UNDERSTANDING THE INDIVIDUAL NARRATIVES OF WOMEN WHO USE FORMULA IN RELATION TO THE MASTER NARRATIVE OF "BREAST IS BEST"

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DEDICATION

I dedicate this work to my son, Theodore Foxworthy Scott, and my mother, Dianne Watson Foxworthy.

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Susanna Foxworthy Scott

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Despite clinical recommendations, only 25.8% of infants in the United States are exclusively breastfed at 6 months of age. Breastfeeding policies and communication campaigns exist to support exclusive breastfeeding, and women who use formula report facing stigma and feeling like a failure. Narratives can be used to discern how individuals make sense of experiences related to health, and narrative theorizing in health communication provides a framework of problematics used to explain how individuals construct stories that reveal the tensions between continuity and disruption and creativity and constraint. Individual experiences are often influenced by master narratives such as "Breast is best," which are phrases that shape our understanding of the world. Because of the negative impact of using formula on maternal well-being, the purpose of this research was to use a narrative framework to analyze the stories of women who used formula in relation to the master narrative of breast is best. Building off of pilot interviews with 22 mothers, semi-structured interviews were conducted with 20 women who had used formula within the first 6 months after giving birth and had an infant no older than 12 months at the time of the interview. Qualitative analysis revealed that women perceived formula as shameful and costly. Conversely, they viewed breastfeeding as biologically superior, better for bonding, and a way to enact good motherhood. Current messaging about breastfeeding, particularly for women who intend to breastfeed, may have unintended negative effects when women face a disruption to their breastfeeding journey.

In addition, women viewed breastfeeding and formula feeding as in relation to and in opposition to one another, reducing the perceived acceptability of behaviors such as combination feeding. Despite constraints in the master narrative regarding acceptable infant feeding practices, women demonstrated creativity in their individual stories and found formula feeding enabled more equitable parenting and preserved mental health. Practical implications include that organizations promoting exclusive breastfeeding in the United States should move away from framing breastfeeding as an all-or-nothing choice and develop tailored and value-neutral messaging recognizing breastfeeding as a complex psychosocial and biological process.

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TABLE OF CONTENTS

Introduction....1
Problem Statement....6
Statement of Purpose and Research Questions....8
Research Approach....10
Rationale and Significance....10
Assumptions....12
Conclusions....12
Literature Review....14
Contextualizing the History of Breastfeeding....14
Emergence of Neoliberalism and its Influence on Current Discourses....20
Encouragement of Breastfeeding Through Communicative Efforts....25
Unintended Effects Emerging from the Current Discourses....31
Theoretical Foundations – Narrative Problematics....36
Understanding Breastfeeding Discourses Through a Combined Lens....41
Conclusions....44
Methodology....46
Pilot Study....46
Pilot Study Results....46
How Pilot Data Informs Current Research....49
Dissertation Study....50
Data Collection....50
Recruitment....52
Participant Demographics....55
Interview Procedures....56
Data Analysis....57
Enhancing Quality....59
Credibility and Originality....59
Resonance and Usefulness....60
Self-Reflexivity....61
Conclusions....63
Results....64
Master Narrative of Breast is Best....65
Perceptions of Breastfeeding....65
Perceptions of Formula Feeding....75
Experiencing Disruption to the Breastfeeding Journey....83
Intending to and Preparing to Breastfeed....84
Experiencing Difficulty Breastfeeding....87
Breaking Through the Constraints of Breast is Best....91
More Equally Shared Parenting is an Option....92
Prioritizing Mental Health....96
Creative Paths Forward Through More Inclusive and Value-Neutral Discourse....100
Rejecting All-or-Nothing Messaging....101
Wanting More Value-Neutral Messaging and Stories....104
Conclusions....107

Discussion 109
Theoretical Implications 110
Centering Women's Understanding of the Master Narrative 110
Understanding Disruptions in Journeyed Health Contexts 118
Creativity and Constraint Amidst Polarization 121
Practical Implications 135
Limitations and Future Directions 140
Conclusion 141
Appendices 143
Appendix A 143
Appendix B 145
Appendix C 146
References 150
Curriculum Vitae

Introduction

Among infants born in 2017, only 25.8% were exclusively breastfed at 6 months, despite the clinical recommendation that they be exclusively breastfed for at least 6 months and up to 1 year or longer (Centers for Disease Control and Prevention, 2020a). The majority of infants are breastfed at some point during the first 6 months, but nearly 20% receive formula within 2 days (Centers for Disease Control and Prevention, 2020a). On average, when infants in the United States reach 6 months of age, 58.1% of them still receive some breastmilk, and this declines to 35.3% at 1 year. These statistics suggest a variety of lived experiences of mothers and infants during the first year of feeding. The stories of parents who use formula within the first 6 months may be important to analyze to gain a deeper understanding of how mothers construct their narratives in relation to guidelines and discourses about exclusive breastfeeding.

Breastfeeding guidelines and recommendations have been developed by entities such as the American Academy of Pediatrics, the World Health Organization, and the Baby Friendly Hospital Initiative to define optimal duration of breastfeeding (Pérez-Escamilla et al., 2016; World Health Organization, 2001). The American Academy of Pediatrics policy statement (Eidelman et al., 2012) on the issue states that breastfeeding should be framed as a public health issue rather than a matter of lifestyle. The World Health Organization (2021) recommends breastfeeding within the first hour of giving birth and that women continue to breastfeed as often as the child wants with no use of bottles or teats. Importantly, these recommendations are centered on the rights of the child, based on the United Nations Convention on the Rights of the Child, which was adopted in 1989 (United Nations Human Rights Office of the High Commissioner, 2021).

This international agreement states that infants have a right to good nutrition. Specific to the United States, the American Academy of Pediatrics (Eidelman et al., 2012) states that breastfeeding significantly reduces the risk for respiratory infections, gastrointestinal tract infections, necrotizing enterocolitis, sudden infant death syndrome, allergic disease, celiac disease, inflammatory bowel disease, obesity, diabetes, and childhood leukemia and lymphoma. Globally, 820,000 children's lives could be saved if women breastfed (World Health Organization, 2021), and in the United States, 900 infant lives would be saved if 90% of mothers exclusively breastfed (Bartick & Reinhold, 2010).

Health benefits from breastfeeding extend to the mother as well, and the dual benefits to both maternal and infant health reflect the resources allocated to breastfeeding promotion. Maternal benefits include decreased postpartum blood loss and decreased risk of developing breast and ovarian cancer (Victora et al., 2016). Significant efforts exist to promote breastfeeding at multiple levels of governance, resulting in the creation of a Global Breastfeeding Collective whose leaders envision a society that enables comprehensive support for breastfeeding (World Health Organization, 2021). In fact, breast milk is sometimes rhetorically referred to as liquid gold, a panacea that preserves and protects the life of the infant and also benefits the mother (Burns et al., 2013; Carter et al., 2014).

Thus, the policies developed to support breastfeeding have helped shape the promotion of the well-recognized mantra, "Breast is best." Although these three words seem simple, their implications ripple out in ways both intended and unintended in the lives of mothers and their infants. Breastfeeding promotion efforts are complicated to analyze because there are many factors that contribute to the existing discourses, and it is

global in scope. One example of the complexity is that there is differential risk for not breastfeeding depending on geographic location. Approximately 90% of childhood deaths occur in 42 developing nations, and in these countries, exclusive breastfeeding is one of the most effective interventions for reducing infant mortality (Jones et al., 2003). International organizations, such as the World Health Organization, operate from a global perspective, in recognition that breastfeeding can be a matter of life and death for many mothers and infants due to reduced access to food and clean water. My research is focused on infant feeding in the United States, where breastfeeding has been determined to be a critical public health issue and normative way to feed infants due to its benefits to both the mother and infant (Eidelman et al., 2012). However, because of access to clean water in the United States, mortality from formula use is not as significant of an issue compared to in developing nations.

Breast is best can be understood as a master narrative, which is discourse that dominates the way we think about and conceptualize certain issues (Somers, 1994). Master narratives about health and illness can be influenced by many factors including but not limited to policies, clinical recommendations, social marketing, and health communication campaigns. The messages that emerge from master narratives are often deeply engrained in culture and have a political nature (Japp et al., 2005). They can be like the air we breathe and difficult to recognize because they are wrapped into our ways of understanding reality. Individuals create stories in relation to these dominant narratives, which can intersect at different levels, from the family to society (Harter et al., 2005). Ultimately, master narratives reveal the constructivist nature of the world and how perceptions of health issues can change over time.

To demonstrate the constructivist aspect of master narratives, one can observe how the master narrative around smoking has changed in the United States (Warner, 1977). Shifting the perception of smoking from glamorous to dangerous, particularly focusing on youth, campaigns, interventions, media coverage, and policies have shaped how individuals think about smoking and its risks to health (Wakefield et al., 2010). These shifts in the discourse reflect a change in perception of risk that over time has resulted in new social norms. In the case of smoking, adolescents have come to more commonly view smoking as risky and less socially acceptable (McKelvey & Halpern-Felsher, 2016). This movement is largely attributed to ongoing health communication campaigns that increased awareness and brought into focus the significant health risks associated with smoking.

Similarly, the discourse about breastfeeding has changed over time, and new norms have been established that have shaped perceptions of the risks of not breastfeeding. In previous generations, formula was more commonly accepted and promoted in the United States (Stevens et al., 2009). The history of infant feeding is dynamic, reaching back to antiquity, during which the use of wet nurses was common and the preferred mode of feeding if one could not breastfeed (Stevens et al., 2009). In fact, discourse around many maternal and infant health practices has changed significantly from generation to generation. For example, it was not until 1994 that recommendations changed about safe sleep practices to reduce the risk of sudden infant death syndrome, resulting in the promotion of back and side sleeping. Side sleeping was then removed as a recommendation in 2000, resulting in intensive national communication campaigns (National Institutes of Health, 2021).

Recommendations for various issues, including breastfeeding, change as new scientific studies enter the literature, reflecting the growth of knowledge over time.

Thus, as researchers augment the scientific literature, recommendations adapt, the discourse shifts, and these changes impact the stories of individuals. In the context of breastfeeding, women in the United States must currently make sense of their own experiences in relation to the well-established master narrative of breast is best. Whereas breastfeeding in the United States declined up until the 1970s due to the belief that formula was a safe substitute (Stevens et al., 2009), the current master narrative now molds the way we think about infant feeding, shaping it as one of the most important behaviors to initiate within one hour of giving birth. As Japp (2005) noted:

> Personal stories are shaped by the narrative forms of a culture; they embody the familiar and pervasive patterns that shape ways of thinking and collective understandings. In sum, any personal story is constituted in dialogue with relevant public narratives, whether in confirmation, denial, or challenge (p. 55).

Individuals who feed their infants construct narratives that are necessarily influenced by the larger collective understanding of breastfeeding and in relation to the master narrative of breast is best.

It is important to consider how the collective understanding of a health topic impacts the individual experience as women grapple with either confirming, denying, or challenging the master narrative. Master narratives can reveal social norms, but their dominance may also influence individuals in unexpected or unintended ways. For example, women who do not breastfeed have reported feeling shame and facing stigma (Bresnahan et al., 2020). Thus, the purpose of this study was to better understand how women who use formula in the first 6 months after giving birth make sense of their experience in relation to the current master narrative about infant feeding. The theoretical

foundation of this work was narrative problematics (Harter et al., 2005), which provides scaffolding to understand how narratives can be interpreted as a set of problematics, or tensions. By elucidating the history of the development of the breast is best master narrative, listening to women's stories, discerning their interpretations of the master narrative, and analyzing responses through the lens of narrative problematics, I sought to better understand how discourses shape stories and the practical implications that stem from those stories.

Problem Statement

In contrast to the master narrative of breast is best and clinical recommendations for exclusive breastfeeding, the majority of women in the United States supplement within the first 6 months (Centers for Disease Control and Prevention, 2020a). This is a significant health communication problem because how women construct infant feeding stories may reveal areas where discourses can be improved to facilitate improved maternal and infant health. For example, women's narratives might provide insight for developing infant feeding health communication campaigns that are tailored to reflect women's diverse and rich experiences. As we make strides to integrate the social determinants of health into medical practice and interventions (Adler et al., 2016), it is reductionist to understand breastfeeding through one lens because it fails to encapsulate the nuanced psychosocial, biological, and emotional aspects of breastfeeding (Leurer & Misskey, 2015).

Further, this study is necessary because women who use formula face consequences that might negatively affect their well-being, and communication scholars are ideally positioned to bring their narratives into the literature and elucidate how the

master narrative of breast is best interacts with individual experiences. Mothers who use formula have reported reticence seeking out advice and felt that less time was spent with them in the hospital receiving education and support (Cairney et al., 2006; Fallon et al., 2017; Lakshman et al., 2009). In addition, women have reported facing stigma and some think they are bad mothers (Appleton et al., 2018; Fallon et al., 2017; Ludlow et al., 2012). Most notably, women who do not exclusively breastfeed also have reported feeling depressed and like they are a failure (Fahlquist, 2014).

Current research identifies barriers to exclusive breastfeeding including inadequate paid leave policies in the United States and low knowledge about supporting the diverse needs of lactating parents (The American College of Obstetricians and Gynecologists, 2021). Other barriers include communicative processes such as improving awareness, regulating infant formula marketing, implementing breastfeeding advocacy efforts, and using social media to distribute breastfeeding information (Azad et al., 2021). Overall, these efforts have centered on educational messaging and individual choice, which is not uncommon to observe in health campaigns designed in the United States (Smith et al., 2012). Feminist researchers have critiqued the individual bias in the literature claiming that, "Choice paradigms, in other words, implicitly imagine women as white and middle class, with the typical resources available to realize individual goals" (Smith et al., 2012, p. 6). To counter the individualistic bent of health promotion, researchers have proposed focusing on the structural barriers to breastfeeding in recognition that it is not simply a choice (Smith et al., 2012). This is a critical step toward more holistically examining breastfeeding and understanding how social determinants impact breastfeeding rates. Another step forward would be to consider that breastfeeding

is not only a choice or a behavior influenced by social determinants, but also a process impacted by biology. In fact, increasing evidence shows that there are a wide range of biological factors that may influence milk production including genetics, environmental exposures, endocrinology, and lactation physiology (Lee & Kelleher, 2016).

Because of the negative effects reported by women who do not exclusively breastfeed, we must more deeply understand how the master narrative of breast is best integrally shapes the individual narratives of women. It is also important to understand if the master narrative may be fully internalized in women's experiences in ways that interact with their ability to self-determine their well-being. Harter et al. (2005) explored the idea of deeply rooted discourse when examining how narratives around age-related infertility privilege stories that promote the disciplining of female bodies. One of the fundamental claims Harter et al. made is that, "We approach narratives as ideological sources that articulate meanings privileging some interests over others" (p. 86). Thus, women who do not exclusively breastfeed may construct narratives that reveal the deep-seeded values promoted in today's society around the benefits of exclusive breastfeeding. Because postpartum mental health is recognized as an important part of maternal and infant health (Centers for Disease Control and Prevention, 2020b), it is critical to understand the interplay between the implicit values promoted in the discourse and how women interpret those through their narratives.

Statement of Purpose and Research Questions

The purpose of this study was to more deeply understand how women who do not exclusively breastfeed in the first 6 months after giving birth interpret their stories in relation to the master narrative of breast is best. This study was needed because it is

important to determine how women make sense of their own experiences when it diverges from the master narrative due to effects of using formula, including feeling shame, guilt, a sense of failure, and even depression. Although policy and communication efforts exist to promote an important public health goal, it is imperative to identify nuances as they play out in each life. An underlying ethos of this research is that although population-level communication campaigns and policies are necessary for improving public health, their actual impact on the individual human spirit living them must also be considered and valued. How we communicate about the importance of breastfeeding through policy, health communication campaigns, physician and patient communication, and interpersonal dialogue might have significant unintended effects for those who choose not to or cannot comply with clinical recommendations. Further, because the majority of women will supplement by 6 months despite significant promotion efforts, attention should be focused on understanding the process through which they make sense of their own experiences.

The following research questions guided this research:

1. What are key features of women's narratives regarding using formula within the first 6 months after birth?
2. How do women understand their narratives in relation to the master narrative of breast is best?
3. How do women's stories extend our understanding of narrative problematics?
4. How do women's stories extend our understanding of unintended effects of campaigns and polices?

Research Approach

With the approval of the university's institutional review board, I interviewed 20 women virtually due to the COVID-19 pandemic. Participants all had a child younger than 12 months and had used formula to feed their infant at some point during the first 6 months after giving birth. This study used narrative problematics as a guiding theoretical framework and qualitative research methods (Harter et al., 2005; Lindlof & Taylor, 2011; Tracy, 2020). Narrative inquiry in the form of interviews were used due to the research purpose and questions I asked in this study. The research explores the stories women shared throughout the interview about their infant feeding experience and involves detailed descriptions of their experiences and analysis to reveal themes and to extend theorizing in narrative problematics.

I also conducted 22 pilot interviews, which informed the interview guide used for the dissertation and shaped preliminary findings. This pilot data in addition to the 20 interviews conducted for this study constitute the basis for my findings. All interviews were recorded through Zoom, professionally transcribed, and pseudonyms are used for all participants when quoted to preserve confidentiality. I utilized Tracy's (2020) phronetic iterative approach for qualitative analysis. I was also informed by an in-depth literature review that included developing a thorough understanding of the current master narrative. I developed memos throughout the data collection and analysis process, which helped produce an iterative, reflexive, and robust data set from which to analyze.

Rationale and Significance

This is a robust area of inquiry that can aid in understanding how individual narratives about infant feeding are influenced, constrained, and potentially display

tension in relation to the master narrative of breast is best. The rationale for this study was my observation that women I knew who used formula often expressed guilt and were reluctant to speak about it. After my initial curiosity, the question did not let go, and in a course project, I discovered that this was a compelling area of inquiry. I was also fascinated by the interplay between performing a health behavior such as breastfeeding and communicating about the behavior and how one influenced the other so profoundly. How women narrate their own experiences is fundamentally impacted by the way our culture constructs and talks about breastfeeding and formula feeding (Japp, 2005). The influence a dominant discourse such as breast is best can wield on our ability to interpret our own experiences is of deep significance for health communication scholars to consider.

The importance of this study is that by exploring the narratives of women, we can extend our understanding about how individual narratives can be used to inform the work of health institutions and agencies that promote exclusive breastfeeding. Scholars have explicitly called for different approaches in framing of breastfeeding promotion (Fallon et al., 2017; Hoddinott et al., 2013; Lagan et al., 2014; Schmied et al., 2001). In other arenas, individual narratives have served powerful functions in altering perceptions and shaping health policy, such as found through the personal stories of breast cancer survivors (Sharf, 2001). Because health institutions and agencies play a vital role in shaping master narratives, scholars should pay close attention to how their efforts impact the lived experiences of individual humans, whose lives are rich and varied, and are valuable beyond how their body can perform or achieve desired metrics.

This work can widen the perceptions around exclusive breastfeeding and help move us to a more tailored understanding of infant feeding.

Assumptions

Three assumptions were made entering this research. The first is that that majority of women have been exposed to the breast is best master narrative at some point. This is due to the ubiquitous nature of breastfeeding promotion in media outlets and in clinical spaces, starting with one of the first national breastfeeding campaigns in 2004 (Wolf, 2004). The second assumption I made going into this research is that the topic should be explored through a narrative framework rather than a phenomenological framework (Lindlof & Taylor, 2013) because I am more interested in how individuals encode and share their experiences through narrative rather than the experience itself (Harter et al., 2005). Breastfeeding is framed as a way to reach personal goals through a journey, and I believe it is a highly storied experience. Therefore, I am making the assumption that analyzing my data through a narrative lens will yield more in-depth and relevant data. The third assumption I made is that breastfeeding is not just a behavior, but that it is also a biological process (Lee & Kelleher, 2016) and, thus, not always a choice. Because breastfeeding is framed as a choice, it is largely overlooked that breastfeeding is also a process through which the body undergoes significant physiological change to differentiate tissue and produce milk over an extended period of time.

Conclusions

Overall, this project aimed to elevate and center the voices of mothers who use formula and bring forth their experiences of feeding their infants. By practicing deep listening and using a flexible theory to guide analysis, I was able to uncover common

themes in how women shared their stories. These themes revealed the ways in which we communicate about and perform infant feeding in our society. In this dissertation, I will share a comprehensive literature review, overview of methods, results, and discussion wherein I share the fundamental implications of this work.

Literature Review

Contextualizing the History of Breastfeeding

Accepted practices for breastfeeding have evolved significantly over time and help contextualize the current master narrative about breastfeeding. Understanding feeding practices from a historical perspective offers a glimpse into the diversity of human behavior across cultures and how similar challenges affected women even in ancient times. The use of wet nurses to supplement breastfeeding extends back to ancient Egypt in the 10th century BCE (Wargo, 2016). Being a wet nurse was a recognized profession that involved contracts, and in Greece, wet nurses held a higher position than slaves (Stevens et al., 2009). The inability to lactate is mentioned in one of the oldest medical encyclopedias, *The Ebers Papyrus* (Stevens et al., 2009). Written around 1550 BCE in Egypt, authors proposed warming the bones of a sword fish in oil and rubbing the mother on the back with it as one potential solution to low supply (Wickes, 1953). The quality of milk was also scrutinized, and specific guidelines existed for how the milk should appear on the finger (Stevens et al., 2009). In the region now known as Israel, breastfeeding was viewed as a religious obligation (Wickes, 1953). A bit further west in ancient Rome, unwanted female infants abandoned to die were sometimes purchased as future slaves and fed by wet nurses through contracts to ensure their survival (Stevens et al., 2009). In addition to the use of wet nurses, there is also evidence that ancient people bottle fed using animal milk, and clay vessels for this purpose have been found dating back thousands of years (Stevens et al., 2009).

Extending into the current era, the practice of infant feeding continued to change, reflecting how deeply breastfeeding is tied to culture. The use of wet nurses fell out of

favor in the Middle Ages in Europe, during which the belief took hold that breast milk had magical powers (Wargo, 2016). Individuals thought that the characteristics of the mother could be passed to the child through breast milk which resulted in a distrust of wet nurses because they often represented those in the lowest social classes (Osborn, 1979). The discouragement of wet nurses in favor of the mother breastfeeding extended throughout the Renaissance in Western culture. In contrast to this movement, during the 17th century, aristocratic women in countries such as France and England commonly did not breastfeed due to the inconvenience; some historians claim that women reported desires to go to shows and play cards instead (Stevens et al., 2009). Because of the unsanitary nature of feeding devices and the fact that pasteurization was not invented until 1862, approximately one-third of all babies who were fed animal milk, such as from a cow or goat, died in London within 1 year in the early 1800s (Weinberg, 1993). Milk often went bad in the transit from farms to urban markets, and some vendors even added chalk to milk and thinned it out with water to extend supply and increase profit (Weinberg, 1993). In London, nearly 50% of all children born died by the age of 2 due in part due to contaminated food supply (Weinberg, 1993).

In the United States, the breastfeeding landscape took on its own unique patterns. During the 17th and early 18th century, women generally breastfed, but rates started dropping in the late 1800s because women began to supplement more often with cow's milk (Wolf, 2003). Reasons for this shift are unclear, but it may correspond to the Industrial Revolution and the rise of women working in factory conditions. Infant mortality rates in cities with larger numbers of working class women were high; in 1897 in Chicago, 18% of infants died before the age of 1. (Wolf, 2003). During the early

1900s, public health workers campaigned to increase breastfeeding rates and encouraged women to breastfeed, promoting the belief that one could not improve upon God's plan (Wolf, 2003). These efforts to encourage breastfeeding largely existed to reduce infant mortality, a significant issue at the time.

Contemporary advocates for breastfeeding will sometimes note that breastfeeding is a natural process that we have only moved away from during modern times. One of the most prominent breastfeeding organizations in the United States, La Leche League, founded by seven Catholic housewives in the 1950s, still promotes this idea. For example, on a current La Leche League webpage critiquing that breastfeeding is now framed as a modern pressure, the organization claims:

> For thousands of years women gave birth and nursed their babies, supported by a close-knit group of family and friends. … What happened to change the fact of breastfeeding as a natural part of motherhood to something which often causes, pressure, guilt, and negativity? (La Leche, 2016).

In contrast to this claim, history reveals that a more varied approach to infant feeding has always existed and has differed between cultures. Notably, in Europe and the United States, there have been periods of time with high infant mortality rates in part due to different infant feeding approaches including the use of unsanitary animal milk pre-dating sterilization and refrigeration. Therefore, a tension exists between organizations that promote a return to an idyllic natural past and the more imperfect reality of infant feeding, which suggests supplementation extending back to the most ancient societies.

In addition to breastfeeding discourses, discourses about childbirth have largely adopted a similar narrative trend, promoting the idea of an idyllic maternal natural childbearing past eroded by modern expertise. Adopting the dogma that natural is always better in the context of maternal and infant health is problematic because it ignores that

modern medicine is largely responsible for the fact that we see dramatically lower maternal and infant mortality rates. In 1915, 607 women died per 100,000 live births, and by 2007 that number had dropped dramatically to 12.7 (Singh, 2010). Despite these compelling statistics, researchers and popular media still frame childbirth as similar to breastfeeding – an inherit ability with which modern science and society has interfered. One researcher, in an article detailing the benefits of natural childbirth, illustrates how this framing is generally exhibited in literature, "Women are inherently capable of giving birth, have a deep intuitive instinct about birth, and when supported and free to find comfort, are able to give birth without interventions and without suffering" (Lothian, 2000, p. 44). This statement about birth bares striking similarities to the more contemporary discourses around breastfeeding which focus on breastfeeding as a biological norm and a behavior the majority of women should be able to perform. This discourse might in some ways reflect the dramatic cultural shifts we have undergone in contemporary society, revealing the tension between wanting to advance to a more industrialized future and also desiring to return to a more natural state. One must honestly consider if there was there was *ever* a past in which women gave birth naturally and gently, surrounded by supportive community members as they breastfed. Regardless of the origins of this tension, the fact remains that throughout history, women and children experienced high rates of mortality related to both childbirth and breastfeeding and have devised and continue to devise a variety of solutions to both.

