Paternal Support for Breastfeeding: A Mixed Methods Study to Identify Positive and Negative Forms of Paternal Social Support for Breastfeeding As Perceived by First-time Parent Couples

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Paternal Support for Breastfeeding: A Mixed Methods Study to Identify Positive and Negative Forms of Paternal Social Support for Breastfeeding as Perceived by First-time Parent Couples

by

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A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy
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Abstract

The American Academy of Pediatrics recommends that babies be exclusively breastfed for the first six months of life, and continue to breastfeed throughout the first year of life and as long after as is mutually desired. Recent survey data suggests that initiation rates of breastfeeding are high; according to the CDC, 75.0 percent of children in the U.S. have been breastfed. Although initiation rates of breastfeeding are high, breastfeeding duration rates consistent are much lower; 33.0 percent of infants were exclusively breastfed at three months, and only 13.3 percent of infants were exclusively breastfed at six months. Additionally, only 22.4 percent of infants were still breastfeeding at twelve months.

Social and behavioral research has identified social support received from the infant’s father to be one of the most important predictors of breastfeeding initiation and duration. Although several prior studies have identified paternal attitudes and support to be important influences of breastfeeding duration, few studies have been conducted to understand the specific forms of paternal support that are most important to mothers, and the forms of paternal support that are most predictive of breastfeeding duration. Also, to the author’s knowledge, this was the first study to investigate negative forms of paternal support that may discourage breastfeeding.

This mixed-methods study sought to better understand the perceived forms of positive and negative paternal support for breastfeeding amongst a cohort of first-time parent couples. A longitudinal study design was utilized, in which each parent participated in an in-depth interview at four time points: prenatally, and at one, three, and six month post-partum. At each time point,
mothers and fathers also completed a quantitative survey; breastfeeding intention was assessed at the prenatal period, and information about current breastfeeding status was collected at the post-natal time points. A final sample of fourteen parent couples was recruited from Champions for Children prenatal classes, and all interviews took place between June 2013 and February 2014.

The quantitative portion of this study found that at one month post-partum, mothers with higher prenatal breastfeeding intention scores were more likely to still be breastfeeding (85.7%), with the largest percentage of mothers still exclusively breastfeeding (50.0%); additionally, mothers with lower prenatal breastfeeding intention scores were more likely to be exclusively formula feeding (14.3%) (p = 0.03). In general, mothers with higher prenatal breastfeeding intention scores also identified more types of positive paternal support for breastfeeding; however, the only association found to be statistically significant was appraisal support (p=0.03).

For the qualitative portion of this study, expectant mothers and fathers identified forms of paternal support that they perceived to be either positively or negatively supportive of breastfeeding. More often than any other type of positive support, mothers and fathers mentioned a father providing instrumental support as helpful to sustain breastfeeding, and at the post-natal time points, almost every mother identified help with household chores as being the support they receive most often which helps them to sustain breastfeeding. Whereas mothers mentioned instrumental support most often when asked to identify forms of paternal support for breastfeeding, after delivery mothers indicated that emotional support was truly most valuable; almost every mother identified words of encouragement and motivation as being the support they receive from their partner that is most important, and which helps to sustain breastfeeding.

At the post-natal time-points very few mothers or fathers identified any forms of negative support actually received from their partner; mothers and fathers instead elaborated on examples
of support that they perceived as negative for a mother to receive from her partner including failure to provide positive support, indifference to infant feeding method, a negative attitude towards breastfeeding or preference for formula, and negative or discouraging comments. At the post-natal time points, the majority of mothers perceived a father being verbally negative about breastfeeding as the worst form of negative support for breastfeeding.

This study primarily used qualitative methods to gather rich, in-depth personal accounts of first-time mothers’ and first-time fathers’ perceptions of paternal support for breastfeeding. This provided valuable insight and allowed for an emic perspective of the participants’ personal experiences which led to a more in-depth understanding of the specific forms of paternal support most important to mothers. Unlike previous studies conducted to better understand paternal support for breastfeeding, this study utilized a longitudinal design which allowed for the collection of data at four time points, both pre- and post-natal. A longitudinal design strengthened this study as perceived forms of paternal support were compared at different time points, and shifts in perceptions over time amongst mothers and fathers were captured.

This study contributes new knowledge to the field of breastfeeding promotion regarding the specific forms of paternal support that mothers and fathers perceive as positive or negative of breastfeeding. It is imperative to improve our understanding of the precise forms of paternal support which are most positively associated with breastfeeding exclusivity and duration, so that future efforts to increase positive paternal support and decrease negative paternal support are most effective. The findings of this study can be used to help engage fathers in the breastfeeding process, including educating them on the specific ways that they can offer meaningful support to their breastfeeding partner.
Chapter 1

Introduction and Statement of the Problem

Social and behavioral research has identified social support to be an important influence in the initiation (infant’s first intake of breast milk) and duration (total length of time that an infant receives any breast milk) of breastfeeding (Giugliani, Caiaffa, Vogelhut, Witter, & Perman, 1994; Hoddinott, Pill, & Hood, 2000; McInnes & Chambers, 2008; Meedya, Fahy, & Kable, 2010). The literature on social support typically delineates four different types of support: emotional, instrumental (tangible), informational, and appraisal. Emotional support includes expressions of empathy, love, trust, caring, listening, esteem, and affect (House and Kahn, 1985); an example of this type of support would be a friend or family member being available to listen to the mother express her feelings about breastfeeding. According to House and Kahn (1985), when designing an intervention, priority should be given to emotional support as this type of support is most clearly linked to health, both in terms of direct effects and buffering effects. Instrumental, or tangible support, refers to the availability and/or utilization of practical help (van den Akker-Scheek et al., 2004), such as helping to prepare meals so that the mother has more time and energy to devote to breastfeeding. Informational support refers to advice, suggestions, and information provided to an individual to help them cope with challenges faced (House, 1981), such as giving a breastfeeding mother advice on different latching techniques if she is having a hard time getting the baby to latch properly. Finally, appraisal support refers to feedback provided which allows an individual to evaluate themselves and their
actions (Tardy, 1985), such as telling the mother that she is doing a good job breastfeeding. Rempel and Rempel (2011) write that “supportive actions remove stressors so that the mother is enabled to breastfeed successfully”.

A study of the predictors of breastfeeding intention amongst low-income women found that perceptions of social support significantly predicted intention to breastfeed (Mitra, Khoury, Hinton, & Carothers, 2004). Further, a systematic literature review of qualitative breastfeeding research concludes that most mothers consider informal social support to be important, and that this type of support is more important than formal support received from health service staff (i.e. physicians, nurses, lactation consultants) (McInnes & Chambers, 2008). A mother’s informal social network is often comprised of several members including the infant’s father, her mother (infant’s grandmother), other family members, friends, peers and coworkers. Although women have varying sizes of their social networks, McInnes and Chambers (2008) report that having a large social network does not necessarily increase social support. Instead, they found that “it was more important to have a network congruent with the mother’s breastfeeding expectations and goals” (McInnes & Chambers, 2008).

Several studies have identified the attitudes of, and social support received from the infant’s father as important predictors of breastfeeding initiation and duration (Hoddinott, Pill, & Hood, 2000; McInnes & Chambers, 2008; Putthakeo, Ali, Ito, Vilayhong, & Kuroiwa, 2009; Sherriff, Hall, & Pickin, 2009). A review of the literature by Bar-Yam and Darby (1997) report that fathers influence four particular aspects of breastfeeding: (1) the breastfeeding decision; (2) assistance at first feeding; (3) duration of breastfeeding; and (4) risk factors for bottle-feeding. Rempel and Rempel (2010) describe a primary fathering role as that of supporting breastfeeding by becoming breastfeeding savvy, by using their knowledge to encourage and assist mothers in
breastfeeding, by valuing the breastfeeding mothers, and by sharing housework and child care. A Brazilian qualitative study of 11 men and 9 women, identified 5 ways of including fathers in the breastfeeding process: (1) provide a favorable environment for the mother and baby; (2) participate more during pregnancy and birth; (3) help with domestic chores; (4) develop parenthood; and (5) be present during breastfeeding (Pontes, Osorio, & Alexandrino, 2009).

Statement of Need

This mixed-methods longitudinal study is important and needed because it helps inform a knowledge gap with regards to the perceived positive and negative forms of paternal breastfeeding support. Although several prior studies have identified paternal attitudes and support to be important indicators of breastfeeding duration, few studies have been conducted to understand the specific forms of paternal support that are most important to mothers, and the forms of paternal support that are most predictive of breastfeeding duration. Also, to the author’s knowledge, this was the first study to investigate negative forms of paternal support for breastfeeding. It is important to better understand the precise forms of paternal support which are most positively associated with breastfeeding, so that future efforts to increase positive paternal support and decrease negative paternal support are most effective. The purpose of this mixed methods longitudinal study was to investigate paternal social support of breastfeeding amongst first-time parent couples in the Tampa Bay area, and to identify positive and negative forms of paternal social support as perceived by first-time mothers and by first-time fathers.

Rationale for Mixed Methods

Mixed method approaches involve collecting and analyzing qualitative and quantitative data, either simultaneously or sequentially, to better understand a research problem more completely (Creswell, 2003). The rationale for mixing is that no single research method can
fully capture all facets of a complex research problem (Ulin, Robinson, & Tolley, 2005), such as understanding perceived positive and negative forms of paternal social support for breastfeeding. When quantitative and qualitative methods are used in combination, conclusions are drawn from a synthesis of the results, resulting in a broader perspective of the problem (Ulin, Robinson, & Tolley, 2005).

**Quantitative Research**

Quantitative research collects and analyzes numerical data to explain a particular phenomenon, and encompasses survey research, correlational research, trend analysis, exploratory research, descriptive research, and experimental research (Sukamolson, n.d.). According to Creswell (2003), a quantitative approach is one in which the investigator primarily uses postpositive claims for developing knowledge, employs strategies of inquiry such as experiments and surveys, and collect data on predetermined instruments that yield statistical data.

**Qualitative Research**

There is no universally accepted definition of qualitative research among disciplines, nor an overarching framework for how qualitative research should be conducted, rather, qualitative research is a “family” of methods of inquiry that are themselves quite diverse (Anastas, 2004). They normally encompass ethnography, interviews, focus groups, narrative data, field notes from observations, and other written documentation (McDavid & Hawthorne, 2006). The purpose of qualitative research is to understand and explain participant meaning (Morrow & Smith, 2000). Creswell (2003) describes a qualitative approach as one in which the inquirer often makes knowledge claims based primarily on constructivist perspectives, and the researcher collects open-ended, emerging data with the primary intent of developing themes from the data; the
researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting (Creswell, 1998). One of the primary reasons for using qualitative methods is that they are exploratory and useful when little is known about a topic or population being studied, and the researcher seeks to listen to participants and build an understanding of important variables based on their ideas (Creswell, 2003). Qualitative research design, methods, and analyses are thus appropriate to gather in-depth and rich information on the different perspectives of mothers and fathers, as little research exists with respect to the perceived positive and negative forms of paternal support for breastfeeding.

**Mixed Methods Research**

Mixed methods designs are useful to capture the best of both quantitative and qualitative approaches. Researchers often employ mixed-method designs to converge or confirm findings from different data sources, as similar results from two or more methods can increase the credibility of the findings (Ulin, Robinson, & Tolley, 2005). Several decisions must be considered when selecting a mixed methods strategy of inquiry, including: implementation, priority, and integration (Creswell, 2003). Implementation refers to whether qualitative and quantitative data will be collected in phases (sequentially) or at the same time (concurrently). Priority refers to which method (quantitative or qualitative) will be given the greatest weight so that one method is dominant over the other. Finally, integration refers to the mixing of qualitative and quantitative data, which may occur during data collection, data analysis, and/or interpretation.

**Statement of the Problem**

The American Academy of Pediatrics (AAP) recommends that babies be exclusively breastfed (infant receives no other solids or liquids, except vitamins and medicines) for the first
six months of life, and continue to breastfeed throughout the first year of life and as long after as is mutually desired (AAP, 2005). Additionally, the World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life, and continued breastfeeding throughout the first two years of life (WHO, 2011). Considerable work has been conducted in the field of breastfeeding promotion, and recent survey data suggests that initiation rates of breastfeeding are high. According to the CDC (2010), 75 percent of children in the United States have been breastfed. These high rates of initiation are promising and illustrate that many women want to breastfeed and are attempting to do so.

Although initiation rates of breastfeeding are high, United States breastfeeding duration rates consistent with the AAP and WHO recommendations are much lower. At three months, 33.0 percent of infants were exclusively breastfed, and by six months, only 13.3 percent of infants were exclusively breastfed; additionally, only 22.4 percent of infants were still breastfeeding at twelve months (CDC, 2010). A comparison of the current breastfeeding rates with the Healthy People 2020 breastfeeding objectives (United States Breastfeeding Committee, 2013) is presented in Table 1. These current low rates at three, six, and twelve months suggest a larger problem for mothers than simply wanting to breastfeed their infants. Rather, mothers are experiencing considerable barriers preventing them from sustaining breastfeeding to meet the recommendations set forth by the AAP and WHO.

Table 1: Comparison of Current Breastfeeding Rates and Healthy People 2020 Goals.

<table>
<thead>
<tr>
<th></th>
<th>Current Rate (CDC, 2010)</th>
<th>Healthy People 2020 Goal (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever breastfed</td>
<td>75.0</td>
<td>81.9</td>
</tr>
<tr>
<td>Exclusive through 3 months</td>
<td>33.0</td>
<td>46.2</td>
</tr>
<tr>
<td>Exclusive through 6 months</td>
<td>13.3</td>
<td>25.5</td>
</tr>
<tr>
<td>Breastfeeding at 12 months</td>
<td>22.4</td>
<td>34.1</td>
</tr>
</tbody>
</table>
According to Kong and Lee (2004) the choice to not breastfeed often results from a lack of support or information. Arora and colleagues (2000) surveyed 123 women regarding their sources of infant feeding information, and found that the largest percentage of women (33.9%) reported family as their primary source of infant feeding information; other reported primary sources of information included health professionals (physicians, nurses, prenatal classes) (25.7%), media (books, magazines, television) (17.4%), and friends (9.9%). The U.S. Surgeon General’s Call to Action to Support Breastfeeding identified seven key barriers to breastfeeding, including: (1) lack of knowledge; (2) lactation problems; (3) poor family and social support; (4) social norms – breastfeeding viewed as an alternative rather than the routine way to feed infants; (5) embarrassment; (6) employment and child care; and (7) health services (U.S. Department of Health and Human Services, 2011). Specifically regarding fathers, after conducting a systematic review of the relevant literature, McInnes and Chambers (2008) conclude that fathers are a population that must be researched further with regards to breastfeeding support.

The theoretical framework that guided this study was a blend of symbolic interactionism and social support theory. Central to this framework is the idea that people develop symbolic meanings for objects, events, and behaviors (e.g. breastfeeding) in the process of social interaction, and that the collection of an individual’s symbolic meanings shapes/transforms their identity. Relating to this study, this framework suggests that the identity of both the mother and father individually will together ultimately influence the infant feeding practice(s) adopted by the parents, and that the identity of the mother and of the father is shaped by their societal role and by the social support that they receive. This framework helped guide the formation of the following research questions for this study.
Research Questions

This study was conducted to better understand the forms of paternal support that first-time mothers and first-time fathers perceive as positively or negatively supportive of breastfeeding. The research questions for this study included:

1. What forms of paternal support do first-time mothers and first-time fathers perceive as positively or negatively supportive of breastfeeding?
2. Do perceived positive and negative forms of paternal support of breastfeeding differ before and after delivery?
3. Is breastfeeding intention related to a mother's perception of paternal social support?
4. What forms of paternal support are related to breastfeeding duration and/or early termination?

Definitions

Although there are many different definitions of social support found in the literature, there are common characteristics shared by all definitions. According to Hupcey (1998), all definitions imply a type of positive interaction or helpful behavior provided to a person in need of support. Hupcey’s (1998) review of the social support literature identified five categories in which the different definitions of social support could be placed: (1) type of support provided; (2) recipients’ perceptions of support; (3) intentions or behaviors of the provider; (4) reciprocal support; and (5) social networks. For the purposes of this study, the following definition was used to identify circumstances of positive social support; “support refers to the positive, potentially health promoting or stress-buffering, aspects of relationships such as instrumental aid, emotional caring or concern, and information. In essence, supportive relationships directly provide something that people need to stay healthy or to adapt to stress” (House et al., 1988).
Although most studies of social support focus on the positive aspects, there can also be negative aspects, often referred to as negative social support or negative social interactions. Negative social support is described as social interactions that cause distress (e.g. shame, resentment, sadness) and may include “discouraging the expression of feelings, making critical remarks, invading another’s privacy, interfering in another’s affairs, or failing to provide promised help, among others” (Lincoln, 2000). Although these social interactions are often perceived as negative, the provider’s actions are well-intended (Revenson, 1991); for instance, too much family support may be overwhelming and perceived negatively by some even though it is intended to be positive. Several researchers have suggested that negative social interactions, compared to positive social support, may be more consequential for health and have more “potent effects on psychological well-being” (Rook, 1984; House et al., 1998; Lincoln, 2000).

For the purposes of this study, the following definition will be used to identify circumstances of negative social support; “those actions by which a member in one’s social network causes distress (e.g. resentment, sadness, shame). Negative interactions may include discouraging the expression of feelings, making critical remarks, invading another’s privacy, interfering in another’s affairs, or failing to provide promised help, amongst others” (Lincoln, 2000).

For many years, there were no agreed upon definitions of breastfeeding (La Leche League International, 2007), and several variations of each definition appear in the published literature. In 1989, the WHO/UNICEF developed standard definitions to differentiate between the different types of breastfeeding, which include:

- Breastfeeding: The child has received breast milk direct from the breast or expressed.
• Exclusive breastfeeding: The infant has received only breast milk from the mother or a wet nurse, or expressed breast milk, and no other liquids or solids with the exception of drops or syrups consisting of vitamins, mineral supplements, or medicines.

• Predominant breastfeeding: The infant’s predominant source of nourishment has been breast milk. However, the infant may also have received water and water-based drinks (sweetened and flavored water, teas, infusions, etc.), fruit juice; oral rehydration salts solution (ORS), drop and syrup forms of vitamins, minerals and medicines, and ritual fluids (in limited quantities). With the exception of fruit juice and sugar water, no food-based fluid is allowed under this definition.

• Full breastfeeding: Exclusive breastfeeding and predominant breastfeeding together constitute full breastfeeding.

• Complementary feeding: The child has received both breast milk and solid or semi-solid food.

• Bottle-feeding: The child has received liquid or semi-solid food from a bottle with a nipple/teat (La Leche League International, 2007).

The WHO/UNICEF definitions of breastfeeding will be used for the purposes of this study. It is also important to define initiation and duration of breastfeeding. For purposes of this study, breastfeeding initiation is defined as the infant’s first intake of breast milk, and includes those infants that were only breastfed once, or were only given expressed breast milk; “ever breastfed/ever given breast milk” (Amir & Donath, 2007). Breastfeeding duration is defined as the total length of time that an infant receives any breast milk at all (Amir & Donath, 2007).
Outline of Dissertation

This dissertation is divided into five chapters and an appendix section. The first chapter provides a brief introduction about social support and breastfeeding, the statement of need, the rationale for using mixed methods, a statement of the problem, the research questions, and pertinent definitions. The second chapter presents a comprehensive review of the literature, including breastfeeding benefits, support, and policy, an overview of the theoretical framework that guided the study, and a discussion of how this research contributes significant new understanding to the theoretical framework and breastfeeding support. Chapter three describes the research methods including the sampling strategy (subjects and setting), instrumentation, the data collection procedures, how data was analyzed, and ethical issues. Chapter four summarizes and highlights the results of the analysis, and chapter five includes a discussion of the findings, conclusions, and recommendations for public health research and practice. Finally, the appendix section includes examples of all forms and instruments used in this study.
Chapter 2

Review of the Literature

The health benefits of breastfeeding to both mother and infant have been extensively researched and documented in the literature. Breastfed infants experience lower rates of ear infections and diarrhea, and have reduced risk for obesity, diabetes (types I and II), eczema, asthma, lower respiratory infections, and childhood leukemia (Kramer & Kakuma, 2001; AAP, 2005; WHO, 2011). Mothers engaging in breastfeeding also experience lower rates of type II diabetes, breast cancer, ovarian cancer, and post-partum depression (Kramer & Kakuma, 2001; AAP, 2005; WHO, 2011).

In addition to the health benefits experienced by mother and infant, society benefits from breastfeeding as well, creating an issue of public importance. Recent research suggests that if 90 percent of infants were breastfed exclusively for six months, nearly 1,000 infant deaths could be prevented each year, and the U.S. would save $13 billion per year in medical care costs, as breastfed infants typically require fewer sick care visits, prescriptions, and hospitalizations (The National Women’s Health Information Center, 2010). In addition, breastfeeding contributes to a more productive workforce since mothers miss less work to care for sick infants, and employer medical costs are lower (The National Women’s Health Information Center, 2010). Finally, breastfeeding is a more eco-friendly option, as less trash and plastic waste is created compared to that produced by formula cans and bottle supplies (The National Women’s Health Information Center, 2010).
Breastfeeding Support

Although U.S. breastfeeding initiation rates are relatively high, much work remains to increase breastfeeding duration rates to meet current recommendations. According to the CDC (2012), the success rate amongst mothers who want to breastfeed can be improved through active support from their families, friends, communities, clinicians, health care leaders, employers, and policymakers. Ingram and colleagues (2002) report that mothers who receive support and encouragement from their partner, family members, and health professionals are 37 times more likely to still be breastfeeding at 6 weeks than if they perceive to not be supported; additionally, mothers who receive support and encouragement from one or two of these parties are 8.5 times more likely to sustain breastfeeding. This previously conducted research highlights the importance of a collective effort amongst social networks and institutions to support and encourage breastfeeding, to ultimately increase breastfeeding duration rates.

Support from Fathers

With regards to breastfeeding initiation, Giugliani and colleagues (1994) report a favorable attitude of partners towards breastfeeding as the single most important factor associated with breastfeeding, and Scott and colleagues (1997) report that amongst 556 new mothers, the father’s preference for breastfeeding was the most important factor in her decision to breastfeed. A survey of 115 new mothers found that when the infant’s father was supportive of breastfeeding, 98.1 percent of mothers initiated breastfeeding, whereas when fathers were indifferent to feeding choice, mothers initiated breastfeeding only 26.9 percent of the time (Littman, Medendorp, &Goldfarb, 1994). A randomized control trial of 59 expectant fathers compared partner breastfeeding initiation rates, and found that 74 percent of women whose partners attended an intervention class on infant care and breastfeeding promotion initiated
breastfeeding, whereas only 41 percent of women whose partners attended an infant care only class initiated breastfeeding (Wolfberg, Michels, Shields, O’Campo, Bronner & Bienstock, 2004). Finally, Arora and colleagues (2000) surveyed 123 women and found that 32.8 percent of women identified the baby’s father’s feelings as a contributing factor to the decision to breastfeed.

Paternal support is also an important factor related to breastfeeding duration. A study by Ingram and colleagues (2002) found that 79 percent of mothers who had supportive and encouraging partners were still breastfeeding at 6 weeks, and these mothers were over 3 times more likely to still be breastfeeding at 6 weeks than mothers who did not have supportive and encouraging partners. Amongst 123 mothers, the most significant factor for mothers to discontinue breastfeeding was the mother’s perception of the father’s attitude, and amongst mothers who had discontinued breastfeeding, 80 percent reported that support from the baby’s father would have encouraged breastfeeding longer (Arora, McJunkin, Wehrer, & Kuhn, 2000).

**Support from Grandmothers/Other Family Members**

Several studies have also identified the attitudes of, and social support, received from grandmothers and other family members as predictive of breastfeeding initiation and duration. Arora et al. (2000) report that 23.5 percent of mothers identified grandmother or other family member’s feelings as a contributing factor in the decision to breastfeed, and a study of low-income mothers found that mothers who were supported by their own mothers (infant’s grandmother) and/or the infant’s father to breastfeed were more than 12 times more likely to anticipate breastfeeding their own child (Mahoney & James, 2000).

Ingram and colleagues (2002) found that close family members were most strongly associated with influencing the course of breastfeeding in the early weeks, and those women who
had supportive family members were more than 4.5 times more likely to still be breastfeeding at 6 weeks than women without supportive family members. A study of low-income mothers in Alabama found that the duration of breastfeeding beyond 1 month was significantly associated with the mother herself having been breastfed, and therefore most likely supported by her own mother (grandmother) (Meyerink & Marquis, 2002). Ekstrom and colleagues (2003) report that amongst Swedish women, feelings of overall breastfeeding support were correlated with duration of exclusive breastfeeding, and that mothers who knew how long they had been breastfed as a child showed longer duration of exclusive and total breastfeeding than mothers who did not know. Additionally, Arora and colleagues (2000) report that 24.3 percent of women discontinue breastfeeding due to the feelings of the infant’s grandmother or other family members, and 90.9 percent of mothers who were not breastfeeding identified support from the baby’s grandmother or other family members as a factor that would have encouraged longer breastfeeding (Arora, McJunkin, Wehrer, & Kuhn, 2000).

**Support from Friends/Peers/Coworkers**

Friends, peers, and coworkers are another component of a women’s informal social network that may influence her infant feeding decisions. Arora and colleagues (2000) report that 19.1 percent of mothers identified advice or opinions of friends as influencing their decision to breastfeed. Additionally, 20.0 percent of mothers identified advice or opinions of friends as a contributing factor in the decision to discontinue breastfeeding, and 89.4 percent of mothers who were not breastfeeding reported encouragement from friends as a factor that would have encouraged sustained breastfeeding (Arora, McJunkin, Wehrer, & Kuhn, 2000). A study of working mothers found that of mothers with coworkers supportive of breastfeeding, 94 percent were almost exclusively breastfeeding at 6 months; whereas of mothers with unsupportive
coworkers, 63 percent were partially breastfeeding, and 69 percent were not breastfeeding at 6 months (Dabritz, Hinton & Babb, 2009).

Many community organizations have also recognized the impact that peers have on breastfeeding initiation and duration and have formed breastfeeding peer counseling and support groups available to mothers. Gross and colleagues (2009) examined the effect that peer counseling has on breastfeeding initiation, and found that mothers who participate in peer counseling are almost 1.5 times more likely to initiate breastfeeding than mothers who are not exposed to peer counseling. Another study investigated the impact of peer support groups on black mother’s intentions to breastfeed, and found that mothers who attended the support groups were more than twice as likely to intend to breastfeed when compared to women that did not attend (Mickens, Modeste, Montgomery, & Taylor, 2009).

**Support from Health Care Professionals/Hospitals**

As the act of breastfeeding has become increasingly more medicalized, women are receiving a considerable amount of breastfeeding support and information from hospitals and health professionals (Angeletti, 2009). Arora and colleagues (2000) report that 25.7 percent of the information that women receive regarding breastfeeding is from health professionals (physicians, nurses, prenatal classes). Several authors have identified support received from health professionals as influencing the initiation and duration of breastfeeding. A UK study found that a significant factor associated with breastfeeding at 2 weeks was the mother receiving enough support for breastfeeding from the hospital staff, which increased the likelihood of exclusive breastfeeding by over 2 times when compared to mothers who did not receive adequate support for breastfeeding from hospital staff (Ingram, Johnson, & Greenwood, 2002). This same study found that mothers who received support from health professionals were almost 4 times
more likely to still be breastfeeding at 6 weeks than mothers who did not receive support from health professionals (Ingram, Johnson, & Greenwood, 2002). Arora and colleagues (2000) report that 29.9 percent of mothers identified advice or opinions of a doctor or nurse as a contributing factor to their decision to breastfeed. Additionally, when mothers who had discontinued breastfeeding were asked to identify factors that would have encouraged breastfeeding longer, 73.5 percent of mothers identified more teaching from nurses in the hospital, 80.0 percent of mothers identified more information from doctor of doctor’s office before delivery, and 95.4 percent of mothers identified more information from prenatal classes (Arora, McJunkin, Wehrer, & Kuhn, 2000).

The relationship between hospital supported infant feeding methods and the duration of breastfeeding has also been studied extensively. A recent study of 201 infants found that infants fed breast milk exclusively at the hospital were twice as likely as those who were fed formula supplements to be almost exclusively breastfeeding rather than partially or not breastfeeding at 6 months of age (Dabritz, Hinton & Babb, 2009). This same study also found that infants whose mothers received gift packs containing formula upon hospital discharge were less likely to be almost exclusively breastfeeding than partially or not breastfeeding at 6 months of age (Dabritz, Hinton & Babb, 2009). Another study reports that infants who were exclusively breastfed in the hospital were 7 times more likely to be exclusively breastfeeding after 1 month compared with those infants who were not exclusively breastfed in the hospital (Petrova, Hegyi & Mehta, 2007). Howard and colleagues (2003) found that infants who did not receive any formula supplements breastfed on average for 101 days compared with a median of 31-49 days for infants who were fed formula supplements in the hospital, and Ingram and colleagues (2002) report that breastfed babies given any other fluid (water or formula) while in the hospital were more than twice as
likely to discontinue breastfeeding by 2 weeks of age than babies that were not given any other fluids.

