. However, you also saw a number of positive things about working...
Overall, it appears that you have felt successful with combining work/school and breastfeeding....This success appears to be largely related to active steps that you have taken: talking to supervisors/professors about your needs, pumping faithfully, asking a co-worker to cover for you while you pump, storing your milk in different quantities so little gets wasted, and feeding your baby right before you leave and right when you get home. There have been several other factors that appear to have contributed to your success. This includes having a flexible, part-time work schedule, having a supportive husband, getting a free double electric breast pump from WIC, and having a private place at work for pumping.

Yet juggling breastfeeding and work has not always been easy. The only place you have to pump is the bathroom. Though it is private, you have to either pump while sitting on the counter or— if the counter is dirty—standing up. Plus there was the one day that you forgot to bring your pump and ended up really engorged and in pain by the end of the day...

At the time of our last interview you were still breastfeeding your baby and planned to continue until he is at least one year old...You mentioned that if his size or teeth make it hard to breastfeed you might switch to pumping and giving him breast-milk in a bottle...Overall, you appeared to take pride and pleasure in your success with juggling school/work and the demands of motherhood/breastfeeding. Though it has taken much effort on your part, you seemed to feel that it was all worth it!

*Christine’s narrative.* Breastfeeding was somewhat difficult in the beginning. It was hard getting her to latch on one side and you worried that she was not getting enough... The hospital nurses and lactation consultants encouraged you to
supplement... Despite this rough start, you stuck with breastfeeding. You supplemented with 4 ounces of formula at the beginning, but you were able to wean her off after seven weeks...

Your workplace was very supportive of your role as a mother and... you were able to do much of your work with your baby in tow... plus, you had several people who were willing to watch her if you needed them to. But your return to work was not without challenges. You really missed being home and found it hard to balance your baby’s needs with your work responsibilities. It was especially difficult on days where she wanted to nurse more frequently. Your primary motivation for working was financial, since your husband was laid off of work. You expressed that you would rather be a stay-at-home mom and thought you would reduce your hours if given the option...

For a while, you continued to keep your baby with you while you were working in your office, but over time you started to enlist the help of others more... You appeared to feel good about balancing work and breastfeeding. Working allowed you to make things work financially. Sticking with breastfeeding gave you a sense of pride because you believed your baby was healthier as a result... You seemed determined to continue breastfeeding for 1 to 1 ½ years... You appeared to feel fortunate to have a workplace that was so supportive of motherhood and breastfeeding, because you were aware that many moms do not have workplaces as supportive as yours. Your advice to a mom who was hoping to combine breastfeeding and work was to: 1) talk with her supervisor early to make arrangements and 2) to stick with it!

Narrative of success and struggle. Finally, the narrative of Laura contained elements of both success and struggle. She was initially successful in balancing...
breastfeeding and work and seemed proud of her ample store of frozen expressed milk. However, she later experienced a decrease in her supply and was unable to resolve it. An excerpt of her narrative is as follows.

Laura’s narrative. During your maternity leave you decided to try to combine breastfeeding and work. You spoke with your manager about it and you began to figure out where and when you might pump at work. You started to build up a frozen supply of milk and you planned to seek out more information from WIC about their breast pump program...Due to your discomfort with breastfeeding, you stopped breastfeeding directly shortly before returning to work. You instead pumped and fed your baby breast milk in bottles.

When you went back to work you settled into a routine of pumping five times a day: first thing in the morning (3:00-3:30am), twice at work, and twice in the evening... You noted a number of things about your workplace that made it possible to pump: you were not on set schedule, you got paid for your breaks, your supervisors and co-workers were supportive, and you had a mostly private place to pump (behind a stall door in the bathroom)...By the time your baby was two months old, you had built up a large supply of frozen breast milk and seemed proud of this fact. At that time, you seemed to feel successful in combining breastfeeding and work and determined to provide breast milk until one year of age.

Over a holiday weekend, you pumped less than your normal routine and ended up having a significant drop in your milk supply. You tried taking some pills to help with milk production, but they didn’t seem to help...Around that same time, you found out that your position was being eliminated and you therefore began training for a new
position. The training schedule made it challenging to find time to pump at work, and therefore, more difficult to increase your supply…Despite the changes at work, you were still positive about your job. You stated that you were happy with the company, felt supported by your supervisors, and enjoyed your flexible schedule. You seemed to enjoy having time away from household and childcare responsibilities and felt proud for providing for your family through your work…By four months, you were primarily using formula, but you stated that you still planned to try to pump 1-2 times per day and to use your pumped milk to mix in with your baby’s infant cereal…Your advice to other breastfeeding moms who are going back to work was simple: be patient and be faithful to your pumping schedule!

Descriptive Themes

The descriptive themes are those which followed naturally from the coded transcripts and serve to describe the data in a summative way. These themes highlight the core ideas mentioned by participants in this study, including their thoughts and feelings on infant feeding, work, motherhood and work, and breastfeeding and work.

Descriptive theme 1: Breastfeeding is "best." All of participants believed that breastfeeding was the "best" nutritional option for their infant. Two mothers said this directly, as was the case with Tina who remarked: "You know, all you have to think about is that it is the best and that will help you get through, it’s the best for your baby." Ally similarly said: "I want to give him the best possible way of being healthy because like still he could have some sort problem or something. But I would rather give him the benefit of the best possible chance of being healthy."
Other participants indicated that breastfeeding was best by comparing it to formula. Collectively, the mothers thought that breastfeeding was better for the infant's immune system and brain development and that it was more natural, affordable, and convenient. Participants also believed that it was easier to bond through breastfeeding and liked that they did not have to figure out which formula would be tolerated by their child. Consider the statements below:

Christine: I’ve read about how the longer you breastfeed the better metabolism your child will have when they’re older...and just health-wise and immunities and everything I just think that it is important.

Ally: When I go to doctors or to WIC—’cause we get WIC—there’s always signs up about how it’s better for like—like it boosts their IQ and stuff like that. So it’s always good for me to see the different things about how mentally and physically it’s better for him.

Kathie: I like it. I mean it is better for her and it’s cheaper. God made breasts for breastfeeding for the babies. That’s why women have them and men don’t.

Rhonda: If we make a four ounce bottle after the two hours, she’s not going to take it all. So, especially since it only lasts an hour, instead of a couple hours with the breast milk. So we don’t want to waste formula. That’s gonna be more money. Breastfeeding was a lot cheaper. I could pump that any time.

Tina: [It's] Convenient...I mean they are just right there. I mean, even at night there’s no getting up all tired and groggy and making a bottle. You just get up all tired and groggy and pllbt! [motioning putting the baby to breast] You don’t even got to move!

Laura: I think with me breastfeeding is that there has definitely been a bonding experience. And I think that I have probably bonded with him a lot more than I have with my other kids.

Descriptive theme 2: Breastfeeding "feels good" emotionally, but may not physically. Not only did participants seem to believe that breastfeeding is best for their infant, they also seemed to feel emotionally good about breastfeeding. Consider the following statements:
Tina: It’s a good bonding experience to have your baby and to look at her, look at those cheeks, look at those thighs and know that it is all because of you. It’s a good feeling.

Rhonda: It was enjoyable because I could see the big difference. And I could see that she liked it and that she was gaining weight and growing from it. You know, I could see the benefits from it. So I enjoyed it a lot.

Christine: Yup, and I definitely feel that she is healthy. You know, and that makes me feel good because I feel less concerned about her being around kids.

Laura: I’m glad that I can say that I tried it and even though I didn’t like it I know that it is good for him. And he seems to like it. He would prefer it over formula. So that makes me happy.

Ally: Oh yeah, definitely, I think I’m doing a good job. He’s healthy and happy. He’s a pretty personable little boy when it comes to strangers and stuff. So I think it’s been going good, doing good for my first time.

Though breastfeeding felt good on an emotional level, it did not always feel good physically to the participants. In fact, all but one participant described experiences with nipple pain and engorgement, mostly in the early days and weeks of breastfeeding.

Consider the following quotes:

Tina: Well, I think even—I think it was really painful for maybe the first couple weeks, I think. Just maybe the first couple of weeks. And then there was still a little tenderness, you know, afterwards. But eventually that went away. So, by the time she was two months, we were smooth sailing.

Ally: It was rough to begin with, but, I don’t really have any problems with it now. At the start I had no idea what to expect. I didn’t know that it hurt when your milk came in and when you didn’t have milk like when it was the colostrum—I didn’t understand that it hurt.

Rhonda: Nope, no leaking—just very sore. I would sometimes get sharp pains going through because I think I was having letdowns. I would have to take hot baths or hot showers to soothe, to get the lumps out of my breasts so that I could be comfortable.”

Kathie: It’s hard to get her on a schedule because of the fact that I’m hurting, but she won’t wake up from her nap so I’ll pump.
Laura: I got the pump from someone because I just couldn’t tolerate—I just got so engorged that he couldn’t hardly latch on because [my breasts] were just so hard. So I would have to pump and then feed and then I could pump again and get a whole other four ounce bottle. It was just ridiculous.

Notably, the one participant who did not comment about breastfeeding feeling good emotionally, was Kathie, who struggled with low supply from the beginning and was unable to resolve it. Therefore, one might conjecture that in general mothers feel good about breastfeeding, but that chronic unresolved breastfeeding difficulties take away from this enjoyment.

Descriptive theme 3: Bottle feeding is "normal." Though these participants believed that breastfeeding was best for their child and felt good about their decision to breastfeed, they still saw bottle feeding as the "normal" way to feed infants. In the third interview, Kathie was discussing how she had to get her WIC vouchers changed over to "full formula" status after weaning so that WIC would cover the purchase of enough formula. During this conversation she remarked: "Full formula now, yeah so that’s helping, but there have been times when we were switching back to normal, where we ended up having to buy a couple cans, and its thirteen dollars, fourteen dollars.” Laura expressed frustration with direct breastfeeding because her son frequently spit up a large volume of milk following these feedings. This contributed to a decision on her part to switch to pumping and providing breast milk in a bottle instead of direct breastfeeding. About this she remarked:

There has been a couple times that he would throw a fit and then he would latch on and then he would throw a fit and then he would latch on. And then he would just throw everything back up. And I was like that was a waste of milk. I could just have pumped it out and he could have had a normal bottle. So that’s why I really switched. He’s totally wasting all of my milk and then I don’t even know if he’s still hungry and what to do.
Note how both Kathie and Laura referenced bottle feeding as "normal," indicating that they saw it as the normative way to feed babies. Another indication of the viewpoint that bottle feeding is the normal, acceptable way to feed babies is the fact that several participants expressed discomfort with public breastfeeding. Laura demonstrated this in the following statement about how she thinks people perceive public nursing:

And people totally do stand out when they are nursing because I see it. And if I can see it and I know that. You know, "did you see that lady breastfeeding today? Did you see that lady breastfeeding at soccer?" I mean it gets talked about. I know if I'm doing it, I'm sure other people are doing it. I don’t want to be the one pointed at and looked at and be talked about.

The discomfort with public nursing led some of the participants to take bottles (containing either formula or pumped milk) with them when heading out in public:

Tina: Out in public it's like a little harder. Usually I will just pump her a bottle and try to get her to take a bottle while we're gone. Instead of having to, you know, public scene, I don’t think I can--1 take bottles.

Kathie: It's just in our society, it's kind of awkward. There have been times I've been at the store and she's hungry and what do I do...I wish I didn't have the awkward feeling because then I could be like okay, you're hungry and I'm going to put my thingy on and walk through the store and do my shopping and feed her. Instead I'll give her a bottle and I don’t want to do that. I've gone grocery shopping and I've had to do that.

For the mothers quoted above, using bottles when out in public allowed them to avoid any discomfort associated with public nursing. Even beyond the issue of public nursing, all of the participants of this study tried or at least contemplated using pumping and bottle feeding as a way to feed their infant in lieu of direct nursing, even when in their own home. Each had slightly different reasons for considering this option. As noted above, Laura chose this option because she thought her baby spit up less after bottle feedings. Rhonda started exclusively pumping and bottle feeding, because she thought it was easier to get the infant to re-latch:
It was just easier to hold her and feed her with a bottle. Then if the bottle falls out of her mouth, I can put it right back. Instead of my breast and trying to get her to latch back on again.

Christine used bottles through the night because she believed that it allowed her child to get "enough" milk so that her infant would sleep longer:

My biggest challenge feeding her at night because she would fall asleep and it was just becoming such a long drawn out thing. 'Cause, you know she was so tired that if I give her bottle she eats it all and I know that she is getting enough and then she goes back to bed. And she seems to sleep a little bit better and stuff too.

Ally contemplated switching over to bottle feeding if her child became too heavy to hold and/or if she started to bite her during feedings:

But I can see him being pretty big by the time he’s a year. So I think if I’m not nursing him, I’ll still be pumping. So that way he can still get the breast milk and not have to nurse him, I guess. But still take the time to pump and get him the same milk.

If he does get, uh, to where he’s starting to hurt me with his teeth, then I’ll probably put it in a bottle. But I am absolutely not going to give him formula. I prefer to pump and give him the milk that way.

Tina thought that pumping and bottle feeding might provide more freedom for her, because she would not have to always respond to the infant’s demand. When the researcher asked her what appealed to her about this arrangement Tina replied: "Not having to feel like a walking bottle." Her use of this phrase once again demonstrates the perspective that bottle feeding is seen as the normal way to feed babies, so that if a woman is breastfeeding, her body has become the infant’s bottle.

One way to make sense of participant’s consideration of the pumping/bottle feeding arrangement is that it would still allow them to provide breast milk to their babies, while feeling and appearing like a “normal” bottle feeding mother. Their babies would still benefit nutritionally from the breast milk, but the women wouldn’t have to
worry about exposing their breasts or being bitten by their babies. Additionally, they would be able to know how much milk their child is consuming and others would be able to feed the infant. Interestingly, though every participant contemplated this arrangement, only two actually carried it out. Tina decided that it would end up being twice as much work to take the time to pump and then later bottle feed the infant. Christine tried giving her child bottles at night for a period of time, but ended up deciding that it was just as easy to nurse directly. Ally found that her infant child did not try to bite her even after getting in a few teeth and found ways to prop with pillows to compensate for her child's large size. The two women who used this arrangement exclusively (Rhonda and Laura) both found that it was difficult to sustain and both ended up weaning before the end of the study.

**Descriptive theme 4: Work is necessary.** Finances played a major role in the participants' decisions to work. All of these mothers believed that their work was financially necessary for the well-being of their family. Half of the participants provided the primary (in one case, only) income for their household. Even when a partner's income was primary, these mothers felt strongly that their income was needed. Laura said it most clearly in the following conversation:

Researcher: So what's the motivation to go back to work?
Laura: Money.
Researcher: And I was wondering if there were any other positives for working? Anything else you enjoy about work?
Laura: Supporting my family, umm, keeping a roof over my head, so which leads to money.