One of the currently maligned solutions developed to address infant feeding challenges involved the creation of formula in the 1800s in the United States. Proprietary blends made their appearance in the late 1800s and grew rapidly in popularity (Schuman,

2003). In the narratives promoted by organizations such as La Leche League, this represents the point in time where the history of breastfeeding took a negative turn. Artificial substitutes were aided by advancements in sterilization and preservation of foods (Stevens et al., 2009). The late 1800s was attended by rapid scientific advancement, and remnants of these original inventions exist today. For example, Eagle Brand Condensed Milk, still used for baking, was originally designed as infant food (Stevens et al., 2009). In the late 1800s, 27 patented forms of formula flooded the market, suggesting the high demand there must have been at the time for artificial food substitutes (Fomon, 2001). As science progressed, the use of formulas also became more popular. Knowledge about nutritional needs grew, and scientists learned what caused common scourges among young children, including scurvy and rickets.

Even then, however, public health officials and the community were highly invested in promoting breastfeeding. Wolf (2003) detailed a competing campaign approach that emerged in the 1910s to promote breastfeeding. While one set of campaigners, mostly public officials, advocated for longer breastfeeding, another group that included medical charities, physicians, and citizens, advocated for clean cows' milk (Wolf, 2003). Even a century ago, the bifurcation of the end goal for infant feeding was evident in campaign messaging. One uniquely successful campaign occurred in Minnesota in 1912. During this effort, public health workers met with every new mother for as many times as she needed for 9 months to encourage breastfeeding. Infant deaths dropped a remarkable 20%, attributed to the intensive efforts to provide support to mothers (Sedgwick & Fleischner, 1921).

Over time, the campaign that advocated for clean alternatives to breastfeeding, such as with cow's milk, may have prevailed because breastfeeding rates continued to drop. In a review of infant feeding history by a pediatric doctor who was a resident in 1949, Fomon (2001) recounted his own memories of a typical formula, which constituted evaporated milk, water, and corn syrup. In the United States during the 1970s, breastfeeding rates dropped to 25% due to the prevalence, social acceptability, and marketing of formula, as well as its introduction in the hospital setting shortly after birth (Schuman, 2003). In contrast to this drop, breastfeeding rebounded in the 1970s, coinciding with the feminist movement, which had a significant impact on women's health (Wolf, 2003). Notably, in the 1960s, the natural childbirth movement also gained traction as women began to question and reject the medicalization of childbirth. Persistent trends that exist today which emerged from this movement include management of pain through psychological means, rooming-in, a process during which newborn infants stay with their mother in the same room rather than in a nursery, and skin-to-skin contact (Wright & Schanler, 2001). These methods were more commonly adopted by well-educated White women (Wright & Schanler, 2001).

The feminist movement sent shock waves through our conceptualizations of health, and specifically influenced how individuals in the United States thought about women's health. Positions on motherhood, childbirth, and breastfeeding varied widely as the biomedical model came into question. Some feminists were critical of reproduction, finding it a source of oppression, and others have viewed technological advances, such as formula, as liberation for women and the demands of motherhood (Esterik, 1994). Feminist arguments have also tended to veer away from biological determinism, making

it difficult to acknowledge the biological realities of lactation because it must start with the assumption that humans are mammals that produce milk for their young (Lazaro, 1986). In a piece exploring how breastfeeding fits within the feminist paradigm, Esterik captured the complexity of historical discourses around the topic that continues today:

> Breastfeeding requires negotiating a number of socially constructed dualisms that have dominated Western thinking. These discursive categories that have shaped and continue to shape the way we experience and understand the world include oppositions such as: production vs. reproduction; public vs. private; nature vs. culture; mind vs. body; work vs. leisure; self vs. other; maternal vs. sexual (1994, p. S46).

A review of the history demonstrates that breastfeeding is a culturally dynamic and changing phenomenon. An apt metaphor may be to think of infant feeding patterns as dunes shifting on a beach, resettling, and shifting again, reflecting cultural trends of the age and especially evolving alongside scientific knowledge. More contemporary history reveals how breastfeeding exists in tension with advances in the feminist movement because it is a topic that encompasses a wide range of dualities that sit at the nexus of female identity. Understanding breastfeeding through a historical lens also sets the stage for more accurately contextualizing the emergence of campaigns and policies to promote breastfeeding in the United States in response to plummeting rates observed in the 1970s. Overall, individuals have used artificial supplementation since recorded history, and women have ebbed and flowed in their behaviors around breastfeeding, reflecting upheavals in society.

Emergence of Neoliberalism and Its Influence on Current Discourses

In contemporary American society, we live in a culture deeply influenced by neoliberal principles, and thus it is useful to understand the current discourses about breastfeeding through the lens of this enacted philosophy. Neoliberalism can be

understood as a "governmentality" focused on efficiency and maximizing human capital through counting and surveying (Focault, 2008). It rose to prominence as a way of governing during the 1970s and 1980s, during which leaders like Reagan and Thatcher took the helm (Harvey, 2007). Ultimately, neoliberalism embodies the idea that every human action can be understood through a transactional lens and be brought into the market (Harvey, 2007). It has existed in tension with other movements such as feminism, which seek to reject capitalistic notions. For example, the claim that breastfeeding could save the United States $3.6 billion dollars (Bartick & Reinhold, 2010) is a neoliberal finding through which the experts have quantified the market value of breastfeeding and converted its value into monetary terms that would benefit the economy. On one hand, this type of valuation might seem pragmatic, and cost-benefit analysis can be an effective means of policy-making. On the other hand, one can perhaps understand how equating a woman's ability and willingness to produce milk with a market value might be problematic. The principles of neoliberalism are so fully integrated into our way of thinking that it can be thought of as another master narrative that subsumes breast is best. Indeed, breast is best can only exist within a neoliberal ideology because "best" is defined by our ability to quantify all the ways it is optimal in the marketplace over other alternatives.

One of the defining aspects of neoliberalism involves its focus on the individual rather than on the structure in which the individual operates (Ayo, 2012). This emphasis on personal behavior relieves those governing society from responsibility for the health decisions its citizens make (Bekemeier, 2008). For example, if one does not breastfeed, an individual adopting a neoliberal perspective might argue that the person did not try

hard enough or access enough resources. An individual focused on the systems in which an individual operates may note social determinants of health, including that the women have no federally protected paid maternity leave in the United States. It is useful to understand discourse such as breast is best through the lens of neoliberalism because tensions between individual effort and structural support become easier to identify (Dubriwny, 2013).

Joan Wolf (2007, 2011) extensively explored how breastfeeding is constructed within this neoliberal framework. Her research carefully connected living in a neoliberal risk culture and the accompanying shame and stigma about failing what is framed as the personal and, indeed, civic responsibility to breastfeed (Wolf, 2011). The master narrative can best be summarized in the following passage by Wolf (2011):

> State institutions advise that breast is best for babies and that therefore good citizen-mothers will breastfeed. Cultural reasons for not breastfeeding are treated as obstacles, and economic circumstances become barriers that each mother must be persuaded to overcome. Scientific uncertainty disappears, choice becomes overdetermined, and breastfeeding emerges as central to civic motherhood (p. 69).

In contemporary American culture, women are encouraged to reach their individual goals to breastfeed informed by the science of its superiority and through strict self-regulation that might involve the purchase of support in the form of lactation consultations, pumps, special teas, cookies, nipple butters, creams, foods, clothing, psychological support, and more. In line with neoliberal principles that heavily depend on the mandate of individual responsibility, current breastfeeding discourses in the United States generally fail to adequately address systemic barriers including and most notably, the glaring lack of federally protected paid family leave in the United States.

Breastfeeding interventions generally target a few critical areas. One area includes the provision of intensive support for breastfeeding in hospitals, such as through rooming-in and immediate skin-to-skin contact, which has been shown to increase breastfeeding initiation and duration (Fairbank et al., 2000). Ample intervention work has been conducted which tests the effectiveness of peer support from other mothers, including through education, reassurance, or help solving problems (Fairbank et al., 2000). Another focus for intervention research has been individual education, particularly in the prenatal setting, which is effective in increasing initiation rates of breastfeeding (Sikorski et al., 2003). In addition, interventions may focus on the provision of professional support such as through lactation consultants (Guise et al., 2003). Although these interventions are evidence-based, they rely heavily on intervening in the behavior of an individual mother as would be expected in a society that orients toward neoliberalism (Kett, 2020). One nurse researcher critiqued the healthcare system's focus on individual breastfeeding efforts claiming that, "Individual-level interventions will fail to make a large impact on breastfeeding disparities unless upstream solutions are implemented simultaneously," (Kett, 2020, p. 284).

One area of intervention work that has focused on systems is in the workplace (Fein & Roe, 1998), leading to an increased focus on individual pumping, a behavior arguably quite different than breastfeeding. Workplace interventions include the support of pumping and provision of private space to produce milk, notably, while the infant is not present. Jung, another critical scholar in the breastfeeding arena, made this important argument in her book, *Lactivism* (2015), which critiques the current discourses around breastfeeding. She argued that the current push for pumping in the United States relies on

the assumption that the most important part about breastfeeding is the chemical composition of milk and not the relationship between the mother and child (Jung, 2015). However, this workaround makes sense when viewed from a neoliberal lens. The product in the form of breastmilk has become the most important, instead of the process, which is time-consuming and requires the infant to be present. Certainly, the emphasis on production in the workplace is at direct odds with behaviors such as breastfeeding, which involve an intensive process through which nutrition is directly transferred from one body to another. Pumping represents a more efficient solution involving a machine attached to the breast and milk transferred to the baby through a bottle after a work day. The prolific author and scholar Jill Lepore also made this observation in a *New Yorker* (2009) article about pumping:

> There are three ways to bridge that [human milk] gap: longer maternity leaves, on-site infant child care, and pumps. Much effort has been spent implementing option No. 3, the cheap way out. Medela distributes pumps in more than ninety countries, but its biggest market, by far, is the United States, where maternity leaves are so stinting that many women—blue-, pink-, and white-collar alike—return to work just weeks after giving birth.

One can only imagine what an ancient mother struggling with breastfeeding might wonder if she saw an American woman pumping her milk in a modified closet at work after a few weeks of unpaid leave, carefully bagging it, and storing it in fridge until reunited with her infant at the end of the day. Is breastfeeding best, or is breast milk best? This is an important peculiarity to the dominant discourses in the United States, which is notable in being one of the few countries in the world to not offer protected paid leave despite promoting exclusive breastfeeding (Centers for Disease Control and Prevention, 2020a), and just one example of how breastfeeding discourses fluctuate and adapt to systemic conditions within a culture. Within the neoliberal paradigm, however, the

current manifestation of breastfeeding discourses becomes clearer. What we see currently is a focus on individual interventions, heightened attention on the benefits of the product, and emphasis on optimization and risk-reduction. The mother is put into a position to maximize production of a milk supply to enhance her infant's health, thus contributing the well-being of the economy. One can observe this phenomenon by looking at the latest pumps on the market -- often ranked by suction power and if they are double-breasted -- which results in more milk in faster time.

Encouragement of Breastfeeding through Communicative Efforts

Improving exclusive breastfeeding rates is an important objective outlined in the United States federal government's Healthy People 2030 initiative (Office of Disease Prevention and Health Promotion, 2020a). Healthy People is a decades long initiative in the United States which sets 10-year national objectives regarding a number of health indicators to improve the health of all United States citizens (Office of Disease Prevention and Health Promotion, 2020b). In 2009, 15.6% of infants in the United States were exclusively breastfed until 6 months, and the target outlined through this initiative for 2020 was 25.5% (Office of Disease Prevention and Health Promotion, 2020a). For 2030, the goal is to increase the exclusive breastfeeding rate from 24.9% to 42.4% at 6 months (Office of Disease Prevention and Health Promotion, 2020a). The implementation of this goal occurs through a variety of mechanisms designed to influence maternal behavior and compliance with recommendations.

One of these efforts includes the Baby-Friendly Hospital Initiative, which exists to promote, protect, and support breastfeeding. This initiative was founded in 1991 as a way to implement the Ten Steps to Successful Breastfeeding and the International Code

of Marketing of Breast-Milk Substitutes. The code was initially created in an effort to remove formula company influence and commercial interests from maternity wards. In the 1990s, it was much more common for women to be exposed to formula advertising in the hospital setting. One study found that of all women who received printed materials about infant feeding, 78% of them reported it came from a formula company (Howard et al., 1994). Hospitals often received supplies of formula at no charge from companies in addition to nipples, pacifiers, discharge bags, literature, free lunches, and more (Merewood & Phillipp, 2000). Mothers were saturated in formula marketing in the prenatal and hospital setting, resulting in campaigns to undo these efforts in order to support the evidence of breastfeeding benefits.

The Baby Friendly Hospital Initiative has expanded over the past 3 decades, and as of 2019, approximately 28% of births occur in 590 Baby-Friendly designated facilities in the United States (Baby-Friendly USA, 2020). This initiative continues to expand both domestically and globally, offering hospitals an opportunity to become a designated facility if they implement the guidelines set forth by the organization (Baby-Friendly USA, 2020). Although health benefits form the foundation of the rationale for implementing this initiative, the organization (Baby-Friendly USA, 2019) also advocates for the cost savings of promoting exclusive breastfeeding in its guidelines for institutions:

> The diverse benefits of breastfeeding translate into hundreds of dollars of savings at the family level and billions of dollars at the national level through decreased hospitalizations and pediatric visits. Researchers have estimated that were the national initiation and 6 months goals to be met, between 3.6 billion and 13 billion dollars would be saved on pediatric health care costs. Consequently, activities to promote the national objectives are clearly among the best and most cost-effective health promotional strategies available (p. 7).

Promoting the cost savings of breastfeeding aligns with breastfeeding discourses in a neoliberal context, through which every behavior is equated as a transaction that can be quantified.

Working in tandem with these policy and implementation efforts include health communication campaigns to promote breastfeeding. At the national level, several campaigns have been implemented including the Department of Health and Human Services 2004 campaign called, "Babies were born to be breastfed," and the United States Department of Agriculture's, "Loving support makes breastfeeding work," campaign (Centers for Disease Control and Prevention, 2003). Breastfeeding campaigns are also implemented through organizations such as the United States Breastfeeding Committee during National Breastfeeding Month, which is every August (United States Breastfeeding Committee, 2019). Specifically, the Department of Health and Human Services 2004 communication campaign was implemented to increase the rates of early postpartum breastfeeding to 75% and the rates of breastfeeding within 6 months to 50% by 2010 (Department of Health and Human Services, 2004). It was an extensive nationwide campaign, conducted in partnership with the Advertising Council, running for 2 years and targeting multiple outlets, including television and radio. The Ad Council is a national nonprofit that focuses on public service announcements and that works with advertising agencies that design the campaigns pro bono.

A key message from their breastfeeding messaging included, "You'd never take risks before your baby is born. Why start after?" (Wolf, 2007). The campaign also promoted that breastfed children had greater brain development and that formula-fed children were more likely to contract a number of illnesses, become obese, and exhibit

lower IQ (Wolf, 2007). In an analysis of breastfeeding advocacy campaign ideology and ethics, Kukla (2006) critiqued the campaign, highlighting its emphasis on mismatching risk; for example, by comparing a woman not breastfeeding to riding a mechanical bull. In this way, not breastfeeding was framed as an incredibly risky choice for a mother to make, directly endangering her baby. Kukla (2006) made an observation that remains relevant today:

> I want to argue that there are many American women, especially women from the socially vulnerable groups least likely to breastfeed, for whom breastfeeding is *not* in fact a livable choice, and likewise that an educational campaign designed to change women's *choices* will be either ineffectual or seriously damaging to women (p. 162).

In this critique, Kukla pointed out a potential fallacy in the breast is best master narrative. By framing it solely as a choice, breastfeeding promotion largely ignores women living in situations where this choice might require resources, time, and support that is not available. Kukla does not mention that biology may also be a factor that inhibits women from breastfeeding. Lactation insufficiency is a commonly cited issue for women who intend to breastfeed, further undermining the framing of breast is best as a choice that women make (Shere et al., 2021). Wolf (2007) also critiqued the campaign, focused on the drawbacks of how risk was communicated, and argued that ads that make individuals feel frightened might be more persuasive but could be unethical because they showed inaccurate or skewed perceptions of risk. The Ad Council's campaign existed alongside rigorous efforts by nongovernmental organizations to implement policies and procedures that continue to work to enable exclusive breastfeeding from the moment of birth in a hospital setting.

Other United States campaigns have focused on tailored audiences, particularly for women in populations who less commonly breastfeed. For example, the Office of Women's Health in the Department of Health and Human Services implemented the, "It's only natural," campaign for African American women. This 2018 campaign focused on education and overcoming myths and misconceptions about breastfeeding, including the belief that African Americans did not need to breastfeed and that everyone uses formula (Office of Women's Health, 2018). The United States Department of Agriculture's ongoing campaign is targeted toward low-income women participating in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). These efforts focus on how important family, friends, and community are for supporting moms in breastfeeding (Pellechia et al., 2017).

In addition to these United States campaigns, World Breastfeeding Week, which began in 1992, serves as a global campaign to raise awareness for breastfeeding annually. Each year, a new theme helps shape materials, and the campaign aims to "inform, anchor, engage, and galvanize action on breastfeeding and related issues" (World Alliance for Breastfeeding, 2021). The 2021 theme promoted breastfeeding as a shared responsibility and promoted a warm chain of support for breastfeeding to work against industry influence (World Alliance for Breastfeeding, 2021). The warm chain was conceptualized as a way to center the mother and infant and provide continuum of care, or an integrated system of healthcare, for the first 1,000 days (World Alliance for Breastfeeding, 2021).

Overall, multiple campaigns have been developed at the local, national, and international scale to promote breastfeeding as the optimal, normal, and responsible form of nutrition. In addition to understanding this dynamic landscape of campaigns, it is

important to note that the master narrative of breast is best carries with it a weight of dual benefit and dual risk as the discourse shifts to centering the mother and infant as a dyad operating within a community and healthcare system. This results in a fundamentally unique health discourse more similar to what we might see in discourses around reproductive rights. One must consider the rights of the baby and their access to breastfeeding alongside the rights and needs of the mother. In fact, the United Nations has argued that breastfeeding is a human rights issue and that babies and mothers should be protected to benefit both (United Nations, 2016). This adds significant weight to the master narrative on a global scale, shifting the language from that of an individual choice to that of a right and a responsibility, as observed in the latest World Breastfeeding Campaign. This framing potentially allows for stronger arguments about the development of societal protections such as paid leave and safe workplace spots for feeding and pumping. On the other hand, it also expands the potential for community members to shame and punish mothers who do not fulfill their responsibility to provide the *right* of human milk to their infant.

In the United States, it remains the case that after leaving the hospital, it is primarily the mother's responsibility to seek out resources to reach ensure the best nutrition for her baby. If she does not do this, it is possible she just needs to be better informed or better educated to make the right decision to benefit the baby and herself. Because breastfeeding discourses are global, elements of the more collectively framed global campaigns seep into United States discourses, too. This presents a complex landscape of narratives bouncing up against one another, melding, and shaping into new conglomerations entirely. For example, promoting a "warm chain" of support in a

country with a national healthcare system versus a privatized system will likely result in different outcomes.

Overarching all of these messages, however, is the master narrative that breast is best, whether that be achieved through individual effort or collective support. If the mother does not choose to breastfeed, cannot breastfeed, or struggles to exclusively breastfeed, it is possible she will experience a sudden break with this master narrative and face dissonance and stigma, particularly if she intended to exclusively breastfeed. This narrative and how it affects the individual human spirit through imbuing the sense of failure or perceived stigma, must be considered seriously by policymakers and communicators because it may point to deeper flaws in current conceptualizations about breastfeeding.

Unintended Effects Emerging from the Current Discourses

Unintended effects are a recognized phenomenon that occur in both health communication campaigns and policy implementation (Cho & Salmon, 2007; Oliver et al., 2015). Acknowledging unintended effects of health campaigns is a critical aspect of health campaigns and interventions, and it has been established that campaigns can sometimes stimulate unhealthy or anti-social behaviors (Byrne & Hart, 2016; Pechmann & Slater, 2005). Cho and Salmon (2007) first categorized this phenomenon within the communication field by defining a number of dimensions of unintended effects. First, they clarified that campaigns can have differential effects over time by desensitizing individuals or revealing implicit flaws in relying on individual behavior change for community-level issues (Cho & Salmon, 2007). In addition, campaigns can have effects at the societal-level, even if the campaign is intended for individuals. This

might be seen in value changes that ripple out over time due to the campaign or modification of culture (Cho & Salmon, 2007). The 2004 health communication campaign led by Department of Health and Human Services, which mounted an assertive effort to raise awareness of benefits of and increase rates of breastfeeding, may serve as an example of this. Because campaigns can diffuse so widely, it is possible for them to have effects on the intended audience as well as on unintended audiences.

Indeed, one of the unintended effects of policies, interventions, and accompanying health communication campaigns is that women who use formula face a number of consequences that might negatively affect well-being. For example, mothers who use formula report reticence in seeking out advice and feel that less time is spent with them in the hospital receiving education and support (Cairney et al. 2006; Fallon et al., 2017; Lakshman et al., 2009). In one study out of Norway, where breastfeeding is a strong cultural value, women likened not breastfeeding to breaking the law and felt that they could not access information about alternative options (Hvatum & Glavin, 2016). In another study conducted in the United Kingdom, women reported that breastfeeding can be a divisive topic among mothers, with some experiencing a demand for accountability from other women if they were not breastfeeding (Lee, 2007). This is of importance because social support from individuals such as healthcare providers, family members, and other mothers plays a significant role in the experiences of women breastfeeding (Mcfadden et al., 2017).

Importantly, women who do use formula report feeling stigma (Fallon et al., 2017) and may think that they are bad mothers (Appleton et al., 2018; Ludlow et al., 2012). Notably, Fallon et al. (2017), in an online survey of 890 mothers, concluded that

infant feeding promotion may be correlated to substantial issues with well-being. They argued for a more balanced and woman-centered approach (Fallon et al., 2017). Mothers have also reported feeling depression and a sense of failure (Fahlquist, 2014). Bresnahan and colleagues (2020) found that those who could not or *were unable* to breastfeed perceived a higher level of self-stigma and also felt less warmth toward their infants than mothers who *chose* not to breastfeed. The stigma experienced by perceived failure to comply with guidelines that one intended to comply with is an important artifact of neoliberal risk culture, and points to the highly moralized dynamic of breastfeeding (Faircloth, 2010).

One of the key issues to consider in this relationship between formula use and stigma is that maternal mental health, specifically postpartum depression, is a rising area of concern, affecting approximately 13% of mothers in the United States, and this number varies by state, with some areas experiencing rates as high as 20% (Centers for Disease Control and Prevention, 2020b). Postpartum depression is associated with reduced attachment and negative interactions between mother and infant (Brummelte & Galea, 2016). The directionality of the relationship between using formula and postpartum depression relationship is fluid and complex. For example, women with higher rates of anxiety and depression in the prenatal period are also more likely to have increased anxiety and depression if they stop breastfeeding (Ystrom, 2012). Research has indicated predictive variables for postpartum depression associated with infant feeding including pain and physical difficulty that results in breastfeeding cessation (Brown et al., 2015). Importantly, women who were not depressed during pregnancy and were not able to breastfeed as planned have increased risk for postpartum depression (Borra et al.,

2015). Thus, although improving exclusive breastfeeding rates for maternal and infant health is a goal in the United States, and globally, accompanied by a wide range of policies and implementation efforts, there may be unintended effects to maternal mental health for women who intended to and are unable to exclusively breastfeed.

Questions about the robustness of the conclusions about the benefits of breastfeeding also impact the unintended effects of breastfeeding promotion. Findings about breastfeeding benefits have been critiqued by researchers who claim overreach and selection bias (Colen & Ramey, 2014; Wen et al., 2014). This is because most findings about the benefits of breastfeeding are observational studies and do not reach the gold standard of a randomized controlled trial due to ethical concerns. One example of this bias is that the current research does not take maternal selection into account, which is the idea that the fitness of offspring is partially determined by maternal traits, nor does it take into account that more well-educated, higher income women tend to breastfeed (Raissan & Su, 2018). In a study using data collected from 1,008 women, Raissan and Su (2018) found that intention to breastfeed accounted for the association between breastfeeding and positive infant health outcomes. That is to say, if a mother intended to breastfeed but did not actually breastfeed, her infant had equivalent health outcomes compared to mothers who intended to and did breastfeed (Raissan & Su, 2018). This points to the link between intention and outcome and to the fact that breastfeeding occurs within a complex dyad through which many dynamics are at play including race, socioeconomic status, biology, working status, and environmental toxin exposure. Breastfeeding as a behavior is difficult to isolate and quantify.

One key unintended effect from communication campaigns is that they can signal certain underlying assumptions, such as that communication to an individual to change their behavior is truly effective for changing a health issue influenced by social determinants (Cho & Salmon, 2007). This might backfire as culpability, particularly in countries such as the United States that largely rely on individual decision-making for health issues. Many of the efforts centering on health behaviors and women's health in the United States heavily depend on individual self-regulation, such as encouraging women to participate in routine mammograms for breast cancer screening and Pap and HPV tests for cervical cancer screening. Kukla (2006) asserted this critique of the 2004 HHS campaign, observing that ads implied that breastfeeding was a fully individual choice, and anything other choice revealed signs of moral corruption in mothers.

One of the particularly salient unintended effects outlined by Cho and Salmon (2007), which is relevant to the master narrative of breast is best, is dissonance. This phenomenon occurs when individuals experience psychological discomfort because they cannot reach the recommended health state or comply with it. Dissonance connects to self-efficacy through the claim that individuals need to feel that they can complete the recommended behavior, as proposed in the theory of planned behavior (Azjen, 1991). Experiencing dissonance may also be linked to social determinants of health, and the social conditions that influence our ability to enact a recommended health behavior. One notable point that Cho and Salmon (2007) raised is that dissonance may be worst in individuals who are most motivated to change but cannot control either their access to resources or performance of a behavior (Guttman & Zimmerman, 2000). Thus, it is possible that the stigma experienced by mothers who use formula is connected to

dissonance, representing an unintended effect from the comprehensive effort made by health institutions and agencies that they exclusively breastfeed. Women's narrative can uncover the threads of this dissonance as they make sense of their experience in contrast to the dominant discourses.

Theoretical Foundation – Narrative Problematics

Cicero offered an important justification for studying issues through a narrative lens, "For the one point in which we have our very greatest advantage over the brute creation is that we hold converse one with another, and can reproduce thought in word" (1959, p. 25). Narrative theorizing proposes that we understand ourselves and others through stories (Japp et al., 2005). Using a narrative lens can help us to understand how women make sense of their use of formula in relation to the master narrative of breast is best. (Sharf & Vanderford, 2003). Narrative theorizing sheds light on how larger discourse, driven in part by health communication campaigns, interact with how individual construct their stories.