Support from Work/School Sites

Research suggests that mothers who work or attend school have similar breastfeeding initiation rates to mothers who do not work or attend school; however, lactating mothers who return to work or school are less likely to continue breastfeeding. According to the CDC (n.d.), nationally, only 10 percent of full-time employed mothers who initiate breastfeeding are still breastfeeding at 6 months. Additionally, lactating mothers who go back to work full-time rather than part-time are less likely to sustain breastfeeding after returning to work. Dabritz et al. (2009) report that 62 percent of infants whose mothers attended work or school part-time were almost exclusively breastfed at 6 months, compared to only 38 percent of infants whose mothers attended school or work full-time. A study by Sloan and colleagues (2006) found that the most often cited reason for breastfeeding cessation was returning to work, reported by 21 percent of the sampled women, and Arora et al. (2000) report that 29.4 percent of mothers who discontinued breastfeeding cited “couldn’t breastfeed because had to return to work” as the contributing factor, which was the third most often cited reason amongst mothers in their sample. Additionally, when mothers who had discontinued breastfeeding were asked to identify factors that would have encouraged longer breastfeeding, 80.3 percent of mothers identified “a different work situation” (Arora, McJunkin, Wehrer, & Kuhn, 2000).

Several supportive features of workplaces and schools have been shown to have a positive impact on the duration of breastfeeding. A literature review conducted by Stewart-Glenn (2008) identified 7 elements of a workplace [school] environment supportive of breastfeeding: (1) job sharing, part-time work options, or flexible scheduling; (2) a private place
with a locking door (other than a bathroom stall) and a sink to pump milk; (3) access to refrigeration for storage of breast milk; (4) close or on-site daycare; (5) time allowed to express milk; (6) corporate wellness programs that support breastfeeding or access to lactation consultants; and (7) organizational culture supportive of breastfeeding. The CDC has also identified several employee benefits and services to support breastfeeding in the workplace, including “writing corporate policies to support breastfeeding women; teaching employees about breastfeeding; providing designated private space for breastfeeding or expressing milk; allowing flexible scheduling to support milk expression during work; giving mothers options for returning to work, such as teleworking, part-time work, and extended maternity leave; providing on-site or near-site child care; providing high-quality breast pumps; and offering professional lactation management services and support” (CDC, n.d.).

Several studies have examined the impact that breastfeeding supportive work environments have on breastfeeding initiation and duration. A study of 128 mothers examined the impact that a workplace lactation program had on breastfeeding duration, and found that more women who participated in each service (prenatal education, telephone support, return to work consultation, and lactation room) were exclusively breastfeeding at 6 months than women who did not participate in each service; additionally, the total number of services that mothers participated in was related to longer duration of exclusive breastfeeding (Johnston Balkam, Cadwell, & Fein, 2011). A study of the role of workplace characteristics on breastfeeding found that the availability of employer-sponsored child care increased the likelihood of breastfeeding at 6 months by 47 percent; also, the ability to work an additional 8 hours per week from home increased the likelihood of initiating breastfeeding by 8 percent, and sustaining breastfeeding to 6 months by 16.8 percent (Jacknowitz, 2008). A retrospective study of 462 mothers investigated
the effects of workplace lactation programs that included (1) a class on the benefits of breastfeeding, (2) services of a certified lactation consultant, and (3) a private room in the workplace with equipment for pumping, on breastfeeding duration; this study found that breastfeeding was initiated by 97.5 percent of mothers, with 57.8 percent of them continuing for at least 6 months (Ortiz, McGilligan, & Kelly, 2004). This study also found that 78.9 percent of the mothers who returned to work after giving birth attempted pumping milk at work, and 98 percent of them were successful (Ortiz, McGilligan, & Kelly, 2004). An evaluation of the California WIC breastfeeding support program found that employer-provided breast pumps and worksite support groups positively impacted the duration of breastfeeding; amongst WIC employees, 99 percent of mothers initiated breastfeeding, and 69 percent of mothers breastfed for at least 12 months (Whaley, Meehan, Lange, Slusser, & Jenks, 2002). Finally, a study of 187 mothers returning to work examined the effects of using a worksite breast pump room at scheduled times during the work shift, and employer-provided lactation counseling on breastfeeding duration, and found that 75 percent of mothers continued breastfeeding for at least 6 months (Cohen & Mrtek, 1994).

**Breastfeeding Policy**

Many laws and policies are in place to protect the rights of a breastfeeding mother and child. An analysis of state variation in breastfeeding rates in the U.S. found a general association between states’ adoption of laws supporting breastfeeding and initiation of breastfeeding and duration to 6 months (Kogan, Singh, Dee, Belanoff, & Grummer-Strawn, 2008). According to The National Conference on State Legislatures (2011), presently forty-five states, the District of Columbia and the Virgin Islands have laws that allow women to breastfeed in any public or private location; twenty-eight states, the District of Columbia and the Virgin Islands exclude
breastfeeding from public indecency laws; twenty-four states, the District of Columbia and Puerto Rico have laws related to breastfeeding mothers in the workplace; twelve states and Puerto Rico exempt breastfeeding mothers from jury duty; and five states and Puerto Rico have implemented or encouraged the development of a breastfeeding awareness education campaign. Breastfeeding legislation specific to Florida include:

- **Fla. Stat. § 383.015** (1993) allows a mother to breastfeed in any public or private location. (HB 231)

- **Fla. Stat. § 383.016** (1994) authorizes a facility lawfully providing maternity services or newborn infant care to use the designation "baby-friendly" on its promotional materials. The facility must be in compliance with at least eighty percent of the requirements developed by the Department of Health in accordance with UNICEF and World Health Organization baby-friendly hospital initiatives. (SB 1668)

- **Fla. Stat. § 800.02 et seq.** and **§ 827.071** exclude breastfeeding from various sexual offenses, such as lewdness, indecent exposure and sexual conduct.


At the federal level, the Patient Protection and Affordable Care Act, H.R. 3590 and the Reconciliation Act of 2010, H.R. 4872 includes a provision (Section 4207) which amends the Fair Labor Standards Act (FLSA) of 1938 to require employers with more than 50 employees to provide reasonable, unpaid break time for an employee to express breast milk for her nursing child for one year after the child’s birth; the employer must also provide a place, other than a
bathroom, that is private and clean for the employee to express breast milk (Lichter, 2011; The National Conference on State Legislature, 2011; U.S. Department of Health and Human Services, 2011). Additionally, the Breastfeeding Promotion Act of 2011 (H.R. 2758, S. 1463) was introduced with two added provisions: (1) amends the Civil Rights Act of 1964 to protect breastfeeding women from being fired or discriminated against in the workplace; and (2) protects breastfeeding mothers by ensuring that executive, administrative, and professional employees, including elementary and secondary school teachers (in addition to non-exempt employees covered by the previous amendment), have break time and a private place to pump in the workplace (United States Breastfeeding Committee, 2012). Previous versions of this bill were also introduced in 2001, 2003, 2005, 2007 and 2009; however, this bill has yet to be passed.

Although it does not specifically address breastfeeding, The Family and Medical Leave Act (FMLA) also significantly impacts initiation and duration of breastfeeding. FMLA was enacted in 1993 to provide 12 weeks of job-protected, unpaid leave to employees for the following reasons: (1) birth and care of the eligible employee's child, or placement for adoption or foster care of a child with the employee; (2) care of an immediate family member (spouse, child, parent) who has a serious health condition; or (3) care of the employee's own serious health condition. It also requires that employee's group health benefits be maintained during the leave (Stewart-Glenn, 2008; U.S. Department of Labor, n.d.). Several authors have reported a positive association between length of maternity leave and breastfeeding initiation and duration. A recent study of the effect of maternity leave length on breastfeeding found that mothers who returned to work at or after 13 weeks of maternity leave were 2.5 times more likely to breastfeed beyond 3 months when compared to mother who returned to work sooner (Ogbuanu, Glover, Probst, Liu, & Hussey, 2011). Guendelman and colleagues (2009) report that amongst a sample
of 770 full-time working mothers, the strongest predictor of not establishing breastfeeding was return to work after maternity leave of 6 weeks or less, and that these mothers were more than 4 times more likely to not establish breastfeeding when compared to mothers who took maternity leaves longer than 12 weeks; of the mothers who initiated breastfeeding, those mothers who returned to work within 6 weeks were also more than 3 times as likely to discontinue breastfeeding when compared to mothers who took maternity leaves longer than 12 weeks. Mothers who returned to work within 6-12 weeks were more than twice as likely to not establish breastfeeding when compared to mothers who took maternity leaves longer than 12 weeks, and of the mothers who initiated breastfeeding, mothers who returned to work within 6-12 weeks were also more than twice as likely to discontinue breastfeeding as opposed to mothers who took longer maternity leaves (Guendelman, Kosa, Pearl, Graham, Goodman, & Kharrazi, 2009).

A final initiative that impacts breastfeeding initiation and duration is the Baby Friendly Hospital Initiative (BFHI), which several hospitals in the U.S. have adopted as part of their hospital policy, including 4 of Florida’s 128 maternity hospitals. The BFHI is a global program sponsored by The World Health Organization and UNICEF “to encourage and recognize hospitals and birthing centers that offer an optimal level of care for infant feeding” (Baby-Friendly USA, 2010). According to the BFHI, The Ten Steps to Successful Breastfeeding for Hospitals include: (1) have a written breastfeeding policy that is routinely communicated to all health care staff; (2) train all health care staff in skills necessary to implement this policy; (3) inform all pregnant women about the benefits and management of breastfeeding; (4) help mothers initiate breastfeeding within one hour of birth; (5) show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants; (6) give newborn infants no food or drink other than breast milk, unless medically indicated; (7) practice “rooming in” –
allow mothers and infants to remain together 24 hours a day; (8) encourage breastfeeding on
demand; (9) give no pacifiers or artificial nipples to breastfeeding infants; and (10) foster the
establishment of breastfeeding support groups and refer mothers to them on discharge from the
hospital or clinic (Baby Friendly USA, 2010).

Theoretical Framework

The theoretical framework that guided this research and the development of the research
questions was a blend of symbolic interactionism and social support theory.

Symbolic Interactionism

According to White and Klein (2008, p.94-95), symbolic interactionism, more than any
other of the family theories (e.g. functionalist, social exchange and rational choice, family life
course development, systems, conflict, feminist, and ecological frameworks) calls for paying
attention to how events and things are interpreted by social actors, and the prime emphasis is the
uniting of the study of cultural meanings with social behavior. “Symbolic interaction posits that
humans are motivated to create meaning to help them make sense of their world” (White and
Klein, 2008, p.97). Humans mentally form associations between events, such that certain events
are perceived as signs for latter events. These signs are the necessary ingredient for the
development of symbols, which are any sign (i.e. action, behavior, object, word) agreed on by
social convention. Symbolic interactionists focus on the idea of how these complex symbol
systems are shared (White and Klein, 2008, p.96). Additionally, symbolic interactionists focus
on the construction of meanings though interactions with other people and the environment, such
that meaning emerges through the course of social interaction (White and Klein, 2008, p.97).
According to Blumer, symbolic interaction is based on three basic propositions (Aksan et al.,
2009): (1) humans develop their attitudes toward things according to the meanings those things
have for them; (2) these meanings are derived based on social interactions with others; and (3) these meanings change over time through an interpretive process.

Several previous studies have applied a symbolic interaction framework to the study of breastfeeding and infant feeding practices. Flacking, Ewald and Starrin (2007) used a symbolic interaction approach to study breastfeeding and the experience of becoming a mother amongst first-time mothers of very preterm infants. This qualitative study was conducted in Sweden where the cultural norm is pro-breastfeeding; they write that the method of feeding reflects the cultural values of motherhood, and that breastfeeding is synonymous with good mothering, such that breastfeeding is a strong symbol for mothering and represents being a “good mother” (Flacking et al., 2007). Sika-Bright (2010) used symbolic interaction to guide his qualitative research of the factors influencing infant feeding practices of mothers in Ghana, and concludes that “a mother’s identity may therefore become profoundly shaped by the symbolically charged behavior of infant feeding in view of others. Infant feeding practice is therefore that can be explained in symbolic interactionist’s terms” (Sika-Bright, 2010). Smith (2003) employed a symbolic interaction approach in her qualitative study of how women in Australia learn about breastfeeding, which was aimed at understanding the processes, influences and issues women face when deciding to breastfeed. Finally, a literature review conducted by Lupton (1993) investigating risk and risk perception, found that the way in which a mother feeds her baby is a symbol of her ability to care for her child, and that failure to breastfeed one’s child may be seen as being a “poor mother”. He concludes that mothers who formula feed rather than breastfeed may be seen as putting their babies at risk of serious or life-threatening dangers (Lupton, 1993).
Social Support Theory

There are many theories that have influenced the conceptualization of social support, including coping theory, social comparison theory, social exchange theory, attribution theory, social learning theory, and social competence (Williams, Barclay and Schmied, 2004). As a concept, social support has been studied extensively in the research literature; although there is a wealth of information available on the topic, a clear definition or operationalization of the concept has yet to be developed. Further, many researchers posit that a formal definition of social support should not exist, as the concept is much too broad to be captured by a single definition (Hupcey, 1998). Vaux (1988) writes, “no single and simple definition of social support will prove adequate because social support is a metaconstruct”. Hupcey (1998) adds that recently the term has become more and more abstract “encompassing anticipation, perceptions, quality of support, quantity of supportive interactions… abstract characteristics of persons, behaviors, relationships, or social systems. The evident diversity of what is subsumed under it [social support] is usually accounted for by postulating different kinds (e.g. emotional vs. instrumental), sources (e.g. spouses vs. family vs. friends), or other facets, forms or expressions of the phenomenon “support””.

There has been a considerable amount of research on the impact of social support on breastfeeding practice, which has been described in detail previously in this chapter.

Symbolic Interactionism/Social Support Theory

The decision to breastfeed has been studied extensively and is generally considered a matter of individual choice and rational decision-making (Sheehan et al., 2009). Sika-Bright (2010) writes that infant feeding campaigns are almost always directed to the mother and are based on the assumption that women are free to make their own decision on feeding their infants.
Further, it is widely believed that problems with breastfeeding duration exist when a woman experiences physical problems associated with the practice, and that increased health education will address these issues (Sheehan et al., 2009). According to Sheehan and colleagues (2009), research applying traditional decision-making theories, such as the Theory of Planned Behavior and the Theory of Reasoned Action to predict breastfeeding outcomes, have been used with limited benefit. Instead, infant feeding should be seen as a “complex process shaped by social and cultural forces interacting with local environmental and political conditions” (Sika-Bright, 2010).

Therefore, a different theoretical approach was used to guide this research study; the theoretical framework that guided this research study was a blend of Symbolic Interactionism and Social Support Theory. Lakey and Cohen (2000) write “our social environments directly promote health and well-being by providing people with a way of making sense of the self and the world. Social support operates by helping to create and sustain identity and self-esteem”. Figure 1 (Lakey and Cohen, 2000) depicts the relationship between symbolic interaction and social support, such that social support as well as a person’s societal role influence identity (sense of self), which impacts health.

Lakey and Cohen’s (2000) framework was well suited for this research study, which sought to better understand the forms of paternal support (social support) that are perceived as positively or negatively predictive of breastfeeding duration (health outcome). However, this research study was investigating perceptions of paternal social support from the perspectives of both the mother and father; therefore the figure presented by Lakey and Cohen (2000) was expanded to incorporate both of these individuals, represented in Figure 2.
Figure 1: Symbolic Interaction Framework (Lakey and Cohen, 2000)

Figure 2: Expanded Theoretical Framework
Central to this framework is the idea that the identity of each the mother and father will together ultimately influence the infant feeding practice(s) adopted by the parents. Heisler and Ellis (2008) describe self-identity as “a person’s collective experiences, thoughts, ideas, memories, and plans for the future”, and Bosma and Kunnen (2001) define identity formation as “the problem-solving behavior aimed at eliciting information about oneself or environment in order to make a decision about an important life choice”. Traditionally, identity formation has focused on adolescents; however, more recent work has focused on identity transformation at major life points, such as the transition to parenthood. Barba and Selder (1995) write that “becoming a mother involves moving from a known, current reality to an unknown, new reality. A transition requires restructuring goals, behaviors, and responsibilities to achieve a new conception of self”. Heisler and Ellis (2008) discuss the experience of pregnancy as an identity shaping experience, and describe the transition to motherhood during pregnancy as a physical representation of a permanent shift in a woman’s role, position, and perspective. In relation to the transition to fatherhood and father identity formation, Habib and Lancaster (2006) define identity content as a “mental elaboration of the individual’s vision of a particular status”, and write that the identity content of the father status may depend on factors such as the stage of the life cycle, the culture, the social circumstances, the historical period, and the particular relationships or interpersonal context in which fathering occurs. A study by Summers and colleagues (2006) report father involvement [direct result of the father’s investments in his fathering identity (McBride et al., 2005)] to be strongly influenced by contextual features of the relationships, environment, and culture surrounding them, and Para (2008) writes that identity formation is largely influenced by the support and opportunities offered by an individual’s environment.
The framework for this study therefore proposes that a parent’s identity is a product of their societal role, as well as the social support they receive. According to Stryker (1968), identities are the internalization of cultural expectations (societal roles or role expectations) in an individual’s self-concept, linking the individual to the larger social structure. For women, the societal role they are in is that of mother. According to this framework, the societal pressures of what it means to be in the role of mother will influence the woman’s identity about the type of mother she is, and the actions/behaviors she takes to fulfill her role. For instance, Sika-Bright (2010) writes that “a mother’s identity may be shaped by the symbolically charged behavior of infant feeding in view of others”. Every societal role has associated rules and expectations about how one should act in a particular role, in this case, the role of mother. As the American mothering role is changing, the ideas of what is considered good mothering practices also changes. A study of breastfeeding mothers report that the observable signs that the baby is contented and thriving most signified ‘good mothering’ (Marshall, Godfrey & Renfrew, 2007). In many countries, breastfeeding is synonymous with being a “good mother” (Flacking et al., 2007), yet in the United States, formula feeding has “become a sign of modernity, freedom, sophistication, and affluence” (Spangler, n.d.). Breastfeeding is no longer the only infant feeding practice viewed as a symbol of good mothering in American society. Pertinent to the conversation of the women’s role is also the concept of role strain, in which the women does not have sufficient resources to enact her role(s). Spangler (n.d.) discusses the changing role of women in the United States (e.g. more working mothers, and more single mothers) and how this has impacted parenting practices. Role strain affects the breastfeeding mother who has
competing demands to fulfill such as household chores, taking care of other children, or working outside of the home, and therefore may be a barrier to successful breastfeeding.

As is the case for the woman, the man also holds certain societal roles that influence how his [father] identity, including the actions/behaviors he takes to fulfill that role, is shaped. Habib and Lancaster (2006) write that “men’s role-related behavior is likely to reflect the various meanings of who they are as fathers” and “underlying this impression [about the type of father one is] may lay an inherent value judgment about what is appropriate and desirable fathering and increasing social pressure to be a certain kind of father irrespective of men’s own self-meanings”. Just as the American mothering role has changed, the American fathering role has also shifted. Morman and Floyd (2006) describe fatherhood as a “historically varying social construction”, and that the meaning of fatherhood is primarily a cultural product in which the criteria for being a “good father” change as culture changes. Traditionally the father’s role has been that of provider or breadwinner, such that providing for one’s family was synonymous with being a “good father”; whereas more recently, the meaning has shifted to a “good father” being loving, affectionate, involved, nurturing, and consistent in the raising of his children (Morman & Floyd, 2006). Summers et al. (2006) further discuss the shift from the traditional view of mothers and fathers occupying very different roles, to the more recent view that mothers and fathers co-parent and share all parenting roles. According to Henwood and Proctor (2003), “good fathers are depicted as actively participating in domestic life, as having shared responsibilities and roles, and generally cooperating with their partner in the home”.

The recent shift in fathering roles has led to considerable research conducted to better understand the identities of fathers and what it means to be a “good father” from the father’s perspective. A study of young, urban fathers identified five characteristics of a good father
including: availability (being there for the child); financial support; emotional support (for the child); teaching; and assuming responsibility (Lemay, Cashman, Elfenbein, & Felice, 2010). Another study of father and son perceptions of being a good father produced 20 distinct categories of characteristics, with the five most-often mentioned categories being: (1) love; (2) availability; (3) role model; (4) involvement; and (5) provider (Morman & Floyd, 2006). A study of low-income fathers identified four categories of roles of a “good father” including: stability (promoting a secure and stable environment for their child and “being there”); teaching (teacher, guide, or disciplinarian for their children); physical interaction (caregiving, playing, and spending time with children); and emotional (providing emotional care and support for their children) (Summers et al., 2006). While none of the studies with fathers specifically discuss breastfeeding, these studies do identify characteristics of “good fathers” associated with the practice; the studies by Lemay and colleagues (2010) and Mormon and Floyd (2006) identify availability as a characteristic of “good fathers” which may also extend to the child’s mother by also providing support for her. The study by Summers and colleagues (2006) additionally identify stability which includes partnership with the child’s mother, and physical interactions which includes caregiving (e.g. feeding) for the child.

The framework also suggests social support to be a crucial component in the formation of one’s identity, such that the social support received by the mother and father directly affects how they conceptualize their identity as a mother or father. Heisler and Ellis (2008) write that one’s self cannot exist independently of others, and that one’s self-identity is partially constructed through interactions with others. Social support may be received from family, friends, peers, neighbors, co-workers, and health service staff, amongst others, and significant others’ are considered the most influential person or group of persons with whom an individual interacts.
White and Klein (2008, p.98) write that families are crucial sites of meaning formation and verification. Thus, the meaning of being a “good mother” or “good father”, including choice of infant feeding practice, is largely influenced by the spousal support provided. Giugliani and colleagues (1994) report a favorable attitude of partners towards breastfeeding as the single most important factor associated with breastfeeding, and Sika-Bright (2010) state that a key significant other, such as a husband, who supports or encourages breastfeeding may prompt a behavioral change in a woman who has been supported by others to formula feed.

Included in this framework is a direct relationship between the identity of the mother and the amount and types of social support she provides to the father, which indirectly impacts the identity formation of the father. Summers and colleagues (2006) write that a father’s ability to achieve his vision of a “good father” may be influenced by (1) his own knowledge, skills, commitment, and experiences with his own father; (2) his relationship with his child’s mother; (3) the mother’s attitudes and expectations toward the father; (4) contextual factors such as employment, economic factors, and cultural expectations; and (5) child factors such as behavioral challenges, gender, and age. Additionally, a mother’s support was found to be a significant predictor for father involvement with their children (Summers et al., 2006), and a study by Maurer and colleagues (2001) conclude that perceptions of maternal appraisal heavily influence fathering identity. This same relationship between the father’s identity and the amount and types of social support he provides to the mother is also depicted in the proposed framework, so that the father’s identity indirectly influences the mother’s identity as well.

As previously noted, a symbolic interaction/social support framework helped guide the formation of the research questions for this study. Sika-Bright (2010) writes, symbolic
interactionism provides a theory for considering the subjective inner processes that mothers use in making their choices (i.e. infant feeding) and deciding on the significance of their actions. The first research question was: “what forms of paternal support do first-time mothers and first-time fathers perceive as positively or negatively supportive of breastfeeding?” This question was pertinent to the research study to better understand the forms of paternal support that mothers and fathers perceive as positive or negative, and to understand how these types of support influence the parent’s individual identities and their choice of infant feeding methods. Numerous authors have described the transition to parenthood as an identity transformation process. For instance, Flacking and colleagues (2007) use a symbolic interaction framework to discuss the experience of becoming a mother and how this event changes a woman’s identity as she transforms into a mothering role. The idea of identity transformation guided the development of the second research question which was, “do perceived positive and negative forms of paternal support of breastfeeding differ before and after delivery?” Because the event of becoming a parent can have a radical effect on a person’s identity, it was important to understand if perceived forms of social support differ before and after the birth of the child. Before the birth of a child each person has an identity, which may include perceptions of what type of mother or father they are going to be. These perceptions of motherhood or fatherhood may include ideas of how the infant will be fed. Therefore, the third research question was, “is breastfeeding intention related to a mother’s perception of paternal social support?” The final research question was “what forms of paternal support are related to breastfeeding duration and/or early termination?” This question was pertinent to the study to better understand how differing forms of paternal support shape the mother’s identity regarding the meaning of breastfeeding, and if certain forms
of paternal support are more likely to influence duration and/or early termination of breastfeeding.
Chapter 3

Methods

This study utilized a mixed-methods longitudinal study design, heavily based on qualitative methods. A concurrent nested (embedded) design was used, in which both quantitative and qualitative data was collected simultaneously, and mixed during the analysis phase of the study. Qualitative methods predominantly guided the study; thus, quantitative methods were nested within the dominant qualitative methods. Nested designs are often used when different methods are needed to answer the proposed research questions, or when information is sought from different groups or levels (Tashakkori and Teddlie, 1998); the present study used quantitative methods to help address the third and fourth research questions, and to collect quantitative, descriptive information of the sample participants. According to Ulin and colleagues (2005), quantitative data on study participants (e.g. sociodemographic data) can help to interpret qualitative results or highlight important subgroup differences, and Morse (1991) notes that a primarily qualitative design could embed some quantitative data to enrich the description of the sample participants. Also, according to Creswell (2003), having a major form of data collection and analysis and a minor form is well suited for studies undertaken by graduate students.

A longitudinal study design was used, with a prospective cohort of first-time parent couples interviewed during the last trimester of pregnancy, and again at one, three, and six months post-partum. Longitudinal designs provide pertinent information about individual
change over time (Holland, Thomson, & Henderson, 2006). The birth of a child is often viewed as an identity-shaping experience affecting the views and practices that one associates with their role as a mother or father. A longitudinal study design was therefore needed to understand if the perceived positive and negative forms of paternal support differed before and after delivery, as well as if they changed at any time during the first six months following the birth of the child.

**Sampling**

The sample frame for this study was first-time parent couples residing in the Tampa Bay area who were currently in their last trimester of pregnancy. A purposeful sampling strategy was used to obtain typical case participants who met the eligibility criteria. Purposive sampling strategies are designed to enhance understanding of individual’s and groups’ experiences, and for developing theories and concepts; this is achieved by selecting “information rich” cases (e.g. individuals, groups, organizations, or behaviors) that provide the greatest insight into the research question(s) (Devers & Frankel, 2000). Devers and Frankel (2000) describe three cases that provide the greatest return in purposive samples: typical cases, deviant or extreme cases, and negative or disconfirming cases. Typical cases are those that are normal for the population being studied, whereas extreme cases are those that are highly unusual, and disconfirming cases are those that are exceptions to the rule. For the purposes of this study, typical cases were selected.

First-time, expecting parents were recruited from the ABC prenatal classes and the Boot Camp for New Dads workshops offered by Champions for Children, a non-profit organization in Tampa, Florida. The ABC prenatal classes are classes taught to expecting parents, and include Childbirth, Newborn Care, and Breastfeeding. Mothers may attend the classes by themselves or with a partner; a review of the recent class log-in sheets indicate that support partners most often attend the Childbirth class, followed by the Newborn Care class. Mothers most often attend the
Breastfeeding class by themselves. The ABC program does not collect demographic information as the program serves primarily Healthy Start clients, which serves mothers and babies in 17 of Tampa’s urban census tracts. Recent demographic statistics indicate that 67.7 percent of mothers who receive Healthy Start services in Hillsborough County are African American, 14.2 percent are White, 11.1 percent are Hispanic, and 7.0 are identified by the Other category. For age, 21.7 percent of mothers who receive Healthy Start Services are under 20 years, 72.3 percent are between the ages of 21 and 34, and 6 percent are 35 years and older. As for education, 55.3 percent of mothers have attained at least a high school degree. Finally, 24.7 percent of mothers who receive Healthy Start services in Hillsborough County are married and 75.3 percent or mothers are unmarried.

The Boot Camp for New Dads is a one-session workshop that uses veteran fathers to teach the ropes of fatherhood to “rookie” dads. Recent demographic statistics for the Boot Camp for New Dads workshop indicate that 59 percent of their fathers are White, 18 percent are African American, 15 percent are Hispanic, and 7 percent are Asian. For age, 5 percent of the fathers are under 21 years, 26 percent are 21-29 years, 59 percent are 30-39 years, 8 percent are 39-49 years, and 2 percent are over 49 years. Finally, 77 percent of fathers attending the workshop are married, and 23 percent are unmarried.

Study invitations (Appendix A) and flyers (Appendix B) were handed out by the researcher to mothers and fathers who attended the ABC prenatal classes; additionally, at the beginning of the class the researcher briefly described the research study and collected contact information from individuals who were interested in participating. Study invitations and flyers were handed out to fathers who attended the Boot Camp for New Dads workshop by the Champions for Children program staff. The invitation included information about the purpose of
the study, inclusion criteria and incentives to participate, and contact information; additionally, the invitation invited both the expecting mother and father to participate in the study. A staggered design was used in which couples were recruited to the study in stages, beginning with five couples. Sampling continued until saturation was reached, and a final sample of fourteen couples was included in this study. Twelve of the couples were recruited from the ABC prenatal classes, and two couples were recruited from the Boot Camp for New Dads workshop.

