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"The Milk is Love": Understanding Mothers' Emotional Attachment to Breastmilk

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“The Milk is Love”: Understanding Mothers’ Emotional Attachment to Breastmilk

by

CHANDEL PEREZ-RIVERA

A thesis submitted in partial fulfillment of the requirements
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Abstract

Mothers are known to have an emotional attachment to their infant; however, some mothers also experience an emotional attachment to their own milk. Exclusive breastfeeding in the first six months of life followed by continued breastfeeding with complementary solids are recommended by the American Academy of Pediatrics and the World Health Organization. Some mothers produce enough surplus milk to donate to a human milk bank. This thesis considers the emotional attachment to milk experienced by women who donate milk to a milk bank. This research is based on participant observation in a human milk bank in Florida and interviews collected from 14 milk bank donors. These methods were informed by the frameworks of moral motherhood and emotive value to foreground and enhance understanding of mothers' experiences. The results of this study show that mothers do not emotionally attach to breastmilk itself, but rather what the breastmilk represents. This study starts a conversation and brings awareness to women's emotional experiences at the beginning of motherhood, especially as they pertain to breastfeeding and human milk.

Acknowledgement

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Introduction

This study explores mothers' emotional experience in motherhood by understanding why mothers who are milk bank donors have an emotional attachment to their breastmilk. The inspiration for this thesis came from a conversation with the director of the Mothers Milk Bank of Florida, who noticed that mothers experience emotional distress when told their milk was lost or damaged due to the FedEx delivery service. In this research, I seek to understand why mothers emotionally react when losing their milk and focus on mothers who previously donated their breastmilk to a milk bank or mothers who breastfeed their children. Mothers are often told "breast is best" and breastmilk is referred to as "liquid gold" (Carter and Reyes-Foster 2015). The American Academy of Pediatrics (AAP) and the World Health Organization (WHO) recommend exclusively breastfeeding for the first six months, followed by complimentary solid food. In this thesis, I apply the concepts of moral motherhood and emotive value to understand how these social factors influence mothers' emotional responses to their own breastmilk. In Chapter 2, I review the relevant literature to discuss multiple possibilities that can determine why mothers develop an emotional attachment to their breastmilk. I discuss concepts of morals and ethics, review Brazilian studies on why mothers donate, altruism, and finally explore psychological theories of emotional attachment, oxytocin as a biological influence, and the concept emotive value. In chapter 3, I describe my methods, based on an anthropological approach by conducting an ethnographic study which included in-depth interviews. The interviews in this study are used as evidence to illustrate and enhance mothers' testimonies on their belief of why they have an emotional attachment to their breastmilk. Participation and observation are other anthropological methods used to observe the milk bank's environment and to detect any evidence of a mother's

emotional response. I also include pictures of the mother's storage milk bags are gathered from participant observation and used to demonstrate the results. Chapter 4 presents my results, where I examine the data I gathered from in-depth interviews and the notes from the field. I analyze the mothers' response and describe the most common answers to why mothers' emotional responses to breastmilk and motivations for donating to a milk bank. For the former, I found they responded emotionally to their breastmilk because of the "hard work" it represents. For the later, I found they donated their breastmilk "to help others." In the field, I took pictures of storage milk bags with written messages stating, "6 months old today" and "Baby girl grabbed her toes again. Too cute!" which lead to my conclusion in chapter 5. In Chapter 5, I argue that mothers do not respond emotionally toward their breastmilk but respond emotionally toward the breastmilk's meaning. This study reveals why mothers develop an emotional attachment to breastmilk. Hopefully, this study generates a conversation and awareness of the mother's personal experience in early motherhood.

Chapter 2: Literature Review

Morality and Ethics

Breastfeeding is the preferred method of infant feeding in motherhood. The WHO's breastmilk promotional campaigns WHO reinforce the ideology that breastfeeding is the right thing to do, which makes it a morally correct choice for new mothers. In this paper, I use Rhonda Shaw's definition of ethics and human morals. In "Theorizing Breast Feeding" Shaw (2012) uses Zygmunt Bauman's theory of the gift in *Modernity and the Holocaust*. Shaw defines moral behavior as possible when an individual engages in everyday circumstances.

Shaw uses Bauman's definition of the gift to explain breastfeeding as "unconditional maternal generosity" (Shaw 2012). Bauman's work focuses on the ethical association of the responsibility of the other. He explains that, in ethics, one's existence is of being-for someone instead of being with someone, which means, in this theory, "I" is not a concern in the ethical relationship with the other and the concept of the "other" is the moral proximity that creates an ethical subject (Shaw 2012). Shaw applies this concept of ethics on a mother's relationship in breastfeeding her infant. The same concept of ethics and morality is applied in this paper to better understand mothers and their emotional relationship with breastmilk. This thesis will focus on "the other" as infants the Milk Bank are collecting milk for and the "gift" as the breastmilk to better understand the moral relationship mothers have towards their breastmilk.