Burke, a prominent literary theorist, was a critical figure in defining narrative and the nature of man. He posited that rhetoric was a part of all symbolic expression and an ontological experience (Burke, 1955, p. 172). He also claimed that narratives function as "equipment for living" (Burke, 1973, p. 293). Fisher (1984), in his presentation of the narrative paradigm, extended Burke's views and suggested that, in the narrative paradigm, people's symbolic actions manifest as stories, and that these stories are then checked for coherence and fidelity. He embraced the role of narrative in rhetoric and claimed that "the narrative paradigm is the foundation on which a complete theory of rhetoric needs to be built" (Fisher, 1987, p. 194). In addition, Fisher made an important

attempt to argue for the primacy of experience and posited that narrative more truly captures the nature of the world in which we live (Qvortrup & Nielsen, 2019).

Perhaps stemming from these claims, narrative has become increasingly important in the field of health communication, and a variety of scholars have advanced this line of research. Notably, this includes different perspectives from rhetoricians such as Fisher (1984) and physicians including Charon (1993, 2001a, 2001b) and Kleinman (1988). Harter, Japp, and Beck (2005) provided a comprehensive text that explores how individual narratives shape the experience of health and illness. They argue for the recognition of the importance of narrative theorizing in health communication and the requirement to "delve more deeply into murky, clutters and complicated interrelationships between sometimes incompatible issues" (p. 8).

Highly influenced by Burke, they posited that "humans tell stories and also that humans are storied" (Harter et al., 2005, p. 10). Their work contextualized the use of narrative theorizing within the health communication field as a series of problematics, including those of knowing and being; of disruption and continuity; of constraint and creativity; and of the partial and indeterminate (Harter et al., 2005). These problematics are related to identity and the disruptions that occur when one experiences illness. Constructs within the problematic of knowing and being include identity construction and dialogue. Individuals come to know themselves through narrative activity and in large part, the narratives they form define who they are to themselves and others (Gergen, 1991; Somers, 1994).

One of the crucial claims the authors made is that personal narratives take form within the context of public discourses. Essentially, what individuals know about

themselves and how they shape their identities is co-constructed alongside messages that might drive norms presented on communicative outlets (Japp, 2005). In addition, within the problematic of knowing and being, narrative is created through dialogue, or co-created among multiple participants. A notable aspect of this dialogic perspective is the idea of narrative ideologies, which can also be understood as "the values and morals embodied in the form and structure of narrative" (Harter et al., 2005, p. 13). This lens opens the avenue to analyze narrative structure as a way to understand how one interprets larger discourses at a visceral and perhaps fully internalized level.

In addition to the problematic of knowing and being is the problematic of continuity and disruption (Harter et al., 2005). Disruption, or plans gone off course, largely drive narrative creation, and health-related challenges generally represent a call for stories as individuals reconcile their experiences. Individuals do not speak in bullet point lists or in clearly deductive ways, and a fragmented narrative that a physician can understand may reveal important details of an individual's condition (Sharf et al., 2011). Harter, Japp, and Beck (2005) also made the claim that continuity and disruption occur in a temporal space that proceeds in a sequence. For example, a mother using formula might perceive a disruption, and this occurs within a specific time frame such as in the hospital or shortly after giving birth.

The third problematic presented by Harter, Japp, and Beck (2005) is of creativity and constraint. Narratives can demonstrate tension between a desire for individuality and a desire to fit within social norms. This also ties into identity because an individual's creative self may not neatly fit into socially acceptable mores, or due to a health-related issue, one's concept of self may radically shift in a short amount of time. Because

humans are social animals, they can both create and cage themselves within their own constructions (Giddens, 1979, 1984). In essence, one takes parts of stories from culture and layers them with their own experiences and their own lives, inextricably tied to others (Harter et al., 2005). This problematic is particularly relevant when examining how women experience breastfeeding against the backdrop of breast is best. Due to the pervasiveness of the narrative, it may be difficult for women to differentiate their own experiences or separate them from the symbolism embedded in breastfeeding.

The fourth and final problematic described by Harter, Japp, and Beck (2005) is the partial and the indeterminant. In this problematic, uncertainty is explicitly recognized because of the nature of narratives as ongoing experiences. What one goes through now may be reshaped in memory by a future event. In addition, because of the co-constructed nature of narratives, they continue to evolve in interactions with others, shifting as time passes (Polkinghorne, 1988). By necessity, this makes all narratives partial, and narrative theorizing acknowledges time, process, and incompleteness (Bakhtin, 1981).

In relation to these problematics, breast is best may be understood as a master narrative (Somers, 1994). Importantly, master narratives within public discourses often have a political nature. The promotion of exclusive breastfeeding is political because it is encouraged by global organizations and the United States federal government through policies and campaigns. Breastfeeding is presented as a human right, a civic responsibility, and an individual decision, shifting responsibility to mothers to perform an intensive biological process with little structural support. Even if that structural support were to be added, there exists another underlying assumption that women biologically can and mentally want to perform this behavior to achieve good motherhood.

Provocatively, Lepore in her 2009 *New Yorker* article mused on the reality that men have nipples, too, a vestigial organ that suggests they produced milk at some point. In response to the prevalence of women claiming low milk supply, she asks it we are slowly evolving past milk production as a species. Certainly, the psychology underlying that intriguing observation is out of the scope of the dissertation, but we would be remiss to completely ignore it. Why are governments and organizations so focused on promoting the master narrative of breast is best through campaigns, policies, and intensive efforts? It is a laudable public health goal, but it may also trigger an instinctual fear that if we don't promote it, we may leave the realm of mammals in the next thousand millennia and become dependent on industrialized nutrition to feed our young. Time marches forward, not back, as many of the return to natural advocates would have it, although the tension allows a necessary debate of what we value.

Harter, Japp, and Beck (2005) posited the following, "Scholars who direct attention to the ideological and political aspects of narrative ask why narratives are framed as they are, how stakeholders negotiate them within social contexts of action, and how emergent narratives enable and constrain the human spirit" (p. 21). In particular, these narratives that diverge from the master narrative may take the form of a counternarratives or legitimacy narratives (Japp & Japp, 2005). Both of these narrative forms provide an alternative understanding of a reality we may take for granted and push our understanding of issues related to health, illness, and identity.

Using the foundation of problematics in narrative theorizing, Japp and Japp (2005) explored the concept of legitimacy narratives, building off of work on counterstories conducted by Nelson (2001). This lens may be useful when examining

breastfeeding narratives and women who use formula because of its emphasis on silenced stories and stories that may be deemed less acceptable. Japp and Japp (2005) focused on investigating the narratives of biomedically invisible diseases, another rich ground for narrative exploration. One important difference in the current research topic from narrative inquiry exploring illness is that using formula is not an illness in the traditional sense. It is, however, a health-related and embodied event that can rupture identity. Legitimacy narratives can help us understand issues in which evidence exists of stigma or silencing. Japp and Japp (2005) suggested there are four elements including "the need to legitimate the author's suffering, assertions of moral legitimacy, the search for medical legitimacy, and the desire for public legitimacy" (p. 109). This concept leads to the core question of this research. How do women who have heard or internalized the master narrative breast is best make sense of that experience through narrative? An underlying foundation of legitimacy narratives is that they challenge the ontology of medicalization and serve as a form of resistance (Japp & Japp, 2005). They also can serve as necessary components of social activism and health advocacy (Sharf et al., 2011).

Understanding Breastfeeding Discourses Through a Combined Lens

Underlying the master narrative of breast is best is the core philosophy that women must mitigate risk through individual behaviors, aligning with principles of neoliberalism (Focault, 1984). It is important to truly ground our understanding of how discourses about breastfeeding connect to some of the fundamental behaviors promoted through neoliberalism including optimization, efficiency, and self-regulation. In addition, we must consider how breastfeeding, a health behavior as ancient as mammalian

evolution itself, has ebbed and flowed, deeply reflecting some of the core truths about a society's perceptions of health and wellness at the time.

In this dissertation, I propose to use Dubriwny's (2013) theoretical framework in conjunction with narrative theorizing, providing a framework to integrate the neoliberal perspective. She presented the convergence of neoliberalism and postfeminism in the form of the vulnerable empowered woman. Through discourses presented in health communication campaigns and news stories, she claimed that one can see evidence of an emphasis on self-regulation and choice. In addition, women are encouraged to manage themselves and fit within traditional roles. Risk and the communication of risk is paramount, and according to Dubriwny (2013), individuals make choices within this assumed framework that then form their life stories. According to Gill (2007), postfeminism includes a few key components, one being the emphasis upon mitigating risk through self-surveillance and discipline. In a postfeminist world, the vulnerable empowered woman's actions are also recast into traditional gender roles, such as through orienting health decisions based on a desire for motherhood or heteronormative relationships.

According to Dubriwny (2013), much of the knowledge created about health promotion and prevention has focused on individuals changing unhealthy lifestyle behaviors. Although Dubriwny's critical perspective is illuminating, it must be acknowledged that researchers and policymakers promoting behaviors in this paradigm intend to improve health and reduce risk using evidence-based interventions. It is difficult to perform the current gold standard of the scientific method, randomized clinical trials, without using an individualistic paradigm. However, as Dubriwny's (2013) evidence

shows, this framing becomes problematic when behaviors are framed solely as a choice, particularly while failing to account for inequities in the healthcare system and structural constraints that limit individual choices.

One relevant example in the context of breastfeeding is the lack of federally protected paid leave in the United States, which has been shown to significantly affect breastfeeding rates. For example, in a longitudinal study using data from the United States National Survey of Family Growth, researchers observed that employed women who received 12 or more weeks of paid maternity leave were more likely to initiate breastfeeding and be breastfeeding at 6 months than those who did not have paid leave (Mirkovic et al., 2016). California, which was the first state to implement paid family leave saw a 10% to 20% increase in rates of breastfeeding (Huang & Yang, 2015). On a global scale, this has also been observed, and longer lengths of maternity leave are correlated to longer lengths of breastfeeding (Steurer, 2017).

There is a growing focus, particularly in breastfeeding promotion, on social determinants and researchers have called for the recognition of the many factors that are critical in improving rates (Rollins et al., 2016). However, problems still exist in that breastfeeding is still not always truly a choice. Social determinants, such as lack of paid leave, make the "choice" more challenging and less realistic currently, as argued by Kukla (2006). Also, milk supply issues are one of the most commonly noted challenges given by new mothers, and conditions such as polycystic ovary syndrome and diabetes can impact milk supply (Shere et al., 2021). In an integrative review of reasons given for stopping breastfeeding, one study found that 35% report perceived insufficient milk

supply (Gatti, 2008). These factors are important to consider when observing the framing of the master narrative and how individual narratives might diverge.

One of the other critical claims made in Dubriwny's (2013) work is that women are often positioned as responsible for reducing risks for their own well-being and that of family. This might make breastfeeding a particularly fraught area for narrative construction because there is a dual relationship between the mother and infant, and thus, dual risk. For example, if a mother does not breastfeed, she may not only put her child at a higher risk for developing type 1 diabetes but also herself at a higher risk for developing breast cancer (Jernstrom et al., 2004). Leading from this, Dubriwny (2013) presented an important argument that this duality in risk may play a central role in how women make sense of their interactions with medicine.

By using the lens of the vulnerable empowered woman to frame the breast is best master narrative in the current research, one can better elucidate how women interpret their own experiences. For example, it may help to analyze how a woman frames herself within her narrative. It can also help tease out the complex relationship in the mother and infant dyad to understand how the mother takes herself into consideration as well as her child. Ultimately, one can also more clearly articulate how policies and campaigns operating within the neoliberal context are projected through individual narratives.

Conclusions

The history of breastfeeding is dynamic and reflects the shifting sands of time. From the use of wet nurses in ancient societies to the marketing of thinned out animal milk at markets in London, individuals have sought to feed their babies in a variety of ways, sometimes resulting in infant death. Currently, American society is influenced by

neoliberal principles, and the breast is best master narrative reflects a focus on individual choice, regulation, reduction of risk, and optimization. In addition, postfeminism helps to explicate how motherhood is conceptualized and shaped as a regulated risk-reduction exercise with women recast into traditional gender roles. Narrative theorizing provides a useful framework that presents stories of health and illness as rooted in problematic tensions. This theory can also help us understand how women make sense of the master narrative of breast is best. Ultimately, this research can aid in the development of more inclusive and tailored messaging around breastfeeding and improve maternal and infant health.

Methodology

The purpose of my research was to understand how women who use formula make sense of their own stories in relation to the master narrative of breast is best. The study addressed four research questions: 1) What are key features of women's narratives regarding using formula within the first six months? 2) How do women understand their narratives in relation to the master narrative breast is best? 3) How do women's stories extend our understandings of narrative problematics? and 4) How do women's stories extend our understanding of unintended effects of health campaigns? In this chapter, I describe a pilot study that formed the basis of the current dissertation. I then outline my data collection, recruitment, interview procedures, analysis, and practices used to ensure quality.

Pilot Study

This project was informed by pilot interviews conducted with 22 women about using formula to feed their infant during the first year after giving birth. The purpose of my pilot study was to understand the lived experience and stories of women who used formula at any point after giving birth. It included a demographic questionnaire and in-person or virtual interview. Questions focused on lived experiences, support, and validation received for using formula.

As part of a graduate-level course, I sought IRB-approval in anticipation of expanding this pilot study to use for my dissertation. I recruited women online in closed Facebook groups for formula feeding mothers. Mothers were eligible to participate if they were 18 or older, spoke English, and had used formula within 12 months of giving birth, either by exclusively formula feeding or by using formula in combination with

breastfeeding. There were no limits on time since event, meaning that some women had children over the age of 1 at the time of the interview. Each conversation lasted approximately 30 minutes to one hour, and participants received a study information sheet and completed a short demographic survey prior to the interviews (see Appendix C for demographic survey).

Pilot Study Results

Twenty-two women completed the survey and participated in the interview. Of these, 20 participants identified as White, one as Black, one as Asian and White. Two identified as Hispanic or Latino. Child age at the time of interview ranged from 2 months to 4 years. During the course of these interviews and thematic analysis using a phronetic iterative approach (Tracy, 2020), two main themes emerged that helped guide the current study and the research questions. These findings included seeking legitimacy and discovering more than one way to feed their baby. All participants were assigned pseudonyms.

Seeking Legitimacy. As women shared their stories, they sought to legitimize their experiences, particularly if they had intended to breastfeed. In this sample, all women except for one intended to breastfeed. Women sometimes disclosed that they tried "everything" including the use of lactation consultants, supplements, supplies, pumps, surgeries, and shields. Some shared that they pumped multiple times throughout the day and night, at times losing a significant amount of sleep in their attempt to produce milk for their infant. Women also disclosed corresponding emotional responses to the experience of trying to breastfeed, including feeling upset, like a failure, and anxious. Amari specifically remembered her negative association with using formula, "Then one

time I was getting really upset about it. My mom was talking to me about it, and I was like, 'I feel like I'm poisoning her.'" Women echoed this sentiment of feeling like using formula was equivalent to using poison, or at least a subpar unnatural substitute. Later in the interview, Amari legitimized her use of formula by explaining that her baby was growing and seemed healthy.

Women attempted to resolve their feelings of shame and stigma during the interviews, which served as a site of narrative construction, by sharing how much they had done to attempt to breastfeed and how they had realigned their perspectives. Carolina remembered reading about other moms who had trouble and coming to the decision that, "It doesn't really matter how it happens, as long as the baby is thriving." In these experiences, women attempted to navigate their insecurities about using formula to reach a point of acceptance. Ultimately, women struggled to reconcile a goal they had formed before giving birth to exclusively breastfeed with the reality that they chose to or had to use formula.

Discovering More Than One Way to Feed Their Baby. The second prominent theme that emerged from the pilot data was that after using formula, women realized that others around them had a variety of lived experiences outside of exclusively breastfeeding their infants. Many women shared they did not even seek out information or stories about formula before giving birth. When they used formula, they shared they did not know how to use it and that they had no supplies on hand to support using it. Kayleigh said, "They offer all those classes at the hospital about breastfeeding and how to do this and that, but they don't offer how to formula feed." One participant explained that they had it "in their head" they would exclusively breastfeed and only sought out

information and stories that supported that goal. Participants discussed needing to seek information out about boiling water, measuring formula, and choosing the best formula. Some resorted to informal conversations and YouTube videos because of lack of reputable information about formula feeding from organizations that support exclusive breastfeeding.

Women learned that individuals had a variety of lived experiences after they began to talk to others or seek out stories on social media. Alea found support in a social media group for fellow formula feeding moms, "It just helps because there's other women in my exact situation, and I don't feel like I'm being judged. … We all have the same goal, and we just all need help." Other women shared how they felt better knowing they were not alone, and that they were surprised about how many women had used formula or supplemented during the first six months. Some expressed that they felt a sense of responsibility to pass that knowledge along to provide new moms with validation and support.

How Pilot Data Informs Current Research

Overall, the two themes that emerged from the pilot data helped form the basis of my current research purpose and questions. Women shared stories that revealed that they thought breast was best and that formula was a last resort or suboptimal option, implying that they potentially constructed their own stories within the context of the master narrative of breast is best. They also sought to legitimize their experiences by detailing how well their baby was doing or by explaining that using formula resulted in better physical or mental health outcomes for the mother. After women stopped exclusive breastfeeding, they had to seek out information about using formula that was not

provided in educational courses. Women also learned that they were not alone, and they discovered that groups existed to support women who use formula. Ultimately, this foundation provided a rich basis for exploring women's stories about infant feeding. The resulting interview guide (see Appendix A) reflected the pilot study and included questions about how women felt using formula, stories they saw or read about formula, stories they saw or read about breastfeeding, and what types of experiences they would like to see shared about breastfeeding and formula feeding. The intention of this refined interview guide was to understand how the master narrative of breast is best interacted with women's narratives.

Dissertation Study

Data Collection

For this research study, I utilized qualitative methodology, which is rooted fundamentally in interpretivism and assumes that realities are unique, plural, and constructed through symbolic practices (Lindlof & Taylor, 2011). The methods used were primarily informed by symbolic interactionism, which is a pragmatic tradition grounded in the assumption that individuals create, share, and interpret meaning through language and symbols (Blumer, 1986; Charmaz, 2014; Handberg et al., 2015). Symbolic interactionism also assumes that multiple realities exist and that understanding is based in historical context (Charmaz, 2007). This was an appropriate methodological choice because the research questions required deep understanding of human actions and rested on the assumption that individuals interact with symbols to create meaning (Lindlof & Taylor, 2011). Further, there is ample evidence that conceptions of

breastfeeding have changed throughout the course of history, thus necessitating a constructivist view to answer my research questions.

Within the qualitative framework, I chose semi-structured respondent interviews as the primary research methodology. Interviews are an ideal methodology for understanding the lived experiences and viewpoints of an individual (Tracy, 2020). The semi-structured model allows for a fluid and reflexive process and flexible probes that delve more into a specific area (Tracy, 2020). Respondent interviews require the collection of data among people who all have an experience related to the research goal. Further, interviews focus on the synthesis of subjective viewpoints (Lindlof & Taylor, 2011). In this case, I sought to interview women who had used formula within the first 6 months of giving birth and who had a child less than 12-months-old at the time of the interview. I was also interested in women's perceptions of their individual experiences and how their responses reflected a unique understanding of wider discourses about breastfeeding. This philosophy toward interviewing is based on what Lindlof and Taylor (2011) claim to be a unique feature that has evolved in respondent interviews:

> Recently, however, researchers have employed a different model of the respondent interview that serves the interest of feminist theory, poststructuralism, and/or cultural studies. In such studies, interview talk is treated as a local manifestation of the discursive formations that circulate broadly in society—for example, gender, racial, sexual, and political discourses. Interviewees are conceived as speaking subjects who utilize these discourses to perform their identities as well as make sense of their own positions in the social structure. Often, the subject's speech is judged to be symptomatic of multiple, contradictory, or rapidly mutating discourses, which is considered an indicator of contending ideologies in the society at large. (pp. 179-180)

In essence, this claim by Lindlof and Taylor means that the interviews themselves act as evidence of how individuals conceive their narratives within the confines of competing discourses. The interviews are important artifacts allowing us to more clearly

see how individuals perform their own stories in relation to the master narrative of breast is best. Importantly, interviews also allow for in-depth understanding of stories that may emerge from the data that cannot be achieved through other methods (Tracy, 2020). Thus, it was more appropriate than alternative methods such as focus groups, where threads of continuity would be more difficult to pull out and analyze for each participant.

Recruitment

I sought to recruit women who represented a variety of lived experiences by using purposive sampling. This means that I chose data that fit the goals of the research questions and goals (Tracy, 2020). Specifically, I utilized a maximum variation approach to sampling, meaning I was most interested in capturing a wide range of qualities, situations, or incidents (Lindlof & Taylor, 2011). I sampled women who represented a variety of lived experiences. For example, I sought to capture the experiences of women who reported a range of income and employment statuses. I was particularly interested in employment status because of the different experiences between women who can breastfeed at home and those who must pump in work rooms. This was impacted, however, by COVID-19 and work-from-home orders around the country. Potential participants often participated in self-disclosure of their experience during our initial contact, which was an unexpected phenomenon. For example, women would email me or reach out through social media and share their narrative to discern if they would be a good fit for the study. This allowed me to be more intentional on my part during recruitment. Because of the high interest in this study, I asked women who seemed to have an experience similar to some I had already captured if they would mind having their name saved for another study, and I intentionally focused on women who shared

particularly unique experiences when they reached out. Examples included giving birth using a donor egg after years of infertility, experiencing low breast milk supply due to contracting COVID-19 pre-vaccine, experiencing a traumatic birth, and using formula with the infant due to supply issues after exclusively breastfeeding with all other children. My purpose was to cut across broad differences. This allowed me to discern if there were similarities between core parts of the narratives shared that related to discourses about breastfeeding, despite otherwise significant differences in lived experiences.

The specific criteria for selection of participants included women who had: 1) used formula to feed their infant at any point during the first 6 months after giving birth; 2) had a child that was no more than 12-months-old at the time of the interview; 3) were at least 18 years or older; 4) spoke English; 5) resided in the United States. I limited interviews to women with a child no older than 12-months-old so that women were relatively close to the experience and could readily recall details and emotions about their perceptions. This decision was informed by the pilot data. Because there is evidence that breastfeeding discourses change over time, I wanted to capture women's perceptions within the same time frame across the sample. For example, a story about formula feeding 20 years ago might be quite different due to changes in how we talk about breastfeeding and formula feeding.

After defending my proposal, I submitted and received approval from the Indiana University Institutional Review Board (IRB). My submission included all processes, procedures, and recruitment materials I planned to use to ensure I followed standards of human subject research, such as confidentiality and informed consent. I conducted online recruitment and requested that women reach out to me by email. Of those who reached

out, I confirmed their eligibility. If they were not eligible, I asked if I could save their name for a future research study. If the individual was eligible, I emailed them a demographic questionnaire through Qualtrics that included the Study Information Sheet at the introduction of the survey (see Appendix C for the demographic survey). I provided instructions for filling this out and let them know I would reach out as soon as they had completed the survey to schedule an interview. I checked these submissions regularly, and once they had completed the survey, I reached out to them to schedule an online interview.

Due to COVID-19, I conducted all recruitment online. I initially posted on my personal Twitter (@susannafscott) account and on a local parent group in central Indianapolis. This garnered high interest, and I conducted a first round of interviews based on the initial response I received. After this first round of data collection, I analyzed my demographic data and posted a second recruitment post in the national Facebook group, "Formula Feeding Mommies," which has more than 9,000 members. Because I initially received responses from predominantly white, upper middle-class women, I specifically requested participants who had diverse experiences and backgrounds in this second recruitment post (see Appendix B). Third, I connected with a group for women with low milk supply and worked with their administrator to post on my behalf. This was a national group representing a group of women who had a very specific experience related to experiencing chronic low milk supply after attempting to breastfeed. In this call-out, I also requested women to participate with diverse backgrounds and experiences to increase diversity in my sample. Individuals were

provided with an email to reach out to if interested in participating, and I subsequently screened all participants to ensure that they met inclusion criteria.

In total, I interviewed 20 participants for this study. In qualitative research, adequate sample size is influenced by determining if the data collected and analyzed reaches saturation (Charmaz, 2014, p. 214). Therefore, the number of participants interviewed for this study was determined by the quality of the sample rather than number of participants (Bowen, 2008). Morse (2000) defined critical factors to determine sample size, including the scope and nature of the study, quality of data, study design, and also evidence of shadowed data, in which participants speak about the experience of others informally during their interviews. Generally, 20 to 30 participants can yield rich data, but this may alter depending on the complexity of the social process (Morse, 1994, 2000). Multiple interviews included shadow data meaning that women often spoke about others' experiences including friends, family, and even acquaintances in online groups, which added to the robustness of the findings. Finally, every woman I interviewed showed awareness of the phrase breast is best during our discussion. These factors ultimately contributed to saturation after 20 interviews.

Participant Demographics

Twenty interviews were conducted online through Zoom due to the COVID-19 pandemic. Interviews ranged from 26 minutes to 1 hour with an average time of 40 minutes. Participants ranged in age with one being 18 to 22, four being 23 to 27, five being 28 to 32, six being 33 to 37, three being 38 to 42, and one being 43 or older. Twelve women had one live birth, seven had two live births, and one had three live births. Of the 20 participants, 19 were married or in a domestic partnership and one was

single or never married. Employment status was diverse across the sample. Four were homemakers, 13 were employed for wages full-time, two were employed for wages part-time, and one was out of work and looking for work. Three participants had some college credit and no degree, nine had a bachelor's degree, five had completed a masters degree, two had a professional degree, and one had earned a doctorate. Annual household income ranged from $50,000 to more than $150,000. Five had an income range of $50,0001-$75,000, two had an annual household income of $75,001-$100,000, six had an income of $100,001-$125,000, two had an income of $125,001-$150,000, and one participant had an income of more than $150,001. Nineteen participants had employer-provided health insurance and one was uninsured. Sixteen participants identified as White, two as Asian, one as Black or African American, one as other, and two as Hispanic, Latino, or Spanish origin. Individuals were from nine states.

Interview Procedures

I scheduled all the interviews through Zoom and sent confirmation emails 24 hours before conducting each interview. All interviews took place between January and March of 2021. Participants reviewed the Study Information Sheet through the demographic questionnaire in Qualtrics, and I reviewed the information outlined in the sheet orally at the beginning of each interview due to the time lapse between the survey and the interview. At the conclusion of our discussion, I asked all interviewees where they preferred a gift card, and each participant was emailed a virtual $20 gift card to either Amazon, Target, or Walmart in appreciation for their time.