Other participants pointed out:

Tina: And in today's—you can't make it on one person working. Two people have to. I think.
Ally: Yeah, we need the income. We’re struggling. So we have to start going back. I wish I never had to work again so I could stay home with him all the time, but it’s not reality unfortunately.

Christine: We [she and her husband] had talked and it’s like I just have to do it [increase her work hours back to 40]. We need to get caught up our bills. I mean getting paid 25 hours a week on the maternity leave was nice, but at the same time it wasn’t what I was making. So, you know, we got a little behind. Not horrendously, but you know, so we were just kind of like, okay this is what we need to do.

Rhonda: Yeah, I want to work my way up, but if I could, if I had my way, and [my boyfriend] was working and we were financially okay, I would want to work less than that. I would like to work maybe at least twenty because then I could be at home. But that’s not possible at all.

Researcher: So looking back on the past few months here, what would you say overall about going back to work after having a baby?

Kathie: I kind of wish I didn’t. But financially I can’t [stay home].

Though finances were the primary motivation for working, most of the participants were able to identify at least one non-financial advantage of working as well. This included the fact that work provided a break from home responsibilities, an opportunity for social interaction, and a sense of independence. Consider the following statements:

Researcher: How is it to be away from him [her baby]?
Laura: It’s fine. People have asked me that at work too. I guess it’s my little break away. But I’m always happy to come back home and excited “there’s the baby!”

Ally: Well I’m glad that it’s the job that I had because like I said I can do homework there. It’s kind of boring because I’m used to singing and being fun and goofy with him all day. And then I just sit at the desk and I’m like ‘come on.’ You know, like I need to be doing something more active... But I guess it is a way to unwind just sitting there and talking to people my own age that come up and stuff like that. So that’s kind of nice.

Kathie: Well, I’m going back [to work] on Monday. I’m excited. Well, like I said all she wants is to be held. So I’m over stimulated by holding her all the time.
and I just want to be able to not think about feeding her and just be focused about something else. So I’m excited about that.

Tina: I have to have my job. I have always worked and I will always work, you know? It helps not just me but I’m sure it helps a lot of women out there to feel independent and you still get out of the house a little bit. Even though, you know, I still miss her, you still get out of the house, you know.

Interestingly, even though the participant recognized other benefits of working, most were quick to mention that it was difficult for them to be away from their infant. This can be seen in Laura’s quote about how she is always happy to come home and see her baby and in Tina’s statement about still missing her infant when she was away.

**Descriptive theme 5: Juggling work and motherhood is doable.** Though many faced challenges along the way, all of the participants found ways to juggle work and motherhood. Within a couple of months of returning to work all appeared settled into their work schedule and comfortable with their childcare arrangement. By that time, these mothers had established a routine for childcare with their partner and/or friends. Overall, participants thought that the return to work was satisfactory, even if it was difficult in the early days or weeks:

Rhonda: Well, it’s gone okay. I don’t really, you know have a choice in the matter. But it’s good, we have a routine. We have a way of doing things. So it’s doing well. I mean it’s going good. It’s doing a lot better than what I thought. I thought it would be a lot worse because I was like, "oh my goodness, we’re goin’ to have two?!" And certainly I have those days where I’m going oh my gosh it’s horrible. But for the most part it’s okay. It’s not so bad. We are doing okay.

Tina: It’s going good. It’s going. You know, once you get into it, you get the hang of it and it kind of goes smoothly. It’s bumpy at first. It’s a bumpy ride at first, but it smooths out.

Ally: And some people I work with are like “How do you go to school and work part-time and you have a baby and you keep your grades up?” and I’m like “I don’t know.” I don’t know how it’s been working, but it’s all been working out pretty well.
Laura: I don’t think I have any challenges—as far as work and motherhood goes.

Christine: Yeah, definitely. So it’s been busy, but that’s just what we have to do, so we’re making it.

Though a specific quote from Kathie was not found for this particularly theme, she did make several comments about how her infant had done well being cared for by others, that her husband handled childcare well in her absence, and that she had a group of "close-knit friends" who had made the transition back to work easier for her. Therefore, it seems reasonable to conclude that all of these participants were able to find ways to balance work and motherhood.

**Descriptive theme 6: Adjustments are needed.** In order to adequately juggle work and family commitments, several participants had to make adjustments to their original plans. This included changes to childcare arrangements, work schedules, and pumping routines. Three of the mothers had to change their childcare arrangement. One of these was Kathie, who, in the first interview described her childcare plans as such:

My husband is going to be working three to eleven. I’m going to be working nine to five. So we’ll only need someone for a few hours...We go to church with someone who does a daycare. It’s unlicensed, but we know her and she’s good with kids...So we’re going to talk to our friend at the church to watch her.

However, in the next interview she stated: "I would love to have [the woman from church] do it, but I called her and she said she’s already filled that position in November." Instead of sending her infant to the daycare as planned, she ended up having friends help out: "I’ve had some friends watch her for a full day, but they said she was real easy to take care of too."
Ally had planned to have a friend watch her child during two of her afternoon classes, but her friend cancelled at the last minute. Ally was able to find a different friend to watch her infant during her first class and the professor of her second class allowed her to bring the child with her. She explained the situation as follows:

[My Husband] is watching him on the weekends and that’s going pretty good. I mean that’s how we planned it. And one of my friends called me after the first week of classes and told me she was not going to be able to watch him. So that was kind of frustrating ‘cause that was the day that I had both of my classes on that one day, on Tuesdays. Where on Thursdays I only have one class and she said she couldn’t watch him on Tuesday. So I was really frustrated and I didn’t know what to do because I only had a couple days to come up with something.

The third participant who made a change to her childcare arrangement was Christine. In the beginning she planned on keeping her child with her while she was at work, because she had been given permission from her employer to do so:

I’m lucky that I get to bring her with me and she’s just in the office with me and so that—I’m very fortunate. It’s still a change of routine for the both of us but it’s not like I had to return to work and drop her off somewhere because that would not happen. You know so, I mean, I’m fortunate that I can at least go back to work and have her there.

However, she soon found it difficult to accomplish work tasks with the infant present. Her place of employment had on-site childcare and she chose to begin using it on a limited basis:

And actually I’ve started to take her down to the nursery and let her stay down there for like an hour while I go back to the office without her just because if she’s in there and makes a fuss or anything it like interrupts kinda.

Two of the participants made adjustments to their work schedule in an effort to better coordinate with their partner’s schedule and meet family needs. Ally planned to work on the weekends and a couple evenings per week:

Well, I plan on starting the first week of September and then I changed my schedule so that I will be working on the weekends. And then I will be working
in the evenings hopefully during the week. That way my husband will be home to watch him because I don’t want to put him in a daycare so young.

However, her husband ended up not being as available during the weeknights as she had expected making it difficult to work during the week as she had planned:

[My husband] and I have talked about when I’m going to start going to work during the weekdays, weeknights. But since his schedule at work—when he’s done [with his job] he’s able to come home. It’s not like an eight to five job. So, so far it hasn’t worked out. [He keeps having problems at work] so he’s not making it home very early.

Similarly, Tina planned to work on Fridays, Saturdays, and Sundays, but ended up dropping Fridays to better meet the needs of the family:

I thought I had everything planned out and it was going to be perfect. It was gonna work just like this and once I got into it—starting to work and everything—a few things have changed. Like I don’t work Fridays anymore. Fridays are just, that’s the day my girls leave for their dad’s on the weekend. And they’re both going to be in school...so they’re both going to be getting out of school on Friday. So I just work one day during the week and then I work Saturday and Sunday still.

Finally, two participants made changes to their pumping routine to better meet work responsibilities. Kathie was optimistic in her first interview that she would be able to pump at work, but ultimately found that it was too difficult to do:

Umm, and I’m sad that I’m still not able to do it. Like there have been times when I’m like—I want to breastfeed. I want to do that. I ended up having to stop because I just didn’t have any time at work.

Laura initially had sufficient breaks and location for pumping at work, but when she began training for a new position found it difficult to sustain her pumping routine:

It was getting exhausting just because I was trying to train and you know I’m like, okay, ‘I’ve got to leave’ and we would be right in the middle of a training session. Not all the time did we spend in group sessions but I would be in a group session and I’m looking at the clock and going ‘okay, I’ve got to leave but I really can’t miss out on what he’s doing.’ So I would sit there. And they know that I have to go out and pump, but I’ll just go and pump when he gets done.
Laura ended up altering her pumping routine to work around training sessions, which led to a decrease in the frequency of pumping at work. This theme suggests that, while on maternity leave, it may be difficult for mothers to anticipate how family and work obligations will impact one another upon their return to work. Mothers, as well as their employers and families may need to be open to making adjustments during the first few weeks after maternity leave.

Descriptive theme 7: Time and effort matter. Coordinating breastfeeding and work was not often an easy task for these participants. In fact, it required considerable time, effort, and frequently a willingness to tolerate less-than-ideal situations. Consider Laura who, for a couple months, woke up at 3:00am to pump for the first time and then faithfully pumped another four times each day. She described her daily pumping routine as such:

Between 3:00 and 3:30 [AM] I get up and I pump. And then I take a shower. After the shower, I get dressed and do my hair. And then after the shower and stuff, I make my lunch. I pack my pump bag and then I’m out of here by 5:00 in the morning. And then I get to work at a quarter to six. I work for a few hours and then at 9:00 in the morning I pump. And then I work for a few more hours. I pump again at 1:00 and then I come home and then my evening stuff starts...I pump again at about 5:00 and then I pump again about 9:00.

During the months that Laura was keeping to this routine she was able to maintain an adequate freezer supply of breast milk for her infant. However, as is mentioned in the theme "Adjustments are needed," she found it difficult to maintain this rigorous pumping schedule over time.

The time and effort needed to coordinate breastfeeding and work extended beyond the actual task of pumping. Participants also spent considerable time making plans about where and when to pump, talking with supervisors about their plans and
needs, and taking care of their pumped milk. The making of plans and talking with supervisors often began during pregnancy or maternity leave. Christine started thinking about breastfeeding and work while she was pregnant. When she was asked about when she talked to her supervisor about breastfeeding she said:

Um, probably, she—right from the beginning when I was pregnant and how I would bring her back and then it would be a good thing that she would be with me. So I would be able to feed her while I was there. So I would say right away when I was pregnant. We started making plans for that.

Other participants started to give serious thought to breastfeeding and work while on maternity leave. Kathie demonstrates how much thought she had put into it through her detailed description of her pumping plans in the first interview:

So what I am planning on doing is use the room right across my office door. I’ll just go in there and probably keep a little cart with me. So when I go in the room, after I’m done breastfeeding, cleaning everything I’ll wipe down everything I’ve cleaned. I have these san-ease bags. I will sanitize everything when I’m done pumping. I can sanitize it in the microwave and put everything away. I’ll be able to bring everything in there with me; pump, clean-up, and leave.

Storing pumped milk also added to the amount of time and effort required by the pumping mother. Even if participants had a refrigerator in their workplace to store milk, it was not always near their pumping location, so they would need to walk their milk over after they were done pumping. Additionally, several of the participants were careful about dating their milk (as is recommended by breastfeeding specialists to avoid giving expired milk to the infant). This, of course, added to the time required for each pumping session. Tina provides an example of the process for storing milk:

We’ve got a refrigerator there—in the break room. And I take little brown bags, little lunch bags and sometimes I’ll either keep the milk in the bottle or I might pour it in storage bag, but usually I’ll just wait to do that when I get home, where I have a sink and I can wash my hands while I do it. But usually, I just pump the milk into the bottle. Put the lid on the bottle real tight, put it in my brown paper
Several of the participants had to put up with less-than-ideal situations, which often meant that more time and effort was required from them. For two of the mothers, Rhonda and Ally, the only place for them to pump was in a shared restroom. In Rhonda’s case, the bathroom was a one-stall employee bathroom. Initially, she was not sure if she should pump in there at all because doing so would mean that no other employees could use the restroom at that time. She did end up attempting to pump, but because the bathroom had no seating outside of the commode, she did her first few pumping sessions standing up. Later she found a chair to bring in the bathroom, but she still found it difficult to pump because of her limited breaks. She explained:

Finally one time I could actually have a chair in there. I could take a chair in there and sit down, but still I only have a half an hour break. So twenty minutes is being spent on pumping. I want to relieve myself enough so I can be comfortable working and then in ten minutes I’m trying to scarf down food so that I have sanity and I’m not too dehydrated. So I’m able to function. Also, I have to relieve myself enough so that if I bump into a [clothing] rack I’m not hurting myself.

Ally’s pumping location was also less-than-ideal. She pumped in a public restroom that was used by employees as well as patrons and lacked seating. For most pumping sessions, she would sit on the sink counter inside a toilet stall to pump, though in the third interview she said that there had been a few times when the counter was so dirty that she chose to stand while pumping. She described it as follows:

I’ve found a bathroom that is hardly ever used, but it has one of those personal stalls that also has a sink. So it’s like a stall that’s like three times the size of the other stalls. But it’s like—it’s in the bathroom, but it’s got its own sink, it’s own paper towel holder, plugs in there and everything like that. So I usually just go in and sit on the counter of the sink. It’s pretty clean because it’s hardly ever used. It’s like a private area, I mean, nobody else can see me or anything. It’s not as
comfortable. There’s no chairs or nothing in there. But it works, it works well enough I suppose.

Tina had a nearly private location to pump but did not have easy access to it. Tina explained:

I’ve got to always make my phone call ‘I need to be let into the [office]’ you know, and someone has to come with a key and unlock and let me in if no one is in there. So yeah, I’ve got that room in the back and I do my thing. Having to punch out for lunch each time I do it and I do it twice, like in an eight-hour period, I do it twice.

Even though the room that Tina pumped in was locked, she still got walked in on while pumping by a co-worker who had keys. This resulted in an embarrassing situation for both parties. Tina’s response was as follows:

So now I got this big piece of cardboard that I stick behind this machine in [the office] and when I go in there I tape it up on that big glass window and it says in black marker ‘Do not enter!’ ‘Do not enter!’ And I tape that on the window...so when people see that the door is shut and they see that big piece of cardboard over the window--if they still walk in after that then they are idiots.

Having to put up and take down a sign for each pumping session, of course, also added to the amount of time required from Tina to continue managing breastfeeding and work.

Put together, these quotes show that the coordination of pumping and work is not a simple matter. Mothers considering combining breastfeeding and work may need to put thought into where and when to pump, spend time discussing their needs with their supervisors, use their work breaks to complete the tasks of pumping and storing their milk, and deal with less-than-ideal pumping situations.