In the Mothers' Milk Bank of Florida, milk bank staff have encountered mothers who have an emotional response when told their breastmilk is lost and cannot be used due to a late FedEx delivery or milk being thawed upon arrival. Using Shaw's framework, the emotional response can be understood as deriving from not fulfilling the responsibility to the other. The

breastmilk was supposed to go to the Mother Milk Bank of Florida to help sick infants, but the milk did not arrive or arrived damaged, which means the mother donating her breastmilk has failed. The failure is the responsibility to the others, and this causes the emotional response. There is also failure in fulfilling the moral code in the breastfeeding community. As Bauman states “Ethic does not follow subjectivity; Subjectivity is ethical” (Shaw 2012). Mothers find it ethical to breastfeed for her infant’s survival and morally breastmilk is important due to its nutritional value. I argue that mothers who donate their breastmilk are ethically fulfilling the responsibility of the other and is morally acceptable, but when the milk does not arrive or arrived damaged then the mother did not complete her responsibility and this violates her morals, resulting in an emotional response.

Discussing ethics and morals, I started asking the question on what morals are being projected to mothers when it comes to breastfeeding. Carter and Reyes-Foster (2016) found that mothers are always building their identities as good mothers. Carter and Reyes-Foster refer to this work as moral motherwork. For mothers who use formula and those who use milk shared by others being unable to exclusively breastfeed is a source of struggle as they attempt to build their moral identities as good mothers (Reyes-Foster and Carter 2018). Human milk is discursively constructed with Milk Banks being supported by the U.S. government and considered their milk safe due to the process of pasteurization, but mothers who shared their milk are putting other infants at risk due to diseases that can spread such as HIV/AIDs (Carter and Reyes-Foster 2016). The concept of moral motherhood explains how in western society morality is involved in everyday mothering practices (Reyes-Foster and Carter 2018). For example, the American Academy of Pediatrics states that mothers should exclusively breastfeed their babies

for the first six months with complementary food (AAP 2012). Mothers who follow these guidelines are considered “good mothers” because they are following the direction of medical professionals satisfying her identity as a mother. This can be problematic for mothers who cannot follow these guidelines and are forced to depend on formula or peer sharing milk. Murphy call this “quiet coercion” because breast feeding is viewed as healthy, and formula feeding is risky, but Carter and Reyes-Foster (Carter and Reyes-Foster 2016, Carter, Reyes-Foster, and Rogers 2015) examined newspapers articles that portray peer milk sharing as riskier. If the concept of moral motherhood is applied to mothers’ breastfeeding practices today, then depending on what society defines as good breastfeeding practices mother have a moral obligation to follow these guidelines. Mothers who do not follow societal demands to breastfeed can feel a sense a failure and respond emotionally.

In this topic of the moral motherhood of being a good mother, African American mother's moral identity of being a good mother differs from other mothers due to racial disparities in health and breastfeeding. Black mothers have disproportionately low breastfeeding rates when compared to the rest of the US population (CDC). Historically, African American women’s bodies were sexualized, and African American women were constructed as hypersexual and this in turn has created an avoidance of breast exposure (Owens et al. 2018). The history of African American female bodies affects how black women view breastfeeding morally and ethically today. History has led to African American mothers to develop a different moral mothering identity: Black women define qualities of being a good mother as sacrifice, self-reliance, not breastfeeding in public, being available for kids at home and accepting medicalization (Carter and Anthony 2015). Breastfeeding also was link to poor,

immigrant, and unsophisticated mothers (Hoffert and Apple, 1987; Carter 1995). However, breastfeeding is now privileged motherhood as in white, middle class, educated, heterosexual mothers who are most likely to breastfeed (Avishai 2007). From the perspective of Shaw's concept of morals and ethics, and Reyes-Foster and Carter's concept of moral motherwork on black mothers' views on breastfeeding practices. One can argue that morally, some black mothers may not breastfeed because of the history of slavery and modern-day barriers.

The social construct of breastfeeding does not only apply to the United States, but it affects mothers globally. In the United Kingdom, 50% of women feel pressure to breastfeed because it is considered a cultural affirmation. The NHS endorse the term "breast is best" with its policies along with practicing practitioners (Crossley 2009). Mothers in the U.K. are aware the breastfeeding is the "morally acceptable thing to do" but in the first few week's mother feed their infant formula and 32% of mothers start feel a sense of failure and guilt (Crossley 2009). A mother in the U.K. who found it difficult to breastfeed stated, "I felt like a failure; I felt miserable; I felt embarrassed" (Crossley 2009). Ethically, mothers in the U.K. know feeding their infant would increase their infant survival, but they have a moral obligation to feed the infant the best nutrition, which is breastmilk. Mothers who fall short from this moral obligation fail to fulfill their identity as being a good mother resulting to an emotional response such as "I felt miserable".