The interview guide reflected the narrative problematic theoretical framework being utilized in this study. I wanted to understand how women positioned their

narratives in relation to the master narrative of breast is best. The interview guide was split into two sections. The first part of the interview focused on women telling their story in an uninterrupted narrative. I then asked probes about each part of their experience to obtain a richer narrative. The pilot interviews helped inform this part of the interview guide, because I had a deeper knowledge of the pattern of the narratives and I was aware of important parts to probe, such as the experience feeding in the hospital and the first experience using formula. The second half of the interview focused on questions about stories that women see and would like to see about infant feeding (see Appendix A for the interview guide).

Data Analysis

After comparing software for qualitative analysis, I determined that MAXQDA would best suit my needs for analysis of interview data. MAXQDA is a software specifically designed for qualitative and mixed methods research and can integrate audio files, websites, tweets, surveys, and interviews (MAXQDA, 2021). The data for this project included all transcripts and audio recordings of the interviews as well as my memos and notes. All online interviews were recorded through Zoom conferencing software and uploaded into a secure folder. Zoom provided three recordings from each interview including an audio recording, video recording, and transcription. I utilized the audio transcription provided by Zoom as the initial transcript. I listened to the recordings and cleaned the transcripts. All data was de-identified using pseudonyms, which were organized in a spreadsheet, encrypted, and stored in the password protected host site overseen by Indiana University. Data were only available to myself, the primary investigator.

I utilized a phronetic iterative approach as outlined by Tracy (2020). This process embraces iteration, which is a "reflexive process in which the researcher visits and revisits the data, connects empirical materials to emerging insights, and progressively refines his/her focus and understanding" (Tracy, 2020, p. 211). Although this process largely draws from grounded theory, it represents a larger framework that can be utilized in tandem with a number of different theories. In this case, I utilized an iterative phronetic approach while using concepts from narrative problematics and master narratives to guide my analysis.

I coded my data in cycles as recommended when utilizing a phronetic iterative approach. During the first cycle, I performed line-by-line coding on all interviews. I uploaded all cleaned transcripts into MAXQDA along with the corresponding audio file attached to the transcript. In this way, I could go back and listen to a phrase or sentence while coding if needed. During this stage, I developed surface-level codes to initially separate data into larger piles for more abstract analysis. First-level coding involved identifying what was in the data at a descriptive level (Tracy, 2020). I often used gerunds while coding at this stage, which is recommended by Charmaz (2014) to orient more toward actions. This stage involved using more surface level descriptions of what happened in the data such as, "emotional reactions to feeding experiences," and "providing support for lived experiences." I developed an initial codebook to capture these initial categories.

In addition to coding, I wrote memos after coding each interview to immerse myself in the data during my initial round of coding. Throughout this process, I reflected on the research questions I sought to answer and the theoretical framework grounding my

research (Tracy, 2020). I then moved into secondary-cycle coding. This involved moving the descriptive codes to a more abstract level and synthesizing initial codes. It requires inductive reasoning and bringing in theoretical concepts to create a more cohesive structure (Tracy, 2020). I read through my initial round of coding and grouped data together from the descriptive codes. I mixed computer and manual methods during this phase to help conceptualize the data and draw it back to my theoretical framework. Manual methods including using post-it notes to group codes and develop a framework of codes that tied back to both the initial research questions and the four parts of the narrative problematic theory. My second codebook involved weaving in my theoretical framework alongside my memos and notes to create a cohesive codebook that answered my core research question of how women make sense of their feeding experiences in relation to the master narrative of breast is best.

Enhancing Quality

There are four criteria used to ensure that data collected is of the highest quality. These include credibility, originality, resonance, and usefulness (Charmaz, 2014). Tracy (2020) also argued for the importance of systemizing excellent qualitative research and outlined eight "big tent" guidelines for researchers to follow including a worthy topic, rich rigor, sincerity, credibility, resonance, significant contribution, ethical, and meaningful coherence (p. 270). In this study, I aimed to produce excellent qualitative research by attending to following best practices.

Credibility and Originality

Credibility can be improved upon by ensuring that concepts that emerge from the data have ample evidence to support them (Charmaz & Bryant, 2011). To

achieve credibility, one must be immersed in the data and have made comprehensive comparisons between observations and identified categories (Charmaz, 2014). Credibility is closely tied to rigor and can be enhanced through triangulating data (Morse, 2015). Originality means that the researcher strives to bring new ideas to the table and provide fresh interpretations of the data. To achieve credibility, I engaged in a rigorous iterative process, buttressed by gathering evidence at each stage of coding to build out analysis. Memos were kept in MAXQDA to track analytical decisions, and I also maintained a memos audit. To achieve originality, I engaged in a critical perspective of the dominant discourses around breastfeeding, using a methodological approach appropriately suited to answer my research questions. Ultimately, I sought to extend our understanding of narrative theorizing in health communication in a health context that lends itself well to the types of questions I had interest in posing. Further, instead of focusing on how to change behavior to increase compliance, I was interested in understanding how we can bring greater value to the individual experience and use communication to show that value.

Resonance and Usefulness

The next two criteria necessary for enhancing quality include resonance and usefulness. Resonance means that the concept has been fully captured in a way that would make sense to individuals who participated in the study or who have lived through this experience. It might bring to the surface meanings that we accept and do not consciously analyze as part of everyday life (Charmaz, 2014). It is key in moving individual toward action (Tracy, 2020). All work should make a unique contribution to existing knowledge. To achieve resonance, I gathered data from women around the

country who also spoke about the similar experiences of their friends and family members, further strengthening the resonance of this data. This research also has the potential for transferability, meaning that individuals correspond the findings into their own world (Tracy, 2020).

Usefulness is the concept that the research provides a deeper understanding of a phenomenon that can be used by research participants to better understand their lives (Charmaz, 2014). Essentially, qualitative research should strive to make explicit processes we may take for granted or not understand, providing a path to make sense of experiences. To achieve usefulness, I have presented a fuller understanding of the master narrative that individuals can use to reflect on and map onto their own experiences. Did women's experiences involve patching together multiple options? Did they understand their stories through the lens of the master narrative breast is best? What parts of their story can they understand better or shift perspective on to form a healthier understanding of infant feeding? By adhering to standards of high-quality research, I aimed to produce a study that would be pragmatic and useful, as well as creative and interesting for readers. These guidelines help ensure that qualitative research reflects a high rigor and attention to detail and inductive processing.

Self-Reflexivity

A key part of qualitative research is to engage in a reflexive process in recognition that no research comes from a truly objective standpoint. According to Tracy (2020), self-reflexivity involves "an honest and authentic awareness of one's own identity and research approach, and an attitude of respect for participants, audience members, and other research stakeholders" (p. 273). Going into my research, I conducted intensive self-

analysis regarding my biases. Primarily, I am a mother who had difficulties breastfeeding and used formula. Certainly, the emotions surrounding my own experience initially influenced my desire to study to this topic. I had to process my own responses to lactation consultants and opinions I read on the internet. Second, I have a protective nature, meaning that when I see others in pain I immediately want to protect them and defeat whatever is causing harm. This can be a strength when harnessed appropriately, but in research has the potential to result in a cloudy and reactionary viewpoint. I had to engage in reflexive practices particularly when I sensed pain in the individuals I interviewed or when individuals disclosed mental health struggles due to conceptions that they would cause their infant significant harm by using formula and were failing as mothers. Ultimately, engaging in reflexive processes helped me see my own blind spots and step away from them to observe my views more objectively. It also helped me to learn a lesson that will follow me in research and that helped me in analysis, "Two things can be true." For example, it can be true that breastfeeding offers benefits to both the mother and infant, and it can also be true that breastfeeding can negatively impact some mothers and infants.

To specifically address my potential biases, I engaged in memo writing at all stages of the project to externally process my reactions I had during development and analysis of my findings. I also intentionally built my dissertation committee with individuals who I knew might bring broader perspectives on this topic. I welcome debate and other thoughts in the area of infant feeding, which is highly moralized, so that I can sharpen my own arguments and learn perspectives which I previously did not consider. Finally, I used first-person throughout my dissertation to emphasize the reality that I am

the person behind the research. Engagement in self-reflective practices often led to me write a passage, go back, and see where I had leaned too hard into an emotional response to pain I felt from a respondent or my own reaction to how someone was treated. This helped broaden my perspective and allowed me to write more neutrally than I would have been able to if I had not acknowledged my own biases, which are not always correct, going into the research.

Conclusions

In summary, this chapter provides a comprehensive overview of the methodology I used to collect and analyze my data. Qualitative respondent interview methodology was used to explore women's narratives who use formula within the first 6 months and to learn how they make sense of their experiences in relation to the dominant discourses around breastfeeding. Informed by pilot data from 22 individuals, I conducted 20 interviews with women around the United States during the COVID-19 pandemic. I utilized a phronetic iterative approach to analysis and compared data against existing literature. After multiple rounds of coding, I developed a set of analytical codes to answer my core research questions. The intent of this study was to further our understanding of the narratives of women who use formula. This can potentially inform future health campaigns and improve patient and provider communication about breastfeeding and formula feeding.

Results

Women shared their experiences of feeding their infants, and these stories were integrally positioned in relation to the breast is best master narrative. Individuals often disclosed that using formula resulted in negative impacts to their well-being, such as through feelings of anxiety, guilt, and shame. The results outlined in this chapter offer an in-depth perspective about how women made sense of their feeding journeys and key features of their stories. Ultimately, the data demonstrate how women's narratives are situated within the master narrative, and how women's stories interact with these perceptions. The results section is organized by themes that are sensitized by narrative problematics.

The first overarching theme relates to the master narrative of breast is best. Women shared strong perceptions of both breastfeeding and formula feeding, and this shaped their experience. Specifically, women perceived that breastfeeding offered superior biological benefits, was better for bonding and showing love, and is what you do as a good mother. Conversely, women shared that formula is a shameful option and a cost-burden to the family. Together, these viewpoints of breastfeeding and formula feeding helped reveal how women interpret the master narrative of breast is best.
When women talked about breastfeeding and formula feeding, their stories generally followed a pattern that reflected the narrative problematics of continuity and disruption and creativity and constraint. First, women experienced some type of disruption to the continuity of their exclusive breastfeeding journey, eliciting the call for narrative creation. Second, they worked to legitimize their use of formula in relation to the master narrative of breast is best, representing the narrative problematic of creativity and

constraint. This took the form of sharing stories about how formula opened up the door to collaborative parenting and how it enabled women to prioritize their mental health. Third, once legitimizing their experience, women directly challenged the breast is best master narrative by offering alternative acceptable narratives, representing the problematic of creativity and constraint. Ultimately, participants rejected the current all-or-nothing discourse and discussed a preference for value-neutral messaging and a variety of stories that simply shared the rich diversity of women's experiences.

Master Narrative of Breast is Best

During their interviews, women described how they perceived both breastfeeding and formula feeding before and after giving birth. The findings described in this section reveal how women both shaped and then positioned their own experiences in relation to this master narrative. Women shared their stories in ways that demonstrated their understanding of the benefits of breastfeeding and negative implications of formula feeding.

Perceptions of Breastfeeding

Women's perceptions of breastfeeding reflected ongoing campaigns and discourse around breastfeeding (Jung, 2015; Olson & Simon, 2020; Wolf, 2007) and revealed what women identified as the most salient messages they had internalized. To understand how the master narrative interacted with women's narratives, it is critical to understand first how women positioned breastfeeding within their own experiences. Overall, women felt that breastfeeding was superior to formula in a number of ways.

Breastfeeding Offers Superior Biological Benefits. One way that women demonstrated their understanding of breast is best was their perception that breast milk

was biologically superior. In breastfeeding education, one of the core objectives includes educating women that breastmilk is biologically normal and will convey a number of benefits to the infant and mother (Willumsen, 2013). Evidence-based education is viewed as one intervention to help lead women to choose or "comply with" recommendations to exclusively breastfeed. Handouts about breastfeeding may cite that breastmilk wards off a number of undesirable illnesses for the infant, such as cancer or gastrointestinal infections. Educational interventions are one evidence-based method used to increase levels of exclusive breastfeeding (Chipojola et al., 2020). In a Cochrane review that included 10,056 women, formal breastfeeding education during pregnancy did *not* result in higher uptake of breastfeeding or duration (Lumbiganon, 2016). Therefore, although education is important to increase awareness, it is only one tool for increasing breastfeeding rates.

In line with those findings, most women interviewed indicated nuanced knowledge about breastfeeding as the optimal source of nutrition for their infants, and in large part, that is why they expressed their intention to exclusively breastfeed. Participants noted many benefits that appear in the literature such as that breastmilk can improve immunity (Hansen, 1998). They demonstrated knowledge about a host of benefits for the infant and talked about seeing these types of messages online and in the hospital. For example, Alyssa (pseudonyms used for all names) recalled, "You hear all the things, that breast is best and there's colostrum and all these other good nutrients and things for … your child's gut biome." Women talked about breastfeeding promotion in a way that indicated they thought these messages were pervasive.

It was clearly information of which they were aware. Mercedes, who was a physician, talked about her perceptions preparing to breastfeed,

> So, I kind of went into this whole thing, of course, *getting pounded* [emphasis added] … from multiple angles about breast is best … talking about the biological benefits of doing exclusive breastfeeding. So, my whole thought process going into this was, I want to breastfeed exclusively like as long as I can.

In addition to Mercedes' description of "getting pounded," by breast is best messaging, she later described that the messaging was "plugged into you." Her experience offered a unique perspective because she was trained to promote breastfeeding to new parents as a physician. She received specific lactation training and even joined a social media group of doctors who are mothers who intended to breastfeed. Because she was trained in the biomedical model, Mercedes was acutely aware of the biological facts about breastfeeding.

The most salient finding from this theme was that women felt like they saw this type of messaging commonly. None of the participants in my study indicated any ambiguity about knowing that breast is best. It was a phrase they could quickly recognize and define. Lillith said, "Everybody tells you breast is best. You have to breastfeed. They're going to get all these important nutrients, and it's going to help their immune system. You have to do it." She, along with other participants, demonstrated high awareness of the biological benefits of breastfeeding. They saw it "everywhere" from "everyone."

In addition to the established benefits of breastfeeding, such as lower risk of certain infections, some women expressed more nuanced knowledge about advancements in breastfeeding literature in the past decade, such as research showing breastmilk is bioactive and how immunological factors in the breastmilk may change when the infant

has an infection (Riskin et al., 2011). For example, Phoebe indicated knowledge that breastmilk changes in response to the infant. This has positioned breastmilk as a dynamic, living lifeforce sometimes referred to as liquid gold. When talking about what breast is best meant to her, she explained, "That means the quality of the breast milk is better than formula, and I think that's because breast milk changes with your infant in a way that we can't expect something stored on a shelf to do." She also discussed how women's antibodies change when the baby gets sick and looks different day-to-day depending on what the child needs, which is supported by evidence (Riskin et al., 2011).

Overall, women clearly framed breast is best to mean that breastmilk was biologically superior and offered benefits to the baby that could not be supplanted by an artificial option. Women most commonly cited short-term benefits, such as immunological protection. Because these interviews took place during COVID-19, it is possible that this particular benefit might have been top-of-mind for women as they prepared to feed their newborns while an infectious disease ravaged the world. Conversely, fewer women talked about long-term benefits such as increased intelligence or reduced risk of cancer in both the mother and child.

Breastfeeding is Better for Bonding and Showing Love. In addition to the promotion of biological benefits of breastfeeding, women discussed that breastfeeding was better for bonding and expressing love to their infant. Popular media has promoted that breastfeeding is an important part of the emotional connection to one's infant. One article from *Mother.ly*, a well-read mothering blog that attracts 12 million weekly US views, demonstrates this type of promotion in one of their articles titled, "It's science: Breastfeeding can deepen mom's bond with baby—for years to come" (Glover, 2017).

The Cleveland Clinic also promotes bonding and affection as a benefit of exclusive breastfeeding, claiming that because of skin-to-skin contact during breastfeeding, "Many feel that affectionate bonding during the first year of life leads to reduced social and behavioral problems in both children and adults" (Cleveland Clinic, 2018). Women clearly linked breastfeeding to bonding more closely with their infant. Isla discussed the emotions she felt when she encountered a message on a popular parenting site where she regularly sought evidence-based information about breastfeeding:

> There was a blog post on there [KellyMom.com] … and I'll never forget it. Breastfeeding is the best way a mother can show her baby that they're loved. And I just … got so mad at that, like that language that *that* [emphasis added] is the best way for me to show that I love my baby is to give her breast milk. Because my interaction with that experience was the opposite of a loving experience.

Throughout her interview, Isla recounted difficulties she faced trying to bond with her baby through breastfeeding; she had really looked forward to and deeply desired that experience. She remembered, "I thought I was going to feel really connected … that me and baby we're going to feel special bonding moments. … That just wasn't how we connected to each other." Isla was surprised by her experience in part because of the stories she saw online. She had done extensive planning and sought ample support from lactation consultants for breastfeeding after giving birth. In her case, breastfeeding represented a frustrating experience, and she was able to more closely bond with her infant once using formula.

Jennifer also recounted her assumptions about how breastfeeding tied directly to bonding. When asked about what surprised her most about her breastfeeding experience she noted, "That I still feel this incredible bond with her that I was so worried that if I wasn't breastfeeding her, I wouldn't feel that bond. … It's always been there. It's never

going to go anywhere." Jennifer felt relief that she could still be close to her infant and also use formula.

The lived experiences of women were varied, but the theme of bonding was pervasive across situations. For example, Olivia used a donor egg to conceive and discussed the stigma she felt using formula after years of infertility. She thought that being able to breastfeed would enable her to bond more closely with her daughter, and she worried about the perception people would have if she used a donor egg and then also used formula, two methods that some might deem less "natural." She discussed how in the donor egg community, breastfeeding is viewed as a way to bond with the baby. In essence, it appeared that some tied biological processes, such as growing a fetus and expressing milk, to bonding. She said,

> Like people have these fears around bonding with donors. … I didn't have any bonding issues at all. … You focus so much on being like well, they don't get my genetics, but they're biologically mine. I grew them. … You feel like hyper focus on that…and that your body will feed them. … You're going to nurse them, and you're going to nourish them.

In addition to the idea that one had to breastfeed to bond with their baby, participants in my interviews indicated that bonding was part of a larger phenomenon, the exclusive breastfeeding "journey." Breastfeeding is quite commonly referred to as a journey in popular literature and involves goal-setting and milestones, similar to an actual physical journey. For example, the WIC breastfeeding support website has a page titled, "Breastfeeding is a journey," and includes the following passage, "No matter where you are on your breastfeeding journey, WIC Breastfeeding Support has resources that can help!" (WIC Breastfeeding Support, 2022). Carey said, "Well, you hear about how it's such a journey, … how it's so great to bond with your baby." Although Carey discovered

that she could bond with her baby using formula, she discussed the guilt and judgement she had before living the experience, “Honestly, when my good friend was like, we’re formula feeding from the start, I was like ‘Oh, why would you do that?’ … I was 100% guilty of it.”

Mercedes indicated a similar connection when discussing how we talk about breastfeeding mothers, “Look how hard she’s working. She’s able to accomplish this goal and bond with her baby. … In the medical field, it’s, ‘Oh if you’re breastfeeding, you’re doing it 100% right … and nothing wrong.’” Overall, not only did women identify that breastfeeding was biologically superior, but also that breastfeeding equated to bonding. As discussed in the next theme, this plays into a larger journey, and the destination is reaching six months of providing ideal nourishment for your baby thus signaling that you are a good mother.

Breastfeeding is What You Do as a Good Mother. Beyond the more specific observations that breastfeeding is biologically superior and that it is pivotal for maternal bonding, women noted that breastfeeding is just what you do if you want to be a good mother. As previously described, breastfeeding nests under a highly value-based set of assumptions of what it means to be a woman and nurture an infant. Breastfeeding is similar to childbirth because women strive to position themselves as “good moms.” In the modern construction of motherhood, for pregnancy, childbirth, and feeding, good motherhood is in part equated with minimal medical interventions (Miller, 2005). Women situated their own narratives within this place of tension. Is one still a good mother if one uses an “artificial intervention” such as formula?

When talking about her perceptions of breastfeeding mothers, Alyssa revealed the moralized nature of modern breastfeeding discourse and its tie to the good mother and natural motherhood. She reflected on how breastfeeding mothers present themselves on social media:

> I'm a hero because I breastfeed, and I'm supermom. … I'm doing the best thing ever and ra ra give me a blue ribbon. … It seems like they pump themselves up a bit more. Like it's more of an ego trip. Like I'm the best mom ever because I'm breastfeeding my kids, and I've sacrificed for my child by hooking myself up to this machine.

Alyssa's critique was interesting in that pumping itself is technically an artificial intervention, albeit a more socially acceptable one. She also touched on how breastfeeding discourse is shared on social media and what perceptions others pick up through these posts and likes. This harkens back to the mommy wars (Abetz & Moore, 2018), through which women have been pitted against each other in the media about a variety of aspects about childrearing. This phenomenon stems from the intensive mothering movement that encourages full devotion to one's child at the expense of other pursuits (Crowley, 2015). Women expressed seeing more positive feedback on posts that encouraged breastfeeding. Lauren reflected her experience about what she saw about breastfeeding,

> I feel like I have more friends that post more about like, oh, I'm in the car, pumping, like it's a badge of honor. … Look at me. … This is the mom life. This what I have to do. … You'll see more people comment on it, … 'Great job,' and it is a great job. … I went through it. I know it's a lot of hard work.

Lauren went on to explain that she did not believe that women who posted this content had malicious intent or meant to make other mother's feel like they had to do the same behavior. This was a common theme among women to whom I spoke.

Although they felt pain and shame around their experience, they did not harbor ill will toward breastfeeding mothers and understood why they would want to celebrate their journey on public forums.

Although none of the mothers I spoke to indicated they intended to exclusively formula feed before giving birth, some women talked about those women in our interviews. Mariana spoke about moms who decided to use formula from the beginning, "I don't think they're any less of a mother for that. … I don't think they care about their child any less. I think they just … made a decision that works for them and their family." Mariana's quotation underscores the underlying assumption that breastfeeding equates to being a better mother. It is also reveals the taboo nature of intending to formula feed without at least attempting to breastfeed.

My conversations uncovered that motherhood behaviors are both intrapersonal and interpersonal, meaning women judge themselves against their own internal expectations and against others around them. Women signaled their decisions and journey through conversations and social media. One mother spoke about the desire to signal appropriately about breastfeeding. Jenna had extended exclusive breastfeeding experiences with her first two children but not with her third. She had gone to therapy to process the situation because it was something that had meant so much to her as a mother, and she reflected on how it had been somewhat easier to use formula during the pandemic because fewer people could see her. If she did see people, "Like I want to tell everyone … let me tell you how long I breastfed my other two babies. … I have to get that out there, too. … And, I'm like, that's crazy." Jenna's narrative showed that she had internalized a sense of shame about using formula, particularly because she had enjoyed

breastfeeding experiences in the past that she highly valued with her first two children. It also revealed how she wanted to present herself to others around her, and she was self-aware of this duality within her.

In addition to this example of signaling good motherhood, Carey spoke about how women may not share their formula feeding stories openly because they want to avoid being viewed as bad moms. “I feel like if people … have a negative breastfeeding journey, they just want to sugarcoat it because they don’t want to be seen like a bad mom.” The external perception that one is a bad mom seemed to be a particularly painful reality to face. Talking about not wanting to be a bad mom also fundamentally revealed the opposite and equally perceived reality which is that participants assumed breastfeeding made you a good mom.

Mercedes emphasized this perception of viewing moms who did not breastfeed in the hospital as bad moms during her medical training and before she had her own child, “There was almost a push for us to try to convince them, … and if we couldn’t convince them, … this is a bad mom. … It was very stigmatized throughout my training.” Her training may help explain the pressure women faced in the hospital to breastfeed or feeling shamed by lactation consultants if they struggled.

In sum, mothers equated exclusive breastfeeding directly to their abilities as a good mother. Individuals developing breastfeeding messages face a fraught area because positive valuation on one hand can be interpreted as equally negative valuation on the other hand. One can imagine few more painful assumptions than that one is a “bad mother,” particularly if one struggles with biological or mental health issues after giving birth, which is relatively common, impacting between 10% to 20% of new mothers

(Centers for Disease Control and Prevention, 2020b). In addition to the stigma around breastfeeding, stigma has also existed for women who experience postpartum mental health issues (Bodnar-Deren et al., 2017). This means that individuals entering motherhood may face more than one stigmatized reality, and must make sense of their experiences in relation to largely negative views of using formula.

Perceptions of Formula Feeding

In addition to their perceptions on breastfeeding, women expressed strong bias against using formula. These findings revealed how women compared and contrasted the two options for feeding their infant. Other options, such as donor milk, were not commonly mentioned. Women had two overarching perceptions of formula feeding. The first was that it was shameful and the second was that it put a cost burden on the family unit.

Formula Feeding is Shameful. Women corresponded the use of formula to a deep sense of shame and stigma, further strengthening the finding that bad mothers use formula. Research has shown that women who use formula feel internal stigma and are more likely to hide their use of formula (Bresnahan et al., 2020). In addition, those who intended to formula feed may be viewed more negatively than those who planned to breastfeed despite whether the baby was ultimately fed with formula or breastmilk (Moss-Racusin et al., 2020). This finding implies that perceived intentions by others may also play an important role in stigma and shame. Because of the pervasiveness of breast is best messaging, women must come to terms with the implications that they are not performing the best behavior while they are using formula.

Carey shared her story about using formula for the first time:

> I remember that I looked at the back of the can [of formula], and it said breast milk is best for babies. Please consult a doctor before using this. … And I was like no wonder moms feel shame for using formula. And I slammed the can on the counter and just walked away.

Carey had seen evidence of the World Health Organization's International Code of Marketing Breastmilk Substitutes which stipulates that manufacturers of infant formula provide a label that indicates the superiority of breastfeeding and that it should only be used on the advice of a healthcare worker (World Health Organization, 1981). Picturing infants on formula is also banned under this decree with the intention of preventing women from thinking formula is an acceptable choice. It is possible that policy makers did not consider the unintended impact of such measures such as exemplified in Carey's reflection.

Carey also recalled that her husband showed support for her and even found positive social media posts about formula to help her feel better about the situation. Lillith recounted a similar feeling when using formula,

> I felt a lot of shame and frustration about not being able to feed my baby. Everything I had planned … and prepared for, studied for, the people I was following on Instagram all related to breastfeeding. My mother had breastfed all three of us, … and so everything that I was expecting didn't happen.