**Descriptive theme 8: Weaning is bittersweet.** Three of the participants weaned relatively soon after returning to work. Rhonda weaned about two weeks after returning
to work, Kathie weaned about a month-and-a half after, and Laura had nearly weaned her infant about two-and-a half months after. These mothers had mixed emotions about weaning. Each expressed some sadness or regret for not breastfeeding longer and seemed to believe that formula was inferior nutrition. Consider the following statements:

Rhonda: I mean there’s still a part of me that I wish I could have gone a little bit longer so she could have gotten more benefits from it. Or even me more benefits from it. Maybe my boobs would have been different or look different. I don’t know. But that overall benefit of breastfeeding and I wish I would have been able to do that or been okay or stable enough. Because I see the benefits of it and I think they really do outweigh more than the cons. But at the same time, I’m okay with the decision I made. But still part of me wishes that I could of.

Kathie: I miss it to certain extent and I don’t.

Laura: But I was like, you know, I’m just so sick of it anyways. But once I say that then, as I’ve said before, I feel guilty...so much for me wanting to do it for a whole year.

Though they had some regret about not nursing longer, these participants also seemed relieved to be unbound from the daily hassles associated with breastfeeding. For example, when Rhonda was asked to reflect about her feelings related to weaning at two months she replied:

I’m more—um, relaxed. More calm. Less stressed about everything. I wish I would have been able to give her breast milk. But in the long run, I am less stressed. I can deal with her easier and [my older son]. I’m more calm about it. I can relax more and just enjoy everything.

Additionally, all of these participants found some satisfaction with their duration of breastfeeding. Rhonda was proud that she had nursed as long as she did, because she knew others who had not attempted at all. Kathie took heart that her breastfeeding attempt with her daughter was more protracted than it had been with her older son. Laura seemed impressed with her duration, because she had been uncomfortable with nursing to begin with. Consider these statements:
Rhonda: This is my life. This is what I have had dealt to me. So I have to make the best of it. And then I think about all these other mothers who don’t breastfeed and they just do it because they don’t care. You know, at least I did it for two months. At least it’s better than nothing or maybe I’m lucky because I was able to do it for two months and some of these mothers can’t. So at least I was able to do it for as long as I could. She got something out of it. I try to think of the positive part of it instead of the negative part.

Kathie: I’m proud of myself for how far I went. I think we did three months breastfeeding, which is better, a lot better than a week [the period she tried with older child].

Laura: I’ve attempted and I’ve tried and I’ve done it for four months. We’re good.

**Interpretive Themes**

The following five themes are interpretive in nature, meaning that they pull together several different ideas from the data. In general, these themes are more complex than the descriptive themes. These themes did not follow directly from statements that were made by the participants, but rather from the researcher’s understanding about the meaning of participants’ narratives and the about the possible relationships between variables.

**Interpretive theme 1: Knowledge doesn’t equal success.** All of the participants possessed some knowledge about breastfeeding, but breastfeeding knowledge did not always translate into breastfeeding success. That is, even though these mothers knew much about breastfeeding, they were not always able to meet their breastfeeding goals. Rhonda and Kathie were both informed about recommendations related to infant nutrition, aware of the benefits of breastfeeding, and knowledgeable about the process of supply and demand. However, they were the earliest to wean and both stated that they
wished they could have breastfed longer. Below are some examples of breastfeeding knowledge on the part of Kathie and Rhonda:

Kathie: I’m going to pump until ten minutes after I’ve stopped producing milk to keep encouraging more milk to be produced. That will probably be 15 to 20 minutes.

Kathie: It’s healthier for them. They get things from the breast milk that they won’t get from formula. It helps their immunity. They get better vitamins and not only that you can find out food allergies a lot sooner.

Rhonda: I wanted to do it for six months because at six months they start going into the dairy, the cereal, and first foods. I would have tried to have done it until then. Six months at least.

Rhonda: They started kind of drying up because it was going too long. If I had started pumping every two hours, I could have gotten my milk back. But they were drying up and they were sore.

By contrast, having some misconceptions about breastfeeding may not always be detrimental to breastfeeding success. Tina, Ally, and Laura all had some misunderstanding when it came to breastfeeding, yet all had comparatively greater success with breastfeeding than Rhonda and Kathie. Tina thought that “your breasts have to get used to having all that milk in there and letting it flow out. You know, having a letdown.” This represents a misconception, because with a proper latch, milk should just begin to flow naturally within a few days of delivery, without any need for them to “get used” to having milk in them (Lawrence & Lawrence, 2005). Ally expressed concerns that her infant’s teeth would interfere with breastfeeding:

Cause I have just heard so many things like ‘when his teeth come in you’re not going to want to breastfeed anymore.’ And he’s definitely already got four teeth in and he’s got two more that are working their way on coming in.

In reality, teeth rarely interfere with breastfeeding because an infant sucks on the breast using his/her lips and tongue (Lawrence & Lawrence, 2005). Despite these
misconceptions, both Tina and Ally continued to nurse and appeared proud of the success they were having with breastfeeding. Both were still nursing at the end of the study and were planning on continuing for up to a year or longer.

Laura held multiple misconceptions. For example, she thought that she needed to wait for her breast to fill up before pumping: “I’d wait until I get full and then I’d pump because I’m not going sit there and waste my time pumping.” In reality, when a woman is lactating, her breasts are constantly producing milk so there is no need to “save up” or “fill up” before nursing or pumping (Lawrence & Lawrence, 2005). Additionally, Laura thought she needed to squeeze her breasts in order to get out the most milk: "And then I’ll go in there and pump. And then I can squeeze the crap out of my boobs, squeeze as much as I can.” In actuality, breast milk should naturally flow out when stimulated by a nursing infant or breast pump; there should be no need to squeeze the breast to get out milk (Lawrence & Lawrence). Though Laura held these misconceptions from the beginning, she was initially successful in building up a large supply of frozen breast milk. In our second interview she threw open her freezer and proudly displayed over eighty bottles of pumped milk.

Given the fact that knowledgeable mothers fell short of breastfeeding goals and mothers with misconceptions did not suggests that simply increasing knowledge about breastfeeding will not necessarily ensure longer breastfeeding duration or success. There must be other variables at work that affect breastfeeding length.
Interpretive theme 2: Difficult to overcome low supply. Several participants experienced low supply at some point over the length of the study. Only one of these mothers was successful in resolving her low supply issues. The other three mothers continued to experience low supply up until the point of weaning and the low supply appeared to be a salient factor in the decision to wean. These participants' experiences suggest that once low supply occurs, it takes considerable time, energy, investment, and/or encouragement to resolve it. The three women who were unable to resolve their supply issues appeared to lack enough of the above variables to make it possible to establish (or reestablish) an adequate supply. One of these mothers was Kathie, who began struggling with low supply within a few days of delivery. In the first interview she explained:

Yeah, I've been able to breastfeed her. But I'm not producing enough. So now I'm frustrated right now because of the fact that we did good for about the first---so we supplemented because she had jaundice when she was born... And she wasn't getting too much from me at first and then I started like two or three days after we left the hospital was when my milk came in. So I got engorged then. But before that time, I really wasn't getting too much, just the colostrum and we needed to get the jaundice out of her so we were supplementing her, like just one ounce of formula just to get the jaundice out of her and then we got that and I just tried to breastfeed and she wasn't happy with that--she wanted more...So we kept supplementing. It used to be just like maybe one or two bottles of one ounce bottles throughout the day and now I'm only producing one ounce at the feeding.

Kathie tried a few things to resolve low supply including talking with lactation consultants, taking an herbal supplement said to increase supply, and using a feeding tube. She explained:

I went Monday to the Breastfeeding Clinic and the lactation specialist is at [the hospital]. I went there and talked to them. They pumped me and put me on medicine and I forgot what it was called...to help with milk production and then I'm also doing a feeding tube so she is feeding on me still, but she is getting the formula from a little tube that I stick in the corner of her mouth. I can show you at some point... So we are doing that, but it's really [a] hassle sometimes.
Kathie did not think that the herbal supplement helped her supply and ended up only using the feeding tube on a couple occasions because she thought it was a “pain” to do. She also found that she did not have enough time at work to pump and was therefore unable to regain her supply.

Laura and Rhonda both developed low supply later on. Similar to Kathie, Laura contacted lactation consultants and began taking herbal supplements, but was unable to regain her supply. She described this experience as follows:

My milk supply dwindled over the holidays and he was puking a lot even when I tried to nurse him. And when I tried to get back onto schedule after the holidays and stuff. I’m pumping out at least one to two bottles a day. So there was nothing I could do. And I started taking some pills. Some supplementing pills like, it’s called fenugreek and blessed thistle. But I wasn’t pumping enough still and I wasn’t nursing enough to help them, to make them pills work.

As shown in the quote above, Laura was quick to take responsibility for the continued struggle with the supply, noting that she simply did not nurse enough to allow the supplement to help, even when she was laid off for a week and was at home again full-time with the infant. This appeared to be connected to some ambivalence on her part towards nursing in the first place. However, her investment was not the only factor that worked against her. She also was challenged to find enough time at work to pump:

Maybe I will try to build my milk supply back up again. I still have pills. So I can always attempt to try the pill thing again. It’s just going to be hard when I go back to work because I’m not going to be able to pump as often as what I would want to pump to make the pills work.

The lack of time to pump at work also played a significant role in Rhonda's development of low supply and the difficulty of attempting to regain it. Rhonda's supply began to drop after workplace characteristics (lack of sufficient breaks, less-than-ideal pumping location) made it extremely difficult to pump at work. For a while, she tried to
make up for the lack of pumping at work by pumping more frequently at home, but
became exhausted with this arrangement. So in her case, the lack of time to pump at
work contributed to her low supply and she simply did not have sufficient time (or
energy) to reestablish it. She explained: "They started kind of drying up because it was
going too long. If I had started pumping every two hours, I could have gotten my milk
back. But they were drying up and they were sore."

Christine is the only participant who was able to reestablish her supply, after
having struggled with it. Similar to Kathie, Christine began to experience low supply
within a few days of delivery. She described her struggle with supply as follows:

So, and um, she was seven pounds when she was born and she lost, she went
down to six fourteen. So they told me that I should supplement.... Which, in the
future I won’t do that because it kind of took me a while—I was giving her
formula about four ounces a day. And probably about four weeks ago or maybe
three weeks ago I got to the point where I finally could just only give her
breastfeeding, only give her breast milk. So it seemed like it took me longer to
build up my supply and stuff. But it went well after a couple of weeks, but it was
definitely a challenge and I’m glad that I didn’t give up on it.

There appeared to be at least two factors that contributed to Christine’s ability to
reestablish an adequate supply. One factor was that her maternity leave was of longer
length than most of the participants (nine weeks) and she was therefore able to resolve
the supply issues before heading back to work. Another factor was that Christine
received encouragement through La Leche League International. Her contact with this
organization led her to believe that if she continued to nurse her infant frequently, it
would all work out. She appeared to have greater faith in her body and the breastfeeding
process as a result, which gave her the courage to remove the supplement from her child
while trusting that the infant would get "enough." She described this as follows:
Well, I figured that too, if I did that [fed on demand], it would help my supply to build up and stuff too, you know, so. I didn’t want too, you know, whenever she wanted, you know, I wanted to put her on the breast as much as possible ‘cause that’s what they [La Leche League leaders] said would help build it up and stuff.

But I think, you know, next time I will just try to do strict breastfeeding because I think, you know, people who are big advocates of breastfeeding say that you will always make enough. Your child won’t starve, you know. Unless you have some sort of medical condition that’s making it happen, so...But it’s going well.

**Interpretive theme 3: Supply and duration: Workplace characteristics**

** matter.** There were some notable workplace differences between the participants who weaned before four months (Kathie and Rhonda) and those who were continuing to breastfeed (Ally, Tina, and Christine). The early weaning mothers were more likely to experience job instability, conflict in the workplace, and an unpaid, informally arranged, shorter (6 week) maternity leave. Regarding instability, Kathie was laid off from her job on her first day back from maternity leave. She found another job shortly thereafter, but due to dissatisfaction with the management, began looking for another job within a few weeks of employment there. While on maternity leave, Rhonda feared that she might not get her job back. Though she did get her job back, she continued to fear that she might get fired at any time and so was also looking for another job. Regarding workplace conflict, both Rhonda and Kathie had some difficulty getting along with co-workers and/or supervisors. Regarding maternity leave, neither Rhonda nor Kathie was supported by a formal maternity leave policy. Both negotiated an informal, unpaid maternity leave of about 6 weeks. These participants’ experience with instability is demonstrated in the following quotes:

Rhonda: They weren’t even going to give me my hours back. They were trying to get me to go somewhere else and then finally when I told them I was going to take it. It sounded like they wanted me to quit. Try to quit. Then that way they
would not have to pay the unemployment. They didn’t want to lay me off. They didn’t want to fire me ‘cause I’d collect unemployment.

Kathie: I walked in and everything is fine all through the morning. I went out and did some grocery shopping for breakfast—breakfast bar and everything. Then I come back and we had a staff meeting at one and my owner was there. He was in his office. So I went in to his office and I said “I haven’t seen you for several months and how are you doing?” You know, friendly. And then I saw he had someone in his office and I was like “Oh, I’m sorry I didn’t mean to interrupt” and I started to leave. So he said “Come in, come in.” So I go in and sit down and he says “my partners and I made a decision that we are going to have a management come in and take care of the hotel. We will pay you for the next four weeks to help out.”

The early weaning mothers were also less likely to have support for breastfeeding from co-workers or bosses, adequate breaks for pumping, a place to pump, or a place to store pumped milk. Consider these quotes from Rhonda and Kathie:

Rhonda: Because of how things are set up, there is not really a private area where I can just have my own room. The rooms that they have—there are supplies or certain things—like the office—if they need change or cash, they have to go into the office. They need stock—the stock room. The break room, there’s no privacy in there. If somebody has to go on lunch, they have to go on lunch. And then there’s the bathroom—one big bathroom. So if somebody needs it, they need it. So I can’t be spending twenty minutes in the bathroom or whatever.

Rhonda: Oh, the supervisors? My work? The people that I work with did not breastfeed their kids. So they were like whatever. They didn’t seem very comfortable with it when I had to go pump or talk about it.

Kathie: I really wanted her to breastfeed. But I think it was the demand, the stress that I was in—really cut into my breastfeeding as well as, umm, having the time to do it. Umm, and I’m sad that I’m still not able to do it. Like there have been times when I’m like—I want to breastfeed. I want to do that. I ended up having to stop because I just didn’t have any time at work... Our staffing is very minimal. So she [her boss] doesn’t have anyone that can cover me.