Inclusion criteria included: (1) first-time parents (both mother and father); (2) cohabitating couples residing in the Tampa Bay area; (3) couples who were pregnant with healthy babies greater than 34 weeks gestation; and (4) couples intending to breastfeed, or interested in breastfeeding. The theory guiding the development of this study was a blend of symbolic interactionism and social support which posits that one’s self-identify is transformed at multiple time-points in one’s life, such as the birth of a child. For this reason, only first-time mothers and first-time fathers were included so that comparisons of perceived paternal support for breastfeeding before and after delivery could be made. Additionally, the confounder of prior experience with breastfeeding was minimized (Pinelli, Atkinson, & Saigal, 2001). The decision to only include cohabitating couples was based on the assumption that these couples were most likely to live together during the entirety of the study, and would therefore identify more forms of breastfeeding paternal support than couples who were not cohabitating (Garcia Falceto, Giugliani, & Fernandes, 2004). Additionally, only those couples residing in the Tampa Bay area were included to minimize travel distance to participant’s homes, and to achieve a more representative sample of the views of parents living in one geographic location. The decision to only include pregnant couples with healthy babies greater than 34 weeks gestation was based on the decreased risk that these babies would require a stay in the hospital neonatal intensive care
unit (NICU) at birth. A recent study reports that otherwise healthy infants born at 34 weeks gestation are admitted to the NICU 16.3 percent of the time; whereas the admission rate decreases to 8 percent and 4.8 percent by 35 and 36 weeks of gestation respectively (Loftin, Habli, Snyder, Cormier, Lewis, & DeFranco, 2010). Finally, only couples who were intending to breastfeed or who were interested in breastfeeding were included in this study; this criterion was important to gain an emic perspective and valuable insight about the forms of paternal support perceived as either positive or negative by parents who were engaging in the practice of breastfeeding. Schmidt & Sigam-Grant (1999) targeted families intending to breastfeed, currently breastfeeding, or interested in breastfeeding to solicit “positive” breastfeeding information; and Stendell-Hollis and colleagues (2011) go as far to say that researchers conducting studies with lactating women may want to consider “exclusive breastfeeding” as a study inclusion criteria to prevent high attrition rates.

Exclusion criteria included: (1) couples younger than 18 years old (one or both members); (2) couples pregnant with multiples; (3) couples whose infant was admitted to the NICU at birth; and (4) couples who do not speak English. Couples in which one or both members were younger than 18 years of age were excluded from this study; these individuals are considered minors in the state of Florida, and extra requirements must be met to conduct research with this population. The decision to exclude couples pregnant with multiples was two-fold; first, multiple pregnancies are often associated with higher rates of prematurity and low or very low birth weights, often resulting in stays in the NICU (Flidel-Rimon & Shinwell, 2006). Secondly, breastfeeding multiples is often more challenging than breastfeeding a singleton, and rates of breastfeeding initiation and duration in multiple births are significantly lower than that of singleton births (Flidel-Rimon & Shinwell, 2006). For these reasons, couples pregnant with
multiples were considered untypical cases for this study, and were excluded. Also, the decision
to exclude couples whose baby is admitted to the NICU following delivery was based on the
presumption that these cases are untypical; the perceived positive and negative forms of paternal
support for breastfeeding are going to most likely differ significantly for parents whose infant is
admitted to the NICU, compared to parents whose baby is able to go home after delivery.
Finally, couples who do not speak English were excluded from this study to avoid additional
costs of hiring a translator, and to evade potential lost meanings during the translation process
(Inhetveen, 2012).

To help prevent attrition in this study, detailed, up-to-date contact information (phone
numbers, email addresses) was collected from participants, subsequent interviews were
tentatively scheduled at the end of each interview, and incentives were provided to participants
for their continued participation. Incentives included a new baby gift basket (diapers, wipes,
shampoos, lotions, etc.; retail value $250) for each expecting couple at the first interview, a small
gift for the baby (outfit, shoes, toy, etc.) at the second interview, and a $100 gift card for each
couple at the fourth interview. No couples were lost to attrition in this study.

Instrumentation

Several instruments were used to collect data for this study, including a qualitative in-
depth interview guide, and a quantitative survey. A qualitative, in-depth interview guide was
developed to better understand several aspects of participants’ breastfeeding experiences. The
interview guide was slightly different for fathers and mothers, but contained similar content
areas. During the first interview (prenatal period), each participant was asked about aspects of
parenting, their beliefs and perceptions of breastfeeding and formula, their feeding decision and
intentions, and perceived breastfeeding support. Post-partum, each couple was also asked about
their infant feeding decisions and the methods currently being used, as well as the forms of breastfeeding support received and/or provided. Many of the questions from the in-depth interview guide were previously developed and administered as focus group questions (Appendix C) in a qualitative study with pregnant women and their male partners to better understand how pregnant women and male partners conceptualize infant feeding and support for breastfeeding (Avery & Magnus, 2011). This focus group guide was tailored to use as an in-depth interview guide for this study, and was also expanded upon to include specific questions regarding positive and negative forms of paternal support. Additionally, this guide was adapted to use at subsequent interviews, as the study by Avery & Magnus (2011) was conducted with parents during the prenatal period only. The interview guides are included in Appendix D.

The quantitative survey was also slightly different for fathers and mothers, but contained similar content areas. The survey administered during the first visit included three sections. The first section gauged parental knowledge and attitudes toward breastfeeding using the previously developed and validated 17-item Iowa Infant Feeding Attitude Scale (IIFAS) (Appendix E); this scale uses a 7-point rating system for each question to help predict families at risk of not breastfeeding or giving up prematurely. The second section included questions to determine participants’ intentions for their infant to be breastfed, and included a Likert like scale from “very likely” to “not at all likely”. Finally, the third section collected demographic information about the study participants. During subsequent time periods at one, three, and six months, a shorter quantitative survey with two sections was administered at the end of the interview. In the first section, participants again responded to the IIFAS to assess parental attitudes towards breastfeeding. The second section included questions regarding the infant feeding methods currently used, and used a multiple choice question format; three items (reason for
discontinuation of breastfeeding, and support items) from this section were previously developed and implemented in a quantitative study to assess motivation, social support and intentions to breastfeed (Reeves, Close, Copeland Simmons, & Hollis, 2006). The qualitative surveys are included in Appendix F.

All instruments underwent expert review by four faculty members, and were pre-tested in mock sessions to identify questions that seem confusing, out of order, or redundant. The final versions of all qualitative and quantitative instruments were based on these revisions.

**Data Collection**

Data was collected in the forms of semi-structured, in-depth interviews and quantitative surveys simultaneously, once during the last trimester of pregnancy, and again at one, three, and six months post-partum. Patton (2003) describes qualitative interview data as consisting of verbatim quotations as well as sufficient context to interpret the interviewee’s responses. In-depth interviews were conducted with first-time mothers and with first-time fathers once during the last trimester of pregnancy, and again at one, three, and six months post-partum for a total of 4 interviews with each parent and 8 interviews with each parent couple. Each participant was also asked to complete a quantitative survey at the end of each interview. All interviews were conducted between June 2013 and February 2014.

At the beginning of each interview, the purpose of this study was explained to the participants, and any questions or concerns were addressed. Each participant was provided with a consent form (Appendix G) and was informed that they may withdraw from the study at any time. The interviews were conducted in the participants’ home or at a location convenient for the couple (i.e. Panera Bread, Starbucks, etc.), and lasted approximately thirty to sixty minutes per individual. A unique identifier was assigned to each participant; Mother 1 – Mother 14 for
the mothers, and Father 1 – Father 14 for the fathers. The number in each identifier is unique to each couple, such that Mother 1 and Father 1 represent one parent couple.

Several couples expressed their appreciation for being involved in this study, and even sent thank you notes for the gifts as well as for being included in this study. One such note discussed how the interviews helped bring the parents back down to reality and understand the importance of their decision to breastfeed, as well as the support that they provide to each other. Many of these families seemed empowered by the interviews, both in their ability to continue breastfeeding, and in their ability to provide meaningful support to one another in all aspects of their relationship. It is perhaps that this supportiveness may have even been reinforced by the series of interviews over the seven to eight month time period, as these couples were thinking towards the future about the upcoming interview(s) as well as being more aware of the supportive actions that they were providing and receiving.

Data Analysis

Qualitative data analysis was guided by Braun and Clarke’s (2006) six phases of conducting thematic analysis: (1) becoming familiar with the data; (2) generating initial codes; (3) searching for themes; (4) reviewing themes; (5) defining and naming themes; and (6) producing the report. Qualitative longitudinal data analysis proceeded in two dimensions simultaneously: (1) analysis of cross sectional data at each point in time; and (2) analysis of longitudinal data within each case and across cases, combining cross sectional and longitudinal analysis to discern convergence and divergence of cases through time (Neale, n.d.). The qualitative data analysis process for this study was iterative, occurring through all phases of the study. It began with a thematic analysis of the first sets of data collected to identify potential codes. These codes were added to the codes developed before the study began based on the
research objectives and interview questions. The process continued with the analysis of subsequent data collected used to revise existing codes. A second researcher in the College of Public Health coded the data to enhance inter-coder reliability. Qualitative data analysis was conducted using NVivo software. Passages sorted by code or category meaning were read by both researchers to identify recurring themes and the range of diversity in responses, make summary and interpretive statements, and mark passages worthy of quotation. Within each topic, sorted passages for specific subgroups were read separately to facilitate comparison of responses. Researchers compared notes on each topic for consistency and agreed on statements to be included in the research findings.

Quantitative data analysis was conducted using SAS software. Prior to quantitative analysis, the data was cleaned and screened for improbably values, outliers, and inconsistent response patterns, and variables were recoded as necessary. Univariate analyses such as frequency distributions and percentages were used to describe the study sample. A series of Fisher’s Exact Tests were used to compare couples intentions to breastfeed with perceived forms of positive and negative paternal support (prenatal), couples intentions to breastfeed with their actual infant feeding behaviors at different time points (one, three, and six months post-partum), and breastfeeding duration compared to identified forms of positive and negative paternal support at different time points (one, three, and six months post-partum).

Ethical Considerations

University of South Florida Institutional Review Board (IRB) approval was obtained, and all participants were treated in accordance to the ethical guidelines set forth. Several ethical principles were considered during the course of this research, including respect for persons, beneficence, and justice. The ethical principal of respect for persons encompasses voluntary
participation, competence to participate, confidentiality, and informed consent (Whiteford and Trotter, 2008, p. 57). Regarding voluntary participation, all participants were informed at the beginning of each interview that their participation was voluntary, and that they could withdraw from the study at any time. Also, the incentives provided to participants were carefully considered to ensure that participants were not coerced into participation. With regards to competence to participate, all participants were asked to restate the information in the informed consent document in their own words to assess comprehension of what they were consenting to.

To ensure privacy and confidentiality of information shared, interviews were not conducted when both parents were in the same room. Interviews were audio recorded using a digital recorder, and participants were informed prior to start of the interview that they may use an alias if they did not want their names to be identified on the audiotape. No identifying information was included on any of the data collected. After the completion of each interview, all paper data was stored in a locked vehicle compartment during transit, and then transferred to a locked file cabinet upon arrival at the primary researcher’s residence. Additionally, all electronic data was stored on a password protected external hard drive and laptop computer. Finally, with regards to informed consent, all participants received a copy of the IRB approved informed consent document, which was reviewed with them by the researcher; additionally, all participants signed a copy of the informed consent document at each interview.

The ethical principal of beneficence refers to avoidance of unnecessary harm to participants; this is accomplished by identifying the potential risks or harms of the research, identifying the potential benefits of the research, and proceeding with the research only when the potential risks outweigh the potential harms (Whiteford and Trotter, 2008, p. 73). This study involved minimal risk to participants; however, some considerations were kept in mind. First,
because this study was interviewing both parents of a parent couple, there was the possibility that the interview questions could lead to conflict in the marital relationship. Care was also taken to ensure that participants did not feel as though they were being judged or felt the need to defend themselves, as infant feeding decisions (e.g. discontinuation of breastfeeding) often produce feelings of guilt and anxiety. These considerations were incorporated throughout all phases of the research study, and appropriate measures were taken to ensure that participants felt safe and comfortable.

The final ethical principal of justice refers to the equity and fairness of the benefits and burdens of research, such that the population groups who are taking on the risks of the research are also those likely to benefit from the research (Whiteford and Trotter, 2008, p. 77). In the present study, inclusion and exclusion criteria were set prior to participant recruitment, and all couples who met these criteria were equally eligible to participate. Additionally, vulnerable populations, such as minors were excluded from participation in this study. Also, the potential benefits of this research study, which include a better understanding of what constitutes paternal support for breastfeeding, and improved education and programming, will be disseminated to similar population groups (parents) as the research participants.
Chapter 4

Results

This mixed-methods study was conducted to better understand the perceived forms of positive and negative paternal support for breastfeeding amongst a cohort of first-time parent couples. A longitudinal study design was utilized, in which couples were interviewed at four time points: prenatally, and at one, three, and six month post-partum. During the prenatal period, expectant mothers and fathers identified forms of paternal support that they anticipated as being either positive or negative of breastfeeding. At the post-natal time points, mothers and fathers identified forms of paternal support they perceived as being either positively or negatively supportive of breastfeeding. At each time point, couples also completed a quantitative survey to assess their individual attitudes towards breastfeeding; during the prenatal period, demographic and breastfeeding intention information was also collected.

Research Questions

Four research questions guided this study:

1. What forms of paternal support do first-time mothers and first-time fathers perceive as positively or negatively supportive of breastfeeding?

2. Do perceived positive and negative forms of paternal support of breastfeeding differ before and after delivery?

3. Is breastfeeding intention related to a mother's perception of paternal social support?
4. What forms of paternal support are related to breastfeeding duration and/or early termination?

The following sections will present the findings of this study to address each research question posed. First, a description of the study population is presented, including pertinent demographic information, prenatal childbirth class attendance, and breastfeeding intentions, initiation and duration. Next, findings are presented regarding the forms of paternal support mothers and fathers perceived as positively or negatively supportive of breastfeeding at each time point. Lastly, prenatal breastfeeding intention and postnatal breastfeeding duration related to perceived paternal support is presented.

**Demographic Description of the Population**

Fourteen first-time parent couples participated in this study (N = 28; 14 mothers and 14 fathers). Individuals ranged in age from twenty-one years old to thirty-eight years old. All of the couples were living together, and twelve of the fourteen couples were married. Nine mothers and ten fathers described themselves as non-Hispanic white (n = 19), four mothers and two fathers described themselves as Hispanic or Latino (n = 6), one mother and one father described themselves as black or African American (n = 2), and one father described himself as American Indian or Alaskan Native and Hawaiian or other Pacific Islander (n = 1). All of the mothers have attained at least a high school diploma; additionally, three mothers hold Associate’s degrees, three hold Bachelor’s degrees, and five hold Master’s degrees. All of the fathers have also attained a high school diploma; additionally, six have attended some college, two hold Associate’s degrees, three hold Bachelor’s degrees, and one holds a Master’s degree. The demographics of the study population are further represented in Table 2.
Table 2: Selected Demographics of Study Population

<table>
<thead>
<tr>
<th>Age</th>
<th>Mothers (n = 14)</th>
<th>Fathers (n = 14)</th>
<th>All (N = 28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-25 years</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>26-30 years</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>31-35 years</td>
<td>7</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>36-40 years</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Mothers (n = 14)</th>
<th>Fathers (n = 14)</th>
<th>All (N = 28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school graduate or GED</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Trade/Vocational/Tech School</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Some College, but no degree</td>
<td>1</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Graduate study, but no degree</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Mothers (n = 14)</th>
<th>Fathers (n = 14)</th>
<th>All (N = 28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaskan Native, Hawaiian or Other Pacific Islander</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Black or African American</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>9</td>
<td>10</td>
<td>19</td>
</tr>
</tbody>
</table>

All participants attended at least one ABC prenatal class and/or Boot Camp for New Dads workshop during the prenatal period. The ABC prenatal classes include: Childbirth, Newborn Care, and Breastfeeding. Thirteen of the fourteen couples attended the Childbirth class. Additionally, thirteen mothers and eleven fathers attended the Newborn Care class, and twelve mothers and nine fathers attended the Breastfeeding class. Two fathers also attended the Boot Camp for New Dads class. Other classes that participants reported attending included a carseat safety class, and an infant first aid/CPR class, both of which are not offered through Champions for Children. Childbirth class attendance is available in Table 3.
Table 3: Study Population Childbirth Class Attendance

<table>
<thead>
<tr>
<th>Childbirth Class Attendance</th>
<th>Mothers</th>
<th>Fathers</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Childbirth</td>
<td>13</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>Newborn Care</td>
<td>13</td>
<td>11</td>
<td>24</td>
</tr>
<tr>
<td>Breastfeeding</td>
<td>12</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>Boot Camp for New Dads</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Other (carseat, first aid/CPR)</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Breastfeeding Intentions

Prenatally, mothers were asked to complete a quantitative survey that included items regarding their breastfeeding intentions. Table 4 provides descriptive statistics representing mothers’ ratings of how they planned for their baby to be fed at several time points. Each item was rated on a scale from 1 (very likely), 2 (likely), 3 (unsure), 4 (unlikely), to 5 (very unlikely).

Table 4: Mother’s Prenatal Breastfeeding Intentions (range: 1, very likely – 5, very unlikely)

<table>
<thead>
<tr>
<th>At Birth:</th>
<th>Mean (s.d.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I plan for my baby to be fed breast milk only</td>
<td>1.00 (0.00)</td>
</tr>
<tr>
<td>I plan for my baby to be fed breast milk and formula</td>
<td>4.58 (0.36)</td>
</tr>
<tr>
<td><strong>When My Baby is 1 Month Old:</strong></td>
<td></td>
</tr>
<tr>
<td>I plan for my baby to be fed breast milk only</td>
<td>1.07 (0.27)</td>
</tr>
<tr>
<td>I plan for my baby to be fed breast milk and formula</td>
<td>4.64 (0.63)</td>
</tr>
<tr>
<td>I plan for my baby to be fed formula only</td>
<td>5.00 (0.00)</td>
</tr>
<tr>
<td><strong>When My Baby is 3 Months Old:</strong></td>
<td></td>
</tr>
<tr>
<td>I plan for my baby to be fed breast milk only</td>
<td>1.29 (0.83)</td>
</tr>
<tr>
<td>I plan for my baby to be fed breast milk and formula</td>
<td>4.29 (1.14)</td>
</tr>
<tr>
<td>I plan for my baby to be fed formula only</td>
<td>4.79 (0.43)</td>
</tr>
<tr>
<td><strong>When My Baby is 6 Months Old:</strong></td>
<td></td>
</tr>
<tr>
<td>I plan for my baby to be fed breast milk only</td>
<td>1.43 (0.94)</td>
</tr>
<tr>
<td>I plan for my baby to be fed breast milk and formula</td>
<td>4.29 (1.14)</td>
</tr>
<tr>
<td>I plan for my baby to be fed formula only</td>
<td>4.71 (0.61)</td>
</tr>
<tr>
<td><strong>At 12 Months Old:</strong></td>
<td></td>
</tr>
<tr>
<td>I plan for my baby to be fed at least some breast milk</td>
<td>2.00 (1.30)</td>
</tr>
</tbody>
</table>
As can be seen in this table, mothers most commonly intended their baby to be fed breast milk only at birth, and at one month, three months, and six months. However, it was increasingly more common for mothers to intend for their baby to be fed at least partial formula at later time points. Mothers also most commonly intended their baby to still be fed some breast milk at twelve months.

Each mother was also assigned a breastfeeding intention score based on their answers to the breastfeeding intention questions. Overall breastfeeding intention scores ranged from 40 to 60 (possible range of 12 – 60), with higher scores representing greater intention to breastfeed for a longer duration, and to exclusively breastfeed. The majority of mothers’ scores fell within the range of 55 – 60, indicating strong intentions to exclusively breastfeed for 6 months, and continued breastfeeding for 1 year.

**Breastfeeding Initiation, Duration, and Termination**

All fourteen mothers initiated breastfeeding in the hospital shortly after the birth of their baby; breastfeeding initiation is defined as receiving any breast milk, even if only one time. Two mothers introduced formula within the first two days of their hospital stay to supplement breastfeeding; the two mothers who introduced formula within the first two days of their hospital stay discontinued breastfeeding within the first week. An additional two mothers introduced formula to supplement breastfeeding within the first week, and three more mothers introduced formula to supplement breastfeeding when the infant was two weeks old.

In total, at the one month post-partum follow-up interview, seven mothers were still exclusively breastfeeding (breast milk only, with the exception of vitamins and medications), five mothers were breastfeeding and formula feeding, and two mothers were exclusively formula
feeding. The two couples who were exclusively formula feeding completed the study at this time point, and received their final gift card for their participation in the study.

A third mother discontinued breastfeeding at eleven weeks post-partum; however, she continued to pump breast milk for several months with the hope of reintroducing breast milk to her baby at a later date. For the purposes of this study, she was considered exclusively formula feeding; however, since she was still pumping breast milk she completed all remaining interviews. In total, at three months post-partum, seven mothers were still exclusively breastfeeding, four mothers were breastfeeding and formula feeding, and one mother was exclusively formula feeding and pumping breast milk to freeze.

At six months post-partum, eleven mothers were still breastfeeding their baby; however, only four mothers were still exclusively breastfeeding. Additionally, three mothers were breastfeeding and feeding solid foods (i.e. cereal, fruit), four mothers were breastfeeding, formula feeding, and feeding solid foods, and one mother was formula feeding and feeding solid foods. Breastfeeding duration information is available in table format in Table 5.

Table 5: Breastfeeding Duration

<table>
<thead>
<tr>
<th>Feeding Method</th>
<th>1 Month Post-partum (n = 14)</th>
<th>3 Months Post-partum (n = 12)</th>
<th>6 Months Post-partum (n = 12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusive Breastfeeding</td>
<td>7</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Breastfeeding/Formula</td>
<td>5</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Exclusive Formula</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Breastfeeding/Solids</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Breastfeeding/Formula/Solids</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Formula/Solids</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

At one month post-partum, mothers with higher prenatal breastfeeding intention scores were more likely to still be breastfeeding (85.7%), with the largest percentage of mothers still
exclusively breastfeeding (50.0%). Additionally, mothers with lower prenatal breastfeeding intention scores were more likely to be exclusively formula feeding (14.3%). This finding was statistically significant using Fisher’s Exact test (p=0.03). At three and six months post-partum, mothers with high prenatal breastfeeding intention scores were also likely to still be breastfeeding, with a large percentage still exclusively breastfeeding; however, these finding were not statistically significant.

For the purposes of this study, breastfeeding early termination was defined as complete breastfeeding cessation prior to when the mother had prenatally intended to stop. Of the 14 mothers in this study, three mothers terminated breastfeeding early; two mothers terminated breastfeeding within the first week post-natal, and the third mother terminated breastfeeding at eleven weeks post-natal. When asked to identify the reasons for breastfeeding cessation, mothers cited insufficient milk supply, mother returning to school/work, baby weaned itself from the breast, medical reasons, and other (milk protein intolerance). When mothers were asked who they needed more support from in order to breastfeed, the two mothers who terminated within the first week post-natal identified formal support systems such as lactation consultants, support groups and hospital nurses, and the third mother indicated needing more support from the baby’s father to continue breastfeeding.

**Perceived Paternal Support**

During the prenatal period, expectant mothers and fathers identified forms of paternal support that they anticipated as being either positive of negative of breastfeeding. Additionally, at the post-natal time points, mothers and fathers identified forms of paternal support they perceived as actually being either positively or negatively supportive of breastfeeding. Five major themes emerged: positive instrumental support, positive emotional support, positive
Maternal Identified Forms of Positive Instrumental Paternal Support

Instrumental, or tangible support, refers to the availability and/or utilization of practical help (van den Akker-Scheek et al., 2004). Of the four types of positive support, mothers most often mentioned forms of instrumental support as being helpful to receive from their partner to support breastfeeding. Additionally, mothers identified both direct and indirect forms of instrumental support as positive forms of support to receive from their partner. Forms of direct instrumental support often centered on the act of breastfeeding, such as the father helping to latch the baby, or getting the mother into a comfortable position. However, more often mothers identified forms of indirect instrumental support as being helpful to receive from their partner; these types of support often centered on “lessening the mother’s load” which allowed her more time and energy to devote to breastfeeding. With regards to specific examples of positive instrumental paternal support identified by mothers, three sub-themes emerged: household chores and responsibilities, caring for the baby, and caring for the mother. Table 6 presents the number of mothers identifying each sub-theme and code under positive instrumental paternal support. These themes are presented in more detail below.
Table 6: Codes for Maternal Identified Forms of Positive Instrumental Paternal Support

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
<th>Prenatal (n = 14)</th>
<th>1 Month (n = 14)</th>
<th>3 months (n = 12)</th>
<th>6 months (n = 12)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Household Chores and Responsibilities</strong></td>
<td>Helps with household chores such as laundry, cleaning, cooking, errands, paying bills, caring for dogs, fixing breast pump, etc.</td>
<td>14</td>
<td>12</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Chores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>Works more hours/extra shifts or more jobs so mom can stay home or stay home more</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Caring for the Baby</strong></td>
<td>Helps care for baby such as diapers, playing, putting to sleep, soothing, bathing, etc. (not including feeding)</td>
<td>11</td>
<td>11</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Caring for baby</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Night</td>
<td>Wakes in the middle of the night to help care for the baby (including feeding)</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Feeding</td>
<td>Involved with breastfeeding process, helps with feedings, positioning and latching, helps create breastfeeding/pumping schedule, tracks feedings</td>
<td>9</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Caring for the Mother</strong></td>
<td>Allows mom time to sleep, rest, do other things, pump, break from baby, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td></td>
<td>9</td>
<td>7</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Comfortable</td>
<td>Makes mom comfortable such as pillows, massages, finds a private spot to breastfeed in public, etc.</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Healthy foods</td>
<td>Buys or prepares healthy foods to support or increase milk production</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Needs</td>
<td>Gets mom what she needs while breastfeeding such as snacks, water, phone, burp cloth, cover, etc.</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

**Household Chores and Responsibilities**

Assistance with household chores and responsibilities as a form of positive support was regularly identified by mothers as something that fathers could do to support breastfeeding. Mothers often described their partner’s role of helping with household chores and responsibilities as an indirect form of support to “lessen her load” so that she was able to devote more time and
energy to breastfeeding and caring for the baby. Common examples of household chores identified by mothers include cleaning, doing dishes, cooking, doing laundry, grocery shopping, running errands, paying bills, caring for the dogs/pets, cleaning bottles and breast pump equipment, organizing and storing breast milk, and buying new parts and/or fixing their breast pump. Prenatally, 13 out of 14 mothers anticipated the father’s assistance with household chores as being important to support breastfeeding. Additionally, at the post-natal time points, almost all mothers continued to identify the father providing assistance with household chores as supportive of breastfeeding. According to mothers:

*Helping around the house. I would probably be in a hoarder house without help. Would take a lot out of me to care for the baby and clean the house.* – Mother 12, 3 month interview

*When you are breastfeeding, it is still not only you. Need verbal support and help doing other things around the house like laundry and dishes.* – Mother 9, 3 month interview

*Help around the house with everyday chores like cooking, cleaning and laundry. Gives mom more time to breastfeed and spend time with the baby.* – Mother 3, 6 month interview

*Help in areas that I can’t give my 100% like daily routine and house chores. When I come home from work, I can give my full attention to baby.* – Mother 9, 6 month interview

At the post-natal time points, when mothers were asked what support their partner provides *most often* that is helpful for them to breastfeed, almost every mother identified help with household chores as being the support they receive *most often* which helps them to sustain breastfeeding.