Lillith talked about how she loved to plan, and how she had to reconcile a significant chasm between her careful preparation for breastfeeding and her lived reality. This experience was shared by many women who extensively prepared for exclusive breastfeeding, only to face immense struggles. The initial response to considering formula was a sense of shame. To ease this, women often sought out social support in curated groups where they could find others who shared their experience. Alyssa spoke

about trying to avoid this shame by surrounding herself with other likeminded individuals. Specifically, she joined an online closed formula feeding group where she found a community. Alyssa said:

> We can ask questions in a safe environment. No one's going to judge us. No one is gonna … think we're bad parents or try to publicly shame us in any way. … It really makes you feel supported and that you're still being a good parent.

Alyssa simply wanted to be able to ask questions that would build her competence about formula feeding, such as about warming bottles and providing enough ounces. Many women in the interviews found havens in formula feeding groups where they could ask for advice and avoid being chastised or shamed for not trying harder to breastfeed. Michael spoke about mom shaming that occurs in social media groups and that she tried to advocate for others on those platforms. She explained, "You don't want to … go to mom groups for support and then find all the shame about the way you feed your kid." Many mothers spoke about the polarization that occurs, particularly in online groups, around breastfeeding and formula feeding. In some groups, volunteer moderators strongly discourage or even forbid talking about formula in posts if a woman is struggling.

Women experienced shame outside of online social groups, too. One source was with family, although this was less commonly noted than shaming in online groups. In general, women reported high interpersonal support from partners. Intergenerational tension existed if the participant's mother breastfed or advocated for breastfeeding. One participant had a mother who had been quite active in La Leche league and could not understand why her daughter could not just breastfeed. Another participant, Mariana, spoke about the conflict and shame she felt around using formula because of her family, "It was definitely a source of shame for me, especially because a lot of my family

members are very naturalistic. … I just remember feeling very uncomfortable and not open." She also shared that she felt an overwhelming sense of guilt and shame "rising back up" when she heard phrases like breast is best, and she had to convince herself that she did not fail her child.

Some participants did not accept shame, but instead challenged the activities they saw online and in life. They also advocated against the idea of shaming mothers who use formula. "There should be no mom shame," Olivia bluntly said. Shame was imbued throughout the interviews as the predominant emotion that women found themselves working against when thinking about and using formula.

Women spoke about the challenges before and after giving birth and resulting perception shifts around shame, too. It appeared that once having a child, the realities of feeding became more crystallized and less abstract, particularly for first-time mothers, and especially around the aspect of shame. Nora reflected on this phenomenon, "I just think the whole mom shaming thing is a real thing that I did not realize so much before having a child."

These findings revealed that women equated using formula with a feeling of shame. This is consistent with other findings in the field (Jackson et al., 2021) and helps to elucidate how women position their own stories within the master narrative of breast is best. It is clear that breastfeeding represents far more than a simple health behavior that may convey some biological benefits – it is rife with symbolism.

Formula Feeding Is Expensive. Beyond the value-laden associations with formula feeding and breastfeeding, women pragmatically expressed hesitance and challenges with using formula because of its expense. The cost of formula is promoted as

one of the benefits to exclusive breastfeeding on websites that educate women about feeding their infants. For example, on one of the most popular breastfeeding sites, KellyMom, a table compares what formula costs by time used versus "equivalent buying power." They compare one year of feeding formula to the cost of a home computer. They also provide a full cost calculator so that women can visualize the costs and benefits of breastfeeding (Bonyata, 2019). Breastfeeding is often framed through a cost benefit lens in the literature as well. For example, one study found that if 90% of families "could comply" with exclusive breastfeeding, it would save the US $13 billion per year when considering the cost of pediatric diseases associated with not breastfeeding (Bartick & Reinhold, 2010). Not only did women use language that revealed shame and stigma around using formula, they also viewed it as a more financially burdensome option to the family unit. An interesting nuance of this finding is that it calls into question framing breastfeeding as purely a choice. Certainly, many of the women I interviewed would have chosen to breastfeed for cost issues alone. This opens the door to explore that there must be a deeper phenomenon at work than lack of compliance, lack of education, or unwillingness.

Women clearly described their anxiety over the cost of formula. Sacha described how using formula had affected her. Although she had reconciled her use of formula, she described, "I think emotionally … the cost of it has been a huge burden. I didn't even realize how expensive formula was." She was in a unique situation where she could get formula at cost but even that posed a challenge to her family's budget.

Other women noted that the cost of formula added anxiety to their experience. Rosemary experienced guilt about both the cost and quality of ingredients in

conversations with her husband. Isla spoke about the stress of the cost of formula during the pandemic accompanied with job stability, “There was some financial anxiety about, oh, can we afford this?” Her spouse worked in the restaurant industry, where there was a significant amount of instability during the pandemic.

Mariana shared the negative feelings, related to shame, that accompanied buying formula, “I just remember feeling guilty about the fact that I couldn’t breastfeed and now … spending all this money on formula.” Overall, women’s shame and guilt were integrally tied to the fact that they would be financially burdening their family due to their inability to exclusively breastfeed. This compounded a sense of failure. Not only could they not provide for their child the nutrition deemed biologically optimal and which offered better bonding, now they would be adding approximately $30 or more a week to the family budget.

Women spoke about the creative ways to address the cost of formula, further revealing the space this topic occupied in their stories. Gloriana combined different formulas to help address the financial burden. She used coupons at Costco and also had a supply from her cousin’s girlfriend for free. She justified this by explaining that it was okay for her child. She said, “He does really well. We do mix them so that it’s not just switching back and forth.”

Carey expressed she was significantly worried about the cost, but that her husband’s mom and dad bought two big cans to keep at their house which helped alleviate her anxiety. Her mom and dad also bought two big tubs. “They all kind of banded together to show me that it was okay,” she said.

This support from her family helped her to feel better about the financial cost of formula for the family and made her feel like her decision to use formula was acceptable.

In addition to guilt about the cost, some participants challenged how cost was talked about when educating women about breastfeeding. Alyssa was a participant who was particularly focused on the cost burden of formula. She advocated for more financial literacy in this area and also felt that formula was not something women often factor into their planning because of their strict intention to exclusively breastfeed:

> I think the financial aspect, people are prepared for diapers. They're not really prepared for formula. … So just having that as a part of the conversation. That it's going to be expensive. Or you should budget for it even if you don't think you're going to use it. Definitely budget for it. I mean, it's about $40 a container.

Alyssa also advocated for expanding access to formula and that she felt women should have the ability to locate information on what is on sale and where, as well as how families can access discounts. Because formula feeding is not deemed as an acceptable option, this type of education is missing from sources that women may go to for information. For example, *Consumer Reports* stopped updating their Baby Formula Feeding Guide in 2016 and has replaced the page with an extended essay on the benefits of breastfeeding with generalized formula feeding recommendations near the bottom (Consumer Reports, 2016).

Some participants directly challenged the system and questioned why there wasn't more structural support for using formula. Programs, such as the federal Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), explicitly state that the food they offer depends on how much you are breastfeeding. A "fully breastfeeding package" includes "more food and a larger variety of foods than food packages that include formula" (WIC Breastfeeding Support, 2021c). Foods in the "fully

breastfeeding package" include "milk, juice, cereal, eggs, fruits and vegetables, whole wheat bread, and other whole grains, canned fish, legumes, peanut butter, and cheese" (WIC Breastfeeding Support, 2021c). In contrast, mothers who feed their children formula are eligible for a package that includes less juice, less milk, no cheese, no whole wheat bread, and no fish (WIC Breastfeeding Support, 2021c). Only women who fully or mostly fully breastfeed receive WIC benefits for the entire first year. This means that women in vulnerable socioeconomic positions receive different benefits contingent on their ability and willingness to lactate (WIC Breastfeeding Support, 2021c).

In addition to WIC, other policy efforts exist to de-incentivize formula use. Health savings accounts, health reimbursement arrangements, and flexible spending accounts typically do not consider formula an eligible expense unless it is deemed a medical necessity (HSAstore, 2021). In contrast pumps, nipple balm, breast milk storage bags, and an alcohol screener for breast milk are all eligible, among many other breastfeeding accessories (HSAstore, 2021). Questioning these structures, Maeve offered, "I mean something interesting to study is why more insurance companies aren't covering reimbursement for formula." She contested the fact that HSAs do not reimburse for formula and found this problematic for cases where formula may be medically necessary, such as for allergies. Although it does appear that individuals can show medical proof to receive formula coverage under HSAs, Maeve's comment perhaps speaks to the lack of more general awareness of the financial burden and nuances of formula.

Overall, these findings revealed that cost played a significant role in how women thought about formula in relation to breastfeeding. Not only did women perceive breastfeeding as best for biological benefits, bonding, and showing love, it also

represented the better option to reduce financial burden on the family. Interestingly, not many participants noted that breastfeeding, although cheaper in monetary terms, is quite costly in terms of time. This may point to the chronic reality that women tend to undervalue their time and contributions. In addition, breastfeeding is arguably not free. Women often purchase a host of breastfeeding supplies and products, and some hire private consultations with lactation counselors when they face challenges. Although much of the current research focuses on increasing compliance with recommendations, the anxiety women had about cost revealed that this was more than just a choice. This was particularly true for women who had low milk supply, who had a medical condition, or who had babies with allergies and who necessitated special formulas.

Experiencing Disruption to the Breastfeeding Journey

Based on how women talked about breastfeeding, it became clear that they associated breast is best with superior biological benefits, bonding, and good motherhood. In contrast, formula represented a shameful and expensive option that burdened the family. Understanding this positioning helped me to more clearly see how women made sense of their experiences against the backdrop of breast is best. Not only did women show high awareness of breast is best messaging, they equated it with an archetypal vision of modern motherhood.

In addition to this positioning, women's stories also revealed key features that were informed by narrative problematics. The first of these included experiencing a disruption to the continuity of an exclusive breastfeeding journey. In general, disruption in the health context often serves as a call for stories. Disruption represents opposition as a character strives to reach a goal (Harter et al., 2005) and may signify an abrupt change

on a temporal trajectory. Exclusive breastfeeding is commonly framed as a journey, and women shared that they believed that this journey had been interrupted. In an ideal scenario, women prepare for birth, give birth, and then begin on a journey to exclusively provide breast milk to their infant over the course of the next 6 months to 1 year, drawing on clinical recommendations to exclusively breastfeed for at least this amount of time. Sometimes this metaphorical voyage extends to 2 or more years. Women shared how they prepared for this much like one would for an actual trip by buying supplies, conducting research, completing classes, and finding supportive networks. Some even pre-expressed breast milk, practicing the skillset before giving birth. In my interviews, all women described a significant disruption to their journey. Ultimately, their stories revealed how their disruption manifested as a storied experience.

Intending and Preparing to Breastfeed

Although I did not specifically recruit for women who intended to exclusively breastfeed, almost all of the women in my interviews expressed an initial intention to breastfeed. Some engaged in extensive preparation and only sought out support for breastfeeding. Others intended to breastfeed but also set some parameters around their expectations, building in consideration for formula or unsure that breastfeeding would work. This was especially true if the participant had more than one child and had already struggled with breastfeeding in a past experience or knew individuals, such as friends and family, who had experienced issues with breastfeeding. In one instance, there were known medical issues that precluded breastfeeding. Overall, however, most women expressed at least some intention to breastfeed. This intention was often expressed after I asked the grand tour question, “Can you share with me the story of feeding your infant?”

Isla explicitly expressed her intention to breastfeed in the first sentence of her narrative about her experience, “So I had intended to breastfeed. It was something that my husband and I talked about.” Isla went on to share how her husband thought breastfeeding was important, too. She and her husband sought out extensive support for breastfeeding after giving birth as well, and demonstrated a closeness in navigating their journey together, which was a relatively unique part of their narrative when compared to other women.

Anna also expressed her intention to breastfeed in the first sentence of her narrative. “I was initially going to breastfeed her, and it wasn’t … a decision for me. I just always knew that I would breastfeed or try to breastfeed.” In this passage, Anna expressed the certainty with which she went into breastfeeding. For her, it was not even a decision; it was simply the only choice to make. Other women indicated a similar assuredness around breastfeeding, framing it as a certainty that would convey benefits to their child.

In addition to Isla and Anna, Jennifer expressed intention within the first few sentences of her story about feeding her baby, “But originally of course I had intended on breastfeeding. That was my goal. I didn’t even consider formula feeding her at all.” Breastfeeding and formula feeding preparation sometimes manifested in a polarized all or nothing context. Formula feeding for these women was not even a card on the table.

Beyond expressing intentions, women also discussed how they pragmatically prepared for breastfeeding. Michael shared, “So I did the whole call insurance, pick your pump, talk to friends, got on Facebook groups. … I talked to lactation staff at the hospital. … I felt like I was so prepared.” This list, or a variation of it, represented a common way women shared how they prepared before giving birth. It included buying

supplies for breastfeeding, seeking out informal information, finding virtual social support, and learning from medical professionals. Olivia shared how she had even bought the designer bag to go back and forth to work, but then lost her job to COVID, and breast pads for leaking boobs that "never happened." Maeve discussed how she talked to friends, knew she was likely going to need a nipple shield, a device that holds the nipple in an extended position to help facilitate better latching, and how a friend who was a big breastfeeding advocate gave her a book about the topic to read during pregnancy.

Mariana spoke about how she only prepared for breastfeeding with no consideration of formula. She had two children at the time of our interview, and had eventually used formula with the first and also the second. She reflected on her first birth:

> The first time around, because we were planning on breastfeeding, we didn't even look into bottles. We didn't really look into formulas. We just had a pump, and that was kind of our go-to so when it ended up not working out. I felt very overwhelmed.

Mariana also talked about the challenges she had in choosing a type of formula and type of bottle to accommodate gassiness, and how this feeling accompanied guilt that she wanted to make sure she chose the best formula.

Gloriana expressed a similar approach, "But I really did want to just breastfeed. So honestly, I didn't prepare, like I didn't have bottles. I didn't have formula."

Conversely, other women did prepare to both breastfeed and potentially use formula, helping buffer the potential disruption in their experience. Nora shared:

> I was like I think I'm going to try to breastfeed, and we'll see how it goes, because I know I have friends who just couldn't do it for one reason or another. … So I wanted to be prepared. … I had a lot of formula bottles ready to go before she was born, and I thought, okay, if breastfeeding doesn't work…I'm going to go straight to the bottle.

Generally, women like Nora either had another child and had used formula previously, meaning they had already lived through an initial significant disruption in breastfeeding, or were more cognizant of breastfeeding challenges with either friends or family and were working to prevent similar challenges.

Overall, women set the stage for the disruption to their breastfeeding journey by sharing how they initially intended to and prepared for exclusive breastfeeding. Conversely, they may have shared how they worked to make a potential disruption more manageable by preparing for the use of formula based on their own previous experiences or that of loved ones. These varied in intensity in each narrative. Although a few women expressed some ambivalence toward breastfeeding or cognizance that it might not work out, the majority had strong intentions to exclusively breastfeed. This intention and preparation led to the main disruption in women's narratives which involved experiencing difficulty when trying to exclusively breastfeed.

Experiencing Difficulty Breastfeeding

Women faced a variety of unexpected challenges when attempting to breastfeed, which represented significant disruption to their narrative and planned breastfeeding journey. This disruption can only be understood in relation to the strength of the intention to exclusively breastfeed. For example, before giving birth, many women described focused intention and preparation to breastfeed. Although they might have known there would be some challenges to learning how to breastfeed, women faced significant and unexpected divergence from their plans which triggered feelings of guilt and shame. Some examples of challenges included experiencing low supply, contracting COVID-19, suffering a traumatic birth, and developing mastitis. All of these disruptions are in line

with commonly reported experiences including sore nipples, oversupply, and hormonal issues that can cause low milk supply (WIC Breastfeeding Support, 2021a). Women shared their lived experiences and how they processed their challenges breastfeeding, and the most common reason was low supply, which aligned with the pilot data. These results revealed the variety of lived experiences as opposed to the dichotomous messaging promoted through breast is best discourse. Because of the timing of my interviews, I was able to capture challenges related specifically to the pandemic. For example, Sacha contracted COVID before the vaccine was available and shared her experience:

> And then once I got COVID, my supply dipped, and that's when we switched over to formula. And the whole time in my mind I knew it was okay to do formula. I had done actually quite a bit of research of long-term benefits of breastfeeding versus formula, and I thought … formula is perfectly fine. The baby … is not going to fall over backwards and die, but for some reason, I just had immense guilt about it, and I was really sad.

Sacha also discussed the gap between her cognitive understanding that formula would be fine and a more instinctual, internalized reaction that made her feel like it was not okay. Before Sacha gave birth, she did not feel an intense pull to breastfeed, but she did upon giving birth. She also struggled with making sense of her experience due to the newness of the pandemic and corresponding lack of evidence about any correlation between contracting COVID-19 and expressing less milk, which would have helped explain her situation.

Delilah also experienced difficulties with breastfeeding as a result of COVID-19. She received no lactation support in this hospital because of the pandemic. Delilah had two children, the first of which was born with a chromosomal deletion. She used formula with her first child as well because her supply dipped after the child's pediatric intensive care unit stay, and because her firstborn was often very sleepy due to their condition and

not easy to wake up to feed. With her second, she also experienced low supply. She reflected on her challenges:

> I was telling some of my friends that I know have exclusively breastfed, telling them my struggles with the low supply, and they were telling me, 'Oh, just take this supplement or try to add an extra pump, or they'll tell me do some skin-to-skin.'… But I couldn't really do much of what they were suggesting with me because I also have my older son who has special needs, and he also needs my attention.

In addition to these disruptions, another participant, Gloriana recounted her experience receiving magnesium during childbirth and low milk supply. This drug lowers blood pressure, but she believed it ultimately impacted her supply. Her narrative revealed how some women attempted to self-diagnose the disruption of low milk supply because of poor clinical diagnostics in this area, "And so … through research, I realize … that the magnesium could have played a part in lowering my milk supply. That fact that I didn't go into labor naturally could have also been a factor." She also recounted coming back home from the hospital and talking with her mother about the uncertainty she faced if her baby was getting enough food:

> My mom came, and she asked, 'Are you sure your baby's eating? Because he looks really hungry.' And I was like, 'Well … they told me that it will take a couple of days for my milk to come in.'… And so I went [to an appointment] and that's when they started weighing my baby … and we realized he had lost a lot of weight and wasn't gaining anything.

Gloriana's lactation consultant identified that her baby had crystals in their diaper, indicating dehydration. She recalled feeling terrible and like she had been starving her baby. Her story represented a more common narrative progression for women who experienced low supply. This progression involved first trying to breastfeed, second, facing a disruption to their experience and uncertainty about supply, and third, attempting

to receive some sort of confirmation that they were or were not providing enough food so that they could ensure their baby received adequate nutrition.

Adding to the variety of disruptions women experienced, Alyssa shared that formula was the only option because of medical reasons, specifically because she received a diagnosis of a blood clotting issue. She shared her feelings around the situation,

> It was about three weeks into it, postpartum…that I had the clots, so I had just gotten my milk supply up, and you know, I was exhausted … I was pumping and doing all this stuff trying to get … an ounce … and it was a lot of hard work, and I felt like I dedicated myself to this process, and then it was just taken away from me.

Alyssa later worried about "screwing up" her child because they were being fed a "chemical product," even though she had no other option but to use formula to preserve her own health.

Although most women shared stories of significant and unanticipated disruption to their breastfeeding journey, the few participants who were more ambivalent toward breastfeeding did not seem as impacted by using formula. For example, in contrast to medical necessity or supply, Maeve shared that she used formula by choice,

> My milk supply came in faster this time, so I was able to feed her, but there were a lot of times where frankly I wanted to have a glass of wine, and I didn't want to worry about so I'd use formula or especially around 10 months and 6 months when there's those big growth spurts.

Part of Maeve's relative comfort around using formula stemmed from the fact that her mother-in-law had worked in healthcare for 30 years and told her that based on her experience, fed is best. Fed is best is a commonly used counter narrative to breast is best, that encompasses the use of formula. Maeve served as a negative case, meaning that her interview stood in contrast to larger findings and helped refine my own analysis (Tracy,

2020). Specifically, her interview allowed me to more clearly see what differences existed between individuals who were more or less intensely attached to breastfeeding as the only acceptable behavior (Tracy, 2020). Throughout our conversation, Maeve showed less attachment to an all-or-nothing mentality, indicated less sense of disruption to her experience, and attributed this directly to her mother-in-law's advice. Although she primarily breastfed, she supplemented for personal reasons at times she deemed appropriate.

Overall, women's narratives indicated that the majority faced a significant disruption during their breastfeeding journey. This disruption was integrally tied to initial intention to breastfeed and feelings around the benefits of breastfeeding. It was more common for first-time moms to indicate less knowledge around potential breastfeeding disruptions when they faced them. Their varied experiences reflected the endless permutations to lived experiences that cannot be reduced, no matter how much we seek to control, standardize, and quantify human life in the modern world.

Breaking Through the Constraints of Breast of Best

Once they used formula, women sought to legitimize their decisions in their narratives and break through the constraints of the master narrative, utilizing a key function of narrative by warranting their decision and explain the reasons for their actions (Sharf & Vanderford, 2003). This best represented the narrative problematic of creativity and constraint, which describes the tension between asserting individuality while also fitting in with societal norms and culture (Harter et al., 2005). The next two themes focus on how women creatively challenged the master narrative of breast is best, revealing cracks in the dominant narrative and providing space for new lived realities. In this

section, we explore what Harter et al. (2005) described, “We believe that narrativity involves the moment-to-moment negotiation of tensions between individual creativity and social constraints” (p. 21). Indeed, women’s experiences were largely shaped around the parameters of the master narrative of breast is best, but they offered counternarratives that contested the dominant social and political understanding of infant feeding. The two main findings about legitimizing formula use included more equally shared parenting and improved mental health.

More Equally Shared Parenting is an Option

All of the women I interviewed identified they were in some form of partnership, and many discussed the benefits formula offered to allow for more equally shared parenting. Based on how individuals described this phenomenon, I define equally shared parenting as contributions by both parents that women interpreted positively influenced the well-being of the infant and family unit. Exclusive breastfeeding necessitates incredible time and effort from one parent, the parent that can biologically produce milk. In modern American culture, where we offer no federally mandated paid parental leave, individuals find themselves in a situation where they are encouraged to feed an infant on demand sometimes up to every 2 hours, 24 hours a day, and go back to work within a few weeks of giving birth. This barely allows women’s bodies enough time to heal, wounds still bleeding, body parts still ripped and sewed back together. Sharing feeding responsibilities allowed women to sleep and recover. It also permitted the partner to be more involved and bond earlier after giving birth. This reality runs counter to the master narrative, which promotes the mother as the ultimate nurturer, lactating liquid gold at all hours of the day and night, impervious to the mere mortal demands of sleep. Instead,

women asserted their individuality onto these experiences, demonstrating the push and pull between molding oneself to the master narrative (e.g. constraint) and exploring new options that allowed for better outcomes for individual situations (e.g. creativity). After a difficult and "dark" experience breastfeeding, Lillith shared how she felt that her husband could help her now because she used formula:

> Oh, I can sleep. My husband can help in the middle of the night. It doesn't just have to be me. … And so he [the infant] is able to have what he needs. I'm not depriving him of anything. … And then, physically, my body was like thank you for stopping this. We weren't going to be doing that.

Lillith was particularly reflective on how being able to share the experience with her husband was ultimately positive. This is a narrative that is not as commonly shared, and literature shows that fathers who are involved in breastfeeding generally view themselves as supportive characters secondary to the breastfeeding dyad, who may feel on the periphery, and who work to compensate to bond with the child in other ways (Rempel & Rempel, 2010). She went on to say, "I really enjoyed the opportunity to share that with my husband. That it wasn't just me that has to be the provider, but it's something that … can be shared between my son's two parents."

Other women shared similar feelings about the importance of the partner being involved in the first weeks after birth. This is a critical distinction because the master narrative does not widely acknowledge the role of the partner in bonding and feeding, and research into this area is relatively rare. Because master narratives are influenced by social beliefs and values, the current breast is best discourse may be influenced by larger trends showing that most research on parenting defaults to focusing on mothers, and that mothers are often conceptualized as the primary caregiver (Schoppe-Sullivan & Fagan, 2020). In contrast to this dominant narrative, women demonstrated creative nuances in

their feeding, extending the parameters of feeding to exist beyond the mother and infant dyad. Jennifer indicated she was fine with using formula because her husband could share the responsibility with feeding. She also enjoyed being able to see her husband bond with the baby, "Oh that's really sweet," she reflected when she saw him feed her, "I love that they were having a bond at the beginning." She went on to describe the experience as a blessing in disguise and that even other family members were able to participate and feed her baby. It is interesting to note that it is possible that women also could share their experience with partner's through pumping and then bottle feeding, but this did not appear in my interviews. In general, women had quite negative connotations toward pumping. Women seemed to equate formula feeding with the benefit of being able to enjoy more equally shared parenting.

Although women welcomed the help from their partner, there were also more complicated emotions that attended the experience, speaking to how powerful the master narrative is in shaping women's perceptions of their own experiences. Olivia shared that she welcomed being able to share feeding with her husband, but that she also struggled because of her use of a donor egg. She talked about her daughter receiving formula while she was still in the hospital after a particularly traumatic birth experience:

> She's getting fed, and also my husband can feed her because I'm strapped to this bed. I've had a horrific time. He can feed her … and maybe I can hold her and she won't just want my boobs. At the same time, in the same breath, just being like I can't believe that … even *this* [emphasis added] I've failed.

Olivia clearly needed time to heal and rest. Her emotions were complicated by wanting help but also equating breastfeeding as a way to bond with her infant after years of infertility. For her, formula allowed time for her to recover, but the situation and resulting feelings were clearly not black and white. Olivia was a unique case in that her experience

lived in the periphery – not only did she perceive that she had used artificial means to get pregnant, now she felt she had to use artificial means to feed her baby and depend on her husband while she healed from a traumatic birth. The difficulty she faced in processing this experience may reflect how difficult it is to step outside of the powerful cultural forces that shape master narratives and forge a unique path forward in parenting.

Although the most common reason cited for using formula was low milk supply, oversupply can be an issue too. This can bring its own challenges, although in line with the dominant narrative of breast is best, this might be viewed as a "positive" problem. Lauren had an oversupply and felt that she was attached to her pump at all times of the day and also that individuals did not understand that oversupply was an equally debilitating issue. When she started using formula she said, "I love that my husband can help." Her husband usually fed in the middle of the night or early in the morning and relieved the pressure to "be the sole source of food."