Kathie: I just couldn’t get it done at work. I just couldn’t do it. And my boss told me pretty much to figure out what you can do. She really didn’t give me any options or anything. She just said “figure out what you can do and let me know what you’re doin’.”
This can be contrasted with the three participants who were continuing to breastfeed at the end of the study (Tina, Ally, and Christine). The continuing mothers were more likely to have stable employment, a flexible schedule, a private or nearly private space to pump, a place at work to store their pumped milk, general support for motherhood from co-workers or bosses, breastfeeding encouragement from co-workers or bosses, paid breaks, breaks of adequate length for pumping, and a maternity leave backed by policy, pay, and/or longer length. Consider the quotes below about maternity leave, job stability, and breastfeeding support:

Ally: But then I told them I was basically gonna to take from the time he was due, a week before he was due and then I told them I could be back within six weeks if they wanted me to. And they told me I could take the whole summer if I wanted to and just come back whenever I’m ready. And even if I don’t want to come back this fall, they said I can just keep taking the time off until I’m ready to come back. They’ve been working with me really well.

Researcher: So what did you work out in terms of your maternity leave?
Christine: She, they were very generous. They paid me for a 25 hour work week when I was home and stuff...

Tina: And I’ve been working for [this company] for, technically really eight years. I quit and moved out of state and then came back within a year’s time they rehired me. Technically, I’ve been with them for eight, but with the break it’s only been six.

Ally: My supervisor is really relaxed about what time I take my breaks and for how long. Like, I get two fifteen minute unpaid breaks and a half hour break. That’s when I work for eight hours. Usually the two fifteen minute breaks I just take and pump. And the half hour break, I go and eat something.

Researcher: Any other things that have helped you to keep on pumping at work?
Tina: Just the support of the supervisors and everybody there, you know. They’ve been just so cool about it. And uh, they’re cool about letting me into the room when I need to go and that’s the biggest part: having the support from your employer. It helps a lot. And having a fridge, that is great. I don’t have to bring a cooler.

Christine: And it’s nice because everyone is really supportive and knows that I’m still nursing her. So they help. And it’s not just like, you know, I have lots of
good help and support too. I’m fortunate to have good co-workers and people there and they’ll say “it’s okay, go ahead, go feed her, I’ve got this” and that happens a lot.

**Interpretive theme 4: Job satisfaction: Breastfeeding support matters.** The participants who had support for breastfeeding at work (Tina, Ally, Laura, and Christine) appeared to have greater job satisfaction compared to those that did not have support. The following quotes illustrate the gratitude that these women felt towards their employer and their satisfaction with work:

Tina: No, no they’ve been doing really good with this [allowing her to pump]...They’ve been great. It’s been great. It depends on not the company. It depends on the people who work for the company and how they feel about it. So, thank God! I got lucky. I really did. I got lucky.

Researcher: So my last question is just how do you feel about combining breastfeeding and work?

Christine: I think it’s been, I think it’s been good. I think I’m fortunate. You know, I was talking to one of the other moms there that brings her kid....I was talking to her the other day, you know we were talking and I said "are you nursing?" And she said "yeah, I nursed in the beginning but I stopped when I went back to work." So then I felt like, "oh, what a bummer." So I feel that it’s just been awesome that I’ve been able to do that.

Ally: Yeah, it’s probably the best possible work arrangements for me since I want to be home with him so much. I mean, it’s a nice job and I don’t really have people yelling at me. I don’t really have a strenuous job going on or anything. So I think it’s pretty good.

Laura: Working at this job and going from, coming from a job working in a nursing home that was dead-end job unless you wanted to continue on to the nursing career, which I didn’t want to. It’s a dead-end job and you don’t get paid crap. You know, you’re dealing with a whole lot of pressure. And you’re stressed all the time. And I’m in a totally different environment that is completely stress-free—I mean, to me anyway. There are some people who get pretty stressed out about work. But to me it’s a stress-free job.

By contrast, both Rhonda and Kathie appeared to have lower job satisfaction. Both were actively looking for different work by the end of the study. Both made
negative remarks about their supervisors and co-workers. These were the same two participants who lacked support for breastfeeding from their workplace.

Rhonda: I like doing what I do. I like working there. But there is days when I feel that I want to find a different job. I want to do something else...they seem not very there for employees. They’re not, they’re, we’re gonna get you to work for as cheap as possible, or do the less we can for you, but at the same time they try to make it seem like they’re there for you. I want to find a job that has insurance or be full-time and have a title—a good title. And I would feel valued by the employer. This way, I feel valued sometimes, but other times it’s like, if they can get it done cheaper, we’ll get it done cheaper—if they want to let you go, they can let you go.

Kathie: I tried [to pump at her second job], but it was really difficult there too...There were some times where I was getting—with one pump—two to three ounces...So I was really excited about that and then I just, I just couldn’t get it done at work. I just couldn’t do it. And my boss told me pretty much to figure out what you can do. She really didn’t give me any options or anything. She just said “figure out what you can do and let me know what you’re doin’”... Well, I mean I really didn’t have any options other than what I was doing! Because we could at one time have three people in the office—four people. And we had my manager, but she doesn’t know how to cover the front desk. She doesn’t know the computer. All she does is delegate. She’s in our office and delegates everything. And I won’t go into that. Then we have a controller, which is accounting person. And she doesn’t know how to make a reservation at all. She just sits in her office, in the accounting office all day she doesn’t do anything.

This is not to imply that there is a causal relationship between breastfeeding support and job satisfaction. Less breastfeeding support and lowered job satisfaction could both be caused by other variables. Or lowered job satisfaction could be a contributor to a lower likelihood that individuals in the workplace will be supportive of breastfeeding. For example, a dissatisfied employee may present at work with a more negative attitude and that attitude could make others resistant to accommodating their desire to pump at work. Nonetheless, there does appear to be some relationship between the variables of job satisfaction and breastfeeding support, one that may merit greater attention in future research.
Interpretive theme 5: Supply and duration: Maternal attitude matters too.

Importantly, workplace support for breastfeeding did not appear to be the only variable contributing to longer breastfeeding duration. The participants who weaned earlier in this study were also more likely to express discomfort and/or ambivalence about direct nursing (especially public nursing) and were more tentative about their plans for breastfeeding duration. The following quotes demonstrate discomfort with direct nursing and public nursing on the part of Rhonda, Laura, and Kathie:

Rhonda: Oh, I thought I was going to enjoy this because I really didn’t get to do it with [my older son] and I’m not sure if I’m okay with that. You know, I’m used to seeing someone else there, and enjoying it in a totally different way. You know what I mean. It just didn’t feel right. I’m used to it being a sexual thing instead of a natural nurturing way.

Rhonda: It felt right, but at the same time it was just, like, I don’t really want to see her sucking on my booby! I was like, it’s okay because I know that this is natural and this is a natural thing. This is what happens. This is how they fed their kids. But at the same time, I really don’t want to see her doing that.

Laura: I didn’t ever want to do it with my other two because of that fact. It’s not me. It’s not really—I don’t know. I see some women that I look at that are breastfeeding and yeah, they look like breastfeeding moms. They’re older and they just look like they’re more experienced—and me, it’s just not me. If I look at myself in the mirror and I’m breastfeeding, it just doesn’t look right. I don’t know why.

Kathie: I wish I didn’t have the awkward feeling because then I could be like okay, you’re hungry and I’m going to put my thingy on and walk through the store and do my shopping and feed her. Instead I’ll give her a bottle and I don’t want to do that. I’ve gone grocery shopping and I’ve had to do that.

Contrast those quotes with the following statements from participants who were continuing to breastfeed at the end of the study:

Ally: I don’t have a problem with nursing in public. But sometimes there is no spot to do it. So I’ll have to nurse in the car or something. But it’s definitely a lot harder to go places and do things.
Christine: When you're new mom and it's your first baby, you're not gonna be real comfortable like having your boobs out there for, you know, everyone. You know, you get more comfortable nursing. And now I'm definitely more comfortable with it and I feel like I can whip it out and be more discreet. But in the beginning you have to get used to doing that, you know...

Another difference between participants who weaned early and those who continued breastfeeding was in how they talked about their breastfeeding plans. The participants who weaned early were more likely to have tentative plans about breastfeeding duration and were somewhat ambivalent about continued nursing. The early weaning mothers had this to say:

Researcher: How do you feel about it—trying to combine breastfeeding and work?
Kathie: I'm hoping it works, but I'm not going to be heartbroken if it doesn't.

Researcher: If you had to say realistically, how long do you think you will breastfeed?
Laura: Like I said, I don't know. A year is my—I mean if he bites me, that's it, I'm done.

Rhonda: So I'll just deal with it and other days I'm just like she'll be fine with formula. [My older son] was fine with formula. You know? He's healthy. He's doing good. I've done it for a good amount of time. I still go back—no, just tough it out, just deal with it.

By contrast the mothers who continued to breastfeed expressed determination to find a way to juggle breastfeeding and work and said that they planned to continue nursing for at least one year:

Tina: So I've been there for awhile and I make, like, ten bucks an hour. So, and with benefits if I need them. So it's like yeah, I'm not going to quit. And the benefits of working, I'm going to do it. I'm going to juggle the benefits of working and breastfeeding at the same time. I'm going to do it. I'm determined.

Ally: I mean I definitely want to keep working there, but I definitely want him to get the breast milk. So we're going to work out something.
Christine: And I want to nurse her until she is a year. And I feel like you at least I have a good chance, hopefully of that happening, you know, so...

It would seem, therefore, that mothers planning on combining breastfeeding and work will be more likely to nurse for longer durations if they have greater comfort with breastfeeding directly and in public and if they express greater determination for breastfeeding.

Summary. The two sets of themes described above each offer unique information about the participants' experiences with breastfeeding and work. The descriptive themes illuminate the direct ideas shared by the participants while the interpretive themes provide insight into the meaning of these experiences. These sets of themes have been integrated to form a collective narrative which describes the essence of the participants' experiences related to the interface of breastfeeding and work. In this narrative the general term “these mothers” is used as a way to represent the sample of mothers in a collective manner. This narrative describes the most universal and salient ideas shared by participants, and therefore does not contain specific details of individual experiences.

Collective Narrative

These mothers held a variety of different jobs such as retail clerk, hotel desk clerk, library worker, film stripper, or day care director. Their work was full-time, nearly full-time, or half-time and was likely to be marked by instability. These mothers faced or feared layoffs, saw their work as temporary, or sought out education in hopes of doing something different in the future.
These mothers were unlikely to have the benefit of a maternity leave policy or maternity leave pay. However, these mothers negotiated an arrangement with their employers so they were able to take leave, typically 6-9 weeks in length. Though these mothers were physically uncomfortable by the end of their pregnancy, they worked up to within one week of delivery, such that they could take the majority of maternity leave after the birth of the child.

**Maternity leave.** While on maternity leave, these mothers focused on getting breastfeeding established and on preparing to return to work. These mothers began breastfeeding in the hospital. They faced a variety of breastfeeding difficulties in the first few days/weeks postpartum, such as struggling to get their baby properly latched, nipple pain, and engorgement. The passage of time, along with consultation with hospital lactation support, led to resolution of these concerns.

Some of these mothers were encouraged by hospital staff to supplement feedings with formula, such as if their baby had jaundice or lost more weight than expected. When these mothers supplemented regularly with formula, it made it more difficult to establish an adequate supply of breast milk. When these mothers had concerns related to supply they consulted different sources, including breastfeeding books, magazines, online resources, a peer counselor, hospital lactation consultants, and La Leche League leaders. The impact of these breastfeeding support entities depended on whether or not these mothers were provided reassurance that their body was capable of producing enough milk to sustain their infant.

These mothers found breastfeeding to be demanding, awkward in front of others, and physically draining. Further, they were uncomfortable with public breastfeeding,
especially in the early postpartum weeks. When these mothers attempted to breastfeed in public, they reported a gradual increase in their felt comfort level.

Initially, all of these mothers nursed their infant directly. However, some were uncomfortable with direct nursing, and therefore shifted to expressing breast milk with a pump and providing breast milk to their child through use of a bottle. Some of these mothers also tried this option because they believed that their infant would spit-up less or go longer between feedings if bottle fed. This arrangement also appealed to these mothers because it allowed them to know how much milk was consumed by their infant, to share the task of feeding with others, to avoid exposing their breasts in public contexts and to prevent getting bitten by their infant.

These mothers were knowledgeable about breastfeeding and infant nutrition. They understood the process of milk supply and demand, how to read a baby's hunger cues, how to store pumped milk, and when to introduce solid foods. These mothers expressed positive emotions about breastfeeding because they believed that breast milk was superior to formula for the child's health, development, and bonding. These mothers also saw breastfeeding as more natural, convenient, and affordable than formula.

These mothers ranged in their personal investment in breastfeeding. Some were determined to breastfeed for at least one year while others expressed some ambivalence about continued nursing. Even when ambivalent, these mothers were quick to indicate that they did not plan to discontinue in the near future.

During maternity leave, these mothers took active steps to facilitate the coordination of work and motherhood. These mothers' male partners were largely available to provide childcare, because they were either unemployed or worked opposite
shifts. These mothers therefore planned to have their partners serve as the primary
caregiver for the infant. Some of these mothers also enlisted childcare help from friends
and, in one instance, a mother was permitted to bring her infant to work with her.

While on maternity leave, these mothers also made preparations for coordinating
breastfeeding and work. These mothers and/or their male partner introduced their infant
to a bottle. These mothers began to think about the location, duration, and frequency of
pumping that would be needed for continued breastfeeding and the extent to which the
worksite offered such accommodations. As much as possible, these mothers created
specific plans about how and when they would pump and/or breastfeed at their
workplace. These mothers talked with work supervisors either before returning to work
or on the first day back. These mothers were unlikely to know anyone else at their
workplace who had attempted to coordinate breastfeeding and work, so these mothers
were navigating new ground with their employers. When these mothers were unsure
about whether the workplace would support breastfeeding, they expressed a flexible
attitude toward the future of work/school and/or the duration of breastfeeding.

**The return to work.** Upon returning to work, these mothers found themselves
missing their baby. They wondered about how the baby was doing in their absence, if the
baby was taking a bottle, and/or how the caregiver was coping. Some of these mothers
longed to be a stay-at-home mother or to take on less responsibility or hours at work so
that they could have greater time and energy for home responsibilities. However, these
mothers saw their work as financially necessary. In some cases, these mothers provided
the primary income for the household. Even if their income was secondary to the male
partner's, it was still essential to their family. These mothers did acknowledge other
advantages of working such as providing an opportunity for social interaction, getting a break from home responsibilities, giving a sense of independence, enjoying work tasks, and allowing for time for homework and self.