A couple mothers also discussed support a partner could provide with other household responsibilities that would be supportive of breastfeeding, such as earning an income to support
the family financially, and taking on additional hours at work or getting a second job so that the mother could work less or stay home with the baby to help sustain breastfeeding. As stated by one mother:

*Most important is him working so that I am able to breastfeed better. My milk supply might dwindle if I had to work. I am able to have this time to stay home and take care of our child.* – Mother 8, 3 month interview

**Caring for the Baby**

Caring for the baby was regularly identified by mothers as a way a father can be supportive of breastfeeding. Mothers identified examples of caring for the baby such as changing diapers, bathing the baby, putting the baby to sleep, waking in the middle of the night to help care for the baby, and spending time with and playing with the baby. As with household chores and responsibilities, mothers described this type of instrumental support as indirect breastfeeding support, which “lessens her load” so that she is able to devote more time and energy to breastfeeding. Prenatally, the majority of mothers identified caring for the baby as a type of positive support that they anticipated receiving from their partner to support them to breastfeed; additionally, almost half of these mothers specifically identified their partner waking during the middle of the night to help care for the baby as an important support to receive for breastfeeding:

*Taking turns at night with pumped milk. Since I have the breast, I am not the only one responsible to feed.* – Mother 13, prenatal interview

At the post-partum time points, most mothers continued to identify their partner caring for the baby as an important form of support actually received for breastfeeding.
Related to caring for the baby, mothers also specifically discussed their partner’s involvement with the breastfeeding process and feedings. Examples of this type of support include bringing the baby to the mother when it is time to breastfeed, assistance during feedings (i.e. helping the baby to latch, feeding the baby a bottle of pumped milk, assistance with proper positioning), helping to create and being aware of the feeding schedule for the baby, burping the baby during and after feedings, and tracking feedings and dirty diapers. Mothers described their partner’s involvement with the breastfeeding process as a direct form of instrumental support that makes the act of breastfeeding easier:

*Be actively involved in the breastfeeding process even if he can’t physically breastfeed... constantly involved, present, knows my schedule for pumping. Asks “has she latched on? Just let me know - I don’t want to take her if she is latched, just stay there.” He is very aware.* – Mother 6, 1 month interview

**Caring for the Mother**

Providing care for the mother was a form of support identified by most mothers as a way for a partner to be supportive of breastfeeding. Examples include bringing the mother things that she needs while breastfeeding (i.e. something to eat or drink, her phone, a pillow, a burp cloth, the remote, her cover, etc.), allowing her time to do other things (i.e. rest or sleep, pump milk, go out with friends, etc.), allowing her a break or time away from the baby if she is frustrated, helping to make her comfortable while breastfeeding (i.e. propping her up on a pillow, finding a private spot if feeding in public, giving her massages, etc.), and buying and preparing healthy foods to support her milk production. As stated by one mother:

*Make sure I have a nice meal at work, nutrients to keep up [my milk] supply. Food for me since I am food for baby.* – Mother 12, prenatal interview
Across all time points, mothers identified their partner allowing them time to do other things as one of the most important forms of instrumental support that a father could provide for breastfeeding. According to several mothers:

*Give mom a break, maybe 10 minutes between feedings to eat or stretch.* – Mother 8, prenatal interview

*It is extremely important to have dad there to help out. More tiring for mom; if this was our life (partner was studying every night and was unable to give her a break) it would be a lot easier to feel defeated and give in to formula. Formula can give mom a break, so others could care for baby and give mom a break.* – Mother 1, 1 month interview

*Most important is taking care of baby while I am pumping. I can’t hold her and can’t stand to hear her cry. He cares for her.* – Mother 5, 3 month interview

*Taking her during time when I am not feeding; lets me do things like have brunch with girlfriends... Gives me “me time”. Takes her is most helpful when he comes home from work and on weekends. Doesn’t make me feel guilty about her not being with me.* – Mother 1, 3 month interview

### Paternal Identified Forms of Positive Instrumental Paternal Support

Of the four types of positive paternal support, fathers most often mentioned forms of instrumental support as being helpful for a mother to receive to support breastfeeding. At each time point, every father identified at least one form of instrumental support that would be helpful for a mother to receive from her partner to sustain breastfeeding. Similar to the responses from mothers, three sub-themes developed when discussing specific forms of instrumental support with fathers including household chores and responsibilities, caring for the baby, and caring for the mother. Table 7 presents the number of fathers identifying each sub-theme and code under positive instrumental paternal support. These themes are presented in more detail below.
Table 7: Codes for Paternal Identified Forms of Positive Instrumental Paternal Support

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
<th>N (Number of Fathers)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Household Chores and Responsibilities</strong></td>
<td></td>
<td>Prenatal (n = 14)</td>
</tr>
<tr>
<td>Chores</td>
<td>Helps with household chores such as laundry, cleaning, cooking, errands, paying bills, caring for dogs, fixing breast pump, etc.</td>
<td>13 12 12 12</td>
</tr>
<tr>
<td>Employment</td>
<td>Works more hours/extra shifts or more jobs so mom can stay home or stay home more</td>
<td>0 2 2 2</td>
</tr>
</tbody>
</table>

| **Caring for the Baby**      |                                                                           | Prenatal | 1 Month | 3 months | 6 months |
| Caring for baby             | Helps care for baby such as diapers, playing, putting to sleep, soothing, bathing, etc. (not feeding) | 9 10 8 5 |          |          |          |
| Night                       | Wakes in the middle of the night to help care for the baby (including feeding) | 3 4 5 2 |          |          |          |
| Feeding                     | Involved with breastfeeding process, helps with feedings, positioning and latching, helps create breastfeeding/pumping schedule, tracks feedings | 6 9 5 3 |          |          |          |

| **Caring for the Mother**    |                                                                           | Prenatal | 1 Month | 3 months | 6 months |
| Time                        | Allows mom time to sleep, rest, do other things, pump, break from baby, etc. | 10 8 7 9 |          |          |          |
| Comfortable                 | Makes mom comfortable such as pillows, massages, finds a private spot to breastfeed in public, etc. | 11 10 4 3 |          |          |          |
| Healthy foods               | Buys or prepares healthy foods to support or increase milk production | 2 1 3 0 |          |          |          |
| Needs                       | Gets mom what she needs while breastfeeding such as snacks, water, phone, burp cloth, cover, etc. | 3 6 5 4 |          |          |          |

**Household Chores and Responsibilities**

Within the sub-theme of household chores and responsibilities, fathers identified many examples of positive instrumental support that can be provided to a mother to help sustain breastfeeding. At each time point, almost all fathers identified assistance with household chores.
such as cleaning, dishes, laundry, washing bottles and pumping equipment, paying bills, and running errands as something that fathers could do to be supportive of breastfeeding. According to one father:

*Helping with the practical stuff makes it [breastfeeding] easier for her, even if she doesn’t notice it.* – Father 5, 1 month interview

Fathers often described their role of helping with household chores as a way to alleviate some of their partner’s other responsibilities so that she has more time to care for the baby, including breastfeeding. As stated by one father:

*It would be very easy to say there is nothing I can do and sit on the couch and watch TV letting the dishes pile up. If you can’t help feed, you need to help somewhere else; if she has to do it all, she doesn’t have time to feed the baby. Main thing is time; start doing things she used to do to give her more time [to breastfeed].* – Father 8, 1 month interview

At each time point, two fathers also repeatedly identified helping support the household financially as a major support to the mother, as this would help alleviate stress and allow her to stay home longer and be more successful breastfeeding:

*The most often thing I do now is work more and provide more, which takes [financial] stress off her.* – Father 12, 3 month interview

**Caring for the Baby**

Fathers regularly identified the importance of helping to care for the baby and being involved with the physical aspects of the breastfeeding process as a way to ease the mother’s load and to be supportive of continued breastfeeding. At the prenatal time point, the majority of fathers identified examples of caring for the baby such as changing diapers, putting the baby to
sleep, waking during the night to care for the baby, and spending time with and playing with the baby as forms of support that they anticipated as being helpful for continued breastfeeding. Additionally, at one and three months post-partum, most fathers identified caring for the baby, and at six months post-partum, about half of fathers identified caring for the baby as a form of positive paternal support for breastfeeding. According to one father:

*A friend with three kids said to prepare to be useless for first month. Not like that at all; not 50/50, but do as much as I can [caring for baby]. I do anything asked or when asked to help. – Father 1, 1 month interview*

At each time point, approximately one-third of the fathers specifically identified getting up at night to help care for the baby, which was the most often cited example of caring for the baby mentioned by fathers.

Also related to caring for the baby, fathers specifically discussed their involvement with the physical aspects of the breastfeeding process as actions that they perceived to be supportive of breastfeeding. Examples of physical involvement with the breastfeeding process include helping with positioning and latching (i.e. holding the baby’s head, putting his finger in the baby’s mouth to get the baby to open his mouth and latch, etc.), and massaging the mothers breasts to stimulate milk flow and to alleviate pain and discomfort.

**Caring for the Mother**

When discussing forms of paternal support for breastfeeding with fathers, a third sub-theme that emerged within positive instrumental support was caring for the mother. At the prenatal and one month time points, almost all fathers discussed making the mother comfortable and getting her what she needs while breastfeeding as a way that fathers could be supportive of breastfeeding; this includes getting her pillows and blankets to prop the baby and make herself
comfortable while breastfeeding, giving her massages, helping to find a private spot or getting her cover when she is breastfeeding in public, and bringing her snacks and water while breastfeeding:

*Go above and beyond to get her whatever she needs [while breastfeeding], no matter the cost.* – Father 13, 1 month interview

Additionally, at the three and six month time points, half of the fathers identified making the mother comfortable and bringing her things that she needs while breastfeeding as an important paternal support for breastfeeding. The majority of fathers at each time point also identified allowing the mother time away from the baby to do other things such as sleeping and pumping as an important paternal support for breastfeeding:

*Let her sleep; you will make it all the way through if you do that one thing.* – Father 12, 1 month interview

*It is important to give mom a break. Once I get home, I take care of the baby. She has been in “baby jail” all day which is a very demanding job. It gives her time and gives me a chance to be with my daughter.* – Father 14, 1 month interview

**Maternal Identified Forms of Positive Emotional Paternal Support**

Emotional support includes expressions of empathy, love, trust, caring, listening, esteem, and affect (House and Kahn, 1985). Positive emotional support was the second most often identified form of paternal support for breastfeeding identified by mothers. Additionally, mothers identified more specific examples of emotional support than any other form of positive support. Mothers often described the emotional support received from their partner as that which makes her feel that he cares about her and about breastfeeding. Within the theme of positive
emotional support, several sub-themes developed including encouragement and motivation, partnership, empathy and compassion, and a favorable environment. Table 8 presents the number of mothers identifying each sub-theme and code under positive emotional paternal support. These themes are presented in more detail below.

Table 8: Codes for Maternal Identified Forms of Positive Emotional Paternal Support

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
<th>Encouragement and Motivation</th>
<th>Prenatal (n = 14)</th>
<th>1 Month (n = 14)</th>
<th>3 months (n = 12)</th>
<th>6 months (n = 12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encouragement</td>
<td>Offers words of encouragement and motivation such as “you can do it”, “keep going”, “I’m proud of you”, “you’re beautiful” (excludes saying “you’re doing a good job”)</td>
<td>Encouragement</td>
<td>12</td>
<td>14</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Empathy and Compassion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening</td>
<td>Being a good listener and communicator such as allowing mom to vent her frustrations, comforting her if she is discouraged, etc.</td>
<td>Listening</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Questions</td>
<td>Asks questions such as “how are you doing/feeling?” and “can I get you anything/anything you need?”</td>
<td>Questions</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Understanding</td>
<td>Being understanding of everything that is involved with breastfeeding, such as any difficulties, hormones, stress, fatigue, etc.</td>
<td>Understanding</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Patient</td>
<td>Being patient and sensitive to the time it takes to breastfeed and/or pump, not rushing or complaining</td>
<td>Patient</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Selfless</td>
<td>Putting himself last, baby comes first now</td>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Partnership**

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
<th>Prenatal (n = 14)</th>
<th>1 Month (n = 14)</th>
<th>3 months (n = 12)</th>
<th>6 months (n = 12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence</td>
<td>Father’s physical presence such as being around more and being home more (in general, not specific to breastfeeding)</td>
<td>Presence</td>
<td>4</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Caring for the baby (including feeding) is a joint responsibility, not only mom’s responsibility</td>
<td>Responsibility</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Presence During Breastfeeding</td>
<td>Sits with mom while breastfeeding, checks on her, mom doesn’t feel isolated, entire family bonding time</td>
<td>Presence During Breastfeeding</td>
<td>7</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>
Table 8 (Continued)

<table>
<thead>
<tr>
<th>Agreement</th>
<th>On the same page regarding feeding method, defends mother and their decision, “on my side”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4 6 4 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Favorable Environment</th>
<th>Prenatal 1 Month 3 months 6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress-free</td>
<td>Creates a relaxed and/or stress free environment for mom to breastfeed</td>
</tr>
<tr>
<td>Positive</td>
<td>Keeps things positive and/or has a positive attitude about breastfeeding</td>
</tr>
<tr>
<td>Comfortable in Public</td>
<td>Helps mom to be comfortable breastfeeding in public, such as telling her not to worry about other people</td>
</tr>
</tbody>
</table>

**Encouragement and Motivation**

Of all types of positive emotional support, mothers most often identified words of encouragement and motivation. Common examples of words of encouragement and motivation provided by mothers include, “keep going”, “you can do it”, “I am proud of you”, “you’re beautiful”, and “you’re doing the best thing for our baby”. From mothers:

*Put things back in perspective if she is frustrated or tired.* – Mother 3, 1 month interview

*Offers mental health breaks, helps get me calm. Don’t let me sink if I am going to a negative place. Be a cheerleader… Cheerlead even if not going well, “some would have quit”* – Mother 11, prenatal interview

Prenatally, 10 out of 14 mothers anticipated receiving words of encouragement from their partner as being a positive support for breastfeeding, and at the one-month time point, every mother identified receiving words of encouragement and motivation from their partner as a positive support for breastfeeding. Additionally, at the three and six month time points, almost all mothers continued to recognize words of encouragement and motivation received from their
partner as a positive support for breastfeeding. At the post-natal time points, when mothers were asked which support their partner provides that is most important to them, almost every mother identified words of encouragement and motivation as being the support they receive from their partner that is most important, and which helps to sustain breastfeeding.

**Partnership**

Regularly, mothers discussed support that their partner provides which makes them feel that they are raising their baby as a team. Examples that mothers identified include their partner being around or being home more, making her feel that caring for the baby (including feeding) is not only her responsibility, sitting with her during feedings so that she is not isolated, and being on her side and on the same page with her when it comes to feeding their baby. Prenatally, the majority of mothers identified partnership as a positive emotional support for breastfeeding that they anticipated receiving from their partner. Additionally, at the one-month time point, almost all of the mothers identified partnership, and at the three and six month time points, half of the mothers continued to identify partnership as an important positive emotional support that they receive from their partner to sustain breastfeeding. Although mothers identified partnership regularly across all time points, specific examples of partnership shifted over time. At the prenatal and one month time points, mothers most often described their partner’s physical presence (being around more and sitting with them during feedings) as an important emotional support so as to not feel isolated and to not feel as though they are caring for the baby on their own. According to mothers:

*Spending time with us while we are breastfeeding. Drop cell phone/computer/TV. Sit and ask questions. Talk to baby. Calm him down if fussy. Wipe baby’s mouth.*
– Mother 13, prenatal interview
His social life is over. If not at work, he should be here. Going to gym during lunch hour instead of after work. – Mother 11, prenatal interview

Getting up in the middle of night with mom so doesn’t feel so lonely with baby at night. Sit in the nursery with me at night. – Mother 10, 3 month interview

If we are at someone’s house and I need to breastfeed [in another room], he comes and checks on me and spends a few minutes. I really appreciate that. – Mother 11, 3 month interview

At the three and six month time points, mothers most often described their partner being on their side and on the same page when it comes to feeding their baby as an emotional support; additionally, several mothers discussed the need for their partner to defend to others “their” decision to breastfeed. According to mothers:

On board with me; wouldn’t be able to do it [breastfeed] much longer if someone else wasn’t with it. – Mother 8, 6 month interview

Sticking up for me if anyone had anything to say. At his grandma’s he said, “she is family, whip out your boob, it won’t matter.” Encourages me to just feed her in public. Stays by my side. Says “I got you” if anyone says anything. – Mother 12, 3 month interview

In public, stay with her and stick up for her if someone says something to her. “This is for the health of my child”. Take pressure off mom to respond. Encourage her that it is natural, doesn’t matter what others think. – Mother 14, prenatal interview

He helps put his mother in her place when she says, “[Mother’s name], what have you been eating?” He helps to defend me which I appreciate. – Mother 10, 3 month interview

Empathy and Caring

Prenatally, the majority of mothers anticipated receiving empathy and caring from their partner as an important support, and at each of the post-natal time points about half of the mothers identified receiving empathy and caring from their partner as an important emotional
support actually received for breastfeeding. Examples of empathy and caring which mothers identified include their partner asking questions, understanding, being patient, and listening and communicating. Mothers frequently cited their partner asking questions such as “how are you doing/feeling?” and “is there anything I can do to help or get for you?” as a positive support to receive for breastfeeding; mothers elaborated that their partner asking questions such as these makes her feel cared for and acknowledges his concern for her well-being. From one mother:

_He is always asking if there is something he can get me or make me more comfortable, such as something to eat or drink. He will even feed me if my hands are full [while breastfeeding]_. – Mother 8, 6 month interview

Most mothers also regularly identified their partner understanding any difficulties she is facing, how she is feeling, how hard it is to breastfeed, and how important breastfeeding is to her as important emotional supports to receive for sustained breastfeeding. According to mothers:

_Be just as passionate about it as I am._ – Mother 12, prenatal interview

_The most important is empathy. Need to understand issues she is having such as being overwhelmed. Being in touch with your wife; knowing what she needs._ – Mother 2, 6 month interview

_Being there emotionally because it is draining. You feel like a plate of food – she only wants food from me._ – Mother 8, 3 month interview

A few mothers regularly acknowledged their partner being patient and sensitive to the time it takes to breastfeed as an important emotional support for continued breastfeeding. For example:

_Don’t be selfish for their [father’s] own needs. Also understand that mom isn’t being selfish either – this [time spent breastfeeding] is what she needs to do._ – Mother 11, 6 month interview
He needs to realize it’s a tough job and takes a lot of time. – Mother 8, 6 month interview

Being a good listener and communicator was another aspect of positive emotional support important to mothers to receive from their partner to be supportive of breastfeeding; mothers wanted to be able to count on their partner to let them express their feelings, and offer comforting words such as “it’s going to be okay” and “we will get through this”.

**Favorable Environment**

A final sub-theme of positive emotional support identified by mothers is the father creating a favorable environment for breastfeeding. Examples of creating a favorable environment include their partner creating a relaxed and stress-free atmosphere, having a positive attitude, and helping to make the mom comfortable while breastfeeding in public. Prenatally, the majority of mothers perceived their partner creating a favorable environment for breastfeeding as supportive; additionally the most commonly cited example of creating a favorable environment is creating a relaxed and stress-free atmosphere to breastfeed. However, at the post-natal time points, the most commonly cited example of the father creating a favorable environment was helping to make the mom more comfortable while breastfeeding in public. According to mothers:

*Just telling mom to do it [breastfeed in public], don’t care who others are around. Saying “who cares if someone sees it – it’s just a boob”, that would be encouraging.* – Mother 1, 1 month interview

*Ask if she is comfortable and what he could do to make it [breastfeeding in public] comfortable. Sit with her... have a normal conversation with her so she doesn’t feel weird in public... get her mind off of it.* – Mother 9, prenatal interview
Paternal Identified Forms of Positive Emotional Paternal Support

Similar to mothers, positive emotional support was the second most often identified form of paternal support for breastfeeding identified by fathers; additionally, fathers provided more examples of specific forms of positive emotional support than of any other type of support. Parallel to mothers, four sub-themes emerged when discussing positive emotional support with fathers including encouragement and motivation, partnership, empathy and caring, and a favorable environment. Table 9 presents the number of fathers identifying each sub-theme and code under positive emotional paternal support. These themes are presented in more detail below.

Table 9: Codes for Paternal Identified Forms of Positive Emotional Paternal Support

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
<th>N (Number of Fathers)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Encouragement and Motivation</strong></td>
<td>Offers words of encouragement and motivation such as “you can do it”, “keep going”, “I’m proud of you”, “you’re beautiful” (excludes saying “you’re doing a good job”)</td>
<td>Prenatal (n = 14) 1 Month (n = 14) 3 months (n = 12) 6 months (n = 12)</td>
</tr>
<tr>
<td>Encouragement</td>
<td></td>
<td>10 12 11 9</td>
</tr>
<tr>
<td>Goal Setting</td>
<td>Helps mother set breastfeeding goals, including marking her calendar, and cutting out quotes of breastfeeding benefits and posting for her</td>
<td>1 0 0 0</td>
</tr>
<tr>
<td><strong>Empathy and Compassion</strong></td>
<td>Being a good listener and communicator such as allowing mom to vent her frustrations, comforting her if she is discouraged, etc.</td>
<td>Prenatal 1 Month 3 months 6 months</td>
</tr>
<tr>
<td>Listening</td>
<td></td>
<td>7 7 4 3</td>
</tr>
<tr>
<td>Questions</td>
<td>Asks questions such as “how are you doing/feeling?” and “can I get you anything/anything you need?”</td>
<td>5 4 1 2</td>
</tr>
</tbody>
</table>
### Table 9 (Continued)

<table>
<thead>
<tr>
<th>Understanding</th>
<th>Being understanding of everything that is involved with breastfeeding, such as any difficulties, hormones, stress, fatigue, etc.</th>
<th>1</th>
<th>3</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>Being patient and sensitive to the time it takes to breastfeed and/or pump, not rushing or complaining</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Selfless</td>
<td>Putting himself last, baby comes first now</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Anticipate</td>
<td>Anticipate mother’s needs such as being proactive, planning around her schedule, etc.</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

| **Partnership** |  |
|-----------------|---|---|---|---|
| Presence | Father’s physical presence such as being around more and being home more (in general, not specific to breastfeeding) | 5 | 4 | 1 | 3 |
| Responsibility | Caring for the baby (including feeding) is a joint responsibility, not only mom’s responsibility | 2 | 1 | 2 | 5 |
| Presence During Breastfeeding | Sits with mom while breastfeeding, checks on her, mom doesn’t feel isolated, entire family bonding time | 3 | 5 | 2 | 2 |
| Agreement | On the same page regarding feeding method, defends mother and their decision, “on my side” | 6 | 4 | 3 | 4 |

| **Favorable Environment** |  |
|--------------------------|---|---|---|---|
| Stress-free | Creates a relaxed and/or stress free environment for mom to breastfeed | 6 | 3 | 1 | 3 |
| Positive | Keeps things positive and/or has a positive attitude about breastfeeding | 2 | 2 | 1 | 0 |
| Comfortable in Public | Helps mom to be comfortable breastfeeding in public, such as telling her not to worry about other people | 6 | 3 | 2 | 4 |

**Encouragement and Motivation**

The most commonly identified form of emotional support identified by fathers was that of encouragement and motivation. Further, encouragement and motivation was the second most identified overall form of positive support out of all forms of support identified by fathers. At
every time point, almost every father identified providing encouragement and motivation to their partner as a form of support that is supportive of breastfeeding. From fathers:

*Most important are words of encouragement; keep her focused to keep going. Show her I care about breastfeeding and want her to continue and succeed. Not let her quit when she was frustrated and it was getting hard.* – Father 14, 6 month interview

*Saying things like how cool it is, how you are proud of her, glad you can buy fun stuff because you don’t have to buy formula.* – Father 4, 1 month interview

*I tell her that she is strong every day; she is the strongest person I know. I really appreciate what she is doing for our daughter.* – Father 12, 1 month interview

*I tell her it’s an accomplishment that she has made it this far. If this is something we can give him, then why would we give him formula?* – Father 3, 6 month interview

*I tell her all the time that I couldn’t do it without her; if she wasn’t here, the baby may be at the fire station (laughing).* – Father 8, 1 month interview

**Partnership**

The majority of fathers identified partnership at each time point, and offered examples such as being around or being home more, spending time with their partner and baby while they are breastfeeding, helping to make decisions regarding infant feeding methods used, and being on the same side with their partner and defending her if necessary. As stated by one father:

*When it comes down to it, it is me and her.* – Father 10, prenatal interview

Similar to mothers, the types of partnership described by fathers shifted over time. During the prenatal period, fathers perceived their physical presence in the house so that their partner did not feel alone, and also them sitting with their partner during feedings so as to not feel isolated as important actions to support breastfeeding. However, at the later post-natal time
points, more fathers identified their partnership in the decision making processes surrounding the infant feeding methods used as most important. Consistently across time points, about half of fathers also identified being on the same side as their partner and defending “their” decision to breastfeed as a positive paternal support for breastfeeding:

_I made a point of making her know I liked it [breastfeeding] and that it is good when she breastfeeds in public, because I know that she can be self-conscious. We have joked about what to say to people if they ever say anything to us. She liked that I was working on my response._ – Father 4, 6 month interview

**Empathy and Caring**

Across all time points, almost all fathers identified providing empathy and caring to their partner as an important paternal support for breastfeeding. Specific examples of empathy and caring identified by fathers include asking questions to show interest in breastfeeding and care for the mother, understanding, being patient, being selfless, listening and communicating, and anticipating the mother’s needs by being proactive and planning. The most commonly cited act of empathy and caring identified by fathers was being a good listener and communicator; fathers often described their supportive role as listening to their partner’s feelings about breastfeeding and also letting her vent her frustrations without taking it personally. Additionally, fathers discussed their ability to offer comforting words to their partner when she is feeling down about breastfeeding as an important support that they could provide for breastfeeding:

_When she is feeling discouraged, you need to talk to her; pick her up and put her on the right path._ – Father 12, 3 month interview

Unique to fathers is the example of anticipating the mother’s needs by being proactive and planning. Fathers discussed their role of anticipating anything that the mother may need,
proactively attending to her needs without being asked, and planning ahead to accommodate her breastfeeding/pumping schedule. From the point of view of the fathers, this was one of the most important things that they could do to provide empathy and compassion and show that they care. From fathers:

Know her pet peeves and try to do things without being asked. – Father 9, 6 month interview

Make her feel loved. Everything is taken care of and she doesn’t have to worry; she can focus on being Mom. – Father 6, prenatal interview

Favorable Environment

When discussing paternal support for breastfeeding with fathers, a final sub-theme that emerged within positive emotional support was that of creating a favorable environment for the mother to breastfeed. Fathers identified examples of creating a favorable environment such as creating a relaxed, stress-free atmosphere, having a positive attitude and generally keeping things positive, and helping the mother to feel comfortable breastfeeding in public. At the prenatal time point, almost all fathers perceived creating a favorable environment for the mother to breastfeed as a form of positive support that he could provide to encourage breastfeeding. Additionally, at the post-natal time points, approximately half of the fathers continued to acknowledge their role in helping to create a favorable environment as a positive support provided to their partner to continue breastfeeding.

Maternal Identified Forms of Positive Informational Paternal Support

Informational support refers to advice, suggestions, and information provided to an individual to help them cope with challenges faced (House, 1981). Of the four types of positive paternal social support for breastfeeding, informational support was the least often mentioned
type of support by mothers. Table 10 presents the number of mothers identifying each code under positive informational paternal support. These themes are presented in more detail below.

Table 10: Codes for Maternal Identified Forms of Positive Informational Paternal Support

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
<th>N (Number of Mothers)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Prenatal (n = 14)</td>
</tr>
<tr>
<td>Suggestions/Advice</td>
<td>Offers suggestions or advice about breastfeeding such as different techniques, who to call, what to eat, etc.</td>
<td>5</td>
</tr>
<tr>
<td>Specialist</td>
<td>Contacts a specialist on the mother’s behalf to ask questions about breastfeeding</td>
<td>2</td>
</tr>
<tr>
<td>Research</td>
<td>Conducts research to help answer breastfeeding questions – online, books, pamphlets, etc.</td>
<td>7</td>
</tr>
<tr>
<td>Educated</td>
<td>Educates himself about breastfeeding so that he can offer assistance to the mother and remind her of benefits – attends breastfeeding class, goes to dr. appointments, etc.</td>
<td>6</td>
</tr>
<tr>
<td>Mother-In-Law</td>
<td>Contacts his mother to ask breastfeeding questions</td>
<td>1</td>
</tr>
</tbody>
</table>

Mothers identified types of breastfeeding informational support such as, their partner offering his advice and suggestions, calling a specialist to ask questions, conducting research online or from books/pamphlets to answer questions, calling his mom for advice, and generally being educated on the topic of breastfeeding (i.e. knows benefits, attended classes, goes to pediatrician appointments) to remind them of the benefits and help recall information they may have forgotten. According to mothers:

*He thinks breastfeeding is a good, cool process. Aware of the benefits. Helping research online if questions arise. Answer texts during work to offer advice. Attend breastfeeding class to recall info and offer advice. Pull out book with info.*
– Mother 11, prenatal interview
During the prenatal period, half of the mothers identified at least one example of informational support as being important to receive from their partner to support breastfeeding; further, 6 out of the 7 mothers identified conducting research online or from books/pamphlets, 4 out of the 7 mothers identified offering advice and suggestions, and 4 out of the 7 mothers identified their partner being generally educated on the subject of breastfeeding to serve as an information source. At the one month time point, slightly more mothers identified a form of informational support as actually being helpful to receive from their partner; however, each mother typically only identified one example of informational support, of which the most often cited example was conducting research online or from books/pamphlets. At the three and six month time points, only one quarter of the mothers identified any type of informational support as being helpful to receive from their partners, again of which the most commonly cited example was their partner researching online or from books/pamphlets.