Isla expanded on the potential importance of the partner's role in feeding and wished that there was more consumable content that supported the partner and helped build awareness that couples could split feeding. Her story revealed that she recognized that the master narrative of breast is best does not commonly provide support for the partner, and she talked about how difficult it would have been without a partner's support:

> It was such a relief at night. … I could take a break, and I could go to sleep. … I never got to PPA [postpartum anxiety] or PPD [postpartum depression] or any of that, like, I was probably close. I have no doubt in my mind I would have gone off the edge if it would have been a bad experience. It's just not enough out there, I think, where men are doing that caretaking role in the way that is expected of women.

Isla directly contested the dominant narrative, expressing that she wanted to see more stories of men in caretaking roles. As was the case for many women, one of the primary functions the partner served was allowing for rest, recovery, and sleep.

Overall, women weaved the master narrative breast is best into their own narratives and explored how using formula actually offered benefits in their situation. For many women, formula allowed space for more equally shared parenting. Currently, this is not commonly seen in the discourse, which focuses most heavily on enabling the production of milk either through skin-to-skin breastfeeding or pumping. The role of the parent who does not produce milk is rarely talked about in relation to feeding, and women lamented that it was not talked about more. Using formula, even in combination with breastmilk, permitted women to gain sleep, take time away, share responsibilities, and enhance mutual bonding. It also allowed the other parent to take a more active role early after giving birth. Ultimately, women's stories showed that they broke out of the constraints of the dominant narrative and forged creative solutions that aren't as commonly talked about or recognized.

Prioritizing Mental Health

Women explained how formula was better for their own mental health and well-being as a primary way to legitimize their experience. This theme was pervasive throughout the interviews and seemed to function as a way for women to make sense of their experiences, warrant their decisions, and critically, to redefine health and well-being in the maternal and infant health space. This finding fundamentally revealed the tension between women desiring to fit their stories within the confines of the master narrative of breast is best but to also make space for the importance of their own health in describing

their experiences. Carey described how her perceptions and thus her storied experience changed after giving birth:

> Before I had a baby, it was breast milk comes with antioxidants, breast milk comes with the germ fighting factors, it can heal skin, it can help eye infections, and that means formula is bad. After I had a baby, it was breast is best if it's best for you. If it's not best for your mental health, if it's not best for your baby, if it's not best for your family, then it's not.

Carey went on to describe how she was a "huge advocate" for postpartum health and taking care of herself, "You have to take care of yourself, otherwise, you won't be able to take care of that baby," she later said. Carey's story served as a prime example of pushing the confines of the social and cultural assumptions that are enveloped under the breast is best master narrative and shifting the boundaries of her narrative to encompass mental well-being for herself.

Many participants not only viewed mental health as important for the mother, but also as key for the entire family unit, and something that formula feeding allowed them to preserve in their unique situations. This revealed that women conceptualized their experiences as extending beyond the mother and infant dyad. Mental health seemed to be a paramount concern for the participants in my study, and was viewed as impacting the partner and infant. For example, when asked what advice she would give other mothers, Jenna said, "Do what is best for your whole family's mental health, because that I think is the most important."

Other women described coming to the realization that they actually felt like better mothers due to being able to use formula. This certainly pushed against the master narrative and conceptions that breast is best biologically and what you do as a good mother. Michael remembered:

> I was really disappointed that I wasn't able to experience that [breastfeeding] and really have that for my daughter, but now looking back, a healthy mom has been better for her…like that anxiety and all the other things that go into it. I'm not saying it's bad for everybody, but that's how we chose our journey, and it's been great for us over the last year.

Many women described coming to a similar juncture in their journey and either realizing retrospectively or in the moment that choosing to use formula was better for their mental health and thus better for their baby. In contrast to the dominant discourse that breast milk is one of the most important factors in bonding and showing love, women's narratives revealed that they instead discerned that other factors were more important. Jennifer had a similar revelation to Michael. Her baby refused to latch and the amount of pumping and breastfeeding Jennifer attempted had put her in a dark place. She finally came to the point where she felt able to use formula. While reflecting, she discussed conversations with friends about breastfeeding and formula feeding:

> I have a lot of people that I've talked to that have second and third kids, and they realized after their first or second that breastfeeding is not for me. I need to just go into formula feeding for my mental health, and so that's kind of what I see a lot of is moms being open. … I just need to formula feed for myself and for my family, and for my baby to be the best mom I can be.

Here, it is evident that women's individual experience broke from the discourse. Women suggested that being the best mother they could be was actually *enabled* by formula instead of inhibited by it. Another participant, Rosemary, also talked about discussions with friends. She, too, had a friend who couldn't keep up with feeding the baby and started using formula "just for her sanity."

Overall, women legitimized their experience by equating their mental health as being more important to being a good mother than their ability to produce milk. Many of the women I interviewed had notably negative breastfeeding experiences that involved

around-the-clock pumping, infections, frustration, anger, and isolation. This ran counter to their expectations and to the dominant discourse that portrays breastfeeding as natural and "biologically normal." When they did try to seek support, women were often told to just try harder, pump longer, or feed on demand which represented trying anything to continue in alignment with breast is best. Revealing a significant crack in the monolithic discourse, however, using formula came as a relief, and it also allowed them to focus more fully on being present with their infant and mentally healthy. Phoebe recalled how she struggled with supply and had individuals suggest she just spend more time on a pump. "I just really didn't want to do that," she said. "I felt like I was already attached to a pump. … I wanted to supplement at this point for my mental health."

The grind of feeding on demand was particularly difficult for some participants. Recommendations from the Centers for Disease Control and Prevention and other respected organizations include breastfeeding on demand (Centers for Disease Control and Prevention, 2022). If one is struggling with supply, this may mean pumping or breastfeeding every 1 to 2 hours, waking up to a screaming baby who is still hungry, and losing excessive amounts of sleep while the body is still recovering from childbirth. Lillith illustrated this phenomenon well:

> So formula felt like a godsend. … I was just so relieved it was available for him. … After I made the decision to stop breastfeeding, it felt like I was saving my mental health for lack of a better way to say it. I was struggling with not sleeping because of feeding. … He's waking up every hour and a half to 2 hours. And so a feeding is trying to breastfeed for 15 minutes, bottle feed him for 15 minutes, and then pump, and then wash all of the pumping supplies. So, by the time I got back to sleep … he was going to be eating in like 45 minutes.

She went on to reflect on how once she started using formula she could connect and love her baby, and actually enjoy him. The reality for many women, contrary to the current

discourse, was that using formula permitted them to bond with their baby because they could just focus on giving them attention.

Many women described these types of difficulties that they either experienced or witnessed with others. It is interesting that with childbirth and breastfeeding, less interventions or substitutes also generally equate to more physical pain and sometimes biological and mental suffering. Gloriana recounted that she believed having a healthy mom was so important because of stories she had seen on a Facebook group with mothers trying to breastfeed. Some, she saw, became obsessive. She saw stories of people talking about how it was disrupting their marriage and interfering with time with other children. For women who chose formula, they ultimately made the decision to not go that route and to prioritize other values in their life such as mental health and rest.

In sum, women largely legitimized their experience of using formula by reframing maternal and infant health in their narratives, running counter to the dominant discourse of breast is best. Instead of prioritizing the benefits of breastmilk, they shifted to prioritize their mental health and described how this actually resulted in them being a better and more present mother for their children. This helped them to reconcile that they were not bad mothers as implied by the current master narrative.

Creative Paths Forward Through More Inclusive and Value-Neutral Discourse

As women shared their stories of using formula, they also talked about creative solutions to refine the dominant narratives and desired more inclusive discourse that was neutral. Master narratives can dominate the way we think about a phenomenon, and women entered their breastfeeding experiences with strong perceptions of what breast is best meant. Many planned their experiences around this dominant discourse, sometimes

not even considering that using formula could be a possibility. When their journeys were disrupted, women questioned or outright challenged the dominant messaging that had so influenced their ways of thinking. Counternarratives are a form of challenging the master narrative and occur when individuals share stories that contest the dominant discourse or present an alternate reality (Harter et al., 2005). What makes this so unique for women is that the majority actually do supplement by 6 months, meaning this is not an uncommon experience. It is actually the majority experience. However, using formula has been stigmatized and opinions on the issue can become polarized, meaning that women often hide it or do not share it as openly. Women presented two potential avenues for creating new narratives, by rejecting all-or-nothing messaging and by supporting value-neutral messaging and stories.

Rejecting All or Nothing Messaging

Women rejected that messaging about breastfeeding had to be dichotomous. Many shared that they would rather see a more nuanced approach to talking about breastfeeding and formula feeding that embraced a variety of lived experiences. For the participants in my interviews, breast is best vastly oversimplified their stories and instead set women up for feeling shame and a sense of failure. Mercedes, a physician, shared her overall perception of the breast is best discourse:

> I guess the theme of this whole interview … would be nothing's black and white. … I think there was an appropriate push toward more breastfeeding education in medical education and all of that. But, of course, there needs to be a mix … showing that it's okay to use formula. … Here are some examples of why a mom might choose formula over breastfeeding, or this is an example of how my baby needed to use a little bit of both.

Women felt like that once they stopped breastfeeding, they were essentially kicked out of the exclusive breastfeeding journey. Because exclusive breastfeeding is so narrowly

defined, it can be restrictive in its manifestation and fails to take into account that the majority of women adjust course at some point. There are also alternative options that still involve breastfeeding, including combination feeding. The push for exclusive breastfeeding might in fact be counterproductive because it makes women feel like once they use formula at any point, they have completely failed. Phoebe spoke to this and how she wished she had known that women could do both. When asked what surprised her about her experience she said:

> It doesn't have to be an all-or-nothing with breastfeeding or formula feeding. There was a middle ground that was sustainable for us for several months. And so that gives me so much comfort now in nursing my daughter that … this might change into something different, in the future, but for right now, this works as we're doing it.

Phoebe's middle ground included combination feeding, meaning she provided both breastmilk and formula for her baby. She also shared her experience so that other moms could learn that it did not have be an all or nothing experience, too. Because combination feeding is rarely discussed as a potential option, it appeared that women learned this anecdotally and felt a responsibility to tell other women. In Phoebe's case, she felt that women did not really know this was an acceptable or even potential option. The participants in my interviews often wanted to pass their knowledge along to try to prevent the pain they had gone through, revealing the community building function of narratives (Sharf & Vanderford, 2003).

Women also reflected on how their interpretations of the all-or-nothing messaging changed over time. Before having a child, this messaging may have seemed more realistic. After giving birth, however, perceptions shifted. Gloriana, who was a public health major, strongly believed in breast is best because of the immunological benefits

when she prepared to give birth. However, after her experience, she questioned the power of the phrase breast is best, and ultimately moved away from supporting it. She said, "And now to me, it's like, well, no, there are different ways to feed a baby. And I just don't think a phrase should have that much importance on it." Women directly equated breast is best with a harsh tone that they did not feel accurately represented their personal experience.

Some women critiqued those who implement all-or-nothing type of measures when advising women. In groups on social media and with some lactation consultants, breastfeeding support can take on an almost militant tone. Women talked about not being able to talk about formula on breastfeeding groups or receiving advice that was unhelpful because it kept pushing breastfeeding. Sometimes they would even reach out to women or experienced women reaching out to them privately about formula in these groups because it was so taboo to talk about. They talked about administrators, those who run social groups on Facebook, who would shut down posts. This polarization also manifested in some of the advice women receive from lactation consultants. Delilah referred to lactation consultants as "Nipple Nazis," a phrase sometimes used to describe particularly pushy lactation consultants:

> For a lot of them [Nipple Nazis], they believe that breastfeeding is all or nothing. So if you're going to breastfeed, you know, just keep at it, just breastfeed. And a lot of them don't say to their clients that, 'You know what, if you have to supplement, with a little bit of formula … that's fine.' … There's this idea that it has to be all or nothing. If you're supplementing with formula, then you failed.

Ultimately, after using formula, women reshaped their perception of breast is best. Whereas before they may have accepted the phrase, even doing extensive preparation to live up to the phrase, after giving birth their preconceptions were significantly

challenged. In general, women adopted a much more individualized stance, and desired a more inclusive form of messaging and environment. Women wanted to advise other mothers to do what is best for themselves and their baby instead of following any strict messaging. Nora shared this advice, "Whatever is best for you is what's best for your baby. I think you know your baby best. You are the right mother for your child." Lillith also spoke about how she was such a better mom after "letting go of her breastfeeding dreams," and that she believed women needed to consider what is best for the mother and baby. Rosemary shared a similar sentiment and felt that it should not be so "one way." Instead of promoting breast is best, these participants challenged the current discourse, sometimes working to show others support and reduce shame and stigma.

Overall, participants challenged the master narrative of breast is best by ultimately rejecting the underlying premise of breast is best after they used formula. Women proposed a more inclusive vision of breastfeeding where more options are supported, such as combination feeding, and where support is individualized to consider the mother and baby as well as the entire family unit. Overall, women preferred allowing grey as opposed to the stark black and white messaging structure seen today in breastfeeding discourse.

Wanting More Value-Neutral Messaging and Stories

A master narrative such as breast is best implies that there is one correct lived experience. This in turn leads to value-based messaging. As discussed earlier in the results section, women perceive that breastfeeding is equated to good motherhood. Women in my interviews overwhelmingly rejected this narrative of infant feeding, and instead, they desired discourse that supported a wide variety of women's experiences and

which did not preference one experience over the other. This was in part informed by their own experiences and by the experiences they learned about once they started to seek out stories about using formula. Sacha expressed her wish in this regard:

> I just kind of wish it was just not as much of an issue…It's just like, [if] you want to breastfeed, breastfeed. If you formula feed, formula feed…You put so much thought into it like it's life or death…and it's really not.

In Sacha's case, she did not like either breast is best or fed is best messaging. She simply wanted infant feeding to be a neutral issue.

Wanting less value-based messaging directly tied to wanting to see more stories about women who used formula without implied stigma. Women expressed that they felt like they only saw one side and that breastfeeding always had the "upper hand." Although they understood breastfeeding to be beneficial, they desired to see more stories that simply shared the many ways in which women fed their babies. Rosemary talked about this desire extensively in her interview:

> There's no like, but sometimes people struggle and here's why [stories]… Like even the pediatrician was like, 'Well, I don't know what to tell you. Your milk didn't come in. Not sure why.' … But, for some reason, I felt like there was … judgement on me. I hadn't tried hard enough, even though he never said that. … It would be nice hear more stories about the struggles.

From Rosemary's perspective, she felt that because of the lack of accepted stories about struggles, her pediatrician may have filled the gap with judgement. Although her pediatrician outwardly appeared neutral, she did not feel like there were other examples of her experience that individuals could call upon to relate to her experience.

Participants also discussed wanting to support other women by removing the assumptions from infant feeding stories that implied good or bad motherhood. None of the participants indicated that they wanted to see *less* stories about breastfeeding mothers,

but rather *more* stories that reflected their own experiences. Participants wanted to join others and show support for all women, and they rejected the polarization that split individuals into camps. Carey spoke about a desire to see formula feeding moms come together after experiencing so much support from them on social groups:

> So really, if we could just all band together. … And of course, breastmilk is … probably always going to have the upper hand, whether we like it or not, but if we could all band together, we would almost positively get formula up there into at least having a better light on it.

Carey expressed a strong desire for more women to share their stories unapologetically and mentioned Chrissy Teigen, a popular yet sometimes controversial star, as an example. Teigen posted about using formula on her social media platform, and has often discussed topics in women's health that have been previously taboo, such as miscarriage.

Women also wanted formula feeding presented in a way that brought it more in line with breastfeeding. Participants in my interviews felt like they saw very few stories if any about formula feeding mothers, and the ones they did see were generally negative or focused on legitimizing their experience. Although they recognized that breastfeeding had biological benefits, women in this study expressed they thought the pendulum had swung too far in the opposite direction. Alyssa said:

> I always feel like … I have to explain why I'm using formula. … [I'd] like to not see it like that. That it's just so natural that you just say, 'I'm using formula,' just like you say, 'I'm breastfeeding.' … To see it just being normalized in our culture.

Lauren shared a particularly poignant story about attending a childbirth class where a nurse lectured that breast was best and how formula is "not even made for babies." She felt like the educator was making women feel bad and left a comment in her assessment. Although she never knew if the nurse educator read it, she hoped it would result in a

change for other women who take the course. She and other participants showed strong disagreement with the effectiveness of this type of messaging and felt it inappropriately put pressure on women who might be in vulnerable positions after giving birth. It also set them up to feel like failed mothers and that they had taken an "easy way out."

In sum, women wanted more neutral discourse. They did not have any issue with supporting breastfeeding mothers or seeing stories about exclusive breastfeeding. However, they wanted to see less shame-filled formula feeding stories and more narratives that simply recounted what happened and how women found solutions. This currently represents a strong divergence from what we see in breastfeeding discourse today, which links exclusive breastfeeding with good motherhood.

Conclusions

Overall, women provided rich accounts of their stories about feeding their infants. Their perceptions of breastfeeding included that it was biologically superior, better for bonding, and what you do as a good mother. Formula, on the other hand was perceived as shameful and costly. All participants prepared for a journey to breastfeed that was disrupted, either because of low supply, infections, medical reasons, or mental health. Once women had used formula, they began to counter the master narrative. First, they broke through the constraints of breast is best by describing how using formula opened up the door to more equally shared parenting and then how they determined mental health was a priority for their family. Second, they offered creative solutions for the current discourse by rejecting all-or-nothing messaging and calling for more neutral messaging and stories.

This is a rich space of symbolism and lived experience, and it is apparent that there is room for growth and maturation of the dominant discourse to reflect a more inclusive, kind space for the mother, infant, and family.

Discussion

This research focused on how women who use formula make sense of their stories in relation to the master narrative of breast is best in the United States. Through semi-structured interviews, women shared how they perceived breastfeeding and formula feeding, and how those interpretations interacted with their storied experiences. The findings indicate how women who use formula in the first 6 months possess deeply-held beliefs about breastfeeding and formula feeding, and also that women challenged the constraints of breast is best once using formula, creatively constructing new understandings of their stories. These findings can further our theoretical understanding of narrative problematics and also offer insight into contemporary breastfeeding discourse and its unintended consequences. This study is not without its limitations but also opens a door rich for further exploration with the goal of building more inclusive narratives that better reflect the diversity of feeding experiences.

Women in this study offered a path forward to build a more inclusive discourse, including the rejection of all-or-nothing messaging and support for value-neutral narratives that better explicate the endless permutations that make up the first 6 months to 1 year of infant feeding. Because of the moralized discourse, women primarily associated breastfeeding with good motherhood, bonding, love, and biological benefit. Conversely, participants viewed formula feeding in a negative light and as a shameful option that presented a cost burden to the family. Women prepared for breastfeeding as if going on a journey, but if they intended to exclusively breastfeed, they faced a significant disruption to the continuity of their experiences. Thus, their disruptions elicited a call for narratives that diverged from the accepted path of exclusive breastfeeding. In contrast to the dominant narrative, women found that formula enabled them to more equitably parent

and preserve their mental health, two narrative threads that are not commonly or openly shared due to stigma around formula use. In response to facing challenges to their preconceived perceptions, women broke through the constraints of the polarized discourse around breastfeeding and presented creative paths forward. This study ultimately revealed that underneath the dominant discourse lies a fertile ground for exploration of nuanced realities, which less often follow the linear path the discourse suggests.

Theoretical Implications

This study was informed by narrative problematics and the concept of master narratives (Bergen, 2010; Harter et al., 2005). To advance theory in this area, I first propose that the master narrative of breast is best can be understood as an oppositional relationship between breastfeeding and formula feeding. Centering participants' voices helped reveal this fundamental element of opposition driving the dominant discourse. Second, I explore how disruptions extend beyond our more traditional conceptualizations of illness (Kleinman, 1989; Sharf et al., 2011) and to health domains where there is dominant discourse framed as a journey. Finally, I explain how we can understand the tension between creativity and constraint in relation to infant feeding and how women's stories reflect a microcosm of larger societal tensions about what it means to be a mother in a society informed by neoliberalism and postfeminism (Dubriwny, 2013).

Centering Women's Understanding of the Master Narrative

Master narratives can be a short word or phrase that calls to mind a large "repository of stories, metaphors, and images" (Harter et al., 2005, p. 21). Breast is best is a prime example of a pervasive master narrative, and one that women in my sample could

easily recall and define. Individuals necessarily construct their own individual stories within public discourses and grand narratives reflecting the reality that no story exists in isolation (Harter & Bochner, 2009). For example, a common master narrative in health communication is the biomedicalization of health (Harter et al., 2005). This means that the ways in which we understand health and illness are largely influenced by the biomedical and deductive orientation toward healing, rather than more holistic approaches (Harter et al., 2005). My research specifically focused on the ideological aspects of narrative construction, particularly in relation to how society conceptualizes breastfeeding in relation to the individual stories of women who use formula and within the biomedical framework. To discern how women interpreted their experiences and how those stories interacted with the master narrative of breast is best, I first analyzed how participants perceived the dominant discourse.

The Oppositional Nature of the Breast is Best Discourse. In this study, women's stories showed they clearly conceptualized the breast is best master narrative as manifesting in specific ways, including a largely positive valuation of breastfeeding and negative valuation of formula feeding. Considering these two together is important to glean the fuller picture. Generally, infant feeding research focuses on either breastfeeding or formula feeding and with the express intention to increase breastfeeding rates. For example, studies may focus on perceptions or framing of breastfeeding (Beggs et al., 2021; Hitt et al., 2018) or they may discern how women interpret their experiences using formula (Lakshman et al., 2009). Importantly, these are two sides of the same coin, and women process their opinions on breastfeeding and formula feeding in tandem, particularly for women who use formula. In fact, one can only understand the perception

of formula in relation to the intensity of the positive valuation and pressure to breastfeed. Therefore, this study focused on synthesizing both to present a fuller picture of the master narrative of breast is best. From the data, we can more accurately understand that based on women's responses who use formula, the true master narrative includes an unspoken second part, "Breast is best, *and formula is worst*."

Women generally viewed breastfeeding as biologically superior, better for bonding, and what you do as a good mother, which is in line with previous findings that women perceive breastfeeding positively and that it conveys a slew of benefits (Beggs et al., 2021). In contrast, and in relation to breastfeeding, they viewed formula feeding as shameful and a cost burden on the family. Arguments exist for the relative ease and cost-effectiveness of breastfeeding in comparison to formula, including fewer medical appointments due to healthier children (Beggs et al., 2021; Rippeyoung & Noonan, 2012). Women talked about costs in a way that aligned with this evaluation, meaning that they perceived breastfeeding as free and formula feeding as adding an unplanned financial burden. This is interesting to note given that breastfeeding is arguably not free. Mothers who breastfeed for at least 6 months face more prolonged earning losses in comparison to mothers who do not breastfeed or breastfeed for a short time (Rippeyoung & Noonan, 2012). Breastfeeding is free only if women's caretaking time is not valued in the marketplace. Indeed, women's time is largely invisible in economic measurements. (Smith, 2019).

Reflecting this invisibility, women rarely talked about the potentially significant cost associated with breastfeeding in comparison to formula feeding. There is some evidence this tide is turning, and breastfeeding advocates have moved to frame

breastfeeding as a right, arguing for more structural support (Rippeyoung & Noonan, 2012). This structural support could take the form of stronger policies that support paid leave and work protections for breastfeeding. Another factor to consider is that the costs of breastfeeding are further compounded by class and race inequality. Rippeyoung and Noonan (2012) noted, "Because breastfeeding promotion focuses almost exclusively on encouraging women to breastfeed – without providing adequate economic and social supports to facilitate the practice – it reproduces gender, class, and racial inequality" (p. 261). Thus, it is a unique feature of the discourse that the more short-term costs of formula are recognized by women as a burden when *both* behaviors are actually associated with cost burden. It is possible that women undervalue their time in relation to breastfeeding or view it as a worthy investment due to the promoted health benefits. This finding revealed how women interpreted and manifested the oppositional relationship between breastfeeding and formula feeding through their narratives.

In addition to noting the cost of formula but not the cost of breastfeeding, women generally associated formula with shame. The aspect of shame and formula feeding is documented in literature in multiple fields (Bresnahan et al., 2020; Lakshman, 2009). Throughout interviews, women discussed how breastfeeding had an "upper hand" or would always be viewed as "better" due to promoted advantages of breastfeeding. Therefore, any discourse that promotes exclusive breastfeeding also necessarily discourages and at worst disparages the use of formula. This lays the groundwork for the shame, guilt, and negative impact to well-being so prevalent throughout the interviews as women discussed their path toward using formula.

The phenomenon of guilt and shame associated with formula has been critiqued because some breastfeeding advocates sidestep this side effect of breastfeeding promotion or point out that guilt is a common tactic used in public health campaigns to motivate behaviors (Taylor & Wallace, 2012). The connection between the said and the unsaid in the master narrative of breastfeeding is important to consider. Does breastfeeding promotion induce shame because of its implied messaging, and does that matter? In this study, the answer would be yes and yes. One participant even went to therapy to process using formula, indicating that this can be an issue that causes significant upheaval. These intensified positive and negative perceptions of both breastfeeding and formula feeding help explain how women interpret the master narrative of breast is best and formed the basis for subsequent findings in this study. Most women indicated that the guilt and shame they felt using formula correlated to the feeling that they were not performing a behavior that had been drilled into them as the right thing to do. However, an important distinction must be made in that the drive to breastfeed in some women is internal and not driven by external discourses. For example, one participant discussed feeling somewhat ambivalent toward breastfeeding before giving birth but feeling an intense, instinctual draw to it once giving birth. Therefore, we must be careful when considering the role discourse plays in women's perceptions, acknowledging that many factors play a role in the desire to breastfeed.

The guilt and shame induced in formula feeding mothers due in part to breastfeeding promotion points to a worry raised by medical humanities' scholar Bernice Hausman (2011), "Feminists who voice concerns about pro-breastfeeding campaigns often are resisting what they perceive to be an ideological move to bring the maternal

body into greater cultural regulation through breastfeeding" (p. 92). We must consider that as a society we have accepted a master narrative that induces shame, perhaps justifying the resulting resistance noted by scholars like Hausman. Shame itself can produce negative inflammatory states in the body and is linked as a central component of psychological conditions including depression (Dickerson et al., 2004). Thus, although breastfeeding is a positive health behavior conveying benefits to the infant and mother, the vociferous promotion of it can yield potentially negative outcomes, too. Understanding the discourse as an oppositional relationship between breastfeeding and formula feeding helps explain why women interpret the discourse as fraught with tension.