Within a few weeks of returning to work, these mothers were back to pre-delivery hours, but found that they had to make adjustments to their initial plan for juggling work and motherhood. As planned, the male partner did provide the majority of the childcare, but these mothers sometimes had to change their own work schedule to better accommodate the male partner's needs. Sometimes, these mothers had to figure out alternative childcare for the infant when the original arrangements did not materialize as planned.

These mothers found the attitude of their supervisors to be either encouraging or indifferent towards breastfeeding. When these mothers faced structural barriers to combining breastfeeding and work (such as not having a private room or long enough breaks for pumping), supervisory indifference was experienced as non-support. However, when these mothers had a supervisor with a supportive attitude towards breastfeeding, they were able to find a way to combine breastfeeding and work, even if structural challenges existed.

When these mothers lacked support from their supervisors, they concluded that it was not feasible to pump during work hours. Cessation of workday pumping resulted in a reduction of supply for these mothers, which ultimately led to weaning within 2-6 weeks of returning to work.

When these mothers had support from their supervisors, they continued pumping at work. These mothers discovered that it took considerable time and effort to combine
breastfeeding and work. They pumped and/or breastfed on a consistent basis, labeled and stored expressed breast milk according to a specific procedure, and talked with supervisors about their needs. These mothers came up with additional strategies when challenges arose, such as putting up a sign on the door at each pumping session after being walked in on by a co-worker one time or standing to pump when no seating was available.

These mothers faced at least one conflict between work and breastfeeding, such as having a training disrupt their pumping routine; finding that the fatigue from pumping made it harder to focus at work; experiencing painful engorgement at work because they forgot their pump (and did not feel comfortable asking the employer for a break to retrieve it); or leaking through their shirt and having to find creative ways to cover their chest until it dried. These mothers faced such challenges with a variety of coping strategies including keeping a sense of humor, not expecting perfection, and requesting/accepting help from others.

When these mothers were able to combine breastfeeding and work, they expressed positive thoughts and emotions about doing so. They felt grateful to their employers for accommodating their desire to breastfeed and proud of themselves for continuing to provide optimal nutrition to their infant. These mothers thought that combining breastfeeding and work was easier than expected. They were enthusiastic about their breastfeeding experience and were interested in trying to help other mothers breastfeed too. To other mothers who might be thinking about combining breastfeeding and work, these mothers advised that they: talk with supervisors early to make arrangements, be faithful with pumping, to not give up, and do the best one can!
CHAPTER V

DISCUSSION

This chapter extends understanding of the findings from this research through integration with existing literature. Such integration encompasses a discussion of: 1) findings related to the research questions, 2) the implications of findings for research and practice, and 3) the limitations of the study.

Findings Related to Research Questions

There were two primary research questions that provided the framework for this dissertation, one regarding the interface of breastfeeding and work in the lives of participants and the other the utility of work-family theories in describing participant experiences. This section connects study findings with these research questions.

The interface of breastfeeding and work. The first research question was: "What does the interface of breastfeeding and work look like for breastfeeding mothers of low income as they return to work after the birth of their child?" This question was divided into four sub-questions which addressed: 1) participants' descriptions of their own experiences with breastfeeding and work, 2) the impact of breastfeeding on work, 3) the impact of work on breastfeeding, and 4) the participants' thoughts and feelings related to the impact of breastfeeding and work on each other. Each of these sub-questions will be considered in turn.
Participant descriptions of breastfeeding and work. There were two types of stories told by these participants about their experiences with breastfeeding and work: success and struggle. The mothers who were able to find ways to combine breastfeeding and work described narratives of success. These participants detailed the amount of time and effort that it took to combine breastfeeding and work. They spent time planning and preparing to be away from their infant, they communicated their needs with co-workers and supervisors, they pumped faithfully on a schedule, and they took time to store their milk carefully. At times they put up with less-than-ideal situations such as pumping in a public restroom, having to ask for room access each time they needed to pump, and getting walked in on by co-workers. Despite the effort needed and the difficult situations faced, these mothers were extremely positive about their experiences with breastfeeding and work. They expressed gratitude toward their employer, felt proud of their ability to juggle motherhood and work, and overall reported an enjoyable experience. This is consistent with prior research that indicated positive emotions in women who were successful in meeting their breastfeeding goals (Blum, 1999; Romito, 1988; Morse & Botoroff, 1988).

Conceptual literature on workplace lactation support indicates that employed breastfeeding mothers need a breast pump, a place to pump, time to pump, a way to store pumped milk, and support from the employer (Bar-Yam, 1998; Dodgson & Duckett, 1997; Wyatt, 2002). These elements can be conceptualized as either structural (e.g.,
having a private room available for pumping) or attitudinal (e.g., encouragement from supervisors) in nature.

Mothers who did not sustain with breastfeeding after returning to work described a narrative of struggle about how structural and attitudinal barriers made it difficult to combine breastfeeding and work. The most influential structural barriers were inadequate pumping location and insufficient breaks. The biggest attitudinal barrier faced by these participants was that of indifference from supervisors. These participants were not prohibited from pumping at their workplace, but were instructed to "just figure it out." However, the structural barriers impeded their ability to figure out a workable arrangement. For example, one mother struggled to accomplish both pumping and eating in her allotted break time. Another struggled to find an acceptable time to pump when she would not be interrupted by workplace responsibilities. Both struggled to maintain an adequate milk supply. The decrease in milk supply led these mothers to supplement with greater and greater amounts of formula, which ultimately resulted in weaning.

**Impact of breastfeeding on work.** Several of these participants described ways in which having an infant impacted the work domain. For example, half of the mothers described how having an infant limited the total number of hours that they were able to work or the shifts they were able to take, thereby limiting their availability to the employer. This led several participants to make adjustments to their work schedule in the postpartum period. One mother, who was able to bring her infant to work with her, found that the distraction of the child made it more difficult to attend to work responsibilities.

Participants frequently expressed that they missed their infant while they were at work and several thought that their infant was fussier for other caregivers in their
absence. This led these mothers to spend a portion of work time thinking and worrying about the well-being of the infant and caregiver. This challenge would likely occur in a sample of non-breastfeeding mothers, but appears to have been augmented by breastfeeding. One reason for this is that a few of the participants mentioned that they believed they had bonded more with the child as a result of breastfeeding than they had with their other children whom they had not breastfed. Prior research has also found that breastfeeding mothers report having a closer bond with their infant than formula-feeding mothers (McKee et al., 2004). This increased bond might have made it more difficult to be away from their babies. Additionally, some of the mothers’ fears centered on whether or not the infant would take a bottle for the caregiver, a fear that would likely not be present if the child was formula-fed.

The impact of breastfeeding on work was likely tempered by the mothers’ commitment to their work. Generally speaking, the participants made significant efforts to honor their workplace responsibilities, even when it meant compromising on family responsibilities. For example, one mother opted to delay pumping sessions during training days because she did not want to interrupt her trainer. Another mother forgot to bring her pump with her to work one day. Out of concern that it would inconvenience her employer to ask permission to run home to get the pump, she opted to persevere through an eight hour shift. By the end of the workday, she was painfully engorged and vowed that she would not make that mistake again. As a whole, these mothers actively tried to prevent family responsibilities from interfering with workplace obligations.

Impact of work on breastfeeding. Prior research demonstrated that women frequently cite returning to work/school as a reason to stop breastfeeding (Alexy &
Martin, 1994; Arlotti et al., 1998; Chalmers et al., 1990; Chezam et al., 2004; Chezam et al., 1997; Guttman & Zimmerman, 2000; Hill et al., 1997). Yet the mothers in this sample were all willing to attempt to combine both roles. Anticipated return to work did not keep these mothers from initiating breastfeeding, but the duration of breastfeeding was impacted by structural and attitudinal variables in the workplace. For example, one mother did not have long enough breaks to allow time for both pumping and attending to personal needs. Additionally, the only place for her to pump was a shared employee restroom and her supervisors were indifferent to her breastfeeding desires. The lack of both structural and attitudinal support for breastfeeding made it extremely difficult for her to combine breastfeeding and work and contributed to the weaning of her child at two months old, two weeks after returning to work.

Another participant had a private room for pumping, but the intensity of her job made it challenging to find long enough breaks for pumping (a structural issue). She perceived her co-workers and supervisor as unavailable and/or unwilling to assist her in finding a way to pump (an attitudinal issue). After multiple instances of having her pumping sessions interrupted by the demands of her employment, she concluded that it was too challenging to continue and therefore weaned her child at the age of three months, six weeks after returning to work.

The remaining participants had more support for breastfeeding at work. These participants received structural or attitudinal support or both. One had a large amount of both structural and attitudinal support. Another had considerable structural support, but only a small amount of attitudinal support. Others had attitudinal support, but only a small amount of structural support. In the weeks following their return to work, all of
these mothers established a regular routine of pumping or breastfeeding at work. However, one participant later began to struggle, in part, because of new structural challenges in the workplace. Due to layoffs, she was being retrained for another position and the training schedule made it difficult for her to take time to pump at work. This had a negative impact on her milk supply (which was already beginning to wane) leading to token breastfeeding by four months postpartum, about nine weeks after returning to work. By contrast, two participants had limited structural support, but were still able to establish and maintain their pumping routines due to the considerable amount of attitudinal support they received. In fact, the attitudinal support seemed to offset any structural challenges they faced, because their supervisors were willing to work with them to formulate a plan for pumping at work, even when the environment was not easily conducive to pumping.

Participant thoughts and feelings. Participants who were successful in establishing a consistent pumping routine at work expressed many positive thoughts and emotions about doing so. These mothers expressed positivity about their breastfeeding experience, determination to continue coordinating breastfeeding and work, and enthusiasm about promoting breastfeeding among other mothers. These participants also expressed gratitude towards their employers, delight in their babies, and pride in themselves. They also stated that it had been enjoyable to receive support, encouragement, and accolades from their co-workers. This lends some support to the assertion in popular press resources that employers who support breastfeeding will benefit from increased loyalty, satisfaction, and productivity of breastfeeding mothers (Pryor, 1997). No measure of workplace productivity was utilized in the present study,
but those participants who were successful in combining breastfeeding and work did seem more satisfied with their employment and loyal to their employer.

By contrast, participants who struggled to combine breastfeeding and work expressed negativity toward their employers. One such participant described how she and her husband were angry with her work for negatively affecting her supply. Another mother explained how she did not feel valued by her employer.

Prior research concluded that when mothers possess knowledge about the benefits of breastfeeding, but experience a breakdown in the breastfeeding relationship, negative emotional consequences ensue (Schmied et al., 2001). This was only partially supported by this present study. The participants who weaned (or nearly weaned) before the end of the study did report some negative emotions, including sadness and regret. They also thought that formula was inferior nutrition, missed having larger breasts, and were distressed by the cost of formula. However, these mothers also had some positive thoughts and feelings about weaning: they were relieved to not have to deal with the daily hassles associated with breastfeeding, thought that the weaning process was fairly smooth for their infant, felt like they were “returning to normal,” and felt calmer, less hungry, and proud for nursing as long as they did. They believed that they did the best they could, given their current circumstances.

Schmied et al. (2001) raised concerns about current breastfeeding promotion efforts, arguing that they contribute to significant distress in mothers who struggle with breastfeeding. Present findings suggest that these concerns may be exaggerated. Participants in this study were well exposed to breastfeeding promotional efforts through contact with hospitals, WIC, and their peer counselor. Yet, study participants coped well
with breastfeeding cessation. This suggests that breastfeeding promoters may not need to be shy in extolling the benefits of breastfeeding out fear of hurting the feelings of mothers who do not breastfeed for extended durations.

**Work-family theories.** The second broad research question was: "To what extent can these mothers’ experiences be organized and understood by the existing work-family theories?" This question was divided into two sub-questions pertaining to: 1) the utility of work-family conflict theory and 2) the contribution of role enhancement theory. Each of these is discussed in turn.

**Work-family conflict theory.** The data of the present study offered some degree of support for work-family conflict theory. All of the participants experienced some type of work-family conflict in the months following their post-maternity return to work. Though prior research has suggested that work-to-family conflict is more prevalent than family-to-work conflict (Eagle et al., 1997), these participants experienced roughly equal amounts of each type of conflict. About half of the conflicts were work-to-family in nature, meaning that elements of the working experience intruded on the family. The other half were family-to-work, meaning that the family interfered with work (Barnett & Gareis, 2006; Cinamon, 2006). Additionally, time-based, strain-based, and behavior-based conflicts were all evident. Time-based conflict exists when the time demands of one role impede on another role; strain-based conflict occurs when the stress from one role affects another; and behavior-based conflict takes place when the expected behavior of two roles are at odds (Greenhaus & Parasuraman, 1999; Parasuraman & Greenhaus, 1997).
Nearly all of the mothers mentioned that they missed their infant while they were at work. This can be conceptualized as a time-based, work-to-family conflict. It was time-based because the time spent at work was time that the participant preferred to be spending at home with the child, and it was a work-to-family conflict because it demonstrates a situation in which work was intruding upon the participant’s ability to be present to her family.

Some of the participants spent a considerable portion of the workday worrying about the well-being of their infant during their absence. For these mothers, this tension can be seen as a strain-based, family-to-work conflict because their worry about their child began to impede their ability to be psychologically present at their job.

The participant who brought her infant to work with her experienced the greatest amount of work-family conflict. In order to get to work on-time, she had to wake her child in the morning, which she thought left her infant more tired and fussy than she ordinarily would be (a time-based, work-to-family conflict). Additionally, she discovered that workplace responsibilities made it difficult to attend to her child's needs (especially, hunger) as promptly as she desired (a behavior-based, work-to-family conflict). Alternately, she thought that having her infant with her made it harder to attend to workplace responsibilities (a behavior-based, family-to-work conflict). This participant's experience echoes the moral subjectivities identified by Payne and Nicholls (2010). She was attempting to be the “good mother” and the “good worker” concurrently and this led to conflict. This mother's story demonstrated that having access to the child during the workday is facilitative of breastfeeding, but also creates some unique challenges.
Half of the participants found that having an infant conflicted with their desire to be available to an employer (a time-based, family-to-work conflict). In order to coordinate childcare with their partner and others, these mothers had to place limits on the amount of hours and shifts they were able to take. This too can be conceptualized in terms of Payne and Nicholls' (2010) moral subjectivities. Limiting shifts with their employer may have caused distress in some participants because it was incongruent with their conceptualization of what a "good worker" does.

Two participants found that their work environment was not facilitative to pumping due to indifference from their supervisors (a behavior based, work-to-family conflict). They were not able to meet their ideals related to mothering because they did not see the behavior of pumping as being acceptable at their work.

One participant discussed how the exhaustion from work decreased her energy for the infant (a strain-based, work-to-family conflict). She also found that the stress from work decreased milk supply (a strain-based, work-to-family conflict). Another mother discovered that taking breaks at work to pump reduced her income because she had to clock-out each time she pumped (a time-based, family-to-work conflict). A third participant found that the exhaustion from pumping made it harder to focus on her job (a strain-based, family-to-work conflict). Finally, one mother stated that she had to relearn job tasks when coming back from maternity leave (a behavior-based, family-to-work conflict).