**Paternal Identified Forms of Positive Informational Paternal Support**

Forms of positive informational support were more commonly mentioned by fathers. At the prenatal time point almost all fathers perceived at least one form of informational support as being supportive of their partner breastfeeding. Table 11 presents the number of fathers identifying each code under positive informational paternal support. These themes are presented in more detail below.
Table 11: Codes for Paternal Identified Forms of Positive Informational Paternal Support

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
<th>N (Number of Fathers)</th>
<th>Prenatal (n = 14)</th>
<th>1 Month (n = 14)</th>
<th>3 months (n = 12)</th>
<th>6 months (n = 12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggestions/Advice</td>
<td>Offers suggestions or advice about breastfeeding such as different techniques, who to call, what to eat, etc.</td>
<td></td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Specialist</td>
<td>Contacts a specialist on the mother’s behalf to ask questions about breastfeeding</td>
<td></td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Research</td>
<td>Conducts research to help answer breastfeeding questions – online, books, pamphlets, etc.</td>
<td></td>
<td>10</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Educated</td>
<td>Educates himself about breastfeeding so that he can offer assistance to the mother and remind her of benefits – attends breastfeeding class, goes to dr. appointments, etc.</td>
<td></td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

The most commonly cited form of informational support identified by 10 out of 14 fathers was conducting research online or in books and pamphlets to help address any of the mother’s breastfeeding questions. Also during the prenatal period, almost half of fathers identified offering suggestions and advice about breastfeeding as a form of support that they anticipated as being helpful to their partner; however, at the post-natal time points, only one father identified this form of support as helpful for their partner to receive at each time point. Other less commonly identified examples of informational support identified by fathers included calling a specialist such as a physician or lactation consultant with questions, and being educated about breastfeeding and attending classes and physician visits to help remind the mother of the benefits of breastfeeding and help recall important information. At the post-natal time points, only a few of the fathers continued to identify any form of informational support as important for
their partner to receive support breastfeeding, of which the most commonly cited example was conducting breastfeeding research online. According to one father:

*I research good foods for her to eat to increase her supply [breast milk]. I also did a lot of research on the best pump to buy, and help look up info to answer her questions.* – Father 5, 3 month interview

**Maternal Identified Forms of Positive Appraisal Paternal Support**

Appraisal support refers to feedback provided which allows an individual to evaluate themselves and their actions (Tardy, 1985). Examples of appraisal support that mothers identified as being supportive of breastfeeding include their partner providing reaffirmation that they are doing the best that they can, crediting the good health of the baby to breastfeeding, and telling the mother that she is doing a good job breastfeeding. Table 12 presents the number of mothers identifying each code under positive appraisal paternal support. These themes are presented in more detail below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
<th>Prenatal (n = 14)</th>
<th>1 Month (n = 14)</th>
<th>3 months (n = 14)</th>
<th>6 months (n = 14)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaffirmation</td>
<td>Provides reaffirmation that she is doing the best that she can</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Good Job</td>
<td>Telling the mother that she is doing a good job breastfeeding their baby</td>
<td>9</td>
<td>7</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Healthy Baby</td>
<td>Crediting the good health of the baby to breastfeeding</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The most often cited example of appraisal support identified by mothers was their partner telling them that they are doing a good job. During the prenatal period, the majority of mothers anticipated hearing that they are doing a good job from their partner as a positive support for
breastfeeding; additionally, at the post-natal time points, approximately half of the mothers identified being told that they are doing a good job as a positive form of support received from their partner for breastfeeding. As stated by one mother:

*Even if the house is a wreck, telling me I am doing a good job is important.* – Mother 4, 1 month interview

Mothers described their partner telling them that they are doing a good job as validation that they are breastfeeding properly and also gave them more confidence and self-efficacy in their ability to breastfeed.

**Paternal Identified Forms of Positive Appraisal Paternal Support**

Instances of positive appraisal support for breastfeeding were seldom mentioned by fathers, and of the four types of positive support, appraisal support was the least often identified type of support by fathers. Table 13 presents the number of fathers identifying each code under positive appraisal paternal support. These themes are presented in more detail below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
<th>N (Number of Fathers)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Prenatal (n = 14)</td>
</tr>
<tr>
<td>Reaffirmation</td>
<td>Provides reaffirmation that she is doing the best that she can</td>
<td>2</td>
</tr>
<tr>
<td>Good Job</td>
<td>Telling the mother that she is doing a good job breastfeeding their baby</td>
<td>1</td>
</tr>
<tr>
<td>Healthy Baby</td>
<td>Crediting the good health of the baby to breastfeeding</td>
<td>0</td>
</tr>
<tr>
<td>Trust</td>
<td>Trusting that the baby is feeding properly and is getting enough to eat – trusting the mom and/or nature</td>
<td>2</td>
</tr>
</tbody>
</table>

Prenatally, only 4 out of 14 fathers identified any type of appraisal support as being important to provide to mothers to support breastfeeding. At the one month time point, half of
the fathers identified at least one type of positive appraisal support; however, at the three and six month time points, only a few of the fathers identified any type of appraisal support as being helpful for a mother to receive for breastfeeding. Fathers identified specific examples of positive appraisal support such as telling the mother that she is doing a good job, telling her that she is doing the best that she can, crediting the good health of the baby to breastfeeding, and trusting her and/or nature to provide enough milk for their baby. As stated by one father:

*Saying things like the baby looks chunky or healthy because of breastfeeding.* – Father 4, 1 month interview

The most often cited example of appraisal support identified by fathers was telling the mother she is doing a good job; however, less than half of the fathers ever acknowledged this example. Unique to fathers was the example of trusting the mother and/or nature that the baby is being fed properly and is getting enough to eat; however, only two fathers mentioned this example.

**Maternal Identified Forms of Negative Paternal Support**

Negative support describes “those actions by which a member in one’s social network causes distress (e.g. resentment, sadness, shame); negative interactions may include discouraging the expression of feelings, making critical remarks, invading another’s privacy, interfering in another’s affairs, or failing to provide promised help, amongst others” (Lincoln, 2000). During the prenatal period, mothers identified forms of negative support that they anticipated would be unhelpful to receive from their partner with regards to breastfeeding, whereas at the post-natal time points, mothers were asked to identify instances of negative paternal support that they had actually received from their partner with regards to breastfeeding. At the post-natal time-points,
very few mothers identified any forms of negative support actually received from their partner; instead mothers elaborated on examples of support that they perceived would be negative to receive from their partner given their experience with breastfeeding. Several sub-themes developed within the theme of negative paternal support for breastfeeding including failure to provide positive support, indifference to infant feeding method, a negative attitude towards breastfeeding or preference for formula, and negative or discouraging comments. Table 14 presents the number of mothers identifying each sub-theme and code under negative paternal support. These themes are presented in more detail below.

Table 14: Codes for Maternal Identified Forms of Negative Paternal Support

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
<th>Prenatal (n = 14)</th>
<th>1 Month (n = 14)</th>
<th>3 months (n = 12)</th>
<th>6 months (n = 12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure to Provide Positive Support</td>
<td>Moms “Do It All” Expects the mother to “do it all” including caring for baby and all household chores in the same capacity as before baby, doesn’t help with chores and/or baby</td>
<td>13</td>
<td>13</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Not Present Not being physically present in the household, always at work or out with friends</td>
<td>11</td>
<td>7</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Not Involved Not involved with the breastfeeding process when around such as watching TV, on phone, in the other room, etc.</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>No Communication Does not communicate with mother about breastfeeding or how she is feeling, says nothing, says to talk to someone else</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Unaffectionate Does not give care of affection to the mother</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Not working Is not working to financially provide for the family, causes mother to go back to work sooner</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Selfish Being selfish and putting his own needs ahead of the baby’s and mother’s</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Stressful Environment Creating a stressful or unpleasant environment around the house</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 14 (Continued)

<table>
<thead>
<tr>
<th>Insensitive</th>
<th>Insensitive to any difficulties the mother is having breastfeeding, not understanding what she is going through</th>
<th>1</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Defending</td>
<td>Not on mother’s side, doesn’t defend her or stick up for her if confrontation arises</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Indifference to Infant Feeding Method</strong></th>
<th></th>
<th>Prenatal</th>
<th>1 Month</th>
<th>3 months</th>
<th>6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gives Up</td>
<td>Allows mother to give up breastfeeding without supporting her to continue, agrees with her to quit</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Not Educated</td>
<td>Not educated on breastfeeding benefits either due to unwillingness or naivety, lacks “buy-in”</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Offers Solution</td>
<td>Offers quitting breastfeeding as a solution to a problem, a “way out”</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Mother’s Responsibility</td>
<td>Believes breastfeeding is the mother’s role and decision only, detached/disconnected from process, doesn’t care how infant is fed</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Negative Attitude Towards Breastfeeding or Preference for Formula</strong></th>
<th></th>
<th>Prenatal</th>
<th>1 Month</th>
<th>3 months</th>
<th>6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impatient</td>
<td>Doesn’t think breastfeeding is worth the time investment, complains that it takes too much time, makes her rush, impatient</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Weird/Gross</td>
<td>Thinks breastfeeding is weird or gross</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Public Discomfort</td>
<td>Embarrassed about her breastfeeding in public or does not want her to breastfeed in public</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Jealousy</td>
<td>Father feels excluded from the process or is jealous about how much time mom spends with baby breastfeeding</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Encourages Formula</td>
<td>Buys, offers (not to solve a problem), suggests, or encourages the use of formula</td>
<td>3</td>
<td>10</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Feeds formula</td>
<td>Feeds the baby formula without the mothers knowledge or consent, feeds formula before pumped breast milk</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Formula Preference</td>
<td>Actually prefers the use of formula, feels that formula is quicker, easier, more convenient than breastfeeding</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 14 (Continued)

<table>
<thead>
<tr>
<th>Negative or Discouraging Comments</th>
<th>Prenatal</th>
<th>1 Month</th>
<th>3 months</th>
<th>6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Remarks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsupportive, negative or discouraging remarks about breastfeeding (may also be coded as negative attitude towards breastfeeding)</td>
<td>9</td>
<td>10</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Appearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative remarks about mom’s appearance</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Doubt</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doubting the mothers abilities, not believing in her, questioning her, or telling her that she is doing it wrong</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Bad Advice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening to others and giving bad advice. Also, comparing the mother to others and their experiences</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**Failure to Provide Positive Support**

When discussing specific instances of negative paternal support for breastfeeding with mothers, the most common form of negative support identified was the father failing to provide positive support. At the first three time points, every mother identified at least one example of the father failing to provide positive support as an action that would be unsupportive of their continued breastfeeding; additionally, almost every mother identified an example of the father failing to provide positive support as a negative support for breastfeeding at the last time point. Examples that mothers provided regarding failure to provide positive support include not helping with the workload (i.e. household and/or baby), not being physically present (i.e. working a lot, out with friends), not communicating, insensitive to breastfeeding difficulties, not being involved with the process (i.e. playing video games, on cell phone during feedings), not caring about or giving affection to the mother, not sticking up for her and their decision to breastfeed, being selfish, not working, and creating a stressful environment. According to mothers:
During the prenatal period, the most often cited examples of a father failing to provide positive support were a father expecting the mother to “do it all” by not helping with the workload (household and baby), and a father not being physically present, both of which were mentioned by most of the mothers. At the post-natal time points, mothers continued to identify these examples most often; however, slightly fewer mothers identified these examples at each time point with about half of mothers identifying these examples by the 6 month time point.

According to mothers:

\[
\text{Worst would be not sharing in the work load. It takes a lot of time to feed her. If there was too much, she [mother] would want formula. – Mother 1, 3 month interview}
\]

\[
\text{Make her feel that she is carrying the burden, all the weight on her shoulders. – Mother 11, prenatal}
\]

\[
\text{Thinks providing financially is enough. Thinks all child care is women’s job. – Mother 13, prenatal interview}
\]

\[
\text{Doing nothing around the house or with the baby. Not being present. We have to tend to everything else as women and to have to stop to breastfeed is hard and time consuming. Too much to do if on your own. – Mother 11, 3 month interview}
\]

\[
\text{Indifference to Infant Feeding Method}
\]

At the prenatal time point, the majority of mothers felt strongly that their partner’s indifference to infant feeding method would be a negative support to receive for breastfeeding; however, approximately only half of mothers identified indifference to feeding choice as a negative support during the post-natal time points at one, three, and six months. Examples that
mothers provided that were included in this sub-theme include the father not being educated about the benefits of breastfeeding, either due to unwillingness or naivety, feeling that the infant feeding method is only the mother’s role and decision, allowing the mother to give up breastfeeding without supporting her to continue, and offering formula as an option to solve a problem (i.e. a “way out” of a tough situation). When discussing the idea of a father’s indifference to feeding choice, many mothers described the importance of their partner’s “buy-in” of breastfeeding, and further discussed how much harder it would be to sustain breastfeeding if they were the only parent invested in this method of infant feeding. Additionally, at the prenatal time point the majority of mothers elaborated on the topic of their partner’s “buy-in” of breastfeeding, acknowledging how much more difficult it would be if their partner lacked education about the benefits of breastfeeding; however, only one or two mothers identified a father being uneducated about breastfeeding as a negative support at any of the post-natal time points. According to one mother:

*Be educated on benefits of breastfeeding, not just doing it because wife says so. He should also be invested in it. It is one thing to do something because you have to, and another because you want to.* – Mother 2, 6 month interview

Several mothers also discussed the role of their partner in the decision to breastfeed their baby and that it would be a negative support if their partner felt that the decision of infant feeding method was entirely the mother’s responsibility. According to mothers:

*Him saying, “it’s not that big of a deal, it doesn’t matter what you do”. Having an indifferent attitude.* – Mother 14, prenatal interview

*“You wanted to do this”* – Mother 7, prenatal interview

*An “I don’t care” husband.* – Mother 11, prenatal interview
He wouldn’t think it [breastfeeding] has anything to do with him. It’s a woman’s job. Take themselves out of the picture. – Mother 6, 1 month interview

Most mothers also identified their partner suggesting formula as a “way out” or a solution to a problem or challenge they were experiencing as a negative support. As said by mothers:

Mom worried about [baby] not eating enough or getting enough food. Dad suggests formula to ease her stress. – Mother 2, 1 month interview

Saying, “if you are tired, then stop breastfeeding; there is always formula”, or “why are you breastfeeding anyways if you are this tired and know it’s going to be difficult?” – Mother 9, 3 month interview

Lastly, a few mothers discussed the idea of their partner allowing them to give up breastfeeding without actively supporting or encouraging them to continue, as a negative support for breastfeeding. For example:

Giving up with her, not knowing the benefits. “Okay, good. That was a pain anyways.” – Mother 6, 1 month interview

I have a friend who was one week behind me in pregnancy. She started breastfeeding but gave up after two weeks. The father is not in their life. No encouragement of “you can do it”. It would be very difficult if I had to do everything on top of breastfeed. It [breastfeeding] becomes a lost cause without encouragement. – Mother 12, 3 month interview

Negative Attitude Towards Breastfeeding or Preference for Formula

Mothers envisioned a negative attitude towards breastfeeding encompassing examples such as a partner thinking breastfeeding is weird or gross, being embarrassed about or not wanting the mother to breastfeed in public, feeling that it takes too much time to breastfeed, and feeling jealous or excluded. During the prenatal period, almost all mothers anticipated a
partner’s negative attitude towards breastfeeding as a negative support to continue breastfeeding; additionally, 8 out of 14 mothers specifically mentioned their partners discomfort about them breastfeeding in public as a negative support. According to mothers:

*He wouldn’t like her breastfeeding in public. He might get up and walk away or put her down for doing it in public… cares too much what others think.* – Mother 8, prenatal interview

*When out in public, telling her to go to the bathroom to feed the baby.* – Mother 9, prenatal interview

*Agree with others if they make comments, “I told her not to [breastfeed here]”.* – Mother 14, prenatal interview

At the post-natal time points, mothers continued to identify instances of a partner’s negative attitude towards breastfeeding as something that would be negatively supportive of breastfeeding; however, the most often cited example of a negative attitude towards breastfeeding was a partner being impatient or feeling that it takes too much time to breastfeed rather than a discomfort with their partner breastfeeding in public. From mothers:

*Make her rush to get it done. Make it seem like a chore. “Can you hurry up? Why are you wasting your time? Let’s just give her a bottle”. – Mother 2, 3 month interview

*When we are out shopping, I am always conscience of schedule – I need to pump every three hours. He doesn’t pay any attention to that; he doesn’t ask if we can stop because he knows I need to pump soon. Makes me feel guilty that I need to ask to leave to pump or need to leave early.* – Mother 14, 3 month interview

Mothers also identified a partner’s preference for formula feeding as a negative support for breastfeeding. Mothers provided examples such as a partner suggesting, offering, or buying
formula, feeding the baby formula without the mother’s knowledge or consent, and generally feeling that formula feeding is quicker, easier, and more convenient. According to one mother:

*Always saying, “are you sure you don’t want formula?” – Mother 4, prenatal interview*

**Negative or Discouraging Comments**

At every time point, the majority of mothers identified a father making negative or discouraging comments about breastfeeding as a negative support; examples identified by mothers include a father making negative or discouraging comments about breastfeeding, making negative comments about the mother’s appearance, questioning the mother’s ability to breastfeed, and relaying bad advice. At each time point, the most commonly cited example of this type of negative support identified by the majority of mothers, is a father making negative or discouraging comments about breastfeeding. According to mothers:

*Pointing out that wives breasts are bigger. Don’t have to point it out. I know what’s going on! – Mother 10, 3 month interview*

*Worst would be saying “okay good, give it up. That was taking up too much time. It wasn’t working out anyways.” – Mother 6, 1 month interview*

Also commonly mentioned by mothers as a negative paternal support for breastfeeding is a father questioning and doubting her ability to breastfeed correctly, such as telling her that she is doing it wrong. This example was seldom mentioned during the prenatal time period; however, at the post-natal time points, approximately half of the mothers identified a father questioning and doubting her ability as a negative support for breastfeeding. As stated by mothers:
Doubting her actions and thoughts, asking “do you know what you are doing?” – Mother 8, prenatal interview

Telling her to just quit or that she is not doing it right would be the most disheartening for me. – Mother 3, 1 month interview

Suggestions from mother-in-law; she really wanted to give advice on breastfeeding. This is what I did, how I should hold her, position her. If dad said, “maybe you should listen to what my mom says.” Offering advice from someone else makes me feel like I may be doing something wrong. “My mom says you should do this” – do you think what I am doing isn’t good enough? Creates self-doubt. You clearly think I am not doing a good job. Offering un-solicited advice. – Mother 1, 3 month interview

Question the healthiness [of breastfeeding]. Tell me that breast milk is upsetting baby’s tummy. Constantly telling you what you are giving baby is not good - questioning yourself. – Mother 10, 6 month interview

At the post-natal time points, mothers were asked to identify what they felt was the worst form of negative support that a father could provide to discourage breastfeeding. The most commonly cited example of the worst form of negative support identified by mothers was a father making negative comments or remarks about breastfeeding. More than any other form of negative support, mothers felt that a father being verbally negative about breastfeeding, such as telling her to just give up, would make it hardest for a mother to continue breastfeeding.

**Paternal Identified Forms of Negative Paternal Support**

Similar to mothers, during the prenatal period fathers identified forms of negative support that they perceived would be unsupportive of their partner breastfeeding, and at the post-time points, fathers were asked to identify examples of things that they had actually done that they felt may have been unhelpful or unsupportive of their partner breastfeeding. Fathers occasionally identified their own actions which they felt may have been unsupportive of breastfeeding; however, more often fathers continued to identify forms of support that they perceived as being
unsupportive to their partner rather than forms of negative support actually provided to their partner. When discussing forms of negative support with fathers, three sub-themes emerged including failure to provide positive support, indifference to infant feeding method utilized (breastfeeding, formula feeding, or both), a negative attitude towards breastfeeding or preference for formula feeding, and negative or discouraging remarks. Table 15 presents the number of fathers identifying each sub-theme and code under negative paternal support. These themes are presented in more detail below.

Table 15: Codes for Paternal Identified Forms of Negative Paternal Support

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
<th>N (Number of Fathers)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Failure to Provide Positive Support</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moms “Do It All”</td>
<td>Expects the mother to “do it all” including caring for baby and all household chores in the same capacity as before baby, doesn’t help with chores and/or baby</td>
<td>12 7 8 8</td>
</tr>
<tr>
<td>Not Present</td>
<td>Not being physically present in the household, always at work or out with friends</td>
<td>5 4 5 5</td>
</tr>
<tr>
<td>Not Involved</td>
<td>Not involved with the breastfeeding process when around such as watching TV, on phone, in the other room, etc.</td>
<td>4 6 3 1</td>
</tr>
<tr>
<td>No Communication</td>
<td>Does not communicate with mother about breastfeeding or how she is feeling, says nothing, says to talk to someone else</td>
<td>1 4 1 0</td>
</tr>
<tr>
<td>Unaffectionate</td>
<td>Does not give care of affection to the mother</td>
<td>2 0 1 0</td>
</tr>
<tr>
<td>Not working</td>
<td>Is not working to financially provide for the family, causes mother to go back to work sooner</td>
<td>0 0 1 1</td>
</tr>
<tr>
<td>Selfish</td>
<td>Being selfish and putting his own needs ahead of the baby’s and mother’s</td>
<td>4 4 7 4</td>
</tr>
<tr>
<td>Stressful Environment</td>
<td>Creating a stressful or unpleasant environment around the house</td>
<td>3 3 1 3</td>
</tr>
</tbody>
</table>
Table 15 (Continued)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Prenatal</th>
<th>1 Month</th>
<th>3 months</th>
<th>6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insensitive</td>
<td>Insensitive to any difficulties the mother is having breastfeeding, not understanding what she is going through</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Controlling</td>
<td>Being too controlling about how the baby is fed</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dumps Milk</td>
<td>Dumps extra breast milk that the baby does not drink in a single feeding</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Not Defending</td>
<td>Not on mother’s side, doesn’t defend her or stick up for her if confrontation arises</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Indifference to Infant Feeding Method**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Prenatal</th>
<th>1 Month</th>
<th>3 months</th>
<th>6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gives Up</td>
<td>Allows mother to give up breastfeeding without supporting her to continue, agrees with her to quit</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Not Educated</td>
<td>Not educated on breastfeeding benefits either due to unwillingness or naivety, lacks “buy-in”</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Offers Solution</td>
<td>Offers quitting breastfeeding as a solution to a problem, a “way out”</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Mother’s Responsibility</td>
<td>Believes breastfeeding is the mother’s role and decision only, detached/disconnected from process, doesn’t care how infant is fed</td>
<td>6</td>
<td>5</td>
<td>9</td>
<td>7</td>
</tr>
</tbody>
</table>

**Negative Attitude Towards Breastfeeding or Preference for Formula**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Prenatal</th>
<th>1 Month</th>
<th>3 months</th>
<th>6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impatient</td>
<td>Doesn’t think breastfeeding is worth the time investment, complains that it takes too much time, makes her rush, impatient</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Weird/Gross</td>
<td>Thinks breastfeeding is weird or gross</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Public Discomfort</td>
<td>Embarrassed about her breastfeeding in public or does not want her to breastfeeding in public</td>
<td>10</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Jealousy</td>
<td>Father feels excluded from the process or is jealous about how much time mom spends with baby breastfeeding</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Disagreement</td>
<td>Disagrees with the actual act of breastfeeding</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>


Table 15 (Continued)

<table>
<thead>
<tr>
<th>Negative or Discouraging Comments</th>
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<tbody>
<tr>
<td>Negative Remarks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsupportive, negative or discouraging remarks about breastfeeding (may also be coded as negative attitude towards breastfeeding)</td>
<td>13</td>
<td>9</td>
<td>7</td>
<td>6</td>
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<tr>
<td>Appearance</td>
<td></td>
<td></td>
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<tr>
<td>Negative remarks about mom’s appearance</td>
<td>3</td>
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<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Doubt</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doubting the mother’s abilities, not believing in her, questioning her, or telling her that she is doing it wrong</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bad Advice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening to others and giving bad advice. Also, comparing the mother to others and their experiences</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Blaming</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blaming the mother for any problems that arise, such as if the baby is gassy, “what did you eat?”</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Failure to Provide Positive Support

When discussing forms of negative paternal support for breastfeeding with fathers, all fathers identified examples which fell into the sub-theme of failure to provide positive support. Often, fathers responded that unsupportive actions would be everything opposite of what they had just described as positive support for breastfeeding. When fathers elaborated on the topic of failure to provide positive support, they identified many examples of specific forms of this type of support including not helping with household chores or the baby, not being around and/or working a lot, not being involved in the breastfeeding process, not giving care of affection to the mother, not communicating, not defending “her” decision to breastfeed, being selfish, creating a
stressful environment, not being understanding, not working, and being controlling. At every
time point, the most often cited form of failing to provide positive support identified by fathers
was expecting the mother to do everything, which included the father not helping with household
chores or with caring for the baby. According to one father:

_The worst thing is not trying to relieve her. She will feel like she is going 24/7.
Her body is constantly moving (producing milk, feeding) which is a major stress
on her. If you aren’t caring for baby, creates a lot of stress on mother._ – Father
12, 3 month interview

Another form of negative support identified by most fathers at each time point was the
father either not being around or not being involved in the breastfeeding process when he was
there (i.e. playing video games, watching television, on the phone, leaving the room, etc.).

**Indifference to Infant Feeding Method**

At each time point, the majority of fathers identified indifference to infant feeding
method as something that would be negatively supportive of mothers with regards to
breastfeeding, and identified several examples such as easily allowing the mother to give up
breastfeeding, offering quitting breastfeeding as an option or “way out” of a difficult situation,
and feeling that breastfeeding is only the mother’s role and decision. At each time point, fathers
most commonly cited a father feeling that breastfeeding is only the mother’s role and decision as
something that would be unsupportive of her breastfeeding. As stated by one father:

_It is really easy to not have a say in it [breastfeeding]. It takes a lot of work to be
educated and involved… to let her take it on by herself and it be her problems._ –
Father 9, 6 month interview
Fathers elaborated that a father feeling that breastfeeding is not his responsibility causes him to become disinterested and detached which can be perceived negatively by a mother and make her feel alone in the process. From fathers:

*Saying it doesn’t matter to me; whatever you want to do. Make it seem that you don’t care or that it is not important.* – Father 14, prenatal interview

*Getting detached from the process; “nothing I can do” and “I can’t’ breastfeed the baby”. Letting yourself not worry about it - it is easy to get stuck in this routine.* – Father 9, 1 month interview

*Not being attentive to her research and what she does for the baby. Having a “whatever” attitude. For example, if she says that kale is good for milk production and I go to the store and don’t buy it for her.* – Father 5, 6 month interview

*Not really care whether she does it or not. If one person doesn’t care, it is easier for the other one not to care which can be frustrating.* – Father 11, 3 month interview

Other examples of negative support identified by several fathers would be suggesting breastfeeding cessation as a solution to a problem, or allowing the mother to discontinue breastfeeding without encouraging her to continue. According to fathers:

*Saying “if it’s not going good, then just quit - give up on it”.* – Father 14, prenatal interview

*The worst thing would be to not encourage her to keep going; letting her accept that fact that it is too hard. They [mothers] need encouragement to stick with it. Tell her she is strong and encourage her to keep trying; don’t allow her to accept that she can’t do it.* – Father 12, 1 month interview

*The worst thing is supporting her wanting to give up; not encouraging her to continue and be supportive of her giving up. As the man, you have to be the rock to push her and not let her give up.* – Father 14, 1 month interview
Suggesting alternatives like formula when tired and things are getting harder; saying things like “maybe we should just go to formula”. – Father 10, 1 month interview

**Negative Attitude Towards Breastfeeding or Preference for Formula**

At every time period, almost all fathers identified a father having a negative attitude towards breastfeeding or having a preference for formula feeding as a negative support for breastfeeding. Common examples that fathers identified of having a negative attitude towards breastfeeding include a father thinking that breastfeeding is weird or gross, feeling jealous or excluded, being embarrassed about or not wanting the mother to breastfeed in public, and feeling that it takes too much time to breastfeed and/or pump. As with some of the positive forms of paternal support discussed, the specific forms of negative support related to a father having a negative attitude towards breastfeeding shifted significantly over time. During the prenatal period, 10 out of 14 fathers perceived being embarrassed about or not wanting the mother to breastfeed in public as a negative support for breastfeeding; however at the one, three, and six month time points, only 4, 3, and 1 father respectively, identified this form of negative support. At the post-natal time points, the most often cited example of a negative attitude towards breastfeeding is a father feeling that breastfeeding and/or pumping is too time consuming, for example:

*Discouraging by my actions; preparing formula while she is trying to pump because the baby is hungry now.* – Father 5, 1 month interview

Several fathers also discussed the aspect of jealousy or feeling left out as a potential negative support for mothers. According to one father:
Make her feel like she is not including you enough or that you don’t have a big enough role; complaining that you don’t have enough time with the baby. Also, getting on her for not pumping enough so Dad can help feed; make her feel bad that you are not bonding with the baby and that you are not getting enough time with baby. Not being patient for your turn; you have to understand that your time with the baby is coming. – Father 8, 1 month

Fathers also discussed a preference for formula feeding as a negative support for breastfeeding; fathers provided examples such as a father suggesting, offering, or buying formula, feeding the baby formula without the mother’s knowledge or consent, and generally feeling that formula feeding is quicker, easier, and more convenient. The most commonly cited example was a father suggesting, offering or buying formula. From fathers:

Making formula an option or throwing it in her face would weaken her resolve; “oh, it’s getting too hard for you, we can just go to formula”. – Father 9, 6 month interview

Pushing formula; saying things like “just give her formula” or “stop wasting your time”. – Father 6, 1 month interview

Several fathers also discussed feeding the baby formula without the mother’s knowledge or consent as a negative support. According to fathers:

Active sabotage, such as feeding the baby formula. – Father 4, 1 month interview

The worst would be feeding the baby formula when she is not home. She would feel terrible like I had stabbed her in the back and ruined her goal. Now what’s the point? – Father 9, 3 month interview

Negative or Discouraging Comments

When discussing negative paternal support for breastfeeding with fathers, the final sub-theme often discussed by fathers was providing negative or discouraging comments to a mother. During the prenatal period, 13 out of 14 fathers identified a father providing negative or
discouraging comments to a mother as a negative support for breastfeeding. Common examples identified by fathers included a father making generally negative or discouraging remarks about breastfeeding, making negative comments about the mother’s appearance, questioning and doubting the mother’s abilities, relaying bad advice, and blaming the mother for any problems she is experiencing related to breastfeeding. A father making negative or discouraging comments about breastfeeding was the most often identified example at every time point; additionally, this was the only example identified by fathers at the three and six month time points. According to fathers:

_Hypothetically worst thing would be a disinformation campaign; make her feel like she is going through the effort and it is not worth it”._ – Father 4, 1 month interview

_The worst would be saying that [breastfeeding] doesn’t matter, that the benefits aren’t that great; anything that leads to someone thinking that formula is just as good._ – Father 1, 3 month interview

_The worst is being negative about breastfeeding. Making jokes about breastfeeding and making her self-conscience about it. It requires an effort and these things are actively getting in the way of it. You can only put up with so much, like getting made fun of in school._ – Father 4, 6 month interview

**Associations to Perceived Forms of Paternal Support**

Mothers’ prenatal breastfeeding intention scores were compared to mothers’ prenatal perceived forms of paternal support to determine if any associations exist. A series of Fisher’s exact tests were conducted to compare mothers’ prenatal breastfeeding intention scores to each theme and subtheme of paternal support for breastfeeding. In all, fourteen tests of significance were run representing the thirteen themes and sub-themes of paternal breastfeeding support, as well as one additional test to compare mothers’ prenatal breastfeeding intention scores to
identification of all four themes of positive paternal support. In general, mothers with higher prenatal breastfeeding intention scores also perceived more types of paternal support for breastfeeding at the prenatal time point. However, the only association found to be statistically significant was appraisal support (p=0.03), such that mothers with higher prenatal breastfeeding intention scores were also more likely to perceive forms of positive appraisal paternal support for breastfeeding at the prenatal time period.