Listening to Participant Perceptions of Dominant Discourses. To advance narrative theorizing, I argue that we must significantly expand scholarship that explores how individuals impacted by the master narrative perceive it. The goal of this is to augment existing discourse analysis and strengthen our understanding of how public discourse impacts the individual spirit. Certainly, we must understand how issues, such as breastfeeding, are framed historically in the academic literature, popular media, and policy. This provides critical scaffolding to make sense of what content individuals consume in relation to the topic and how their perceptions might be shaped. We can also debate these ideas on panels and between scholars. However, I argue it also requires understanding how participants themselves interpret the dominant discourse on the topic. Rather than center the researcher and their interpretation of the master narrative, my research centers the participants*,* in this case women who use formula, to determine how they interpret the master narrative. At an individual communication campaign level, this might occur through evaluation, although evaluation is difficult for communication

campaigns because of the difficulty in isolating variables and due to the resources required to achieve robust assessment (Noar, 2009). I argue that because of the multi-pronged approach to breastfeeding promotion, it is more useful to center and analyze women's perceptions more generally. Women talked about breastfeeding in a way that indicated they had been exposed to or sought out multiple messages through more than one channel and amalgamated those into their own interpretation.

Although my findings about how women interpret the master narrative are largely in line with current discourse as proposed by researchers (Beggs et al., 2021; Hitt et al., 2018; Lakshman et al., 2009), the analysis revealed an important nuance including the oppositional way in which they processed the relationship between breastfeeding and formula feeding. This insight perhaps explains why efforts to educate women about options such as combination feeding (e.g., breastfeeding and using formula to supplement), are less common and always qualified with the benefits of exclusively breastfeeding. For example, on the WIC page about combination feeding, it reads, "The best nutrition for your baby is breast milk, however some families provide their infant both breast milk and infant formula in order to support their baby's health" (WIC Breastfeeding Support, 2021b). Here, we can see that information about combination feeding is qualified in relation to exclusive breastfeeding. Some women in this study seemed surprised combination feeding was an option, and one even promoted it to others because she felt she had not heard about it during her own experience. These middle-of-the-road solutions are not as commonly promoted in educational efforts because supplementing with formula potentially puts breastmilk supply at risk (WIC Breastfeeding Support, 2021b). The impetus is on keeping supply up to the extent that

WIC (2021b) recommends if you supplement to try to find childcare near your work so you can continue to breastfeed your baby at breaks, an unachievable option for many mothers due to time and availability. The dominant discourse is overshadowed by an all-or-nothing tone, which many women in this study explicitly recognized and critiqued. It is not simply that women interpret breastfeeding as beneficial. It is that they are told in multiple ways that it is the only correct option, the best way to show love, and the way to achieve good motherhood. Simply put, the master narrative has been muddled over time with strident dogma that has little place in public health advocacy or in sound and incremental scientific advancement.

It is also important to understand how participants themselves interpret the dominant discourse because current research that explores master narratives often asserts a set of conditions chosen by the investigator. These may be taken for granted (e.g., a statement such as birth is highly medicalized in the Western context) or drawn from other studies that have examined or critiqued discourse. For example, in Bergen's (2010) work exploring how commuter wives create their stories in relation to the master narrative of marriage, she determined relevant parameters of the master narrative of marriage and then lays that analysis onto women's narratives. In a similar way, Horstman et al. (2020) explored how men used metaphors to make sense of miscarriage and analyzed their findings from their own definition of a birth master narrative drawn from existing research. Willer et al. (2019) acknowledged the lack of micro-level insight in their study about counter-stories in relation to infant death, noting that some individuals may not feel the master narrative that the researchers defined applies to participant experience. In contrast, very few researchers focus on how individuals interpret master narratives or

how interviews can themselves reveal master narratives. A study by Doughtery and Smith (2012) provides a notable exception, including interviews with 84 individuals to reveal a master narrative of retirement.

I argue that this triangulated approach which includes examining the existing discourse, discerning women's understanding of the master narrative, and analyzing a collection of stories that reveal how the master narrative interacts with individual stories, strengthens the credibility of research. In this study, attending to the direct interpretations of breast is best by participants helped yield important insight into a fuller picture in which breastfeeding and formula feeding are viewed as in relation to and in opposition with one another. In addition, it helped shed light on the more pragmatic interpretations of costs and gaps in the discourse around the real financial burden and time requirements of breastfeeding. Finally, listening to women directly helped shape interpretations of narrative problematics, providing a richer backdrop for how participants in this study experienced disruption and asserted creativity amidst constraint.

Understanding Disruptions in Journeyed Health Contexts

Narrative can be understood as one way to restore order to events that defy our expectations. According to Harter et al. (2005) and Burke (1969), the formation of stories represents a way to give coherence back to an experience that may challenge our understanding and move to a coherent meaning. In health and illness, these disruptions can be relatively straightforward. Certainly, the diagnosis of cancer or dementia represents a significant disruption to the chronological order and expectations of one's life and forces one to consider their own mortality. Frank (1995), in his seminal work about the wounded storyteller, presents three forms of stories individuals construct out of

illness, most notably the restitution narrative, which involves an individual being restored back to good health. During a quest narrative, an individual constructs their illness as a way to conquer a challenge, perhaps including spiritual elements. The third type of story, is the chaos narrative (Frank, 1995), which can be interpreted as an anti-narrative during which things do not get better. These narratives emerge out of the disruptive forces of illness, and help explain the ways in which individuals pattern their stories. Breastfeeding and formula feeding stories do not fit as neatly into these narrative models because they are health behaviors and not illnesses, although elements align with the quest narrative due to how women construct breastfeeding as a journey.

Outside of our more traditional conceptualizations of illness, there are multiple health-related experiences in which one can experience disruptions that elicit a call for narratives. I argue this includes health experiences that are conceptualized as journeys such as breastfeeding and birthing. Particularly in the arena of maternal health, birth is often conceptualized as a storied experience through which an individual brings new life into the world. Birth stories play an important role in how individuals make meaning from their experiences and transition to parenthood (Johnson et al., 2020; Pollock, 1999). In addition, the process of breastfeeding is often conceptualized as a journey (Charlick et al., 2019; Nelson, 2006). Women in this study commonly discussed breastfeeding as a journey for which they prepared, giving it an inherently storied shape. In comparison, some health behaviors do not take on this type of narrative mold. For example, brushing one's teeth is a laudable behavior to achieve low cavities, but no one goes around talking about their journey toward a cavity-free life. Conversely, other behaviors do take on this journeyed aspect, such as addiction recovery (e.g., sobriety journeys) and weight loss

(e.g., weight loss journeys). These health issues tend to have stigma attached to them that exposes deeper assumptions around the issue. Illnesses have long been attached to value-based assumptions through which the person with an illness or struggling with a health issue become attached to stigma (Turan et al., 2019). One of the most notable critiques of this propensity comes from Susan Sontag (1988) who challenged the metaphors used to describe cancer and AIDS, "The age-old seemingly inexorable process whereby diseases acquire meanings (by coming to stand for the deepest fears) and inflict stigma is always worth challenging" (p. 182). Breastfeeding and birth fall in a unique space for health narrative construction because they are not illnesses, and in fact they are often joyous experiences, but they are experiences during which one can experience a variety of health-related challenges and which are associated with a number of deeper meanings around good motherhood.

The relationship between narrative, health-related experiences that are constructed as journeys, and the values attached to these journeys, is an important distinction to make in narrative theorizing. Women experienced a disruption in part because breastfeeding is framed as a journey with the goal of exclusive breastfeeding for at least 6 months. For example, women talked extensively about their preparations to exclusively breastfeed and the resulting challenges that they faced including low supply, COVID, and mental health issues. They also described the guilt and shame they felt when using formula due to these challenges. Popular media articles exist suggesting ways to commemorate breastfeeding journeys with proposals that include celebrating with a party, creating a commemorative quilt, preserving breast milk in jewelry, and bronzing your pump (Our Milky Way, 2015). La Leche league developed badges individuals can post on social media to celebrate

whether they breast fed for two days or two years. One badge reads, “I breastfed my baby through postpartum depression!” (La Leche League, 2021). Other examples include breastfeeding with a cleft lip or palate, from only one breast, on an airplane, after a cesarean birth, on cue, and through a miscarriage. This shows how breastfeeding is framed, in both the discourse and in how women in this study described it, as a journey where one can overcome hurdles and celebrate with ceremonies, badges, and commemoration of achieving their goals.

Thus, the intensity of the disruption women described when they used formula is not in relation to an arguably objective upsetting endpoint, such as facing one’s own mortality in the case of a cancer diagnosis. The intensity of the disruption is based on a socially constructed endpoint that has been shaped and communicated through breastfeeding discourse. This makes the communicative aspects of breastfeeding vital to investigate. This is not to say the communicative elements are not critical in other areas as well. Our ideas about mortality could shift over time, bringing new meaning to the disruption elicited by a cancer diagnosis. However, in this study, women shared their stories of using formula as a significant disruption to their journey because they perceived breastfeeding as the primary way to show love, be a good mother, and provide health benefits to their child. The master narrative fundamentally shapes the storied experience, the perception of the disruption, and the resulting efforts to restore continuity.

Creativity and Constraint Amidst Polarization

After facing significant disruption on their journeys, women asserted creativity amidst the constraint of societal expectations and discourse. The findings in this study were informed by the narrative problematic of creativity and constraint, which can be

understood as how people assert their individuality through narrative construction in relation to social norms and discourse that sets the parameters of accepted or normalized behaviors (Harter et al., 2005). One can also understand narratives as Beck (2005) described, "Health narratives are implicitly embodied rhetoric. Our bodies constitute a critical, co-constructed, co-negotiated, and perhaps contested, springboard for rhetorical enactments of individual and relational identities" (p. 64). Work that explores tensions in this area often exposes the dominance of the biomedical model in narrative creation (Morris, 1998). Studies revealing how individual stories are constructed within dominant discourse also tend to focus on the political or ideological implications of counter narratives, which are stories that contest the dominance of the master narrative by presenting alternate lived experiences (Lindemann-Nelson, 2001).

Feminist Narrative Threads and Formula Feeding. In the case of breastfeeding, we have laid groundwork for the dominant discourse based on existing literature and on women's perceptions. Historically, breastfeeding discourse has shifted over time, similar to discourses around other areas, including obesity (Shugart, 2010). The current manifestation of breast is best represents a culmination of neoliberalism and postfeminism, and I draw on Dubriwny's model (2013) of the "vulnerable empowered woman" to understand it. In this model, women are shuffled back into their traditional gender roles but under the heightened surveillance and technical acuity present in our neoliberal society. As Dubriwny (2013) explained, "Postfeminist narratives about women's health position women as vulnerable empowered subjects who are empowered in relation to specific risks, but this empowerment consistently returns women to the most tradition of gender roles: naïve daughters, passive wives, and nurturing mothers" (p. 24).

We can understand the breast is best discourse through this lens. The nurturing mother provides liquid gold to reduce risks, maximize health, and with tools to measure achievement of her individual goal. By using formula, women assume a higher risk for both themselves and their infant and break with the discourse, which encourages their roles as nurturing mothers who take individual responsibility for their child's health.

Women shared how formula feeding opened the door for more equitable parenting and that it helped preserve their mental health. These findings are intriguing because they land squarely in feminist debates about breastfeeding. Because breastfeeding is sex-specific, it challenges the idea that gender-neutral parenting is achievable (McCarter-Spaulding, 2007). In liberal feminism, which has supported work to eliminate gender inequality, the concept of formula feeding has been more accepted as a way to move away from the confines of biology (McCarter-Spaulding, 2007). In cultural feminism, which emphasizes the fundamental differences between males and females, breastfeeding would be viewed as an important experience of motherhood that should be protected and has been historically undervalued (McCarter-Spaulding, 2007). Ultimately, cultural feminists might argue that women should not have to conform to be like men; they should preserve what makes them woman.

In essence, the breastfeeding discourse is fraught with tension because of competing ideas about what liberation and equality looks like for women. Does it look like using formula and freeing time, neutralizing gender differences? Does it look like protecting biologically unique aspects of being a woman and building rights and structural support that favor those? Finally, where does the evidence about the benefits of breastfeeding fall into these considerations? Feminists have engaged in extensive debate

about whether breastfeeding promotion should move away from ideas about intensive mothering, which favors taking care of the child over all other considerations (Wolff, 2010), or if difficulties with breastfeeding indicate a culture not conducive to breastfeeding (Hausman, 2013). One aspect that both arguments miss is if breastfeeding is fully a *choice* to begin with. Many women in this study suffered from low supply; two were part of a group dedicated to supporting women with supply issues and exploring the known biological determinants of low supply (Shere et al., 2021). Ultimately, what has emerged is a reality in which women who use formula report feeling there is only one right way to feed their child, and that this induces guilt and shame, thus silencing alternate solutions. As anthropologist Penny Van Esterik warned as early as 1994 when discussing the issue of guilt and breastfeeding promotion:

> This issue calls for care to avoid contributing to politically correct breastfeeding – the idea that there is only one correct way to breastfeed. This idea leads to the danger of breastfeeding being interpreted as part of women's oppression instead of women's liberation (s45).

Certainly, my view is that we have crossed the line into another form of oppression, particularly in regards to the all-or-nothing tenor of the breastfeeding discourse, which suggests one right way to breastfeed with which all mothers should comply.

Although breastfeeding is framed as the only path to good motherhood, it is apparent that women felt that formula provided benefits they perceived as surprising. Notably, women discussed how using formula better equalized the time, effort, and bonding between themselves and their partner. In fact, researchers have called for more attention to be given to the partner's role in breastfeeding (deMontigny et al., 2018). Women noted that they were appreciative that their partner could bond with the baby so that they could heal and sleep. This stands in contrast to the way breastfeeding narratives

are presented in the research (Regan & Ball, 2013; Ryan et al., 2010), which focus primarily on the mother and the infant, emphasizing a traditional gender split as expected in postfeminist discourse. One woman in the study critiqued the lack of information supporting the partner role in breastfeeding and desired more educational materials. The role of the partner is understudied in general, although findings show that partners can provide critical support and that they want to share infant feeding (Alianmoghaddam et al., 2017). Overall, these findings indicated that women found relief from the intensive demands of breastfeeding when they switched to formula, particularly if they had been struggling with low supply, which often leads to even more time spent trying to extract milk. It also appeared that after using formula, they recognized that they benefited from a more gender neutralized parenting arrangement. Benefits of formula use are rarely acknowledged in the academic literature, and these benefits are generally framed as ways women justify their decisions to conduct biographical repair and maintain a sense they are a good mother (Holcomb, 2017).

Women also discussed how formula feeding allowed them to preserve their mental health, demonstrating the tension between prioritizing breastfeeding versus other health concerns. Mental health is a rising concern nationally, and postpartum depression impacts one in eight women in the United States (Centers for Disease Control and Prevention, 2020b). Women noted that their breastfeeding experiences negatively affected their well-being. Although research has shown that exclusive breastfeeding has positive impacts on maternal mental health (Ystrom, 2012), intending to breastfeed and being unable to is linked to an increased risk for depression (Borra et al., 2015). What is interesting in this study is that women described formula as inducing shame but also as

allowing them to be a better mother. This is in line with other findings that show women who use formula focus on overall health and happiness (Holcomb, 2017). As discussed earlier, it is key to note that women process formula feeding and breastfeeding as in direct relation to one another so we can understand that they are comparing the quality of their motherhood during formula feeding versus exclusive breastfeeding. Without the constant stress and effort of producing milk, individuals said they could focus on actually bonding with their baby and felt relief from the stress of pressure to feed on demand.

Thus, some women in this study appeared to prioritize mental health over their ability to produce milk. This goes directly against the dominant discourse, which mainly focuses on the numerous benefits of breastfeeding, including mental health. It also reveals that the all-or-nothing nature of discourse may have a counterproductive impact and cloud our ability to consider shared decision making in the context of breastfeeding (Munro et al., 2019). Instead of framing justifications of formula use as a way for women to maintain a sense that they are a good mother, perhaps it is more pragmatic to acknowledge that formula use may actually be beneficial for some populations. For some women, mental health may be key to prioritize during the early stages of motherhood and take precedence over the benefits of breastfeeding. For example, although research shows a decreased risk of depression for women who were sexually abused as children who breastfeed, other women who were abused find it incredibly stressful and using formula can be a good alternative (Elfgen et al., 2017; Kendall-Tacket et al., 2012) Some women in my study discussed taboo emotions they experienced around breastfeeding including anger at themselves and their infant. For them, using formula allowed them to focus on bonding in a less stressful environment, particularly if they experienced low supply.

Taken together, we can understand these findings as revealing that breastfeeding and formula feeding are experiences that can impact mental health both positively and negatively and that women took this into consideration when using formula.

These two findings represent narrative threads that can be conceptualized as demonstrating individual creativity amidst the backdrop of the constraints of breast is best (Harter et al., 2005). Because of the dominant narrative that breast is best, it is difficult to openly discuss any benefits from using formula. In fact, further confusing the debate, breastfeeding itself has been framed as a feminist act and an assertion of female autonomy against the biomedical model and commercial interests of formula (Haussman, 2013). From another lens, and the one I have adopted, it can be viewed as a postfeminist act which puts women back into their place as traditional nurturers with little structural support and under high surveillance (Dubriwny, 2013). The fact that this issue can be viewed from seemingly opposing lenses reveals the constructivist nature of breastfeeding that exists beyond the scientific facts about its benefits. Essentially, feminists do not agree on what constitutes feminist liberation in the context of breastfeeding and this plays out in a host of ways in the discourse, impacting real women's lives. Haussman (2009), in a commentary about an inflammatory article in *The Atlantic* by Hanna Rosin, "The Case Against Breastfeeding," dived headlong into the controversy. She pointed again to the structural determinants that make breastfeeding difficult for women and noted that feminists should not criticize breastfeeding itself or re-assert the medical benefits of breastfeeding but rather focus on the society in which breastfeeding must occur. Haussman (2009) made a critical observation relevant to this study:

> Social marketing as a public health strategy encourages the ideological manipulation of medical evidence. Broad social marketing campaigns tend to

> cater to the privileged, who have an easier time accommodating themselves to the demands of whatever health regimen is being promoted (p. 268).

In essence, Haussman critiqued that breastfeeding was too focused on manipulation of individual perception, rather than focused on the actual policy and structural determinants and real disparities in who can enact the behavior.

Certainly, as breastfeeding advocates argue, it would be wonderful to live in a country with this structural support that would enable higher rates of breastfeeding, including paid leave, equal access to healthcare, and ample and affordable childcare (Haussman, 2009). However, we do not live in that world, and we must pragmatically and incrementally work from where we are. Realistically, women who used formula described that although using it induced shame, it also allowed for more equitable parenting arrangements and overall preservation of mental health. Is there room in the master narrative for a more holistic understanding of breastfeeding and formula feeding in the country as it is and not how we wish it to be? This finding revealed the narrative tensions women explored as they made sense of their own experiences against the backdrop of breast is best and demonstrated how the lack of consensus on the issue trickles into the stories of individuals. The confusion over what constitutes good motherhood adds to difficulties women face when making sense of their own stories.

Paths Forward in the Breast is Best Discourse. Women not only explored how their own narratives diverged from the master narrative, they also provided suggestions for improvement to the breast is best discourse. When examining the recommendations women made, it is critical to point out that no women showed antagonism toward individuals who breastfed. In fact, all participants in my study were supportive of other women and all expressed intentions to breastfeed. Overwhelmingly, however, they

wished for the conversation to shift away from all-or-nothing messaging, and they also preferred value neutral messaging. This tied to the problematic of creativity and constraint through which women challenged their understanding of the dominant discourse and presented ideas for new discourses that are less commonly acknowledged (Harter et al., 2005).

The finding that women who used formula desired to move away from all or nothing messaging is consistent with findings from a study conducted in 2016, which surveyed 1,130 women in the United Kingdom who fed in a variety of ways. Of those participants, only 8.2% agreed that breast is best was a positive way to enhance breastfeeding rates (Brown, 2016). Although my study was qualitative, the majority of women I interviewed also did not have positive connotations of breast is best. Participants in Brown's (2016) study felt that women who could not follow breastfeeding recommendations faced a situation where it was not worth continuing at all. The article points out a critical observation, "Importantly, recognition of what they have done, rather than what they have not, may help reduce feelings of guilt at stopping breastfeeding" (Brown, 2016, p. 105). Thus, we can see that the focus on the negative aspects of stopping breastfeeding has been recommended as a potentially counterproductive measure. It also promotes a situation where there is little room for middle of the road solutions, such as combination feeding. In my study, women used terms like "black or white" and "all or nothing" when describing their interpretation of the current discourse. It was clear they conceptualized exclusive breastfeeding as a journey that enabled no detours. Although some of the women I interviewed combination fed, or even formula fed for a short time and then moved to an exclusive breastfeeding relationship, they still

felt the sense of failure that they had not succeeded at their journey to exclusively breastfeed for six months. I echo Brown's assertion that it is important to consider breastfeeding from a more incremental perspective that focuses on successes rather than failures.

In Brown's study, however, other findings stood in stark contrast to my own, which related to women's preferences to move away from all or nothing discourse. This is likely due to the fact that the sample included women who fed in a variety of ways, whereas mine focused on women who used formula. In Brown's (2016) analysis of 200 qualitative responses, women indicated that breastfeeding should be promoted as the biological norm and that breast is best actually indicated that formula feeding was good enough. This did not align with my findings in which women did not feel formula was a good enough option, but rather, a shameful option.

Interestingly, Brown's (2016) findings point to a turn in the breastfeeding discourse in which scholars have argued that breastfeeding should be framed as a biological norm rather than as best (Stuebe, 2009). This is important to consider in the context of all-or-nothing messaging because by presenting something as a biological norm, it essentially removes that it is a choice at all and asserts that formula feeding can be compared with issues such as smoking. In Brown's article, she notes, "Messages surrounding smoking cessation are not phrased toward the benefits of not smoking, instead they highlight the risks of deviating from the biological norm" (p. 107). Thus, her argument is that we should not frame messaging around how breastfeeding *reduces* risks, but rather that artificial supplementation through formula *increases* risks because it is a deviation from the biological norm. This is a somewhat alarming conclusion because it

may lead to putting female bodies under more intense cultural regulation, a previously discussed feminist critique of breastfeeding promotion (Haussman, 2011). It also frames breastfeeding as simply what the body is built to do and should rightly do in light of the documented benefits such as lower rate of infections in infants and protection against breast cancer in women (Victora et al., 2016).

Framing breastfeeding as a biological norm is especially problematic. This is in part due to the fact that we know that rigid gender norms establish power hierarchies that have the most significant health impacts on poor women (Heise et al., 2019). It also shifts the conversation to focus on the harm of using formula. As Woolard (2018) noted in a paper discussing the ethics of this shift in framing:

> If we frame formula feeding as harming – especially if at the same time we hold that the differences in outcomes is significant – we imply that women who formula feed without extremely strong justification are liable to blame and guilt.

This could lead to even more pronounced all-or-nothing discourse, which women indicate they do not prefer. It also emphasizes the concept of the vulnerable empowered woman by centering biological determinants that reinforce more traditional conceptualizations of women's roles (Dubwriny, 2013). Further, it will lead to increasing regulation and surveillance due to different obligations community members feel to reduce harm (Woolard, 2018). By placing women back into traditional roles under the rationale of biology, this framing asserts that there is a normal baseline for the performance of a woman's body. This framing fundamentally reshapes the all-or-nothing type of messaging in which the element of choice is removed and recontexualized as a harmful deviance. Overall, this does not seem to be what women called for in my study. They desired a move away from all-or-nothing messaging through less polarized discourse that

more realistically portrays breastfeeding in incremental measurements (e.g. day-by-day, combination feeding). As the discourse molds into its next iteration, policy makers and public health practitioners should consider how messaging can reinforce an all-or-nothing paradigm in new ways, such as the move toward framing breastfeeding as a biological norm.

In addition to recommending that discourse move away from all-or-nothing messaging, women in my study also called for more value-neutral discourse. Certainly, framing breastfeeding as a process that all women's bodies should be able to do, as discussed above, will only lead to heightened moral attribution, particularly for women who struggle with biological issues related to breastfeeding and who cannot due to structural constraints. As Harter et al. (2005) observed, "Narratives are shaped within certain beliefs and value systems, and serve to reinforce or challenge those systems as they are constituted in social interaction" (p. 23). Women repeatedly suggested they wanted to see stories of different feeding experiences without values attached to these stories. They did not want to see fewer breastfeeding stories, but rather, more stories about struggles with breastfeeding or using formula without the implicit or explicit element of moral failure. Because breastfeeding is associated with being a good mother, the only possible comparative understanding of formula feeding is its inverse association with being a bad mother.

Health issues are commonly moralized and reflect the values of the society. Dubriwny (2013) addressed how motherhood fits within the model of the vulnerable empowered woman and discussed how feminists have historically either ignored motherhood or argued against motherhood. She observed, "Feminist theorists and

activists have long approached mothering from a critical standpoint that enables them to offer critiques of the myth of good motherhood and replace the myth with their own theories of motherhood" (p. 71). She also described the overarching myth of the good mother, which can be thought of as another master narrative related to breast is best. Elements of the good mother align with the findings in this dissertation including that mothers are selfless, natural nurturers, and will center the child above all (Dubriwny, 2013). Because formula is associated with shame and the bad mother, women reported they either see no stories about formula feeding or stories that are attached to this moralized stance. Repeatedly, women who used formula indicated they just wanted this to be a nonissue. They desired facts and experiences, perhaps with a more neutral narrator.

This call from women for more value-neutral messaging may indicate a preference to elude the high surveillance and moralized assumptions that come along with breastfeeding. Women discussed joining online formula groups to try to find validation and escape judgement. As Dubriwny (2013) argued, women in a neoliberal society are encouraged to self-discipline and regulate themselves; health is viewed as an individual responsibility with little consideration of the structural determinants. The reality is that women who give birth exist at the nexus the debate about motherhood, breastfeeding, and cultural regulation of the female body. Women who use formula may have a unique perspective in wanting to see a more neutral discourse and desire to alleviate uncomfortable feelings around the issue. One participant who had exclusively breastfed two children and used formula with her third due to supply issues discussed this taboo feeling. She wanted people to know she had breastfed her first two. She admitted

she knew it was crazy, but the urge to signal her identity as a mother who did breastfeed was powerful. Breastfeeding is about much more than conveying some biological benefits. The idea of presenting oneself as a bad mother is highly undesirable, and the myth of the good mother (Dubriwny, 2013) is powerful. I align with Sontag (1977), who argued that value-laded metaphors that accompanied diseases such as tuberculosis and cancer, "are used to propose new critical standards of individual health, and to express a sense of dissatisfaction with society as such" (p. 73). Although not a disease, the discussion about breastfeeding aligns with this comparison. Discourses about breastfeeding reflect more broad arguments regarding who we are as a society and our relationship between the natural and the artificial. Dissatisfaction with how society devalues caregiving manifests as dissatisfaction with exclusive breastfeeding rates that refuse to budge.