**Role enhancement theory.** The data from the present study also offered some degree of support for role enhancement theory. Participants did not appear to be harmed from having multiple roles, but in fact, often appeared to benefit from them, an essential
component of this theory (Barnett & Gareis, 2006; Barnett & Hyde, 2001; Greenhaus & Parasuraman, 1999; Yoder, 1999). This was particularly true for the participants who were successful in establishing a consistent pumping routine at work. These mothers appeared to be enhanced by this experience. They expressed pride and joy in their roles as both employee and mother. They felt proud of their financial contribution to their family and grateful that they were able to continue providing the "best" nutrition to their babies. These mothers also appeared to enjoy the increased self-complexity created by having multiple roles and the social support available at their workplace.

A few participants described how working was a welcomed break from home responsibilities and how being away from their infant made them excited to see him/her at the end of the workday. This was even true of one of the participants who struggled to combine breastfeeding and work. In the first interview she was struggling with her milk supply and fatigue while caring for an infant. She was looking forward to getting back to work because she thought it would be nice to have a break from home. For this participant, anticipation of success in the work role appeared to buffer the effects of stress in her role as a breastfeeding mother.

Role enhancement theory holds that overload can still occur (Barnett & Gereis, 2006). Overload was evident in the narrative of the participant who weaned the earliest. She was providing the sole income for her family, worried about the well-being of her infant and her partner, was concerned about the stability of her work, and lacked structural and attitudinal support for breastfeeding. She decided that she needed to reduce the demands in her life, of which breastfeeding was one.
Summary. As was found in prior research (Mastekaasa, 2000; Penning, 1998; Stack, 1998), these findings offer some degree of support for both work-family conflict theory and role enhancement theory. There appeared to be a greater amount of evidence for work-family conflict theory than there was for role enhancement, however, neither theory by itself was sufficient for fully describing and understanding participants' experiences related to breastfeeding and work. The narratives of some participants were mostly characterized by conflict while the narratives of others spoke more to role enhancement. Yet, even within the same individual, it appeared possible to experience both conflict and enhancement.

This supports the conclusions of Eisenhower and Blacher (2006) and Elgar and Chester (2007) that indicated neither theory is adequate for capturing the complexities of the work-family interface. Future research on the work-family interface ought to explore the interplay between these theories within real-life working experiences of individuals. The model proposed by Voyandoff (2002), which integrates both theories, may offer a framework for such research. In this model, work-family conflict and role enhancement serve as two of several variables that mediate or moderate the relationships between work and family characteristics and work, family, and individual outcomes. This model may help broaden research to include other factors that could serve to moderate the relationship between work and family characteristics and the experience of work-family conflict or role enhancement (such as coping resources and social categories). Additionally, it may help to expand our understanding of the relationship between work-family conflict or role enhancement and outcome measures.
Implications

An examination of the literature related to breastfeeding promotion suggests that the primary method for promoting breastfeeding among low income women has been through increased education about breastfeeding benefits (Arlotti et al., 1998; Kloeblen et al., 1999). Findings from the present study, however, suggest that knowledge about breastfeeding is not enough to ensure longer duration of breastfeeding or a felt sense of success. This mirrors the findings of prior research which indicated mothers’ affect and attitudes were stronger predictors of breastfeeding intentions than rational reasoning (Leeper et al., 1983; Rempel & Fong, 2005). This is also consistency with previous research which found breastfeeding mothers and formula feeding mothers to be equally knowledgeable about the benefits of breastfeeding (Guttman & Zimmerman, 2000).

Based on the present findings, it appears that for these employed low-income women three factors were most salient related to breastfeeding duration: 1) personal comfort with breastfeeding, 2) type of intervention implemented when problems arose, and 3) structural and attitudinal support in the workplace. Each of these will be discussed in turn, along with the implications for research and practice.

**Personal comfort with breastfeeding.** Prior research on low-income mothers demonstrated that this population is unlikely to have personal experiences with seeing other women nurse (Ertem et al., 2001) and is likely to express discomfort with public nursing (Blum, 1999; Guttman & Zimmerman, 2000). These findings were supported in this present study. Participants viewed bottle feeding as the normative mode for infant feeding and this was especially true when it came to public feedings, with most mothers
seeing public breastfeeding as taboo. Several mothers avoided breastfeeding in public by bringing bottles along, while others sought out private locations. For some participants, the discomfort with breastfeeding extended beyond the public sphere and into their own home. These negative feelings towards breastfeeding may have been rooted in what Guttman and Zimmerman (2000) referred to as the "sexual connotations" of breastfeeding. That is, these mothers associated breasts with sexual activity, such that having an infant feed at the breast did not feel like an acceptable behavior, no matter where it took place. The sentiment expressed by these participants seemed to be that breastfeeding was good and natural, but not normal.

It is important, however, to note that this feeling was not expressed by all of the participants. In fact, some participants described how they became comfortable with public breastfeeding over time and a few breastfed in front of the researcher during the interviews. The participants who were more at ease with breastfeeding were the same participants who persisted with it. This is consistent with previous findings that showed that women are more likely to breastfeed longer if they are more comfortable with, and less embarrassed by, breastfeeding (Fein & Roe, 1998; Roe et al., 1999). Fein and Roe (1998) also found longer breastfeeding durations among women who had friends that had breastfed, though this was not confirmed in the present study. Among the participants who persisted with breastfeeding, none had friends who breastfed and only one had family members who had done so. In addition, the participant who weaned the earliest had a friend/neighbor who had breastfed. Nonetheless, the level of personal comfort with breastfeeding played a significant role in breastfeeding duration among these participants.
Changing the comfort level of breastfeeding mothers is a difficult task for at least two reasons. One, individual attitudes about breastfeeding tend to be covert in nature (Leeper et al., 1983). Mothers may not even be able to articulate how they feel about breastfeeding or why they feel the way they do. Therefore, breastfeeding support professionals (peer counselors, lactation consultants, etc.) may have difficulty ascertaining a mother’s attitude about breastfeeding. Two, the discomfort with breastfeeding extends beyond the individual and into societal norms. Here, in the United States, the breast is primarily seen as a sexual object whose purpose is to provide pleasure to men (Lawrence & Lawrence, 2005). The internalization of this message likely plays a role in the discomfort that some women experience when breastfeeding. Combating societal norms is certainly a difficult task and one that will not occur overnight.

Individuals working with breastfeeding mothers ought to consider a two-pronged approach to addressing breastfeeding uneasiness; one which focuses on individual mothers and the second which focuses on greater society. On the individual level, breastfeeding professionals might take three steps. One, they could engage new mothers in conversations about breastfeeding comfort. This could be done by simply stating that it is not uncommon to feel uncomfortable with direct nursing because of the way that breasts are depicted in our society and to ask mothers if they feel that way. Second, breastfeeding professionals might assist mothers in developing their own counter-societal message about breasts, one which emphasizes the capacity of breasts for nourishing and nurturing infants and deemphasizes the sexual objectification of breasts. Third, they might encourage these women to attempt public breastfeeding even if somewhat uncomfortable because the more they do so, the more comfortable they may become.
This last step also begins to address greater society, because the more mothers engage in public breastfeeding, the more others will see women breastfeeding, and the more normative it will become.

On the societal level, those with interests in breastfeeding promotion might consider mounting a public health campaign to change the perception of breasts. It is important to distinguish this from a breastfeeding education campaign, which might primarily seek to inform the public about the benefits of breastfeeding. This effort would not necessarily address breastfeeding per se, but would rather focus on decreasing the objectification and sexualization of breasts. Work on a campaign such as this would not only be the work of breastfeeding support professionals, but would require collaboration from individuals of various disciplines such as psychology, sociology, and women's studies.

Type of intervention implemented when problems arose. Prior breastfeeding research has shown that low supply is a frequently cited concern among employed breastfeeding mothers (Auerbach, 1984; Morse & Botoroff, 1988; Chuang, 2010; Rojjanasrirat, 2004). Additionally, it has been found that low-income breastfeeding mothers often lack confidence in their ability to breastfeed and perceive their milk as being insufficient (Ertem et al., 2001; Blum, 1999). Thus, it is not surprising that low supply emerged as a common concern among mothers from the present study and that this concern was difficult to overcome. The struggle with supply likely fed into mothers' anxieties about whether they were "doing it right" and fears about whether their infant was getting "enough." These mother's experiences echo the stories of the working class
women in Blum's (1999) sample who described how their bodies had failed them in some way.

One may recall that bottle feeding was seen as normative by these participants, and several of them had prior experiences with bottle feeding. Hence, they had more practice using bottles and were accustomed to knowing how many ounces were consumed. The practice of breastfeeding was new and different and did not allow the mothers to know how much milk was being taken in by their infant. Therefore, when mothers became concerned with their supply, it may have been extremely tempting to turn to bottles. The problem was that an increase in bottle usage typically meant a reduction in breast stimulation, which led to a further reduction in supply.

When breastfeeding concerns arose, participants sought out assistance from various sources including a breastfeeding peer counselor, hospital nurses, lactation consultants, and La Leche League leaders and publications. The effectiveness of these interventions rested in large part on whether they confirmed or disconfirmed the mother's fears about whether her body was capable of producing enough milk for her child. For example, one participant was instructed by hospital nurses to supplement with formula because her newborn had jaundice and her milk had not yet come in. This participant continued to believe long after her hospital stay that she was not making enough milk such that when the infant was discontent, she often assumed it was because her baby was still hungry. She would then provide the child with a bottle, which reduced the infant's time at the breast and therefore the mother's supply.

When they sought help for supply concerns, two of the participants were prescribed herbal supplements (fenugreek and blessed thistle) and one of these was also
told to use a feeding tube. Both found it difficult to use the supplements as prescribed and therefore concluded that they would not be able to make enough milk for their infant. A different participant was encouraged to begin using a formula supplement in the hospital because her infant had dropped 10% below birth weight. This led her to believe that her supply was insufficient. However, she later sought help from La Leche League. Blum's (1999) case study of La Leche League found that this organization promotes belief in women's ability to breastfeed, which was what this participant experienced. This message increased her faith in her own breastfeeding body such that she abandoned the formula supplement, increased her frequency of direct nursing, and saw a rebound in her supply as a result.

These findings suggest that when it comes to concerns over supply, the type of intervention implemented affects the likelihood that a mother will be able to resolve her concerns and continue breastfeeding. When mothers are struggling with breastfeeding, particularly with supply, the single best message that they can receive is "your body can do this!" Herbal supplements and feeding tubes may or may not be helpful in regaining supply. Further, one could conjecture that they could even be harmful if they interfere with a mother's trust in her own body. Furthermore, those working with new breastfeeding mothers, especially those of low-income, should seek to acknowledge the fears that mothers may have related to their ability to produce sufficient milk and to offer praise for their breastfeeding efforts. These measures can seek to increase mothers' confidence in their breastfeeding skills, a factor that has been shown to have a positive impact on breastfeeding duration (Buxton et al., 1991; Ertem et al., 2001).
This implication may help make sense of the inconsistent findings from the research on the impact of pro-breastfeeding programming on the breastfeeding rates of WIC mothers. While some research found that breastfeeding promotion programs (such as peer counselors and promotional videos) were effective in increasing breastfeeding rates (Caulfield et al., 1998; Gross et al., 1998; Long et al., 1995), others found minimal to no impact of such programs (Arlotti et al., 1998; Chezam et al., 2004; Petrova et al., 2009). The determining factor on the effectiveness of such programs may be the extent to which they were successful in increasing breastfeeding confidence in participants. If peer counselors simply provided information about breastfeeding benefits (increasing knowledge), but did not provide reassurance about breastfeeding capability, they may have had less impact on breastfeeding rates. This assertion is merely conjecture at this point, but is worth exploration in future research.

**Structural and attitudinal support in the workplace.** The third factor that was particularly salient to the duration of breastfeeding among these participants was support for breastfeeding in the workplace. Structural characteristics that supported breastfeeding included longer maternity leave, having a place to pump/breastfeed, and having adequate breaks for pumping or breastfeeding. The finding that the length of maternity leave was associated with longer durations of breastfeeding is supported by several prior studies (McKinley & Hyde, 2004; Piper & Parks, 1996; Roe et al., 1999; Scott et al., 2006; Visness & Kennedy, 1997; Guendelman et al., 2009). Previous research also suggested that part-time work hours and the availability of worksite breast pumps contribute to longer durations of breastfeeding (Fein & Roe, 1998; Whaley et al., 2002). Part-time work hours did not emerge as a significant factor and since all of the participants of this
Importantly, though the structural support was important for participants in this study, even more salient to breastfeeding duration was that of attitudinal support. Two of the participants had limited structural support for breastfeeding in their workplaces, but their supervisors were encouraging of breastfeeding and helped them figure out ways that they could pump at work. By contrast, two other participants discussed indifference on the part of their employers. The message they received from their supervisors was that they could breastfeed as long as they still met workplace obligations. However, since workplace obligations were, at times, in conflict with pumping, these mothers were unable to determine how to pump at work. It is important to note that their supervisors were not directly non-supportive of breastfeeding. In fact, they might have believed that they were offering a supportive environment where their employee had the freedom to do what they needed to do. But in the face of barriers to pumping, these participants needed more direct and active support from their supervisor. When this did not occur, they perceived their supervisor as indifferent, which was functionally equivalent to non-support.

This suggests that future research on the interface of breastfeeding and work may need to examine not only structural factors that promote or inhibit breastfeeding, but also consider the attitudinal factors of supervisors and coworkers. Additionally, when conceptualizing supervisory support for breastfeeding, research ought to seek to understand not just whether supervisors were supportive, but also whether supervisors...
were indifferent and how this indifference may interact with structural factors to create barriers to breastfeeding.

The finding that workplace factors impacted the duration of breastfeeding ought to be of interest to breastfeeding support professionals as well. Beyond offering ideas to breastfeeding mothers about how to coordinate breastfeeding and work, breastfeeding professionals might also seek to advocate on behalf of breastfeeding mothers for workplace changes. This might entail providing educational material to employers about the benefits of breastfeeding and the necessary structural elements for pumping at work. When presenting benefits, emphasis could be given to the potential benefits for the employer, rather than the advantages for the infant and mother. For example, employers might be interested in knowing that providing a time and place for pumping has the potential to decrease absenteeism among breastfeeding mothers due to the greater health of the breastfed child (American Academy of Pediatrics, 2005; Cohen et al., 1995), and that mothers express gratitude towards their employer when they are supportive of breastfeeding, which may increase both loyalty and productivity.