Breastfeeding status at each post-natal time point was also compared to mothers’ perceived forms of paternal support at the corresponding time point to determine if any associations exist. Breastfeeding status was classified as exclusive breastfeeding, partial breastfeeding (breastfeeding with formula and/or solids), or not breastfeeding. A series of Fisher exact tests were conducted at each time point to compare breastfeeding status to each of the perceived themes and sub-themes of paternal breastfeeding support. In all, fourteen tests of significance were run for each post-natal time point representing the thirteen themes and sub-themes of paternal breastfeeding support, as well as one additional test to compare breastfeeding status to identification of all four themes of positive paternal support. At one month pre-natal, the only association found to be statistically significant was for the sub-theme, caring for the mother (p=0.03). Mothers who identified caring for the mother as a positive paternal support for breastfeeding were significantly more likely to still be breastfeeding; additionally, every mother who was still exclusively breastfeeding perceived caring for the mother as an important paternal support for breastfeeding. At three and six months post-natal, there were no associations between breastfeeding status and perceived forms of paternal support found to be statistically significant.
Chapter 5

Discussion, Conclusions and Recommendations

Social and behavioral research has identified social support to be an important influence in the initiation (infant’s first intake of breast milk) and duration (total length of time that an infant receives any breast milk) of breastfeeding (Giugliani, Caiaffa, Vogelhut, Witter, & Perman, 1994; Hoddinott, Pill, & Hood, 2000; McInnes & Chambers, 2008; Meedya, Fahy, & Kable, 2010). Additionally, several studies have identified the attitudes of, and social support received from the infant’s father as important predictors of breastfeeding initiation and duration (Hoddinott, Pill, & Hood, 2000; McInnes & Chambers, 2008; Putthakeo, Ali, Ito, Vilayhong, & Kuroiwa, 2009; Sherriff, Hall, & Pickin, 2009). Although several prior studies have identified paternal attitudes and support to be important indicators of breastfeeding duration, few studies have been conducted to understand the specific forms of paternal support that are most important to mothers, and the forms of paternal support that are most predictive of breastfeeding duration.

The purpose of this research study was to explore paternal support for breastfeeding and to identify specific forms of positive and negative paternal support for breastfeeding as perceived by a cohort of first-time parent couples. A final sample of fourteen parent couples partook in this longitudinal study by participating in multiple in-depth interviews – once during the prenatal period, and again at one, three, and six months post-partum. Analysis of all interview data was guided by Braun and Clarke’s (2006) six phases of thematic analysis.
This final chapter presents a discussion of the most significant findings of this research study. Also presented are the conclusions drawn from the study, this study’s contributions to public health, and recommendations for future public health research and practice. The strengths and significance of the study, as well as the limitations and weaknesses are also discussed.

Discussion

In this study, 64.3 percent of mothers and 35.7 percent of fathers reported having attained a bachelor’s degree or higher, which is considerably higher than the state of Florida estimate (26.2%) and the Hillsborough County estimate (29.0%) of individuals over the age of 25 with a bachelor’s degree or higher (US Census Bureau, 2012). Additionally, 25.0 percent of participants had completed some college but no degree, and many were under the age of 25 which could further widen the gap between the education level of participants in the present study and residents of the state of Florida and Hillsborough County. This finding is consistent with previous literature which has found that couples who attend prenatal childbirth classes are primarily well-educated (Watson, 2006).

The mean age of first-time mothers in this study was 30.1 years, which is quite a bit higher than the national average. According to the most recent statistics from the CDC (2013), the mean age of mothers at first birth was 25.8 years in 2012. This finding of higher maternal age at first birth is likely due to the high levels of educational attainment of the mothers in this study, as mothers with higher educational attainment often delay marriage and motherhood (Livingston & Cohn, 2010).

In this study, only 14.3 percent of the couples were unmarried, compared to 40.7 percent of couples who gave birth in the United States in 2012 (CDC, 2013). Although previous
literature was not found in support, it is presumed by the researcher that first-time parent couples who attend childbirth classes together are also more likely to be married.

According to the most recent breastfeeding statistics from the CDC (2010), 75.0 percent of children in the United States have been breastfed, 33.0 percent of infants were exclusively breastfed at three months, and 13.3 percent of infants were exclusively breastfed at six months. Breastfeeding initiation and duration rates in the present study were significantly higher than the national averages and closer aligned to the Healthy People (HP) 2020 goals. In this study, 100.0 percent of infants initiated breastfeeding (81.9% HP goal), 50.0 percent of infants were exclusively breastfeeding at three months (46.2% HP goal), and 25.0 percent of infants were exclusively breastfeeding at six months (25.5% HP goal).

**What Forms of Paternal Support do First-time Mothers and First-time Fathers Perceive as Positively or Negatively Supportive of Breastfeeding?**

During the prenatal period, first-time expecting mothers and fathers were asked to identify forms of paternal support that they anticipated as being either positive or negative of breastfeeding. Additionally, at the post-natal time points, mothers and fathers were asked to identify forms of paternal support that they received or provided that they perceived to actually be either positively or negatively supportive of breastfeeding.

**Positive Instrumental Paternal Support.** More often than any other type of positive support, mothers and fathers mentioned a father providing instrumental support as helpful to sustain breastfeeding. At the prenatal time point, all mothers identified instrumental support as a positive support that they anticipated receiving for breastfeeding; additionally, with the exception of the mothers who introduced formula in the hospital and subsequently discontinued breastfeeding within the first week post-natal, all mothers identified a father providing
instrumental support as a positive support actually received for breastfeeding at every post-natal
time point. When fathers were asked to identify forms of support that they provide to support
their partner breastfeeding, every father identified at least one form of instrumental support at the
prenatal time point, as well as at every post-natal time point.

**Household chores and responsibilities.** The majority of mothers identified a father
helping with household chores as a positive support for breastfeeding at every time point.
Additionally, when mothers were asked post-natal what their partner does *most often* that is
supportive of them breastfeeding, at every time point the majority of mothers identified their
partner helping with household chores. Mothers often described their partner’s help with
household chores as a way to lessen her load, so that she is able to devote more time and energy
to breastfeeding. At every time point, the majority of fathers also identified assistance with
household chores as a way that they are supportive of breastfeeding; fathers often discussed their
role of helping with household chores as a way of allowing the mother time to focus on
breastfeeding and help alleviate any stress she may be experiencing.

This finding is consistent with findings of several previously conducted studies that cite
assistance with household chores as an action fathers can engage in to be supportive of
breastfeeding (Pontes, Osorio, & Alexandrino, 2009; Rempel & Rempel, 2010). Sullivan and
colleagues (2004) report that a mother’s greater responsibility for household chores increased
risk for early breastfeeding cessation; the authors suggest that assistance with household chores
by a father may “alleviate some of the burden of time and energy that the mother might
otherwise devote to breastfeeding and infant caregiving”. A more recently conducted
quantitative study that analyzed a secondary data set of Japanese couples found that a father’s
assistance with housework was not associated with exclusive breastfeeding during the first six
months post-partum (Ito, Fijiwara, & Barr, 2013). However, this study reported no association between a father’s assistance with housework and exclusive breastfeeding; additional research is thus needed to determine if there is an association between a father assisting with housework and any breastfeeding. Additionally, the authors conclude that further research using qualitative methods is needed to better understand the relationships between a father’s assistance with housework and breastfeeding duration.

**Caring for the baby.** The majority of mothers identified a father caring for the baby as an important support for breastfeeding at every time point. Slightly fewer fathers than mothers identified caring for the baby as a paternal support for breastfeeding; however, the majority of fathers did identify this form of support at each time point. Several mothers and fathers also consistently noted the father waking during the middle of the night to care for the baby as an important support for breastfeeding, as it allowed the mother time to rest. This finding is consistent with findings from Rempel and Rempel (2010), who also reported sharing child care responsibilities as a positive paternal support for breastfeeding.

Findings from the present study are in direct contrast to findings previously reported by Ito and colleagues (2013), who found paternal infant care to be inversely associated with breastfeeding during the first six months post-partum. The authors suggest that a father that is more involved with caring for the baby may be more likely to feed the baby formula due to his opportunity to feed the baby more often coupled with his inability to breastfeed, likelihood of exposure to more crying, and desire to help the mother get more sleep at night. Again, the authors conclude that further research using qualitative methods is needed to better understand the relationship between paternal infant care and breastfeeding duration.
**Caring for the mother.** The majority of mothers and fathers also identified caring for the mother as an important paternal support for breastfeeding. Consistent findings were reported by Mannion and colleagues (2012), that active support such as a father preparing the baby and bringing the mother beverages while breastfeeding encouraged and sustained maternal confidence in breastfeeding. In this study, the most often cited example of caring for the mother mentioned by both mothers and fathers is allowing the mother time away from the baby to do other things such as sleep or rest, pump milk, go out with friends, and take a shower. Support for this specific form of support was not found in the published breastfeeding literature, and thus warrants further research to determine if this form of support is unique to this study population.

A recent qualitative study conducted by Tohoatoa and colleagues (2013) sought to identify Australian parents’ perceptions of what constitutes support for breastfeeding, specifically focusing on paternal support. This study found several forms of instrumental support to be important to mothers, including “assistance with meal preparation, housework such as washing dishes and/or clothes, shopping, bathing the baby, bringing the baby to the mother for a night-time feed and measures to assist the mother to relax, such as a neck massage” (Tohoatoa, Maycock, Hauck, Howat, Burns & Binns, 2013); all of these forms of support are consistent with the findings of this study, and represent perceived forms of support identified by both mothers and fathers in the present study.

**Positive Emotional Support.** Positive emotional support was the second most often mentioned form of paternal support for breastfeeding identified by both mothers and fathers; additionally, mothers and fathers provided more examples of specific forms of positive emotional support than of any other type of positive support.
**Encouragement and motivation.** A father providing encouragement and motivation to a mother to continue breastfeeding was the second most often mentioned form of support by both mothers and fathers in this study. Further, at the post-natal time points, when mothers were specifically asked which support their partner provides that is *most important* to them, almost every mother identified words of encouragement and motivation as being the support they actually receive from their partner that is *most important*, and which helps to sustain breastfeeding. This finding is particularly important as mothers most often mentioned forms of instrumental support as positive support for breastfeeding, yet identified emotional support as the most valuable form of support received from their partner for breastfeeding.

Findings of positive emotional support by this study is consistent with the findings of a previously conducted qualitative study that described a primary fathering role as that of supporting breastfeeding by using their knowledge to encourage and assist mothers in breastfeeding (Rempel and Rempel, 2010). Another more recent study reports that mothers with partners who were verbally encouraging of breastfeeding had higher self-efficacy regarding breastfeeding (Mannion, Hobbs, McDonald & Tough, 2013). In their qualitative study to determine what constitutes support for breastfeeding, Totohoa and colleagues (2013) also report verbal encouragement as a perceived form of paternal support identified by both mothers and fathers.

**Partnership.** Almost all participants provided examples of partnership as an important form of paternal support for breastfeeding. Mothers often stated how important it was for them to feel that they were making decisions for their baby as a team. This finding is consistent with Tohotoa et al.’s (2009) qualitative study of Australian mother and fathers; a major theme that developed with mothers was the desire for paternal commitment to breastfeeding and themes
from fathers included wanting to be involved, and being a breastfeeding advocate. At the prenatal and one month time points, mothers and fathers regularly discussed the importance of a father being around more, and spending time with the mother and baby while breastfeeding. Consistent with this finding, Pontes and colleagues (2009) report a father being present during breastfeeding as a way of including fathers in the breastfeeding process.

**Favorable environment.** Providing a favorable environment for breastfeeding was occasionally mentioned by mothers and fathers during the post-natal time points; however it was much more frequently cited by mothers and fathers at the prenatal time point. Both mothers and fathers felt that it was equally important for the father to create a stress-free and positive environment for breastfeeding, as well as to help the mother be comfortable breastfeeding in public. This finding is consistent with a previous qualitative study which identified the father providing a favorable environment for the mother and baby as a way to be supportive of and involved with the breastfeeding process (Pontes, Osorio, & Alexandrino, 2009).

**Positive Informational Support.** Of the four types of positive paternal social support for breastfeeding, informational support was the least often mentioned type of support by mothers. Positive informational support was more commonly identified by fathers as a support that they could provide for breastfeeding. In fact, at the prenatal time point, all fathers anticipated providing informational support to the mother to be supportive of breastfeeding, with the most often cited form of support being researching information (online) to answer the mother’s questions. Several fathers revealed that helping to research questions online allows them to help their partner solve a problem and makes them feel important in the breastfeeding process. Likewise, mothers may have mentioned informational support much less often as this form of support, compared to other forms of support, is something that they can more easily do
themselves. Consistent with the findings of this study, Rempel and Rempel (2010) describe a primary fathering role as that of supporting breastfeeding by becoming breastfeeding savvy.

**Positive Appraisal Support.** Examples of positive appraisal support were regularly mentioned by mothers; the most often cited example of appraisal support identified was their partner telling them that they are doing a good job. However, instances of positive appraisal support for breastfeeding were seldom mentioned by fathers, and of the four types of positive support, appraisal support was the least often identified type of support by fathers. The most often cited form of appraisal support identified by mothers and fathers was the father telling the mother that she is doing a good job breastfeeding. Support for this study’s findings, related to appraisal support for breastfeeding were not found in the published breastfeeding literature. Further research is thus warranted to better understand the role paternal appraisal support plays in breastfeeding decisions.

**Negative Support.** To the researcher’s knowledge, this is the first study to specifically investigate negative forms of paternal support for breastfeeding. Several researchers have suggested that negative social interactions, compared to positive social support, may be more consequential for health and have more “potent effects on psychological well-being” (Rook, 1984; House et al., 1998; Lincoln, 2000). For this reason, it is important to understand the specific forms of support that mothers and fathers perceive as negatively supportive of breastfeeding, as these forms of support may be more consequential to breastfeeding duration and cessation than positive forms of support.

At the post-natal time-points very few mothers identified any forms of negative support actually received from their partner. Table 16 presents occurrences of negative support that mothers identified as actually occurring; across all post-natal time-points, only five mothers
identified any occurrence of negative support for breastfeeding actually received from their partner.

Table 16: Maternal Identified Occurrences of Negative Paternal Support Actually Received

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Negative Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother 3; exclusive breastfeeding</td>
<td>Had a couple of talks about him being more hands-on; he has started helping clean bottles – would like him to do a bit more to give me more time. He helps out a lot but would like him to go the extra mile – some things he hasn’t been proactive about without solicitation. Would like him to recognize tasks to give me more time and sleep (3 month interview)</td>
</tr>
<tr>
<td>Mother 5; partial breastfeeding</td>
<td>Lose weight in front of me when I can’t [laughing] (3 month interview)</td>
</tr>
<tr>
<td>Mother 9; exclusive breastfeeding</td>
<td>Sometimes when I have to get up in the middle of the night and he is sleeping and snoring all cozy, and I wanted him to be up. But then I think about it and there is nothing really he could do accept look at us. Sometimes I just want to kick him in the head [laughing]; those are my more tired days (3 month interview)</td>
</tr>
<tr>
<td>Mother 11; exclusive breastfeeding</td>
<td>When he has to work late and is not around. I have been irritated with fantasy sports which lasted up to 4 hours. I want to have fun too. Annoys me when I have to get up in the middle of the night to change her and I have to feed her. I have to beat him to wake him up to help me (1 month interview) Sometimes I want to break his cellphone because he is on it all the time. Being on his cell phone annoys me (3 month interview)</td>
</tr>
<tr>
<td>Mother 14; partial breastfeeding</td>
<td>Tells me that I need to calm down and relax. Yes, I know that, but I don’t need to be told that. It just made it worse when people remind me that I am anxious and stressed out (1 month interview) Not always available to help. He said “why don’t you just quit?” He is not always able to help. For example, when out shopping I am always conscience of schedule since I need to pump every 3 hours. He doesn’t pay any attention to that – doesn’t ask if we can stop because he knows that I need to pump soon. Makes me feel guilty that I need to ask to leave to pump of leave early (3 month interview) Suggesting quitting. Not knowing pumping schedule. Being gone. Sleeping through the night; he slept through the night the first night she was born (6 month interview)</td>
</tr>
</tbody>
</table>
A similar finding was reported by Mannion and colleagues (2013) who found that women in their study who were currently breastfeeding reported positive perceived paternal support, whereas the women who were no longer breastfeeding recollected ambivalent and negative support. In the present study, most mothers and fathers instead elaborated on examples of support that they perceived would be negative for a mother to receive from her partner. Thus, additional research is needed to identify additional types of negative support that mothers actually incur, as the mothers in this study may have overlooked some important forms of negative support.

The following sections discuss the forms of support that mothers and fathers perceived as being negatively supportive of breastfeeding, as opposed to negative forms of support actually received or provided.

**Failure to provide positive support.** When mothers and fathers were asked to identify forms of negative support for breastfeeding, the most common answer received was the opposite of everything mentioned previously (positive forms of support). When asked to elaborate, mothers and fathers described many examples of negative forms of support which fell into the category of failing to provide positive support. From mother and fathers, the most often cited form of failure to provide positive help was a father who does not help with household chores and/or the baby and believes that the mother should “do it all”. Also, mothers regularly identified a father not being physically present as a negative form of support.

**Indifference to infant feeding method.** Regularly, mothers identified a father’s indifference to the infant feeding method as a negative support for breastfeeding. It has been previously reported by Scott and colleagues (2001) and Giugliani and colleagues (1994) that
women with partners who are ambivalent about feeding method, or who prefer formula feeding, were more likely to discontinue breastfeeding than those mothers with partners who preferred breastfeeding; it is important to note however, that in these studies there was no distinction made between indifference to feeding method and preference for formula. In the present study, mothers often discussed the difficulties associated with breastfeeding and the negative consequences of a father who lacks buy-in to breastfeeding, as it would be tempting to switch to formula as an easier method of infant feeding if their partner did not have a strong preference either way. This finding was much more common at the prenatal and one-month time points, potentially due to the difficulty that mothers have early on in the breastfeeding process. A resurgence of this form of negative support was also seen amongst mothers at the six month time point, possibly due to the tiredness many women face with continued breastfeeding, especially if they have returned to work and are pumping frequently. Mothers expressed the commitment it takes to continue breastfeeding, and discussed how a father being indifferent to how the infant is fed may make the decision to discontinue breastfeeding easier. Mothers and fathers also discussed indifference to feeding method in the context of a father feeling that the decision is entirely the mother’s responsibility. Consistent with this finding, Mitchell-Box and Braun (2012) also report that fathers felt that it was the mother’s decision to initiate or stop breastfeeding since they were the ones that have to do it.

**Negative attitude towards breastfeeding or preference for formula.** A negative attitude towards breastfeeding was commonly identified by both mothers and fathers as a negative paternal support for breastfeeding. At the prenatal time point, the most commonly cited example of a negative attitude towards breastfeeding by both mothers and fathers was a partner who is embarrassed or uncomfortable with the mother breastfeeding in public. This finding is
consistent with that of Mitchell-Box and Braun (2012) who found that most fathers in their study viewed breastfeeding in public as inappropriate and made them uncomfortable. At the post-natal time points, mothers and fathers more commonly identified a father actively offering or suggesting formula as a negative form of paternal support. Similarly, Howard and colleagues (1999) report that a mother with a partner who disfavors breastfeeding is more likely to discontinue breastfeeding compared to mothers whose partners favor breastfeeding.

**Negative or discouraging comments.** At every time point, the majority of mothers and fathers identified a father providing negative or discouraging remarks towards the mother as a negative paternal support for breastfeeding. Negative comments include remarks about the mother’s appearance, those which make her doubt her breastfeeding ability and lower her breastfeeding confidence, bad advice, and generally negative comments towards the act of breastfeeding. Additionally, at the post-natal time points, mothers were asked to identify what they felt was the worst form of negative support that a father could provide to discourage breastfeeding, in which the majority of mothers perceived a father being verbally negative about breastfeeding as the worst form of negative support for breastfeeding. Supportive of these findings, Mannion and colleagues (2013) report that negative comments received from the father were related to lower self-efficacy about breastfeeding amongst mothers in their study.

**Do Perceived Positive and Negative Forms of Paternal Support of Breastfeeding Differ Before and After Delivery?**

A longitudinal study design was used to gauge first-time mother’s and first-time father’s perceptions of paternal support for breastfeeding before and after delivery, and to determine if any differences existed. Prenatally, mothers and fathers were asked to identify forms of paternal support that they anticipate as being supportive of breastfeeding; whereas at the post-natal time
points, mothers and fathers were asked to identify forms of paternal support that they perceived to actually be supportive of breastfeeding. Several instances of perceived paternal support identified by mothers and fathers shifted between the prenatal and one month post-natal time points.

Table 17 presents the number of mothers identifying each form of support at the prenatal and one month post-natal time points; only those forms of support that increased or decreased in identification frequency by more than two mothers are included. These differences are discussed in more detail below.

<table>
<thead>
<tr>
<th>Form of Support</th>
<th>Prenatal</th>
<th>1-Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence During Breastfeeding</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Suggestions/Advice</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Stress-Free</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Not Present</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Not Involved</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Selfish</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Not Educated</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Mother’s Responsibility</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Public Discomfort</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Encourages Formula</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Appearance</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Doubt</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 18 presents the number of fathers identifying each form of support at the prenatal and one month post-natal time points; only those forms of support that increased or decreased in identification frequency by more than two fathers are included. These differences are also discussed in more detail below.
Table 18: Comparison of Paternal Identified Prenatal and One Month Post-natal Forms of Paternal Support

<table>
<thead>
<tr>
<th>Form of Support</th>
<th>Prenatal</th>
<th>1-Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence During Breastfeeding</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Needs</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Suggestions/Advice</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Research</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Patient</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Stress-free</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Comfortable in Public</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Good Job</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Do It All</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>No Communication</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Not Defending</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Controlling</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Encourages Formula</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Formula Preference</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Public Discomfort</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Negative Remarks</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
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At the prenatal time point, 9 out of 14 mothers anticipated a father being involved in the breastfeeding process, such as helping with feedings, positioning, latching, and scheduling of feedings as a positive support for breastfeeding; however, at the one month time point, only 4 out of 14 mothers identified this as an important form of support actually received from their partner for continued breastfeeding. Additionally, a father not being involved was perceived as a negative support prenata lly by 5 of the 14 mothers, but not identified by any mothers at the one month time point. Interestingly, the number of fathers who identified being involved in the breastfeeding process as a positive support increased from 6 fathers to 9 fathers between the prenatal and the one month post-natal time points. In their qualitative study, Pontes and colleagues (2009) identified the father being present during breastfeeding as one of the five ways of including fathers in breastfeeding. Perhaps a father’s involvement with the breastfeeding
process becomes routine or even expected by the one month time point, in which most mothers no longer perceive this as a positive form of support received, but rather a duty or obligation of the father. Contrary, as more fathers are exposed to breastfeeding, they may be more inclined to recognize their involvement in the breastfeeding process as a positive support for the mother. Additional research is warranted to better understand if mothers do in fact perceive paternal involvement in the breastfeeding process as a positive support for breastfeeding during the post-natal period.

During the prenatal period, 5 out of 14 mothers anticipated receiving suggestions and advice from their partner as an important support for breastfeeding; however, at the one month post-natal time point, not a single mother identified receiving advice and suggestions from their partner as a support received for breastfeeding. This finding parallels that of fathers. At the prenatal time point, 6 out of 14 fathers anticipated themselves providing suggestions and advice pertaining to breastfeeding as a positive support; however, at the one month time point, only one father identified himself providing suggestions and advice to his partner as a positive form of breastfeeding support. These findings further support the assumption that fathers are often ill-prepared with regards to breastfeeding knowledge. From this study, it seems unlikely that almost half of mothers and fathers would prenatally anticipate a form of paternal support that never comes to fruition due to unwillingness; it is more plausible to assume that fathers are without the skills necessary to implement this form of support. Datta and colleagues (2012) found that fathers are often unaware of how to provide support for specific breastfeeding challenges and thus more likely to support the mother if she desires to stop breastfeeding. Additional research is thus needed with fathers to validate this assumption.
At the prenatal time point, 7 out of 14 mothers identified a father helping to create a favorable environment for breastfeeding by creating a relaxed and stress-free environment as an important support; however, at the one month post-natal time point, this example was not identified by mothers. Similar for fathers, 6 out of 14 fathers identified creating a relaxed and stress-free environment for breastfeeding at the prenatal time point; however, this form of support was not identified by any fathers at the one month time point. A previously conducted qualitative study identified providing a favorable environment for the mother and baby as a way of including fathers in the breastfeeding process (Pontes, Osorio, & Alexandrino, 2009). Results of the present study found that although mothers and fathers anticipate this as being an important support during the prenatal period, it is not an important form of support to actually receive at the one month post-natal time point.

The frequency by which fathers identified several additional forms of positive paternal support increased between the prenatal and the one month post-natal time periods. These included being attentive to the mother’s needs, being patient, and telling the mother that she is doing a good job; each of which increased in frequency of identification by at least three fathers. The findings related to being patient and attentive to the mother’s needs are most likely due to the fathers increased exposure to breastfeeding, including learning more about what is entailed in the process. Additional research is needed to better understand the reasons fathers identified telling the mother she is doing a good job breastfeeding as a form of positive support at the one month time period, but did not anticipate this form of support prenatally. At most time points, a high proportion of mothers identified being told by their partner that they are doing a good job breastfeeding as an important form of positive appraisal support; it is therefore important to
understand what influences this change in father’s perceptions to better prepare fathers to be supportive of their partner’s needs.

Several instances of negative paternal support were also more frequently identified by mothers and fathers at the one month time point versus the prenatal time point. A father suggesting or encouraging formula and doubting the mother’s breastfeeding abilities were much more commonly identified by mothers at the one month time point versus the prenatal time point. Although mothers answered this question (forms of negative support received) hypothetically, the identification of these forms of negative support may have been a reflection of their own feelings at the time of the interview, or a support that they may have received without recognizing. Many of the mothers experienced breastfeeding difficulties within the first month post-partum, and six mothers introduced formula within the first month which may have prompted the identification of the father suggesting formula as a negative support for breastfeeding. Also, the most commonly reported reason for breastfeeding cessation is insufficient milk supply (Lewallen, Dick, Flowers, Powell, Zickefoose, Wall & Price, 2006). Several of the mothers discussed fear of having an insufficient supply and not knowing how much the baby is eating earlier in the interviews; this may have prompted mothers to identify a father doubting her abilities and supply as a negative support.

A father suggesting or encouraging formula and having a preference for formula are examples of forms of negative paternal support more commonly identified by fathers at the one month time point versus the prenatal time point. Again, since six couples had introduced formula within the previous month, it is probable that some of the fathers had suggested formula and were identifying this as a hypothetical negative support although they had actually engaged
in this action. Additional research is needed to better understand the effect that this form of negative support has on the introduction of formula and on complete breastfeeding cessation.

A final form of negative support that was identified less frequently by mothers and fathers at the one month time point versus the prenatal time point was a father’s embarrassment or discomfort over his partner breastfeeding in public. At the prenatal time point, 8 out of 14 mothers, and 10 out of 14 fathers anticipated a father being embarrassed or not wanting his partner to breastfeed in public as a negative support. At the one month time point, only 5 out of 14 mothers, and 4 out of 14 fathers mentioned this as a negative form of support. A possible explanation of this finding is that many mothers and fathers experience trepidation about breastfeeding in public; however, after experiencing it, their anxiety may be lessened. Henderson and colleagues (2011) report that men without direct breastfeeding experience presumed breastfeeding to involve excessive public exposure and to draw unwelcomed male attention.

Is Breastfeeding Intention Related to a Mother's Perception of Paternal Social Support?

Prior studies have found that perceptions of social support significantly predicted intention to breastfeed (Mitra, Khoury, Hinton, & Carothers, 2004); further, social support specifically from the baby’s father significantly increases the likelihood of breastfeeding intent (Alexander, O’Riordan, & Furman, 2010). However, few studies have been conducted to understand what constitutes paternal support for breastfeeding, and how perceptions of different forms of paternal support for breastfeeding may impact a mother’s breastfeeding intentions.