In sum, women who used formula during the first 6 months demonstrated immense creativity amidst the constraint of the dominant discourse. They offered new narrative threads that centered around feminist debates of breastfeeding including that formula opened the door for more equitable parenting and preservation of mental health. In addition, they challenged the dominant discourse, calling for a move away from all or nothing messaging that permeates the discourse and instead preferring value neutral messaging. We can see from these findings that the dominant narrative has rich threads for growth and adaptation. Based on the historical development of the discourse, it is likely that breastfeeding discourse will shift again to reflect the cultural morays of our time. Individuals will continue to forge unique paths revealing the gap between discourse and lived experience.

Practical Implications

As Newton posited in his third law of motion, "For every action, there is an equal and opposite reaction." This is a rather ostentatious quote to begin with, but it is one I have come back to while thinking about this work. Although he referred to objects with mass, one can perhaps extrapolate this principle to the idea to messaging. Messages carry their own form of metaphorical weight including the weight of values, of bias, and of the unsaid. In the case of breastfeeding, those who use formula conceptualize two halves to the master narrative including the initial messaging push – breast is best – and the equal and opposite reaction – formula is worst. Ultimately, these two halves must be considered in any health promotion. When one sends out a message it ripples in a multidirectional manner, and the choice to eagerly promote breastfeeding as the best path toward good motherhood has resulted in a number of unintended consequences.

Pragmatically speaking, those who promote breastfeeding should be aware of the unintended impacts of campaigns and work to improve them based on evaluation from individuals who are feeding infants. Unintended effects from campaign messaging are well-documented (Byrne & Hart, 2016; Cho & Salmon, 2007; Oliver et al., 2015; Pechmann & Slater, 2005). The most relevant unintended effect that women experienced in this study is dissonance, which occurs when individuals experience psychological discomfort because they cannot reach a recommended state or comply with it (Cho & Salmon, 2007). Dissonance most often occurred when women discussed disruptions to their feeding journeys. During these disruptions to the continuity of their journeys, women often faced unexpected challenges that prevented them from reaching their goal to exclusively breastfeeding for at least 6 months. In the case of breastfeeding, the

psychological discomfort stemming from dissonance manifested as feelings of guilt and shame due to the heightened moralization of breastfeeding. Dissonance also connects to the well-established construct in health behavior literature, self-efficacy, which means that an individual feels they can perform a recommended behavior (Azjen, 1991). Recognizing this, researchers have developed the breastfeeding self-efficacy theory, which posits that interventions designed to increase self-efficacy are correlated to higher breastfeeding rates (Brockway et al., 2017). According to Brockway's (2017) meta-analysis, although increasing self-efficacy can be significant, there are many factors that play into breastfeeding rates, including sociocultural influences. It is notable the study does not mention the biological nature of breastfeeding, framing it as an issue perhaps only influenced by cultural, structural, and educational factors.

Recognizing the dissonance caused by current discourse and considering what factors communication scholars can address, breastfeeding messaging needs to be better tailored. Tailoring involves customizing messaging based on the characteristics of an individual person (Noar et al., 2009). Tailoring has been used effectively in areas like diet and exercise, smoking cessation, and mammography (Noar et al., 2009) and is more persuasive than messages that are not tailored (Noar et al., 2007). One study in the context of breastfeeding involved testing messages tailored to time orientation and self-construal, which uncovered that tailoring to time orientation (e.g., promoting either short- or long-term benefits of breastfeeding) may have utility (Zhuang, 2021). Again, one critical piece this study missed is that it presented breastfeeding as a choice and ignored that it is also a biological process. In my study, the clear need for tailoring emerged most saliently around the *biological* complications of breastfeeding that women discussed.

Many of the women in this study, although intending to breastfeed, faced disruptions to their journeys that are tied to determinants unrelated to choice or structural barriers, the majority of which included self-reported low supply. Low supply can be correlated to a number of factors including thyroid dysfunction, polycystic ovarian syndrome (PCOS), and metabolic syndrome (Shere et al., 2021). In fact, 10% to 15% of women may not produce enough milk (Lee & Kelleher, 2016). Clinical diagnostics for low supply are poor, and as women shared in this study, individuals are often just told to try harder or more often. Generally, it is accepted that breast milk is produced on demand, which appears to be a rather rudimentary understanding (Lee & Kelleher, 2016). By stepping back from moralized messaging and instead focusing on pragmatic realities, we can see a clearer, more scientifically sound picture. Breastfeeding is influenced by social determinants but that is only one piece of the puzzle. It is also a complex biological process (Lee & Kelleher, 2016). Ultimately, the moralization of the discourse may cloud women's ability to make sense of their breastfeeding experience in a way where they can more evenly assess structural and biological challenges. Neutralizing messaging and tailoring it would help mothers more clearly make sense of their stories in ways individualized to their needs. This may also reduce a sense of shame and stigma around breastfeeding. We should move away from messaging that promotes the idea that all mothers should uniformly perform the same behavior in the same way.

Women who used formula largely reported that this is exactly what they wanted. Rather than building breastfeeding discourse as a cornerstone of the mythical construct of the good mother, we should understand it as it is, an evolved mammalian trait that requires social support, structural support, and accurate diagnostics for women who

report issues. I argue we don't scientifically fully understand breastfeeding, and that is why, similar to tuberculosis, cancer, and HIV, we have attached deep metaphorical significance to it (Sontag, 1977). As Lee and Kelleher (2016) noted, "What is much less appreciated and poorly understood is the role that maternal genetics and modifiable factors such as energy balance, diet, and environmental exposures may have on reproductive endocrinology, lactation physiology, and the ability to successfully breastfeed" (p. 5). More research needs to be done about factors that impact supply, which is the most common reason women cited in this study for using formula.

Because of the justifiable critique of the biomedical model in feminism (Davis-Floyd, 1990) and in narrative literature (Harter & Bochner, 2009), there appears to be a tension between medicalizing breastfeeding and mythologizing it. It is possible that we are silencing critical stories in that process. Yes, social constructs matter, but so does physiology. By framing breastfeeding as primarily a social construct, as it is in the current discourse and literature, we leave women unequipped to process their own stories and identify real clinical issues. Rather, women face disruptions to their experiences, often attributing this to factors out of their control, and must make sense of their stories in a highly moralized environment. Instead of finding support, they are told, implicitly and explicitly, that they are bad mothers and simply not trying hard enough.

The pragmatic implication in this research is that we must first identify the sources of disruption in women's stories to identify areas that can be individualized for educational messaging around breastfeeding and formula feeding. William Osler famously stated, "If you listen to your patient, he is telling you the diagnosis." It is evident to me that we are not listening to women who use formula, or if we are listening,

it is only because we are waiting to interject and intervene. Although we understand some of the structural barriers around breastfeeding, there appear to be a number of biological issues women attempted to self-diagnose in this study through their narratives. For example, women talked about if a magnesium drip lowered supply as well as a COVID diagnosis and a traumatic birth. In addition to supply issues, women also noted legitimate mental health concerns they faced. Women weaved these disruptions into their narrative to make sense of why they did not comply with exclusively breastfeeding, a behavior with which they intended to comply, causing dissonance.

As the literature suggests, and as confirmed in this study, some of the reasons for using formula are structural, some are biological, and a few are simply preferential. Educational and promotional messaging should be personalized for women who intend to breastfeed. For example, the communication should be different for a woman going back to work but with ample supply versus a woman who is at home but pumping 1 ounce versus the woman who had a traumatic birth and is healing in significant pain. Importantly, we must also move away from value-laden messaging and focus on incremental progress, as suggested directly by women in this study. In this way, we can develop personalized breastfeeding messaging that reflects the multitude of realties that women face. Breast is best was effective at raising awareness about the importance of breastfeeding. Now, we need to understand how that has rippled out over time and develop tailored support that reflects the endless permutations of experience and characteristics of individuals. By understanding breastfeeding in a more neutral way, considering both the structural and biological determinants, we can develop thoughtful

messaging that respects the human spirit and embodies sound science rather than mythical dogma.

Limitations and Future Directions

This study is limited by several factors. The first is that I only captured a cross-sectional data set. Because breastfeeding is such a dynamic process, it is likely that narratives may evolve rapidly from pregnancy through the first year after giving birth. A rich study would include longitudinal assessment of how women interpret the discourse before giving birth and comparing it in intervals leading up to 1 year after birth. One longitudinal study in Norway, where breastfeeding is viewed as the biological norm, examined postpartum depressive systems over time and showed that breastfeeding self-efficacy was associated with postpartum depression including the use of rumination and self-blame at different points of measurement (Haga et al., 2012). This shows there is potential to explore these constructs as a process, particularly as women reshape their narratives to adjust to new realities.

A second limitation of this study is that the majority of women I interviewed were college-educated and white. They often discussed securing ample resources to support breastfeeding, which is a function of privilege. Because exclusive breastfeeding rates are higher in white and upper middle-class populations (Jones et al., 2015), it is also possible that women in these demographics feel more pressure to align with the dominant discourse, which perpetuates disparities. Future studies should more deeply explore differences in how women interpret discourse who are more socioeconomically and racially diverse.

A final limitation of this study is that I did not focus solely on women with low supply and instead cast a wide net for recruitment. Because women use formula for a variety of reasons, I believe I could have made stronger conclusions about trends regarding how breastfeeding is framed as a choice by narrowing the sampling strategy. From my pilot study findings, my dissertation findings, and a review of the literature, I believe that women's narratives about low supply are actually pointing to underdiagnosed clinical issues (Shere et al., 2021). A future area for research could include investigating if women who experience low supply have similar experiences to individuals who have had to fight for medical legitimacy, such as those with chronic fatigue syndrome (Dumit, 2006). Both bear striking similarities in that they have been framed as psychological versus physiological issues. In the case of chronic fatigue syndrome, we now know that it is often triggered by viral or bacterial infections and that it may be a part of long COVID symptoms (Paul et al., 2021). Rich areas for future research include exploring the narratives of women who report low supply and examining how we talk about low supply. It could also include collecting more data about the infants to inform analysis of the narratives women shared. I believe there is room to advance narrative medicine (Charon, 2008) considering how women's breastfeeding stories are about more than the social constructs in which they live. Narratives themselves may also yield critical clinical data, and open the door to new explorations that bridge both clinical medicine and health communication.

Conclusion

The findings from this study revealed that women possess deeply held beliefs about the benefits of breastfeeding and drawbacks of formula feeding. The master

narrative for women who use formula consists of both a spoken and unspoken part and can more accurately be understood as, “Breast is best, and formula is worst.” Thus, researchers should attend to how disruptions are conceptualized and constructed in health narratives that are framed as journeys with implied moral attributions. Women explored the benefits of formula use in their narratives, centering on feminist debates about good motherhood. These stories revealed that the dominant discourse begins to crack when women experience realities that diverge from breast is best. Finally, women offered pragmatic recommendations that should be taken into consideration, including moving away from all-or-nothing messaging and neutralizing breastfeeding discourse. Their narratives uncover that organizations that promote and educate about exclusive breastfeeding should consider tailoring messaging to better reflect the many structural, biological, and preferential variations to infant feeding. Currently, women’s narratives are fundamentally shaped by the dominant discourse of breast is best. However, there are new areas for growth and exploration to improve how we understand breastfeeding as work toward the goal of better acknowledging the richness of human experience through communicative efforts.

Appendix A

Interview Guide

1. Share with me the story of feeding your infant. (Grand Tour)
2. How did you plan to feed your baby?
    a. How did you prepare for that process before giving birth?
3. What was your experience in the hospital like feeding your infant?
4. What made you think about using formula?
5. Tell me about your first experience using formula.
6. How did you feel about using formula?
    a. How did your feelings about using formula change over time, if they did?
7. How did using formula affect you? *(For example, mentally, emotionally, physically, socially)*
8. Did you and your partner *(if interviewee indicates they are in partnership in survey)* talk about using formula?
    a. How did they feel about using formula?
9. Did you share your experience with others? *(If yes, then probes below)*
    a. What parts of your experience did you share?
    b. What were the reasons you shared your experience?
10. Did you seek out information about using formula?
    a. What types of information did you seek out?
    b. What information was helpful? Unhelpful?
    c. How did the information you looked for change before and after using formula?
11. What surprised you most about your experience feeding your child during the first six months?
12. What types of stories do you see or hear about formula feeding?
13. What types of stories do you see or hear about breastfeeding?
14. What types of stories would you like to see more of?
15. What types of stories would like to see less of?
16. What is your awareness of slogans like, “Breast is best”?

17. What does, “Breast is best,” mean to you? *(This is probe meant to understand if women differentiate between breastmilk and the process of breastfeeding)*
18. What is your awareness of slogans like, “Fed is best?”
19. What does, “Fed is best,” mean to you?
20. What are other phrases about feeding babies have heard used?
21. What advice would you give to mothers who are going through this experience?
    a. What do you wish other mothers knew about formula feeding?
22. Is there anything I am missing that you would like to add?

Appendix B

Social Media Recruitment Material

Appendix C

Demographic Questionnaire

Q00: SIS

-Page Break-

Q0: Thank you so much for taking the time to complete this survey. All of your responses will remain confidential and only be used for research purposes.

Q1: What is your age?

18-22 years old

23-27 years old

28-32 years old

33-37 years old

38-42 years old

43 or older

Q2: How many months old is your child?

Less than 1 month

1 month

2 months

3 months

4 months

5 months

6 months

7 months

8 months

9 months

10 months

11 months

12 months

Q3: How many live births have you had?

1

2

3

4

5

6 or more

Q4: What is your current marital status?

Single, never married

Married or in domestic partnership

Widowed

Divorced

Separated

Q5: Employment Status

Employed for wages full-time

Employed for wages part-time

Out of work and looking for work

A homemaker

A student

Military

Q6: What is highest degree or level of school you completed?

Some high school, no diploma

High school graduate

Some college credit, no degree

Trade/technical/vocational training

Associate degree

Bachelor's degree

Master's degree

Professional degree

Doctorate degree

Q7: What is your annual household income?

Less than $25,000

$25,001-$50,000

$50,001-$75,000

$75,001-$100,000

$125,001-$150,000

More than $150,000

Q8: Do you have health insurance?

Yes

No

If yes, then:

Q9: What kind of health insurance do you have?

Employer-provided

Self-pay direct purchase (e.g., Marketplace)

Government-funded (e.g., Medicaid)

Q10: Are you of Hispanic, Latino, or Spanish origin?

Yes

No

Q11: How do you describe yourself?

American Indian or Alaska Native

Asian

Black or African American

Native Hawaiian or Other Pacific Islander

White

Other

Q12: When you think about breastfeeding, what words or phrases immediately come to mind? (Open text)

Q13: When you think about formula feeding, what words or phrases immediately come to mind? (Open text)

Q14: Would you be willing to be contacted for future research by this research team about breastfeeding?

Yes

No

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WIC Breastfeeding Support. (2021c). *What's in your WIC Food Package*. United States Department of Agriculture. https://wicbreastfeeding.fns.usda.gov/whats-your-wic-food-package

WIC Breastfeeding Support. (2022). *Breastfeeding is a journey*. United States Department of Agriculture. https://wicbreastfeeding.fns.usda.gov/learn-start-overcome-and-thrive-your-breastfeeding-journey-0

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Wolf, J. B. (2011). *Is breast best? Taking on the breastfeeding experts and the new high stakes of motherhood*. New York University Press.

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Zhuang, J. (2021). Developing messages tailored to self-construal, Time-orientation, and perspective taking to promote 6-month exclusive breastfeeding. *Journal of Health Communication, 26*(3), 204-213. https://doi.org/10.1080/10810730.2021.1903626

Curriculum Vitae

Susanna Foxworthy Scott

Education

PhD	Health Communication	2022
	Minor in Social and Behavioral Science	
	Indiana University-Purdue University Indianapolis	
	Advisor: Jennifer J. Bute, PhD	
MPA	Public Affairs	2011
	Concentration in Nonprofit Management	
	Indiana University Bloomington	
BA	Journalism & French	2009
	Minor in Biology	
	Butler University	

Publications

Scott, S. F., Head, K. J., Johnson, N. L., Kruer, K., & Zimet, G. D. (2021). Communicating positive HPV test results: A directed content analysis of women's preferences using self-determination theory. *Iowa Journal of Communication.*

Johnson, N. L., **Scott, S. F**., & Brann, M. A. (2020). "Our birth experiences are what binds us": Women's motivations for storytelling about birth to build motherwisdom. *Communication Studies*, *71*(4), 649-668. https://doi.org/10.1080/10510974.2020.1771391

Johnson, N. L., Head, K. J., **Scott, S. F.,** & Zimet, G. D. (2020). Persistent disparities in cervical cancer screening uptake: An examination of knowledge and

sociodemographic determinants of pap and HPV testing in American women. *Public Health Reports*, *135*(4), 483-491. https://doi.org/10.1177/0033354920925094

Brann, M. A., Bute, J. J., **Scott, S. F**. (2020). Qualitative assessment of bad news delivery practices during miscarriage diagnosis. *Qualitative Health Research, 30*(2), 258-267. https://doi: 10.1177/1049732319874038

Head, K. J., Johnson, N. L., **Scott, S. F.,** Zimet, G. D. (2019). Communicating cervical cancer screening results in light of new guidelines: Clinical practices at federally qualified health centers. *Health Communication, 35*(7), 1-7. https://doi.org.10.1080/10410236.2019.1593079

Amsler, L. B., Malatesta, D., **Scott, S. F.** (2019). Disputant experiences and preferences for mediated or adjudicated processes in administrative agencies: The Occupational Safety and Health Review Commission Settlement Part Program. *Industrial and Labor Relations Review, 73*(2),52-570. https://doi:10.1177/0019793919882928

Amsler, L.B. & **Foxworthy, S.** (2014). Collaborative Governance and Collaborating Online: the Open Government Initiative in the United States. In J. P. Lehrke, E. Bohne, J. D. Graham, & J. C. N. Raadchelders (Eds.), *Public Administration and the Modern State* (pp.189-202). Palgrave Macmillan.

Publications Under Review

Invited Revision] **Scott, S.F.,** Johnson, N.L., Brann, M.A., Bute, J.J. (2021). Narrative problematics in women's COVID-19 pandemic birth stories identify areas for healthcare improvements in the United States.

[Under Review] Brann, M., Bute, J.J., Johnson, N.L., **Scott, S.F.** (2021). Managing institutional policies and family interactions when giving birth during a pandemic.

Honors and Awards

Outstanding Manuscript, Central States Communication Association	2022
The NCA Doctoral Honors Seminar, National Communication Association	2021
Top Competitive Paper, Central States Communication Association	2019
Petronio-Bantz Graduate Student Travel Grant, IUPUI	2019
Department of Communication Studies Travel Grant, IUPUI	2019
Top Student Poster, D.C. Health Communication Conference	2017
Outstanding Graduate Paper, Department of Communication Studies, IUPUI	2017
Department of Communication Studies Travel Grant, IUPUI	2017
Doctoral Fellowship, Department of Communication Studies, IUPUI	2016
SPEA Volunteer of the Year, SPEA, IU Bloomington	2011
Student Who Most Embodies SPEA's Mission, SPEA, IU Bloomington	2011
Service Corps Fellowship, SPEA, IU Bloomington	2009
Most Outstanding Female Student, Butler University	2009
James T. Neal Award Highest GPA in School of Journalism, Butler University	2009
Phi Eta Sigma, Butler University	2009

Alpha Lambda Delta, Butler University	2009
Blue Key Honor Society, Butler University	2009
Phi Kappa Phi Honor Society, Butler University	2009
Mortar Board, Butler University	2009
Butler 1855 Scholar, Butler University	2005

Teaching

Assistant Professor	Butler University	2022-Present
Lecturer	Butler University	2021-2022
	Health Communication (4 sections)	
	Healthcare Systems and Policy (1 section)	
Adjunct Professor	Indiana University Columbus	2019
	Health Communication (1 section)	
Instructor	IUPUI	2016
	Public Speaking (2 sections)	
Teaching Assistant	Indiana University Bloomington	2013
	Graduate Capstone (1 section)	
Teaching Assistant	Butler University	2006
	Biology	

Research Appointments

Research Assistant	IUPUI	2017
	Katharine Head, PhD	
	Department of Communication Studies	

Research Assistant	IUPUI	2017
	Maria Brann, PhD	
	Department of Communication Studies	
Research Assistant	Indiana University Bloomington	2012
	Lisa Blomgren Amsler, JD	
	School of Public and Environmental Affairs	

Professional Experience

Communication Specialist	IU School of Medicine	2019-2021
	Medical Student Education	
Writer and Content Strategist	IU School of Medicine	2018-2019
	Precision Genomics	
Assistant Director of Development	IU School of Medicine	2014-2016
	IU Simon Cancer Center	

Conference Presentations

Bute, J. J., Brann, M., Johnson, N. L., **Scott, S. F**. (2021, November 18). Women's privacy management surrounding birth experiences during the pandemic [Paper presentation]. National Communication Association 106th Annual Convention, Seattle, WA, United States.

Scott, S. F., Johnson, N. L., Brann, M., Bute, J. J. (2021, April 25). *"I'll never be able to capture my son's footprints in ink on the day he was born": How COVID-19 affects women's birth stories* [Poster presentation]. D.C. Health Communication Conference, Washington D.C., United States.

Scott, S. F., Head, K. J., Johnson, N. L., Kruer, K., & Zimet, G. D. (2019, November 16) *Communication of HPV test results: A directed content analysis of women's preferences utilizing self-determination theory* [Paper presentation]. National Communication Association 105th Annual Convention, Baltimore, MD, United States.

Gipson, N, & **Scott, S. F.** (2019, October 5). *How to communicate effectively* [Conference session]. O'Neill School of Public and Environmental Affairs for the Greater Good Women's Summit, Bloomington, IN, United States.

Scott, S. F. & Mitchell, S. (2019, October 5). *Working parents [*Conference session*]*. O'Neill School of Public and Environmental Affairs for the Greater Good Women's Summit, Bloomington, IN, United States.

Scott, S. F. and Matthias, M. (2019, April 28). *"It felt like this dirty little secret": A qualitative analysis of women's experiences with communication about formula feeding* [Poster presentation*].* D.C. Health Communication Conference, Washington, D.C., United States.

Johnson, N., **Scott, S. F**., Brann, M. (2019, April 3). *Our birth experiences are what binds us: Women's motivations for storytelling about birth to build motherwisdom.* [Paper presentation at ***Top Paper Panel****]*. Central States Communication Association, Omaha, NE, United States.

Crowe, J. H., **Scott, S. F.,** Johnson, N. J., Brann, M., Wolf, B., Hernandez, L. H., Upton, S., Cooper, L., Black, L. W., Ivancic, S., Weller, M. (2019, February 23). *Expertise, experience, and evidence in arguments about women's health*.

[Conference session]. Western States Communication Association Conference, Seattle, WA, United States.

Head, K. J., Johnson, N., **Scott, S. F.** (2018, November 3). *Exploring patient knowledge and information sources about co-testing (Pap testing + HPV Testing) in At Risk Populations.* [Paper presentation]. American Public Health Association Conference, San Diego, CA, United States.

Brann, M. A., Bute, J. J., **Scott, S. F.** (2018, April 7). *Bad news delivery: Best practices during miscarriage diagnosis.* [Paper presentation]. Southern States Communication Association 88th Annual Convention, Nashville, TN, United States.

Head, K. J., Johnson, N. L., **Scott, S. F.** (2018, April 13). *The role of communication and information science in addressing cervical cancer prevention and screening in vulnerable populations.* [Panel presentation]. Kentucky Health Communication Conference, Lexington, KY, United States.

Scott, S. F. (2017, June). *Clinical trial communication feedback*. [Work in Progress presentation]. Communication, Medicine, and Ethics (COMET) Conference, Indianapolis, IN, United States.

Scott, S. F. (2017, May). *How ovarian cancer patients use metaphors in online forums to describe clinical trial experience*. [Poster presentation]. Cancer Research Day, Indiana University Melvin and Bren Simon Cancer Center, Indianapolis, IN, United States.

Scott, S. F. (2017, April). *How ovarian cancer patients use metaphors in online forums to describe clinical trial experience*. [Poster presentation and **Top Student Poster**

Award Winner]. D. C. Health Communication Conference, Washington, D.C. United States.

Grants and Funding

Title: **COVID-19 Birth Stories** 2020

Source: COVID-19 Rapid Response Grant from the IUPUI Office of the Chancellor

Amount: $4,122

Role: Collaborator

Title: **Exploring the Communication of Cervical Cancer Screening Results** 2017

Source: IU Simon Cancer Center Cancer Prevention and Control Board

Amount: $11,680

Role: Research Assistant

Invited Talks

Panelist	*Graduate School Orientation Student Panel* Panel, Department of Communication Studies IUPUI	2020
Panelist	*How I Got My Job in a Broken Economy* Panel, Department of Communication Butler University	2020
Panelist	*Introduction to Public Health Advocacy* Workshop, Medical Student Education IU School of Medicine	2020

Panelist	*Butler "Game of Life"*	2017
	Panel, Alumni Relations	
	Butler University	

Service

Committee

Member	Academic and Professional Affairs Committee	2021-Present
	College of Pharmacy and Health Sciences	
	Butler University	
Member	DEI Committee	2021-Present
	Health Communication Division	
	National Communication Association	
Representative	Liberal Arts Dean Search Committee	2020
	School of Liberal Arts	
	IUPUI	

Leadership

Secretary	Graduate Communication Club	2019-2020
	Department of Communication Studies	
	IUPUI	
President	Graduate Communication Club	2017-2019
	Department of Communication Studies	
	IUPUI	
Co-President	Students Taking Active Roles Today	2010-2011
	School of Public and Environmental Affairs	

	Indiana University Bloomington	
Treasurer	Nonprofit Management Association	2010-2011
	School of Public and Environmental Affairs	
	Indiana University Bloomington	

Reviewer

Graduate Student Caucus, Central States Communication Association	2019

Volunteer

Signed, Sealed, and Delivered, St. Luke's United Methodist	2022-Present
Communications, St. Richard's Episcopal School	2021-Present
Ballot Checker, Marion County Election Board	2020
Member, Canterbury Neighborhood Association	2017-2019
Membership Chair, Butler Young Alumni Board	2014-2017
Big Sister, Big Brothers Big Sisters	2011-2017
Caring Companions, Area 10 Agency on Aging	2011-2013