Promotion of breastfeeding in the workplace should not only address structural factors, but also any prohibitive attitudes among management. Gatrell (2007) concluded that informing employers about the benefits of breastfeeding may not be enough to change workplace attitudes. This is unsurprising, because as discussed in the section on personal comfort, shifting of attitudes is not an easy task. Like breastfeeding mothers, employers' attitudes may also be covert and equally influenced by deeply ingrained societal norms. Those seeking to promote greater support for breastfeeding in the workplace could consider addressing these issues directly through conversations with
supervisors. Additionally, breastfeeding professionals could educate employers about the possible negative impact of a null environment on breastfeeding mothers. Especially when structural barriers exist, breastfeeding employees need active support from their supervisors, and when it is not provided, they are likely to perceive their supervisor as being indifferent to their desire to combine breastfeeding and work.

Looking beyond individual employers, we also ought to consider the impact of our societal norms related to work on families and children. For example, in the United States, a typical length for maternity leave is 6-12 weeks. Contrast this with a country like Norway where, by law, women are entitled to a maternity leave of 38 weeks with 100% pay or a 48 week leave with 80% pay after the birth or adoption of a child (Mastekaasa, 2000). Given the clear relationship between maternity leave length and breastfeeding duration, we might assume that implementing a mandate similar to that of Norway within the United States would likely have a positive impact on breastfeeding. There would be considerable cost associated with such a mandate, but this might be recouped in health savings due to the greater health experienced by breastfed individuals. Shifting other workplace norms, such as the 40-hour work week or the exclusion of babies in the workplace might also have a positive impact on families in general, and on breastfeeding specifically.

More research is needed to explore the workplace factors that are most inhibitive or supportive of breastfeeding. Such research might help to inform public policy on the elements needed to create family-friendly workplaces. Since this research was initiated, a quantitative instrument was designed which can be used for such research. The development of this instrument is described in Green and Olson (2008) and the validity
evaluation of the instrument is detailed in Greene, Wolfe and Olson (2008). This instrument contains 54 items in Likert scale or yes/no response format. These items contribute to five subscales that address aspects of the workplace that may facilitate or inhibit breastfeeding: "Company Policies and Work Culture," "Manager Support," "Co-Worker Support," "Workflow," and "Physical Environment of the Workplace" (Green & Olson, 2008, p.155).

Limitations

As with any research, this study was not without limitations. The use of a qualitative phenomenological approach meant that a choice was made to gather a greater quantity and depth of information from each participant, with the compromise of reducing the total number of participants studied. This increased the likelihood that the research captured the experiences of the participants studied, but it does limit the transferability of findings. Transferability was further limited by the nature of participant selection and participant characteristics. Selection methods required not only that participants met inclusion criteria, but that they were willing to participate. Individuals who would choose to participate in a study on breastfeeding and work may be considerably different from those who would not. All of the participants were White, first-time breastfeeding mothers who were partnered with a male and currently receiving WIC. Findings cannot be assumed to be transferable to women of other races, mothers with prior breastfeeding experience, those with female partners, or those who may be parenting alone or with the support of other family members. Future research in this domain might consider exploring the experiences of such women. As WIC mothers,
these participants may have had more support than other low-income women who are not involved in the WIC program. The findings of this study, therefore cannot be taken to reflect the experiences of all women of low-income who are breastfeeding and planning to return to work.

Another limitation is that this study focused on individual participants within their work context, as opposed to the family system. Some information was obtained about the role of the partners and other family members in the participant's life, but this data was primarily contextual in nature. Future research might seek to provide greater examination of the impact that partners and other family members might have on the interface of breastfeeding and work.

This research was further limited by the fact that data about workplace characteristics was solely based on the perceptions of the participants. The researcher was not able to interact directly with participants' supervisors or observe the workplaces first hand. Therefore, the reports of participants could not be corroborated by other means. However, when it comes to the combination of breastfeeding and work, individuals' felt experiences likely have more impact than objective reality. Future research might seek to explore how work environments could be constructed to improve felt experiences of employees.

Another limitation is related to the level of structure in the interviews. Because the format was semi-structured, the interviews with different participants moved in different directions and covered somewhat different content. While this allowed for the opportunity to hear the unique experiences of each participant, it does risk the possibility that certain themes did not emerge from certain participants. This is the case simply
because they were not covered in the interviews, not because they do not exist in the life of the participant.

Additionally, it is possible that researcher characteristics, biases, and assumptions could have had an influence on this study (such as on the questions asked, what statements are considered to be substantive, etc.). However, considerable attention was given to decreasing the impact of bias and increasing the confirmability of the findings. Member checks gave participants the opportunity to clarify and verify the research findings. The internal auditor challenged the researcher to articulate and understand the possible impact of biases and assumptions throughout the project, and offered alternative viewpoints that supported full consideration of the data. Overall, the external auditors were confirming of the study findings.

Conclusion

Despite limitations, this research has helped to provide greater understanding of the experiences of women of low income who seek to combine breastfeeding and work. These findings suggest that such women may describe their experiences in terms of success or struggle, depending on whether or not they are able to sustain with breastfeeding after returning to work. The likelihood of success is impacted by individual comfort with breastfeeding, type of intervention provided when breastfeeding problems arise, and support in the workplace. This research indicates that mothers who are more comfortable with breastfeeding are more likely to persist with it; breastfeeding interventions are most effective when they reassure mothers of their capability of
sufficient milk production, and workplaces are most helpful when supervisory attitudinal support for breastfeeding is present.

Both work-family conflict theory and role enhancement theory were found to have some utility, but neither one was found to be sufficient for understanding the interface of breastfeeding and work. Those who experience conflict between their roles as breastfeeding mother and employee are likely to resolve this conflict through weaning and may have mixed emotions about doing so. Employed breastfeeding mothers who are able to persist with breastfeeding after returning to work may feel enhanced by their roles, as evidenced through pride in themselves and gratitude towards their employers.

Continued research in this area may give greater insight into the variables that are most important in supporting breastfeeding in the workplace. Findings from the present study can help inform the work of breastfeeding support professionals—especially those working with women of low-income—such that they can assist a greater number of women in meeting their breastfeeding goals. Additionally, study findings may provide the impetus to other professionals who have a stake in the well-being of women and children to seek out legislation and/or policies which will provide greater support for families in the workplace. This has the potential to bring about greater gratitude and pride in the lives of mothers and improved health outcomes for them and their children.
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Appendix A

Human Subjects Institutional Review
Board Approval Letter
Date: December 13, 2007
To: Mary Anderson, Principal Investigator
    Jessica Kerby, Student Investigator for dissertation
From: Amy Naugle, Ph.D. Chair
Re: HSIRB Project Number: 07-09-16

This letter will serve as confirmation that your research project "The Interface of Breastfeeding and Work: A Phenomenological Exploration of the Experiences of Low-Income Women" has been approved under the expedited category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may only conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: December 13, 2008
Appendix B

Agreement Contract with the Michigan State University
Extension Breastfeeding Initiative Program
This Agreement is entered into as of June 7, 2007 between Kalamazoo County Michigan State University Extension, (hereinafter referred to as MSUE) and Jessica Kerby, doctorate student of Western Michigan University (hereinafter referred to as Kerby of WMU) under the supervision of Dr. Mary Anderson, Counseling Psychology and Counselor Education Department.

WHEREAS, MSUE has personnel and resources for carrying out the Project described in Exhibit A, and
WHEREAS, Kerby of WMU is desirous of engaging the said personnel and resources for carrying out the Project: Experiences of Breastfeeding Mothers of Lower Socioeconomic Status (SES) if and when they return to work.

NOW, THEREFORE, in consideration of the premises and the covenants and agreements of the parties as hereinafter set forth, the parties have agreed and do hereby agree with each other to the following:

1. MSUE hereby agrees to provide needed information to complete the Project in the manner and with the personnel and set forth therein.
2. Kerby of WMU hereby agrees to interview clients who have been provided to fit the parameters of Project.
3. It is mutually understood and agreed that:
   (a) This Agreement may be terminated by either party upon giving at least a thirty (30) day notice to that effect to the other party.
   (b) Unless otherwise clearly provided in Exhibit A, MSUE shall have unrestricted right of publication with reference to its activities and findings in connection with the Project.
4. The period of the Agreement shall be from September 2007 to, and concluding August 31, 2008.

IN TESTIMONY WHEREOF, the parties hereto have caused this instrument to be executed, in duplicate, by their officers, thereunto duly authorized to sign on behalf of their party.

Michigan State University Extension
By: ____________________________ Date: 7-5-07
Ann Nieuwenhuis, County Extension Director
By: ____________________________ Date: 9/21/07
Jessica Kerby, Graduate Student
By: ____________________________ Date: 9/2/107
Dr. Mary Anderson, WMU Professor

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EXHIBIT A

MSUE will:

• Provide contact information of clients that fit the parameters of the Project.
• Provide regular contact with the MSUE Educator who supervises the Breastfeeding Initiative (BFI) program and/or an experienced BFI Program Associate.
• Provide a conference room for interviews between Kerby and Breastfeeding clients to meet.
• Provide education which follows the university civil rights mandate: “MSU is an affirmative-action equal opportunity employer. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, marital status or family status.”

Kerby of WMU will:

• Provide MSUE with documentation of approval to conduct said Project from supervising WMU Department Professor.
• Meet with MSUE Educator BFI Supervisor and/or Program Associate to review clients’ parameters of Project.
• Keep all client information confidential.
• Share collected information with MSUE Educator BFI Supervisor and/or BFI Program Associate.
• Support the principles of breastfeeding taught in MSU Extension programs.
• Adhere to the MSU Extension civil rights/open to all policy.
ADDENDUM TO EXHIBIT A

It is mutually understood and agreed that Ms. Kerby will retain ownership of the data collected in this project. This data will serve as the data for Ms. Kerby's doctoral dissertation. Findings will be published in dissertation format, and submitted for peer reviewed journal publication with Ms. Kerby as author. Ms. Kerby agrees to share a summary of findings with staff of the Breastfeeding Initiative program in order to assist their work with future clients of the program.
Appendix C

Peer Counselor Invitation Script
You are invited to participate in a research study exploring the work and family experiences of breastfeeding mothers. The researcher is interested in understanding how women with limited income manage the roles of employee and mother. This research is being conducted by a Western Michigan University doctoral student, Jessica Kerby, under the supervision of Mary Anderson, Ph.D. To qualify for participation in this study you must be a WIC-qualified mother who is currently breastfeeding and is planning on returning to work sometime in the first six months of your child's life. Participation in this study would involve taking part in three 60-90 minute interviews. One interview will be done before you return to work, one within the first few weeks of returning to work, and the last one after you have been working for a few months. The interviews will be conducted at a location convenient to you, such as your home or at the WIC office. All interviews will be audio taped. The audiotapes will be kept in a locked filing cabinet of the researcher during the course of the study and will be erased after the data has been analyzed. As a thank you gift, participants will receive a $15 gift card after the conclusion of each interview.

If you are interested in hearing more about this research, please sign this form. By signing, you are giving permission to your peer counselor to pass along your name and contact information to the student investigator. The student investigator will then call you to talk further about the study. Please note that signing this form does not indicate that you are committed to participating, only that you might consider it. Whether or not you sign this form or participate in this research has no impact on the services that you receive from the Michigan State University Extension Breastfeeding Initiative Program.

☐ Yes, it is okay with me for my peer counselor to provide my contact information to Jessica Kerby.

Signature

Printed Name

Street Address

City

Zip

State

Phone Number(s)
Appendix D

WIC Permission Letter
To Whom It May Concern:

This letter signifies that Jessica A. Kerby, doctorate student of Western Michigan University, has been given permission by the Kalamazoo County Women, Infants Children's (WIC) Program to recruit participants for her study "The interface of breastfeeding and work: A phenomenological exploration of the experiences of low-income women" on the Kalamazoo County WIC premises. Provided Ms. Kerby has signed a confidentiality form, she may sit in the waiting room and approach mothers to provide information about her study and invite them to participate in it. The Kalamazoo County WIC staff are also willing to pass out a flyer to WIC mothers which provides information about the study and Ms. Kerby’s contact information. Mothers receiving flyers, if interested in participating in the study, may then contact Ms. Kerby.

Sincerely,

Kelly Bell
WIC Nutritionist

Deb Lenz
WIC Manager
Appendix E

Potential Participant Form
Yes, I am interested in hearing more about the study on breastfeeding and work! Please contact me about possible participation.

Signature

Printed Name

Street Address

City                  State

Zip

Phone Number(s)
Appendix F

Telephone Invitation Script
"Hello, my name is Jessica Kerby and I received your information from you peer counselor, (PEER COUNSELORS NAME). She told me that she spoke with you about a study that I am doing about breastfeeding and work. I am calling to talk with you further about the study and to see if you might be willing to participate in the study.

"First of all, let me say that I appreciate your willingness to be contacted by me and hear more about this study. I would also like to give you a bit more information about the study. I am interested in understanding what mothers with limited income think and feel about managing the roles of mom and worker. Since motherhood responsibilities are the most intense during the first six months a child’s life, I am focusing on women who plan to return to work during that time period. Specifically, I am focusing on mothers who are currently breastfeeding. If you decide to participate, I would interview you three times, once before you return to work and twice after you return to work. The interviews would be conducted at a location that is convenient for you, such as in your home and you would be welcome to have your baby with you during the interview. Should you choose to participate, you will be given a $15 gift card for each interview completed."

"Before I go much further, let me make sure that you meet the criteria for participating. Since you are participating in the breastfeeding program, I assume that you are currently qualified to receive WIC, is that accurate?" (RECEIVE ANSWER) "And since you are in the program, am I right to assume that you are currently breastfeeding?" (RECEIVE ANSWER) "Are you planning on working within the first six months of your baby’s life?" (RECEIVE ANSWER) "And, how old is your baby right now?" (RECEIVE ANSWER) "So how soon do you think you might begin working again?" (RECEIVE ANSWER) "Are you currently a student?" (RECEIVE ANSWER) Finally, I need to check if you are over the age of 18?" (RECEIVE ANSWER)

[If criteria are not met]
"It doesn’t look like you are eligible to participate in this study because (PROVIDE REASON), but I really appreciate your consideration. Take care."

[If criteria are met]
"It sounds like you meet my criteria for participation, but let me check in with you to see what questions you have about this research?" (ANSWER QUESTIONS FULLY).

"Now, if you are still considering participation, I would like to ask if you would be willing to schedule a time for you and I to meet in person. Let me be clear that even if you agree to get together, this does not mean that you have to go through with participating in the research. You are free to change your mind about participating at any time. If you do agree to meet in person, we can discuss the study in more depth. And then if you are still willing to participate I will have you sign a formal consent form and we will conduct the first interview. The initial interview will take approximately an hour and a half."