Prenatally, the mothers in this study most commonly indicated that they intended their baby to be fed breast milk only at birth, and at one, three, and six months post-partum. Mothers
also most commonly intended their baby to still be fed some breast milk at twelve months. In
general, mothers with higher prenatal breastfeeding intention scores also perceived more types of
paternal support for breastfeeding at the prenatal time point. However, the only association
found to be statistically significant was appraisal support, such that mothers with higher prenatal
breastfeeding intention scores were also more likely to perceive forms of positive appraisal
paternal support at the prenatal time period; given the number of statistical tests performed
however, it is possible that his significance was found by chance. Interestingly, appraisal
support was the least often form of support identified by fathers at every time point, which brings
to light an important disconnect between what mothers and fathers perceive as important forms
of paternal support for breastfeeding. This finding is important as it provides needed information
concerning specific types of paternal support that mothers perceive as important to receive for
breastfeeding prior to delivery; in this study, mothers discussed appraisal support as giving them
greater confidence and self-efficacy in their ability to breastfeed, which may influence intention
to breastfeed. More research is thus needed to determine if other types of social support, as well
as appraisal support are associated with higher intentions to breastfeed. Additionally, although
not statistically significant in this study, the finding that mothers with higher breastfeeding
intention scores also perceive more forms of paternal support is interesting as it can be inferred
that these mothers may feel more supported to breastfeed, which is consistent with previous
findings (Alexander, O’Riordan, & Furman, 2010; Mitra, Khoury, Hinton, & Carothers, 2004).

What Forms of Paternal Support are Related to Breastfeeding Duration and/or
Early Termination?

Breastfeeding status at each post-natal time point was compared to mothers’ perceived
forms of paternal support at the corresponding time point to determine if any associations were
Breastfeeding status was classified as exclusive breastfeeding, partial breastfeeding (breastfeeding with formula and/or solids), or not breastfeeding. At the pre-natal time points, the only association found to be statistically significant was providing care for the mother at one month post-partum. Mothers who perceived caring for the mother as a positive paternal support for breastfeeding were much more likely to still be breastfeeding; additionally, every mother who was still exclusively breastfeeding perceived caring for the mother as an important paternal support for breastfeeding. Given the number of statistical tests performed however, it is possible that his significance was also found by chance.

Included in the sub-theme of caring for the mother is allowing the mother time away from the baby to do other things such as sleep or rest, pump milk, and go out with friends. At every time point, the majority of mothers and fathers consistently identified allowing the mother time away from the baby as the most often identified example of caring for the mother. Additionally, this support may be particularly important at the one-month time point, as mothers are typically still at home with the baby full-time; many mothers discussed the demands of caring for a newborn and expressed feelings of being overwhelmed and exhausted. Although somewhat intuitive, support from the existing research literature regarding the importance of caring for the mother and allowing her time without the baby to improve breastfeeding duration was not found. This finding is thus important, and warrants future research to determine other forms of paternal support associated with breastfeeding duration.

Amongst the study participants, only three mothers terminated breastfeeding early, two of which were in the first few days following the birth of the baby. Additionally, all three mothers cited medical reasons as the primary reason for cessation, and none of the mothers identified any forms of negative support provided by their partner that impacted their decision. As such, any
association between negative forms of paternal support for breastfeeding and early termination of breastfeeding were unable to be determined. Further research is warranted with a larger sample of mothers to determine if any of the forms of negative support identified by this study are associated with early termination.

Conclusions

This mixed methods longitudinal study is important because it helps inform a knowledge gap with regards to the perceived positive and negative forms of paternal breastfeeding support. Although several prior studies have identified paternal attitudes and support to be important predictors of breastfeeding initiation and duration (Hoddinott, Pill, & Hood, 2000; McInnes & Chambers, 2008; Putthakeo, Ali, Ito, Vilayhong, & Kuroiwa, 2009; Sherriff, Hall, & Pickin, 2009), few studies have been conducted to understand what constitutes paternal support for breastfeeding. Further, to the researcher’s knowledge, no studies have been specifically conducted to understand what constitutes negative paternal support for breastfeeding and how negative support impacts breastfeeding behavior.

This exploratory study contributes to an understanding of what forms of paternal support constitute positive and negative support for breastfeeding from the perspective of both mothers and fathers. The U.S. Surgeon General’s Call to Action to Support Breastfeeding identified poor family and social support as a key barrier to breastfeeding (U.S. Department of Health and Human Services, 2011). It is important to understand the specific forms of paternal support that are important to mothers, so organizations working to promote breastfeeding have the right tools to equip fathers with so that fathers are able to provide meaningful breastfeeding support to their partners.
Theoretical Implications

According to Blumer, symbolic interaction is based on three basic propositions (Aksan et al., 2009): (1) humans develop their attitudes toward things according to the meanings those things have for them; (2) these meanings are derived based on social interactions with others; and (3) these meanings change over time through an interpretive process. Applying these propositions to paternal support for breastfeeding, fathers thus developed their attitudes [expressed as support provided] towards breastfeeding according to the meaning that breastfeeding has for them; further, these meanings about breastfeeding result from social interactions with their partner as well as others, and can change over time. In the present study, two distinct groups of fathers emerged: fathers who wanted to be supportive of their partner in her decision and her desire to breastfeed, and fathers who wanted to be supportive of the joint decision for their child to be breastfed. When questioned about the meaning of breastfeeding, fathers who wanted to be supportive of their partner and her decision to breastfeed often responded by discussing how important breastfeeding was to their partner, and how their main responsibility as the father was to do anything necessary to help the mother be successful in her desire to breastfeed; these fathers often discussed their role with breastfeeding in slightly more passive terms such as making the mother happy and keeping a happy home. Additionally, these fathers often responded that they would support the mother in any infant feeding method decision since ultimately the decision was hers.

Contrary to this perspective, fathers who wanted to be supportive of the joint decision to breastfeed most often discussed the meaning of breastfeeding in terms of the health benefits to the child; although highly valuable and necessary, being supportive of the mother was an intermediary step to the end goal of their child being breastfed. These fathers often described
their role in the breastfeeding process as being more active as their support was aimed at ensuring that the breastfeeding process continued; these fathers were much more likely to report direct forms of breastfeeding support such as telling the mother that she is doing a good job breastfeeding, researching the answers to breastfeeding questions for the mother, and helping with the breastfeeding process, such as latching techniques. Many of these fathers further discussed the meaning of breastfeeding in terms of their investment in the breastfeeding process, which made providing support to their partner easier since breastfeeding is what they ultimately wanted for their baby rather than only what the mother wanted; several fathers also elaborated that their buy-in of breastfeeding was a result of being educated on the topic of breastfeeding, primarily from attending a breastfeeding class with their partner and/or researching breastfeeding prenatally.

For the mothers in this study, the meaning of breastfeeding was much more profound. Symbolic interaction emphasizes the influence of social support received as a key factor in shaping one’s self identify and developing meaning for behaviors, and Lakey and Cohen (2000) write that “our social environments directly promote health and well-being by providing people with a way of making sense of the self and the world. Social support operates by helping to create and sustain identity and self-esteem”. In the present study, mothers were largely influenced by the social support provided by their partner in the development of their mothering identity as well as the meaning of breastfeeding. All mothers discussed the meaning of breastfeeding in terms of what is best for their baby; additionally, almost all mothers associated breastfeeding with being a good mother and developing a lifelong bond with their baby. Mothers often described breastfeeding as someone would describe a supernatural power; breastfeeding is their ability as a mother to provide for their baby in a way that nobody else can.
Limitations and Weaknesses of the Study

As with most qualitative studies, a limitation of this study relates to the generalizability of the study. Several factors associated with the sample population contribute to this limitation. First, because data was collected from a relatively small sample of individuals, the findings may not be generalizable to other people or settings such as other first-time parent couples in the Tampa Bay area, as well as other first-time parent couples in larger geographical areas; rather, the findings of this study may be unique to this small group of individuals. Second, the selection of study participants was not random as participants were recruited from Champions for Children prenatal childbirth classes. This further limits generalizability of the study as parents who attend a prenatal childbirth class are often significantly different than those parents who do not attend a prenatal childbirth class (Watson, 2006); in the present study, higher than average levels of educational attainment, a higher than average age at first birth, and a higher than average rate of marriage described the couples. Lastly, the study population lacked racial and ethnic diversity, further limiting the generalizability of the results to other populations.

Due to the nature of this study, collected data was self-reported from participants, which lends itself to several limitations. One such limitation is desirability bias in which participants may have expressed views which they believed to be socially acceptable and desirable to the researcher. When mothers were asked to identify instances of negative paternal support for breastfeeding, mothers rarely identified any examples of actions their partner actually did. Most mothers replied that their partner did not do anything negative, and proceeded to answer the question hypothetically. Mothers may have responded as such to create the illusion of a perfect, happy family to the researcher. Additionally, the introduction of formula and/or the complete cessation of breastfeeding are often met with considerable guilt on the part of the mother (Hauck
& Irurita, 2003); mothers may have responded misleadingly about their use of formula to avoid feelings of judgment or dissatisfaction from the researcher.

Mothers and fathers were interviewed at several time points in which the longest interval was three months, which may have contributed to recall bias. Mothers and fathers were asked to answer time specific questions such as, at what age (in weeks) did your baby start drinking formula?, and at what age (in months) did your baby start eating solids? Occasionally, mothers and fathers answered these questions differently, at which point the researcher followed-up with both parents at the following interview to achieve consensus as to the correct age of the baby for the question. However, after considerably more time had lapsed between interviews, there was potential for recall bias to skew the answers for a second time.

Finally, due to the high degree of subjectivity of qualitative research methods during both data collection and analysis, results are more easily influenced by the researcher’s personal biases. Although the researcher personal bias was thoughtfully considered early on and special care was taken to lessen any potential bias, this may have impacted the development of the interview questions, how the questions were asked to participants, and what codes and themes were identified during the analysis phase.

**Strengths and Significance of the Study**

There are several major strengths of this research study. First and foremost, this study used qualitative methods to gather rich, in-depth personal accounts of first-time mothers’ and first-time fathers’ perception of what constitutes paternal support for breastfeeding. This provided valuable insight about the various types of paternal support for breastfeeding perceived as either positive or negative by parents who were engaging in the practice of breastfeeding. This allowed for an emic perspective of the participants’ personal experiences which led to a
more in-depth understanding of the specific forms of paternal support most important to mothers. According to Patton (2002), the participants' reflections, conveyed in their own words, strengthen the validity and credibility of the research.

Unlike previous studies that have been conducted to better understand paternal support for breastfeeding, this study utilized a longitudinal design which allowed for the collection of data at four time points, both pre- and post-natal. A longitudinal design strengthened this study as perceived forms of paternal support were compared at different time points, and shifts in perceptions over time amongst mothers and fathers were able to be captured.

An additional strength of this study was that both mothers and fathers were included in the study. This allowed for the comparison of perceived forms of support between mothers and fathers to better understand what differences in perceptions exist.

Finally, this study is one of the first to investigate forms of negative paternal support for breastfeeding, and how these forms of support may impact breastfeeding behavior. Research on what constitutes paternal support for breastfeeding is infrequent, and research on what constitutes negative paternal support for breastfeeding is even rarer in the breastfeeding scholarly literature. This study contributes new and novel findings which should serve as the basis for future research with additional populations.

**Contributions to Public Health**

This study contributes new knowledge to the field of breastfeeding promotion regarding the specific forms of paternal support that mothers and fathers perceive as positive or negative of breastfeeding. It is imperative to improve our understanding of the precise forms of paternal support which are most positively associated with breastfeeding exclusivity and duration, so that
future efforts to increase positive paternal support and decrease negative paternal support are most effective.

Many differences existed in the frequency of several forms of paternal support identified by mothers and fathers pre- and post-delivery; it is important to understand these differences and how they may relate to breastfeeding initiation and/or duration. It is important to recognize the forms of positive support identified at the prenatal time point, as these forms of support may be most important to encourage breastfeeding initiation. Whereas, the forms of positive support identified at the later time points may be more important for continued breastfeeding duration. It is also important to recognize the differing forms of negative support identified and how these may relate to the introduction of formula or the early cessation of breastfeeding.

This study additionally contributes new knowledge about the differences in first-time mothers’ and first-time fathers’ perceptions of the forms of positive and negative paternal support for breastfeeding. Several examples of positive paternal support were only mentioned by the fathers in this study, such as buying the mother items (i.e. a breast pump that she wants), anticipating the mother’s needs and acting proactively without being asked, and trusting the mother and nature that their child is eating enough through breastfeeding. Additionally, several forms of support were much more frequently identified by mothers than fathers as positive paternal support for breastfeeding, such as making the mother comfortable while breastfeeding, being understanding about what is involved in the breastfeeding process, and telling the mother that she is doing a good job breastfeeding. Additionally, the mothers in this study more frequently mentioned a father’s failure to provide positive support as a negative form of support for breastfeeding. These findings are important as they highlight a disconnect between what mothers want and feel is important in relation to paternal breastfeeding support, and what fathers
believe is important and are actually providing. Particularly significant are the differences in appraisal support between mothers and fathers. The third most often mentioned form of positive paternal support by mothers was a father telling her that she is doing a good job breastfeeding; however, less than half of the fathers ever acknowledged this example. The findings of this study can thus be used to help engage fathers in the breastfeeding process, including educating them on the specific ways that they can offer support to their breastfeeding partner; additionally, fathers can be educated about the forms of support that are most important to mothers that they may not have otherwise perceived to be beneficial or helpful.

This study also offers theoretical contributions to public health. According to Kilduff (2006), a theoretical contribution transforms the way we look at things and the way we talk about them. Traditionally, breastfeeding has been considered a matter of individual choice, and efforts to increase breastfeeding rates are almost always solely directed towards the mother, based on the assumption that she is free to make her own decision about infant feeding practices. More recently, this view has shifted to acknowledge the many other social ecological factors that influence breastfeeding initiation and duration. Traditional decision-making theories (e.g. Theory of Planned Behavior and Theory of Reasoned Action) have also been generally unsuccessful at predicting breastfeeding outcomes. This study instead utilized a framework blending symbolic interactionism and social support theories to better understand the process by which social support and societal roles shape mother and father identities, and influence their joint decision to breastfeed; this framework is innovative in that it incorporates the influence of both the mother and father to predict the health outcome of interest (breastfeeding).
Recommendations

Based on the findings of this research study, several recommendations can be made for public health practice and future research.

Public Health Practice. Previous research has found that approximately 50 to 90 percent of pregnant mothers decide how their infant will be fed prior to becoming pregnant or during the first trimester of pregnancy (Bailey and Sherriff cited in DiGirolamo et al, 2005; Arora, McJunkin, Wehrer, & Kuhn, 2000). It is therefore important to understand the decision making processes mothers utilize early on with regards to infant feeding methods, as traditional formats of presenting information to mothers and fathers at childbirth classes in the last half of pregnancy may be too late to impact breastfeeding intentions. Messages should be developed targeting young men and women prior to conception focused on developing pro-breastfeeding social norms (including acceptability of breastfeeding in public) and harnessing the idea of teamwork in relational decision making processes.

Recently, Banks and colleagues (2013) found that fathers are interested in and positive about breastfeeding, yet lack knowledge about breastfeeding and how to be supportive; the participants in the study called for father-specific breastfeeding programming to equip them with the skills to successfully support their partner. A recommendation directly from the fathers in the present study is to develop education materials designed specifically for them. Many of the fathers in this study complained that all of the materials given to new parents focus on the mother, and make dads feel left out. Fathers instead want to feel important and valued as an equal team member and decision maker. Father specific education materials should focus on the father and his role in the infant feeding process, should provide specific suggestions of how to be most supportive of his breastfeeding partner at different time points, and should provide him
knowledge to cope with and overcome common breastfeeding problems and issues that may arise.

Additionally, as many first-time fathers lack knowledge about breastfeeding and how to offer meaningful breastfeeding support to their partners, it is also plausible that many non-first-time fathers lack knowledge and may not have known how to offer breastfeeding support the first time rather than had not wanted to be supportive. These fathers could also benefit from a program and/or educational materials designed specifically for fathers to increase paternal support for breastfeeding, as prior studies have found that fathers want to be involved but need information and knowledge to do so (Banks et al., 2013; Tohotoa et al., 2009). These studies, in addition to the results of the present study, highlight the importance of breastfeeding information and education for any father who lacks this information yet desires to be involved. Particularly insightful in this study was the engagement of the fathers, whom expressed such an appreciation for the partners’ commitment to give their baby the best start in life through breastfeeding; these fathers greatly wanted to be involved and supportive of the breastfeeding process, yet many fathers discussed confusion about their breastfeeding role and what they could do to be involved in the process.

Finally, whereas mothers mentioned instrumental support most often when asked to identify forms of paternal support for breastfeeding, after delivery mothers indicated that emotional support was truly most valuable. According to House and Kahn (1985), when designing an intervention, priority should be given to emotional support as this type of support is most clearly linked to health, both in terms of direct effects and buffering effects. It is therefore important that future interventions to increase positive paternal support for breastfeeding
incorporate and prioritize strategies to increase emotional support in addition to other forms of positive support.

**Future Research.** Due to the limited sample size and unrepresentativeness of the current study, it is recommended that future research studies be conducted with other populations to assess divergence or convergence of findings. Other populations with which to replicate this study should include those of varying educational attainments, age, marital status, race/ethnicity, and geographic location. Also, the study should be replicated with couples whom are not pregnant with their first child to determine if perceived forms of paternal support differ between first-time parent couples and non-first-time parent couples.

Future research should also be conducted to further identify forms of negative paternal support for breastfeeding. In this study, mothers perceived many forms of negative support, however very few actually experienced instances of negative support. Since this is one of the first studies conducted to determine what constitutes negative paternal support for breastfeeding, it is important to conduct more qualitative studies with other populations, including mothers who have discontinued breastfeeding, to determine if other perceived forms of negative support exist.

Informed by the findings of this study, including the specific forms of positive and negative forms of paternal support for breastfeeding, a quantitative survey should be developed and administered to a large representative sample of mothers and fathers to better understand how differing forms of paternal support relate to breastfeeding. It is important for future research to gauge which forms of support are most important to mothers, which forms of support fathers are capable of and open to providing, and which forms of support are associated with breastfeeding intention, duration, and exclusive breastfeeding.
Finally, further research should also be conducted to better understand how perceived forms of support relate to intentions to breastfeed. In this study, prenatal intention to breastfeed was significantly associated with prenatal perceptions of positive appraisal paternal support for breastfeeding. However, appraisal support was not the most commonly mentioned form of support post-natal by mothers or fathers. It would be beneficial to ascertain whether there are certain forms of paternal support that are important to receive prenatally and which influence breastfeeding intentions, even if they are not necessarily as important to actually receive post-natal.
References


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Appendices
Appendix A: Recruitment Letter

June 8, 2013

Dear Participant:

I am a doctoral student working under the direction of Dr. Carol Bryant, in the Department of Community and Family Health at the University of South Florida, College of Public Health. I am conducting a research study, titled Paternal Support for Breastfeeding (IRB #4907), with couples to identify positive and negative forms of paternal (father) support that influence breastfeeding decisions, and I would like to invite you and your spouse to participate in this study.

You and your spouse may participate if you are both first-time parents expecting your first child in the next 2 months, and are intending to breastfeed. Please do not participate if either you or your spouse is not a first-time parent.

As participants, you and your spouse will each be asked to participate in four in-depth interviews. Each interview will last approximately one hour, and can be conducted at your home or another location convenient for you. The first interviews will take place approximately 1-2 months before the birth of your child, and the second interviews will take place 1, 3 and 6 months after the birth of your child. For your participation, you will receive a new baby gift basket during the first interviews, and a $100 Amazon gift card at the completion of the fourth interviews.

The benefit of this study is to obtain a better understanding of what forms of support first-time mothers feel they need from their partners to sustain breastfeeding. Sustained breastfeeding provides benefits to both mother and child, as well as to society, and a better understanding of father’s roles can help make breastfeeding more successful. The risks of this study are minimal to all participants involved.

Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. The results of the research study may be published, but your name will not be used.

If you would like to participate in this study, please complete and return the attached flyer, and I will be in contact with you shortly to schedule interviews with you and your spouse. If you have any questions concerning the research study, please call me at (813) 504-3052.

Sincerely,

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Appendix B: Recruitment Flyer

Seeking *first-time parent couples* to participate in an

**Infant Feeding Study**

This study is being conducted as a dissertation project by a doctoral student at the University of South Florida, College of Public Health (eIRB #4907)

Each parent will be interviewed four times – once during the last trimester, and at 1 month, 3 months, and 6 months post-partum

Each parent couple will receive a new baby gift basket and a $100 Amazon gift card

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If you are interested in participating, please answer the following questions and you will be contacted soon:

1. Name (first and last): ____________________________________________________________________________

2. Partner’s Name (first and last): __________________________________________________________________

3. Are both you and your partner 18 years old or older? **YES / NO**

4. Phone Number: (________) ________________

5. Email Address: ______________________________________________________________________________

6. When is your baby’s due date? ___________________________________________________________________

7. Is this your first baby? **YES / NO**

8. Is this your partner’s first baby? **YES / NO**

9. Do you currently live with your partner? **YES / NO**

10. Do you intend for your baby to be breastfed? **YES / NO**
Table 1. Discussion Guide for Pregnant Women and Male Partners of Pregnant Women

1. Aspects of parenting
   B. What are the characteristics of a good mother?
   C. How does a man show that he is a good father? What is the most important role of a father?
   D. How do you think your views on raising children compare to your parents' views? (Probe for examples of how things have changed: seatbelt use, discipline, sunbathing, etc.)
   E. Close your eyes for a second and imagine you’ve just been granted one wish for your baby. What would you wish for?

2. Perceptions of breastfeeding and formula
   A. Talk to me a little bit about breastfeeding. Do you know anyone who breastfed? How common is it? What percent of women do you think breastfed?
   B. Exercise: Thought bubbles. Each respondent is given a 2-frame cartoon. One frame shows a baby breastfeeding; one shows a baby being given a bottle. Respondents fill in the thought bubbles according to what the baby is thinking and what the mom is thinking. Discuss similarities and differences.
   C. Exercise: Image sort. Imagine that each of the women in these magazine photos is a mother. Sort the images into 2 piles—those who you think breastfed and those who you think used formula? How did you choose?
   D. Exercise: Image sort. Imagine that each of the men in these magazine photos is a father. Sort the images into 2 piles—those who you think breastfed babies and those who you think have formula-fed babies. How did you choose?
   E. What are some of the positive things you’ve heard about breastfeeding? What are some positive things you’ve heard about formula?
   F. What are some of the negatives you’ve heard about breastfeeding? Negatives you’ve heard about formula?
   G. How would you feel with your wife breastfeeding in public? (Additional: What about if your partner is uncomfortable?
   Could it be done in such a way that would make you OK with it? How would you feel seeing your wife breastfeeding in public?)

3. Feeding decisions
   A. Do you plan to breastfeed or to use formula? What factors were involved in your decision? Which was most important?
   B. How do you want your baby to be breastfed or given formula? Why? How influential do you think you are in that decision? What other sources of information will be influential (News? TV? Other people?)
   C. What words come to mind when you think of infant formula? (Probe for symbolism, meaning, what formula represents.)
   D. I’ve heard women say, “Breastfeeding is hard.” What do you think they mean by that?
   E. What are the most common reasons women don’t breastfeed? If not mentioned, prompt with:
      - Pain
      - Inconvenience
      - No role models
      - Question enough milk
      - Breastfeeding in public
      - Breastfeeding is “nasty”
      - Don’t know how to do it
      - Formula is so much easier
      - Family pressure to use formula

(Probe with hypotheticals to uncover their biggest concerns.)
F. I’ve given you each a list of some of the benefits of breastfeeding. Circle the 3 that would be most likely to convince you to breastfeed. Cross out the 3 that you find the least compelling. List to include:
   - Closer bond between mother and child
   - More natural
   - Nutritional, perfect AND complete
   - Overall healthier for babies
   - Greaser resistance to infectious diseases such as diarrhea, respiratory tract infection, ear infections, AND pneumonia
   - Stronger immune system
   - Less likely to be overweight
   - More likely to have a higher IQ
   - Reduced risk of chronic diseases such as diabetes, childhood cancer, and allergies
   - Overall healthier for mothers
   - Helps mothers lose their pregnancy weight faster
   - Reduces mother’s risk of breast and ovarian cancer
   - Helps shrink the mother’s uterus faster, minimizing postpartum blood loss
   - More convenient (no heating bottles in middle of the night, always available)
   - Helps save money (no formula to buy)
   - Fewer sick visits to the doctor
   - Other:
Appendix D: Interview Protocol

D-1: Interview Protocol – Mother’s Version (First Interview - Prenatal)
D-2: Interview Protocol – Father’s Version (First Interview - Prenatal)
D-3: Interview Protocol – Mother’s Version (Subsequent Interviews - Postnatal)
D-4: Interview Protocol – Father’s Version (Subsequent Interviews - Postnatal)
Appendix D-1: Interview Protocol Mother’s Version (First Interview - Prenatal)

Date: __________________________  Name (Identifier): __________________________

Introduction

Introduce myself
Discuss the purpose of the study
Provide informed consent
Provide structure of the interview (audio recording, taking notes, and use of alias)
Ask if they have any questions
Test audio recording equipment

Aspects of Parenting

2. What are the characteristics of a good mother? (probe about feeding decisions)
3. How does a man show that he is a good father? What is the most important role of a father?

Beliefs/Perceptions of Breastfeeding

4. Talk to me a little bit about breastfeeding. Do you know anyone who breastfed? How common is it? What percent of women do you think breastfeed?
5. What words come to mind when you think of breastfeeding? (Probe for symbolism, meaning, what breastfeeding/breast milk represents)
6. Exercise: Image sort. Imagine that each of the women in these magazine photos is a mother. Sort the images into 2 piles – those who you think breastfed and those who you think used formula? How did you choose? (Probe for symbolism, meaning, what breastfeeding/breast milk represents)
7. What are some of the positive things you've heard about breastfeeding? What are some of the negatives you’ve heard about breastfeeding?

Feeding Decisions/Intentions

8. Do you plan to breastfeed, use formula, or both? If you plan to breastfeed, how long do you intend to breastfeed? How long do you intend to breastfeed exclusively?
9. What factors were involved in your decision? Which was most important? Were there any other sources of information that influenced your decision? (News? TV? Other people?)
10. How does your partner feel about breastfeeding? Do you feel that your partner encourages you to breastfeed? Why? How do you think your breastfeeding will affect him? (Feeling excluded? Inconvenienced? Sexual issues?)
Appendix D-1 (Continued)

Breastfeeding Support

11. I've heard women say, “Breastfeeding is hard.” What do you think they mean by that?
12. Are there people in your life that are important in supporting you to breastfeed successfully? (Probe: partner, mother, friends, peers, etc.)
13. I would like to talk a bit about the support that you will receive from your partner. What kinds of things could your partner do that would be helpful for you to breastfeed? (Probe with examples of types of positive support: instrumental (e.g. helping to solve breastfeeding problems such as latching, or helping with household chores); informational (e.g. finding information for you to answer your breastfeeding questions, such as calling the pediatricians office for information); appraisal (e.g. telling you that you are doing a good job breastfeeding, or trusting your judgment on how to breastfeed your baby); and emotional (e.g. being available to listen to you discuss your feelings about breastfeeding, or telling you that your body is beautiful))
14. What kinds of support would you most like to receive from your partner to help you breastfeed? What kind of support do you feel is most important to help you breastfeed successfully? (emotional, instrumental, informational, or appraisal)
15. Can you think of any things that your partner could do that would make it harder for you to breastfeed? (Probe with examples of types of negative support: emotional (e.g. telling you that you are unattractive, or making you feel like your baby is coming between your sexual relationship); instrumental (e.g. overly concerned with always trying to cover you up when you are breastfeeding in public); informational (e.g. suggesting that formula is as healthy as breastfeeding, or that your baby will sleep longer at night with formula); and appraisal (e.g. telling you that you are making the wrong decision, or that the baby is not getting enough milk))
16. Many times people have good intentions and think they are being supportive, when actually they are not. Do you think there are things that your partner may do that he will think is supportive, but you will not? (Probe with examples, such as partner being overly helpful and always trying to take over feedings – may cause stress to pump milk so that he can help)

Conclusion

17. Is there anything else that you would like to share?

Thank you for your participation; the information that you have provided is incredibly valuable!
Appendix D-2: Interview Protocol Father’s Version (First Interview - Prenatal)

Date ___________________________ Name (Identifier) ___________________________

Introduction

Introduce myself
Discuss the purpose of the study
Provide informed consent
Provide structure of the interview (audio recording, taking notes, and use of alias)
Ask if they have any questions
Test audio recording equipment

Aspects of Parenting

2. What are the characteristics of a good father?
3. How does a woman show that she is a good mother? What is the most important role of a mother?

Beliefs/Perceptions of Breastfeeding and Formula

4. Talk to me a little bit about breastfeeding. Do you know anyone who breastfed? How common is it? What percent of babies do you think are breastfed?
5. What words come to mind when you think of breastfeeding? (Probe for symbolism, meaning, what breastfeeding/breast milk represents)
6. Exercise: Image sort. Imagine that each of the men in these magazine photos is a father. Sort the images into 2 piles – those who you think have breastfed babies and those who you think have formula-fed babies? How did you choose? (Probe for symbolism, meaning, what breastfeeding/breast milk represents)
7. What are some of the positive things you’ve heard about breastfeeding? What are some of the negatives you’ve heard about breastfeeding?