"Are you willing to schedule a time to get together?"
[If no]
“Well, thank you for your time today. Take care.”

[If yes]
“What would work best in your schedule?” (WORK OUT A TIME) “Where would be the most convenient location for you?” (WORK OUT A PLACE)

“Thank you very much for considering participating in this research. I look forward to meeting you and your baby. I’ll see you on (DATE) at (TIME) at (PLACE).”
Appendix G

Consent Document
Western Michigan University
Department of Counselor Education and Counseling Psychology
Principal Investigator: Mary Z. Anderson, Ph.D.
Student Investigator: Jessica A. Kerby, MA

Title of Study: The Interface of Breastfeeding and Work: Experiences of Low-Income Women

You are invited to take part in a study about breastfeeding moms, of limited income, who plan to return to work during the first six months of their child's life. This research is part of Jessica A. Kerby's doctoral dissertation under the supervision of Dr. Mary Z. Anderson in the Department of Counselor Education and Counseling Psychology at Western Michigan University. You are eligible to be part of the study if you meet the following criteria. One, you are receiving coupons through the Women, Infants, and Children (WIC) program. Two, you have a baby younger than 6 months. Three, you are breastfeeding your baby. Four, you are planning to return to work during the first 6 months of your baby's life. And five, you are over the age of 18. You cannot participate if you are planning to return to school during the first 6 months of your baby's life.

There have been few studies about nursing mothers who are returning to work after having a baby. We expect that the findings of this study will help to understand the thoughts and feelings of mothers like you. The results may reveal both the struggles and triumphs of nursing moms.

If you choose to be part of this study, you will be asked to complete three interviews and fill out a brief questionnaire. Three interviews will be held at a time and place that is convenient to you. The interviews will last 60-90 minutes. The first interview will take place about 2-4 weeks before you plan to begin working. The second interview will take place about 2-4 weeks after you have started working. The third interview will take place 2-3 months after you have started working. All interviews will be audio taped. The audiotapes will be kept in a locked filing cabinet of the researcher. The audiotapes will be erased after the data has been analyzed.

The questionnaire asks for information about you, your experiences with nursing, and your work. It is to be filled out between the first and second interviews at a time that is convenient for you. The questionnaire will take about 10-15 minutes to complete. To thank you for being a part of the study, you will receive a $15 gift card after each interview. After all of the interviews have been done I will call you to share the results. At this time, you can express what you think about the findings.

All of the information collected from you is confidential. Pseudonyms (fake names) will be used to identify all research materials. Jessica A. Kerby, will keep a separate master list with the real names of participants and their pseudonyms. During the study, Jessica A. Kerby will keep all research materials in a safe place. The master list will be stored separately from the research data. Once the study is complete, the master list will be destroyed. All remaining research materials will be kept in a locked filing cabinet for a minimum of 7 years in Mary Z. Anderson’s office. When writing up the results, information that could identify you will be removed. This will make it less likely that someone reading the write-up could identify you. One limit to confidentiality is if you tell me that a child or elderly person is being abused or neglected. In that case, I am required by law to report this to the proper authorities.

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There is a risk that during the study you could feel uneasy talking about negative experiences related to work or family. If any serious concerns arise, I might refer you to a social, mental health, or breastfeeding support service. Time spent participating in the interviews or filling out the questionnaire may take away from time you might do other things (such as spending time with other children, cleaning house, etc). However, you are welcome to have your children with you during the interviews. If needed, you may take breaks to take care of them.

One possible benefit of taking part in this study is that you may enjoy talking about your life as a working mom. Also, you may enjoy knowing that you are helping increase the research about nursing moms with limited income.

The student researcher is a mother of a two-year-old. She participated in the MSU Breastfeeding Extension Program during the first year of her son’s life. She also returned to work and school within the first year of her son’s life.

You may refuse to participate and may stop participating at any time during the study. You may also refuse to answer any question without prejudice or penalty. If you have any questions or concerns about the study you may contact the student investigator, Jessica A. Kerby at (269)342-4118 or jessica.a.kerby@wmich.edu, or the principal investigator, Dr. Mary Z. Anderson at (269)387-5113 or mary.anderson@wmich.edu. You may also contact the chair of Western Michigan University’s Human Subjects Institutional Review Board at (269)387-8298 or the vice president for research at (269)387-8298.

This letter contains consent information that has been approved for use for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature in the upper right corner of each page. Do not participate in this study if the stamped date is older than one year.

Thank you very much for your time and consideration!

Sincerely,

Jessica A. Kerby, MA  Mary Z. Anderson, Ph.D

By providing your signature below, you are indicating that you agree to participate in three interviews and fill out the questionnaire. Please return the signed copy to the student investigator and keep the additional copy for yourself.

Signature  Date

Printed Name

Witness  Date
Appendix H

Interview Protocol
Interview 1

The first interview will focus on the woman’s early experiences with breastfeeding and motherhood, her work plans, and her feelings and thoughts about the interface of breastfeeding and work. Basic demographic information will be sought through structured questions. The rest of the interview will be semi-structured. The questions are meant to provide a guide and a focus. However, it is the researcher’s intent that the interviews be fluid and flexible. As such, follow-up questions may be asked along the way to help explore areas in greater depth or provide clarity to the participant’s responses.

Breastfeeding questions:

1. How has breastfeeding gone so far?
2. What do others in your life think about you breastfeeding? (significant others, parents, friends, siblings, other children, etc.)
3. What breastfeeding support have you used? (Lactation consultants, peer counselor, LLL, etc.)
4. How do you feel about breastfeeding at this time?

Work questions:

1. What are your plans about returning to work?
2. How do you feel about returning to work?
3. What are your plans for childcare while you are working?

Breastfeeding and work questions:

1. What are your thoughts about work and breastfeeding?
2. Are you aware of any policies or programs at your workplace related to breastfeeding? If so, what? If not, is that something you would be interested in knowing more about?
3. Do you know of others at your work who have continued to breastfeed while working? If yes, what did you observe about how they managed combining breastfeeding and working?

4. Have you talked to your employer about breastfeeding plans? If so, how did you feel about that conversation, what did you learn, etc? If not, is that something you may do in the future?

5. How supportive do you think your supervisor would be if you wanted to continue breastfeeding while working?
Interview 2:

The second interview will begin with the researcher sharing with the participant the themes that emerged from her first interview. The participant will then be given an opportunity to provide feedback about the findings. The interview will then focus on the adjustment to work and the impact that work and breastfeeding have had on one another. This interview will also be semi-structured. The questions are meant to provide a guide and a focus to help participants her work and breastfeeding experiences and the thoughts and feelings she has about them. Once again, these interviews will be fluid and flexible, with additional follow-up questions inserted as needed.

“Before we begin the formal interview, I would like to share with you the themes that have emerged from my analysis of our last interview. I am interested in your feedback about these findings so please consider whether you think that capture your thoughts, feelings, and experiences. The themes that stood out to me are...(LIST AND EXPLAIN THEMES).

“I am wondering what your thoughts are about these findings?”

Prompts (if needed)

Is there anything you would delete?
Is there anything you would add?
Is there anything you would change?

“Alright, now onto the interview questions. My first question is…

Breastfeeding questions:

1. Are you still breastfeeding?

2. Are you supplementing at all and if so how often?

If still breastfeeding:

3. What does your feeding routine look like?

4. How do you feel about breastfeeding at this time?

If no longer breastfeeding:
3. When did you wean?
4. Tell me about the weaning process.
5. What led to the decision to wean?
6. How do you feel about weaning?
7. How does your baby seem to be responding?

Work questions:
1. How has the return to work been?
2. How do you feel about the return to work?
3. How do you think your baby is responding?

Work and breastfeeding questions
1. What impact has work had on breastfeeding for you?
2. In what ways has being a breastfeeding mother impacted your work?
3. What barriers (if any) have you faced in trying to combine breastfeeding and work?
4. How do you feel about combining breastfeeding and work?

If she has combined work and breastfeeding in any way:
5. What strategies have you used to continue breastfeeding while working?
6. What workplace factors have allowed you to continue breastfeeding?
Interview 3:

The third interview will begin with the researcher sharing with the participant the themes that emerged from her first and second interview. The participant will then be given an opportunity to provide feedback about the findings. The focus of the third interview will be on understanding the impact that work and breastfeeding have had on each other and the thoughts and emotions that mothers have about breastfeeding and work. As with the first two interviews, the format of the interview will be semi-structured, with the questions serving as a guide, but follow-up questions being added as needed.

“Before we begin the formal interview, I would like to share with you the themes that have emerged from my analysis of our two interviews. Once again, I am interested in your feedback about these findings so please consider whether you think that capture your thoughts, feelings, and experiences. The themes that stood out to me are...(LIST AND EXPLAIN THEMES).

“I am wondering what your thoughts are about these findings?”

Prompts (if needed)

Is there anything you would delete?
Is there anything you would add?
Is there anything you would change?

“Alright, now onto the interview questions. My first question is…

Breastfeeding questions:

1. Are you still breastfeeding?
2. Are you supplementing at all and if so how often?
3. Have you introduced solid foods?

If still breastfeeding:

4. What does your feeding routine look like?
5. How do you feel about breastfeeding at this time?
If no longer breastfeeding:

4. When did you wean?
5. Tell me about the weaning process.
6. What led to the decision to wean?
7. How do you feel about weaning?
8. How does the baby seem to be responding?

Work questions:

1. Have you had any changes in work status?
2. Looking back on the past couple of months, what thoughts do you have about returning to work?

Work and breastfeeding

1. Have there been any changes in the workplace related to breastfeeding barriers/support?
2. Looking back on the past couple of months, what thoughts do you have about combining breastfeeding and work?
3. Looking back on the past couple of months, how do you feel about being a working mother?
4. What have been the biggest challenges related to work and motherhood in the past few months?
5. What have been your biggest successes related to work and motherhood in the past few months?
6. What advice would you give to mothers who are thinking about trying to breastfeed while working?
Appendix I

Participant Questionnaire
Participant Questionnaire

Instructions: Please answer the following questions by filling in the blank or circling the choice that best describes you.

General Questions

1. Age: ________________

2. Race/ethnicity: ____________________________

3. Please circle the highest level of education you have competed:
   - less than eighth grade
   - eighth grade
   - high school graduate
   - GED

   some college or specialized training
   - associates degree
   - bachelor’s degree
   - graduate professional training

4. Please circle what your family’s socio-economic status was when you were a child:
   - Working Class
   - Lower Middle Class
   - Middle Class
   - Upper Middle Class
   - Upper Class
   - Other (Please Specify): ____________________________

5. Please list the gender, age, and relationship to you of all the people living in your home.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Relationship to you</th>
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</table>
6. Please circle your current relationship status:

- Divorced
- Partnered/Separated
- Married
- Single
- Partnered
- Widowed
- Married/Separated
- Other (Please Specify): ______________________

Breastfeeding-Related Questions

7. Please list the gender and age of all of your children. Please also indicate whether or not you breastfed each child and if so for how long.

<table>
<thead>
<tr>
<th>Gender breastfeeding</th>
<th>Age</th>
<th>Breastfed? (Yes/No)</th>
<th>Length of breastfeeding (in months)</th>
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8. Please check any breastfeeding-related difficulties that you have had in the past or with your current baby.

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<thead>
<tr>
<th></th>
<th>In the Past</th>
<th>With Current Baby</th>
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<tbody>
<tr>
<td>Baby wouldn’t latch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baby not interested</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not enough milk (undersupply)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too much milk (oversupply)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain when nursing</td>
<td></td>
<td></td>
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<tr>
<td>Plugged milk ducts</td>
<td></td>
<td></td>
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<tr>
<td>Mastitis/infections</td>
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<tr>
<td>No problems encountered</td>
<td></td>
<td></td>
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<tr>
<td>Other (Please Specify):</td>
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</table>

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9. How long do you hope to breastfeed your baby (in months)?

10. How long do you think you will breastfeed your baby (in months)?

Work-Related Questions

11. Please describe the type of place you work at:

12. Please indicate your job title:

13. How long after delivery do you plan to return to work (in weeks)?

14. When you return to work, how many hours do you plan on working per week?

15. Please indicate which of the following items are offered in your workplace (Please Circle)

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
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<tbody>
<tr>
<td>Paid maternity leave</td>
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<tr>
<td>Unpaid maternity leave</td>
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<td>On-site daycare</td>
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<td>Flex-time</td>
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<td>Supervisor support for breastfeeding</td>
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<td>Peer support for breastfeeding</td>
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<tr>
<td>A formal lactation program</td>
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<tr>
<td>Formal policies supporting lactating mothers</td>
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<tr>
<td>A private room for expressing breast milk</td>
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<tr>
<td>Adequate breaks for expressing breast milk</td>
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<tr>
<td>A place to store expressed breast milk</td>
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</table>

Additional Comments

If you have any additional comments please feel free to write them in the space provided below or on the back of this page.
Appendix J

Cover Letter to Accompany Findings
Dear ____________________,

I want to thank you again for participating in this study. I appreciate you allowing me to gain a glimpse of your world as a working mother. Enclosed you will find a summary of the themes that emerged from my interviews with you. Please look over the summary and make note of any comments or questions that you might have. You might consider whether there is anything that you might add, delete, or change to better so that the results better capture your experiences. I will call you in the near future to discuss your thoughts about these findings. Thanks again!

Sincerely,

Jessica A. Kerby
“Hello, this is Jessica Kerby, calling about my study on breastfeeding and work. I wanted to get in touch with you one last time to discuss the findings of the study with you. Did you receive the summary of the findings that I sent you in the mail? [RECEIVE ANSWER]. Are you available to discuss them at this time? (RECEIVE ANSWER).

[IF NO], what would be a good time for me to call back to discuss the findings with you? (RECEIVE ANSWER)

[IF YES] I will go through the findings verbally, but it might be useful to have the written summary with you as well, do you have that on hand? (GIVE TIME TO OBTAIN WRITTEN SUMMARY). Alright, first, I would like to discuss the major themes that emerged from my interviews with you. The major themes that stood out to me were…(INSERT INDIVIDUAL SUMMARY DESCRIPTION).

“I am wondering what your thoughts are about these findings?”

Prompts (if needed)
Is there anything you would delete?
Is there anything you would add?
Is there anything you would change?

“Now I would like to discuss the major themes that I found when I examined the interviews conducted with all of the participants from this study. The major themes that stood out to me were… [INSERT OVERALL SUMMARY].”

“I am wondering what your thoughts are about these findings?”

Prompts (if needed)
Is there anything you would delete?
Is there anything you would add?
Is there anything you would change?

“Thank you again for your participation in this research. I have enjoyed getting to know you and your family. Take care!”