Feeding Decisions/Intentions

8. Do you want your baby to be breastfed, given formula, or both? Why? How influential do you think you are in that decision? Why?
9. What factors were involved in your decision? Which was most important? Were there any other sources of information that influenced your decision? (News? TV? Other people?)
10. If you plan for your baby to be breastfed, how long do you intend for your baby to be breastfed? How long do you intend for your baby to be breastfed exclusively?
Appendix D-2 (Continued)

11. How will you feel if your partner decides to breastfeed? How will it affect you? (Feeling excluded? Inconvenienced? Sexual issues?)
12. How does your partner feel about breastfeeding? Do you feel that you are encouraging your partner to breastfeed? Why? How? Examples?

<table>
<thead>
<tr>
<th>Breastfeeding Support</th>
</tr>
</thead>
</table>

13. I’ve heard women say, “Breastfeeding is hard.” What do you think they mean by that?
14. Are there people that are important in helping your partner to breastfeed successfully (Probe: father, grandmother, friends, peers, etc.)? How important do you think you are in helping your partner to breastfeed?
15. What kinds of things could you do to support your partner to breastfeed? (Probe with examples of types of positive support: instrumental (e.g., helping to solve breastfeeding problems such as latching, or helping with household chores); informational (e.g., finding information for you to answer your breastfeeding questions, such as calling the pediatrician’s office for information); appraisal (e.g., telling you that you are doing a good job breastfeeding, or trusting your judgment on how to breastfeed your baby); and emotional (e.g., being available to listen to you discuss your feelings about breastfeeding, or telling you that your body is beautiful))
16. Of these things you mentioned, which of these things do you plan to do? Which do you think would be the most important to your partner to help her breastfeed?
17. Can you think of any things that you could do that may make it more difficult for your partner to breastfeed? (Probe with examples of types of negative support: emotional (e.g., telling you that you are unattractive, or making you feel like your baby is coming between your sexual relationship); instrumental (e.g., overly concerned with always trying to cover you up when you are breastfeeding in public); informational (e.g., suggesting that formula is as healthy as breastfeeding, or that your baby will sleep longer at night with formula); and appraisal (e.g., telling you that you are making the wrong decision, or that the baby is not getting enough milk))
18. Many times people have good intentions and think they are being supportive, when actually they are not. Do you think there are any things that you may do that you will think is supportive, but that your partner will not? (Probe with examples, such as partner being overly helpful and always trying to take over feedings – may cause stress to pump milk so that he can help)

<table>
<thead>
<tr>
<th>Conclusion</th>
</tr>
</thead>
</table>

19. Is there anything else that you would like to share?

Thank you for your participation; the information that you have provided is incredibly valuable!
Appendix D-3: Interview Protocol Mother’s Version (Subsequent Interviews - Postnatal)

Date: __________________________ Name (Identifier): __________________________

Introduction

Provide structure of the interview (audio recording, taking notes, and use of alias)
Ask if they have any questions
Test audio recording equipment

Aspects of Parenting

2. What are the characteristics of a good mother? (probe about feeding decisions)
3. How does a man show that he is a good father? What is the most important role of a father?

Beliefs/Perceptions of Breastfeeding

4. What words come to mind when you think of breastfeeding? (Probe for symbolism, meaning, what breastfeeding/breast milk represents)
5. Exercise: Image sort. Imagine that each of the women in these magazine photos is a mother. Sort the images into 2 piles – those who you think breastfed and those who you think used formula? How did you choose? (Probe for symbolism, meaning, what breastfeeding/breast milk represents)

Feeding Decisions

6. I’ve heard women say, “Breastfeeding is hard.” What do you think they mean by that?
7. How does your partner feel about breastfeeding? Do you feel that your partner encourages you to breastfeed? Why?
9. If not breastfeeding (or not exclusively breastfeeding), did you breastfeed for as long as you had wanted to? Why?

Breastfeeding Support

10. Are there any people in your life that are important in supporting you to breastfeed successfully? (Probe: partner, mother, friends, peers, etc.)
Appendix D-3 (Continued)

11. I would like to talk a bit about the support that you receive from your partner. What positive things did/does your partner do that helps you or makes it easier for you to breastfeed? (Probe with examples of types of positive support: instrumental (e.g. helping to solve breastfeeding problems such as latching, or helping with household chores); informational (e.g. finding information for you to answer your breastfeeding questions, such as calling the pediatrician’s office for information); appraisal (e.g. telling you that you are doing a good job breastfeeding, or trusting your judgment on how to breastfeed your baby); and emotional (e.g. being available to listen to you discuss your feelings about breastfeeding, or telling you that your body is beautiful))

12. Of these positive things that you mentioned, what do you think is/was the most important thing your partner does to help you breastfeed?

13. Are there any things your partner did/does that make it more difficult to breastfeed? (Probe with examples of types of negative support: emotional (e.g. telling you that you are unattractive, or making you feel like your baby is coming between your sexual relationship); instrumental (e.g. overly concerned with always trying to cover you up when you are breastfeeding in public); informational (e.g. suggesting that formula is as healthy as breastfeeding, or that your baby will sleep longer at night with formula); and appraisal (e.g. telling you that you are making the wrong decision, or that the baby is not getting enough milk))

14. Of these negative things that you mentioned, what do you feel like makes/made it the most difficult to breastfeed?

15. Many times people have good intentions and think they are being supportive, when actually they are not. Are there any examples of things that your partner does that he thinks is supportive, but you do not? (Probe with examples, such as partner being overly helpful and always trying to take over feedings – may cause stress to pump milk so that he can help)

16. Are there any other things that you wish(ed) that your partner did or did not do that would make it easier for you to breastfeed?

Conclusion

17. Is there anything else that you would like to share?

Thank you for your participation; the information that you have provided is incredibly valuable!
Appendix D-4: Interview Protocol Father’s Version (Subsequent Interviews - Postnatal)

Date ____________________________  Name (Identifier) ____________________________

Introduction

Provide structure of the interview (audio recording, taking notes, and use of alias)
Ask if they have any questions
Test audio recording equipment

Aspects of Parenting

2. What are the characteristics of a good father?
3. How does a woman show that she is a good mother? What is the most important role of a mother?

Beliefs/Perceptions of Breastfeeding and Formula

4. What words come to mind when you think of breastfeeding? (Probe for symbolism, meaning, what breastfeeding/breast milk represents)
5. Exercise: Image sort. Imagine that each of the men in these magazine photos is a father. Sort the images into 2 piles – those who you think have breastfed babies and those who you think have formula-fed babies? How did you choose? (Probe for symbolism, meaning, what breastfeeding/breast milk represents)

Feeding Decisions

6. How does your partner feel about breastfeeding?
7. Do you feel that you are encouraging your partner to breastfeed? Why?
8. Is your baby still breastfeeding? Why/Why not? Exclusive/Non-exclusive?
9. If baby is not breastfeeding (or not exclusively breastfeeding), did your baby breastfeed for as long as you had wanted? Why?

Breastfeeding Support

10. Are there any people that are important in supporting your partner to breastfeed successfully? (Probe: father, grandmother, friends, peers, etc.)
11. What positive things did/did you do that helps or makes it easier for your partner to breastfeed? (Probe with examples of types of positive support: instrumental (e.g. helping to solve breastfeeding problems such as latching,
or helping with household chores); informational (e.g., finding information for you to answer your breastfeeding questions, such as calling the pediatricians office for information); appraisal (e.g., telling you that you are doing a good job breastfeeding, or trusting your judgment on how to breastfeed your baby); and emotional (e.g., being available to listen to you discuss your feelings about breastfeeding, or telling you that your body is beautiful)

12. Of these positive things that you mentioned, what do you think is/was the most important thing in your partner’s eyes to help her breastfeed?

13. Do you think that there are any things that you do/have done that makes it more difficult for your partner to breastfeed? (Probe with examples of types of negative support: emotional (e.g. telling you that you are unattractive, or making you feel like your baby is coming between your sexual relationship); instrumental (e.g. overly concerned with always trying to cover you up when you are breastfeeding in public); informational (e.g. suggesting that formula is as healthy as breastfeeding, or that your baby will sleep longer at night with formula); and appraisal (e.g. telling you that you are making the wrong decision, or that the baby is not getting enough milk). Of these negative things that you mentioned, do you feel as though there is one in particular that makes it hardest for your partner to breastfeed?

14. Many times people have good intentions and think they are being supportive, when actually they are not. Are there any examples of things that you do that you think are supportive, but maybe your partner does not? (Probe with examples, such as partner being overly helpful and always trying to take over feedings – may cause stress to pump milk so that he can help)

15. Are there any additional things that you wish(ed) you could do that would make it easier for your partner to breastfeed? Is there anything else that you needed to help your partner breastfeed? (Probe with types of support, such as skills to overcome common breastfeeding problems)

### Conclusion

16. Is there anything else that you would like to share?

Thank you for your participation; the information that you have provided is incredibly valuable!
Appendix E: Iowa Infant Feeding Attitude Scale (IIFAS) (De La Mora et al., 1999)

Iowa Infant Feeding Attitude Scale (IIFAS)
(De La Mora et al. 1999)

The IIFAS consists of 17 infant feeding attitude questions that help predict families at risk of not breastfeeding or giving up prematurely. A 5-point likert scale (SD: strongly disagree; D: Disagree; N: Neutral; A: Agree; and SA: Strongly Agree) is applied to all 17 questions to determine level of agreement to each question posed. Approximately one-half of the questions are worded in a manner favourable to breastfeeding and the remaining favourable to formula feeding. Question items that favour formula feeding are to be reverse scored (i.e., 1 = 5, 2 = 4, 4 = 2, and 5 = 1) to obtain a total attitude score that can be computed by means of equally weighting the sum of responses to all individual question items.

<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The benefits of breastfeeding last only as long as the baby is breast fed.*</td>
</tr>
<tr>
<td>2</td>
<td>Formula feeding is more convenient than breastfeeding.*</td>
</tr>
<tr>
<td>3</td>
<td>Breastfeeding increases mother infant bonding.</td>
</tr>
<tr>
<td>4</td>
<td>Breast milk is lacking in iron. *</td>
</tr>
<tr>
<td>5</td>
<td>Formula fed babies are more likely to be overfed than breastfed babies.</td>
</tr>
<tr>
<td>6</td>
<td>Formula feeding is the better choice if the mother plans to go back to</td>
</tr>
<tr>
<td></td>
<td>work. *</td>
</tr>
<tr>
<td>7</td>
<td>Mothers who formula feed miss one of the great joys of motherhood.</td>
</tr>
<tr>
<td>8</td>
<td>Women should not breastfeed in public places such as restaurants.*</td>
</tr>
<tr>
<td>9</td>
<td>Breastfed babies are healthier than formula fed babies.</td>
</tr>
<tr>
<td>10</td>
<td>Breastfed babies are more likely to be overfed than formula fed babies. *</td>
</tr>
<tr>
<td>11</td>
<td>Fathers feel left out if a mother breast feeds. *</td>
</tr>
<tr>
<td>12</td>
<td>Breast milk is the ideal food for babies.</td>
</tr>
<tr>
<td>13</td>
<td>Breast milk is more easily digested than formula.</td>
</tr>
<tr>
<td>14</td>
<td>Formula is as healthy for an infant as breast milk.*</td>
</tr>
<tr>
<td>15</td>
<td>Breastfeeding is more convenient than formula.</td>
</tr>
<tr>
<td>16</td>
<td>Breast milk is cheaper than formula.</td>
</tr>
<tr>
<td>17</td>
<td>A mother who occasionally drinks alcohol should not breastfeed her baby.*</td>
</tr>
</tbody>
</table>

* Variables reverse scored to calculate total infant feeding attitude so that a strong breast feeding attitude has a score of 5 for each question giving a maximum score of 85 and a minimum of 17.
Appendix F: Quantitative Survey

F-1: Quantitative Survey – Mother’s Version (First Interview - Prenatal)
F-2: Quantitative Protocol – Father’s Version (First Interview - Prenatal)
F-3: Quantitative Protocol – Mother’s Version (Subsequent Interviews - Postnatal)
F-4: Quantitative Protocol – Father’s Version (Subsequent Interviews - Postnatal)
Appendix F-1: Quantitative Survey – Mother’s Version (First Interview - Prenatal)

Date________________________________________ Name (Identifier)________________________________________

**Directions**: Please read the following 17 statements, and assign a rating to each statement from strongly agree to strongly disagree (1 = strongly agree; 7 = strongly disagree).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Neutral</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The benefits of breastfeeding last only as long as the baby is breastfed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. Formula feeding is more convenient than breastfeeding.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. Breastfeeding increases mother infant bonding.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. Breast milk is lacking in iron.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. Formula fed babies are more likely to be overfed than breastfed babies.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. Formula feeding is the better choice if the mother plans to go back to work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. Mothers who formula feed miss one of the great joys of motherhood.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. Women should not breastfeed in public places such as restaurants.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Breastfed babies are more healthy than formula fed babies.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. Breastfed babies are more likely to be overfed than formula babies.</td>
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<td>2</td>
<td>3</td>
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<td>11. Fathers feel left out if a mother breast feeds.</td>
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<td>15. Breastfeeding is more convenient than formula.</td>
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<td>16. Breast milk is cheaper than formula.</td>
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<td>3</td>
</tr>
<tr>
<td>17. A mother who occasionally drinks alcohol should not breastfeed her baby.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Appendix F-1 (Continued)

Directions: Please read the following statements, and assign a rating to each statement from very likely to not at all likely (1 = very likely; 2 = somewhat likely; 3 = unsure; 4 = somewhat unlikely; 5 = very unlikely).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very Likely</th>
<th>Unsure</th>
<th>Very Unlikely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I plan to breastfeed my baby exclusively.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. I plan to feed my baby breast milk and formula.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Directions: Please answer the following questions.

1. What is your age? ____________

2. How do you describe yourself? (please check the one option that best describes yourself)
   a. American Indian or Alaskan Native
   b. Hawaiian or Other Pacific Islander
   c. Asian or Asian American
   d. Black or African American
   e. Hispanic or Latino
   f. Non-Hispanic White

3. Are you:
   a. Married
   b. Single, Living with Partner
   c. Engaged, Living with Partner

4. Are you currently:
   a. Employed Full-Time
   b. Employed Part-Time
   c. Student Full-Time
   d. Student Part-Time
   e. Homemaker
   f. Unemployed

5. What is the highest grade or year of school you completed?
   a. Less than high school
   b. High School/GED
   c. Trade/Voc/Tech School
   d. Some College, but no degree
   e. Associate degree
   f. Bachelor’s degree
   g. Graduate study, but no degree
   h. Master’s degree
   i. Doctoral degree

6. What is your total household income?
   a. Less than $10,000
   b. $10,000 to $19,999
   c. $20,000 to $29,999
   d. $30,000 to $39,999
   e. $40,000 to $49,000
   f. $50,000 to $74,999
   g. $75,000 or more
## Appendix F-2: Quantitative Survey – Father’s Version (First Interview - Prenatal)

Date________________________________________ Name (Identifier)________________________________________

**Directions:** Please read the following 17 statements, and assign a rating to each statement from 1 to 7 (1 = strongly agree; 7 = strongly disagree).

<table>
<thead>
<tr>
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<th>Strongly Agree</th>
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</tr>
<tr>
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<td>1</td>
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<td>3</td>
</tr>
<tr>
<td>4. Breast milk is lacking in iron.</td>
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<td>6. Formula feeding is the better choice if the mother plans to go back to work.</td>
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<td>12. Breast milk is the ideal food for babies.</td>
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<td>3</td>
</tr>
<tr>
<td>17. A mother who occasionally drinks alcohol should not breastfeed her baby.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Appendix F-2 (Continued)

Directions: Please read the following statements, and assign a rating to each statement from very likely to not at all likely (1 = very likely; 2 = somewhat likely; 3 = unsure; 4 = somewhat unlikely; 5 = very unlikely).

<table>
<thead>
<tr>
<th></th>
<th>Very Likely</th>
<th>Unsure</th>
<th>Very Unlikely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I plan for my baby to be breastfed exclusively.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. I plan for my baby to be fed breast milk and formula.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Directions: Please answer the following questions.

1. What is your age? __________

2. How do you describe yourself? (please check the one option that best describes yourself)
   a. American Indian or Alaskan Native
   b. Hawaiian or Other Pacific Islander
   c. Asian or Asian American
   d. Black or African American
   e. Hispanic or Latino
   f. Non-Hispanic White

3. Are you:
   a. Married
   b. Single, Living with Partner
   c. Engaged, Living with Partner

4. Are you currently:
   a. Employed Full-Time
   b. Employed Part-Time
   c. Student Full-Time
   d. Student Part-Time
   e. Homemaker
   f. Unemployed

5. What is the highest grade or year of school you completed?
   a. Less than high school
   b. High School/GED
   c. Trade/Voc/Tech School
   d. Some College, but no degree
   e. Associate degree
   f. Bachelor’s degree
   g. Graduate study, but no degree
   h. Master’s degree
   i. Doctoral degree

6. What is your total household income?
   a. Less than $10,000
   b. $10,000 to $19,999
   c. $20,000 to $29,999
   d. $30,000 to $39,999
   e. $40,000 to $49,999
   f. $50,000 to $74,999
   g. $75,000 or more
Appendix F-3: Quantitative Survey – Mother’s Version (Subsequent Interviews - Postnatal)

Date ___________________________   Name (Identifier) ___________________________

**Directions:** Please read the following 17 statements, and assign a rating to each statement from strongly agree to strongly disagree (1 = strongly agree; 7 = strongly disagree).

<table>
<thead>
<tr>
<th></th>
<th>The benefits of breastfeeding last only as long as the baby is breastfed.</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Agree</td>
<td>Neutral</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Formula feeding is more convenient than breastfeeding.</th>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Strongly Agree</td>
<td>Neutral</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>1</td>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Breastfeeding increases mother infant bonding.</th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Strongly Agree</td>
<td>Neutral</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
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<table>
<thead>
<tr>
<th></th>
<th>Breast milk is lacking in iron.</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>Strongly Agree</td>
<td>Neutral</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
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<td>5</td>
<td>6</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Formula fed babies are more likely to be overfed than breastfed babies.</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Strongly Agree</td>
<td>Neutral</td>
<td>Strongly Disagree</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>Formula feeding is the better choice if the mother plans to go back to work.</th>
<th></th>
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<tbody>
<tr>
<td>6</td>
<td>Strongly Agree</td>
<td>Neutral</td>
<td>Strongly Disagree</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>Mothers who formula feed miss one of the great joys of motherhood.</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>7</td>
<td>Strongly Agree</td>
<td>Neutral</td>
<td>Strongly Disagree</td>
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</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>Women should not breastfeed in public places such as restaurants.</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>8</td>
<td>Strongly Agree</td>
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<td>Strongly Disagree</td>
<td></td>
<td></td>
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<td>6</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Breastfed babies are more healthy than formula fed babies.</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>9</td>
<td>Strongly Agree</td>
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<td>Strongly Disagree</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Breastfed babies are more likely to be overfed than formula babies.</th>
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</thead>
<tbody>
<tr>
<td>10</td>
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<td>Strongly Disagree</td>
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<td>5</td>
<td>6</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Fathers feel left out if a mother breast feeds.</th>
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</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Strongly Agree</td>
<td>Neutral</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
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<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Breast milk is the ideal food for babies.</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>12</td>
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<td>Strongly Disagree</td>
<td></td>
<td></td>
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<td>5</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Breast milk is more easily digested than formula.</th>
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</thead>
<tbody>
<tr>
<td>13</td>
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<td>Strongly Disagree</td>
<td></td>
<td></td>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Formula is as healthy for an infant as breast milk.</th>
<th></th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Strongly Agree</td>
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<td>Strongly Disagree</td>
<td></td>
<td></td>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Breastfeeding is more convenient than formula.</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Strongly Agree</td>
<td>Neutral</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
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<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Breast milk is cheaper than formula.</th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Strongly Agree</td>
<td>Neutral</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
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<td></td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>A mother who occasionally drinks alcohol should not breastfeed her baby.</th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Strongly Agree</td>
<td>Neutral</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
Appendix F-3 (Continued)

Directions: Please answer the following questions.

1. How old is your baby? __________

2. How is your baby currently feeding?
   a. Breastfeeding exclusively (no formula)
   b. Breastfeeding and Formula
   c. Not breastfeeding (formula only)
   d. Other: ______________

3. If your baby is drinking breast milk and formula, at what age did your baby start drinking formula? __________

4. The person that I receive THE MOST support to breastfeed my baby is:
   a. Baby’s Father
   b. My Mother
   c. Other Family Members and Friends
   d. Lactation Consultant
   e. Support Group
   f. Hospital Nurse
   g. Other: ______________

If your baby is no longer drinking any breast milk, please answer the following questions:

5. At what age did your baby stop drinking breast milk? __________

6. Why did your baby discontinue drinking breast milk?
   a. Mother returned to school/work
   b. Baby weaned itself from the breast
   c. Insufficient milk supply
   d. Medical reasons (i.e. cracked and bleeding nipples)
   e. Lack of support received
   f. Inconvenience

2. In order to breastfeed, I needed MORE support from
   a. Baby’s Father
   b. My Mother
   c. Other Family Members and Friends
   d. Lactation Consultant
   e. Support Group
   f. Hospital Nurse
   g. Other: ______________
Appendix F-4: Quantitative Survey – Father’s Version (Subsequent Interviews - Postnatal)

Date __________________________ Name (Identifier) _________________________________

**Directions:** Please read the following 17 statements, and assign a rating to each statement from strongly agree to strongly disagree (1 = strongly agree; 7 = strongly disagree).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Neutral</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. The benefits of breastfeeding last only as long as the baby is breastfed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19. Formula feeding is more convenient than breastfeeding.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20. Breastfeeding increases mother infant bonding.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>21. Breast milk is lacking in iron.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>22. Formula fed babies are more likely to be overfed than breastfed babies.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23. Formula feeding is the better choice if the mother plans to go back to work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24. Mothers who formula feed miss one of the great joys of motherhood.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25. Women should not breastfeed in public places such as restaurants.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>26. Breastfed babies are more healthy than formula fed babies.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>27. Breastfed babies are more likely to be overfed than formula fed babies.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>28. Fathers feel left out if a mother breast feeds.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>29. Breast milk is the ideal food for babies.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>30. Breast milk is more easily digested than formula.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>31. Formula is as healthy for an infant as breast milk.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>32. Breastfeeding is more convenient than formula.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>33. Breast milk is cheaper than formula.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>34. A mother who occasionally drinks alcohol should not breastfeed her baby.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Appendix F-4 (Continued)

Directions: Please answer the following questions.

7. How old is your baby? 

8. How is your baby currently feeding?
   a. Breastfeeding exclusively (no formula)
   b. Breastfeeding and Formula
   c. Not breastfeeding (formula only)
   d. Other: 

9. If your baby is drinking breast milk and formula, at what age did your baby start drinking formula?

If your baby is no longer drinking any breast milk, please answer the following questions:

10. At what age did your baby stop drinking breast milk?

11. Why did your baby discontinue drinking breast milk?
   a. Mother returned to school/work
   b. Baby weaned itself from the breast
   c. Insufficient milk supply
   d. Medical reasons (i.e. cracked and bleeding nipples)
   e. Lack of support received
   f. Inconvenience
Appendix G: Consent Form

Informed Consent to Participate in Research
Information to Consider Before Taking Part in this Research Study

IRB Study # Pro00004907

You are being asked to take part in a research study. Research studies include only people who choose to take part. This document is called an informed consent form. Please read this information carefully and take your time making your decision. Ask the researcher or study staff to discuss this consent form with you, please ask him/her to explain any words or information you do not clearly understand. We encourage you to talk with your family and friends before you decide to take part in this research study. The nature of the study, risks, inconveniences, discomforts, and other important information about the study are listed below.

We are asking you to take part in a research study called: Paternal Support for Breastfeeding.

The person who is in charge of this research study is Amy Lester. This person is called the Principal Investigator. However, other research staff may be involved and can act on behalf of the person in charge. She is being guided in this research by Dr. Carol Bryant.

The research will be conducted at the offices of Champions for Children, and in your home.

Purpose of the study
The purpose of this study is to:

- Identify positive and negative forms of paternal (father) support that influence breastfeeding decisions.
- This research is being conducted by a doctoral student to satisfy requirements for the Ph.D. degree in Public Health.

Study Procedures
If you take part in this study, you will be asked to: participate in an in-depth interview and complete a short questionnaire during the last trimester of pregnancy, and again at 1, 3, and 6 months post-partum. The total time required to complete the study should be approximately 4 hours (60-90 minutes for the first interview, and 30-60 minutes for each subsequent interview). Interviews will be conducted privately, in your home, or at another convenient location for you. If you give consent, all interviews will be digitally audio-recorded. Only the principal investigator will have access to these recordings, and the information will not be identifiable, as no names will be recorded. All audio recordings will be stored on a password protected external hard drive and laptop computer, and will be permanently deleted after a period of 5 years.

Total Number of Participants
About 50 individuals will take part in this study at USF.
Appendix G (Continued)

Alternatives
You do not have to participate in this research study.

Benefits
We are unsure if you will receive any benefits by taking part in this research study.

Risks or Discomfort
This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. There are no known additional risks to those who take part in this study.

Compensation
Incentives for participation will include a new baby gift basket (diapers, wipes, shampoos, lotions, etc.) for each couple at the first interview and a $100 Amazon gift card for each couple at the fourth interviews.

Privacy and Confidentiality
We will keep your study records private and confidential. Certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential. The only people who will be allowed to see these records are:

- The research team, including the Principal Investigator and all other research staff.
- Certain government and university people who need to know more about the study. For example, individuals who provide oversight on this study may need to look at your records. This is done to make sure that we are doing the study in the right way. They also need to make sure that we are protecting your rights and your safety.
- Any agency of the federal, state, or local government that regulates this research. This includes the Department of Health and Human Services (DHHS) and the Office for Human Research Protection (OHRP).
- The USF Institutional Review Board (IRB) and its related staff who have oversight responsibilities for this study, staff in the USF Office of Research and Innovation, USF Division of Research Integrity and Compliance, and other USF offices who oversee this research.

We may publish what we learn from this study. If we do, we will not include your name. We will not publish anything that would let people know who you are.

Voluntary Participation / Withdrawal
You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study.

You can get the answers to your questions, concerns, or complaints
If you have any questions, concerns or complaints about this study, or experience an adverse event or unanticipated problem, call Amy Lester at 813-504-3052.

If you have questions about your rights as a participant in this study, general questions, or have complaints, concerns or issues you want to discuss with someone outside the research, call the USF IRB at (813) 974-5638.
Appendix G (Continued)

Consent to Take Part in this Research Study

It is up to you to decide whether you want to take part in this study. If you want to take part, please sign the form, if the following statements are true.

I freely give my consent to take part in this study and authorize that my health information as agreed above, be collected/disclosed in this study. I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

_____________________________________________  _______________________
Signature of Person Taking Part in Study                  Date

_____________________________________________
Printed Name of Person Taking Part in Study

Statement of Person Obtaining Informed Consent

I have carefully explained to the person taking part in the study what he or she can expect from their participation. I hereby certify that when this person signs this form, to the best of my knowledge, he/ she understands:

• What the study is about;
• What procedures will be used;
• What the potential benefits might be; and
• What the known risks might be.

I can confirm that this research subject speaks the language that was used to explain this research and is receiving an informed consent form in the appropriate language. Additionally, this subject reads well enough to understand this document or, if not, this person is able to hear and understand when the form is read to him or her. This subject does not have a medical/psychological problem that would compromise comprehension and therefore makes it hard to understand what is being explained and can, therefore, give legally effective informed consent. This subject is not under any type of anesthesia or analgesic that may cloud their judgment or make it hard to understand what is being explained and, therefore, can be considered competent to give informed consent.

_____________________________________________  _______________________
Signature of Person Obtaining Informed Consent                  Date

_____________________________________________
Printed Name of Person Obtaining Informed Consent
Appendix H: IRB Approval Letter

5/13/2013

Amy Lester, MPH
Community and Family Health
4202 East Fowler Ave.
Tampa, FL 33620

RE: Expedited Approval for Initial Review
IRB#: Pro00004907
Title: Paternal Support for Breastfeeding: A Qualitative Study to Identify Positive and Negative Forms of Paternal Support of Breastfeeding as Perceived by First-Time Parent Couples in the Tampa Bay Area

Study Approval Period: 5/12/2013 to 5/12/2014

Dear Ms. Lester:

On 5/12/2013, the Institutional Review Board (IRB) reviewed and APPROVED the above application and all documents outlined below.

Approved Item(s):
Protocol Document(s):
Paternal Support for Breastfeeding dissertation proposal

Consent/Assent Document(s)*:
Fathers and Mothers Version #1. 5.6.13.pdf

*Please use only the official IRB stamped informed consent/assent document(s) found under the "Attachments" tab. Please note, these consent/assent document(s) are only valid during the approval period indicated at the top of the form(s).

It was the determination of the IRB that your study qualified for expedited review which includes activities that (1) present no more than minimal risk to human subjects, and (2) involve only procedures listed in one or more of the categories outlined below. The IRB may review research through the expedited review procedure authorized by 45CFR46.110 and 21 CFR 56.110. The research proposed in this study is categorized under the following expedited review categories:
Appendix H (Continued)

(6) Collection of data from voice, video, digital, or image recordings made for research purposes.

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval by an amendment.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

Kristen Salomon, Ph.D., Vice Chairperson
USF Institutional Review Board