Donation and Altruism

Mothers who may not follow the societally sanctioned "moral" choice when it comes to breastfeeding practices express feelings of guilt. Shaw explain this breastfeeding dilemma by

stating, “It is very easy to perform breastfeeding ‘wrong’ or ‘incorrectly’ and to be reprimanded for doing so, which is why women think long and hard about pros and cons of breastfeeding; not only for their infants, but also for themselves” (Shaw 2004, 101). Mothers can become attached to the experience of breastfeeding because breastfeeding is an interpersonal, psychological, and social experience (Hauck and Irurita 2002). In fact, Hauck and Irurita (2002) argue that if mothers have a positive outlook on their breastmilk, then they can raise their self-esteem and confidence in their own breastfeeding practices. For example, one way a mother can boost her self-esteem and confidence is by donating her breastmilk. But bereaved mothers are most likely to hold on to their breastmilk for days or weeks before donating to a milk bank. These mothers experience a strong emotional attachment to their breastmilk constituting the struggle of their infant (Tully 1999). Milk donation is considered a process of healing for these mothers and they are fulfilling their moral choice, especially, after the loss of their child. The death of a child is not the only factor that motivates mom to donate their breastmilk. Another factor is first, mother do not want their hard work to go waist and second, donors want to help other infants (Osbaldiston and Mingle 2008). For these reasons donating breastmilk is just as important as breastfeeding, especially for bereaved mothers who donate to participate as mothers for those who adopted and depended on their breastmilk or for those who have babies in the NICU and cannot breastfeed, as would be the case for babies receiving milk from the MMBFL (Estevez del Alencar and Seidl 2009).

In the Brazilian Federal District, a study was conducted stating altruism was the most popular response from mothers’ reasons for donating milk (Estevez del Alancer and Suidi 2009). The most popular response from mothers is “desire to help

other”, which motivated them to donate milk. The second response was excess production of milk. Most mothers that donated came from different social and economic backgrounds, so those factors did not influence their decisions (Esteve del Alacer and Suidi 2009). Brazil is known for having the largest milk bank network in the world, currently Brazil has 210 milk banks across the country (Unicef). The milk bank network is so successful neighboring countries such as Venezuela has adopted their “Brazil Model” when it comes to milk banking (Gov.Br 2020). Brazil manage to lower their children under five mortality rates by two thirds with programs such as kangaroo program, social motherhood program and stork network (Unicef). They also been involved with countries further out such as South Africa and helping them expand no-for-profit donor human milk banks (Cassidy 2014). Other will argue that altruism is not the reason why mother donate breastmilk, but a “pure gift”. In anthropology a gift exchange occurs in an economic system that involves reciprocity and is the oldest and cross-culturally form of gifting (Cassidy 2014). Cassidy uses Mauss concepts of gift exchange where he states that reciprocity and not altruism is the reason why gift giving occurs, but she also states mothers who donate or gift their breastmilk a relational chain of reciprocal obligations occurs (Cassidy 2014). According to Marshall Sahlin they are three forms of reciprocity: generalized, balanced ad negative. Cassidy (2014) describe mother breastmilk exchange can be considered as a type of generalized reciprocity. This type of reciprocity is close to being a pure gift, which means mother do not expect anything in return while donating or gifting their milk (Cassidy 2014). Anonymity is best during breastmilk exchange for it increases the trust within and outside the system, which again makes it a true gift. I argue that milk donation can occur due to altruism because it is defined as “concern for the wellbeing for other”

and “practice of disinterest” (Lexico) and mother from Brazil expressed altruism by showing stating they had a “desire to help”.

Psychology: Emotional attachment theory and Oxytocin

The human body produces many hormones that can affect human behavior; however, environmental factors can also influence human behavior. To better understand why mothers, have an emotional attachment to their breastmilk, I will apply the Bowlby psychology theory of emotional attachment and concept of how oxytocin effect mother infant bonding.

Emotional Attachment Theory

Bowlby’s theory of emotional attachment explains that human infant attachment to an adult is an evolutionary response. He states the infant is born with “attachment behaviors”, responding to “attachment figures” such as parents because they provide psychological and physiological help (Obegi and Berant 2009). This theory can be applied to a whole human life from childhood to adulthood at any time a person feel it needs protection. In adolescence and adulthood these attachment figures change to someone who can provide comfort, security and protection (Obegi and Berant 2009). Adolescence attachment figures become their friends, teachers, counselors, or love ones and in adult’s attachment figures become their significant other or someone who is not a love interest (Obegi and Berant 2009). They are many people can be an attachment figure Bowlby call this broad range of choices the person hierarchy of attachment figures.

Obegi and Berant (2009) further explain the emotional attachment theory by stating “from an attachment perspective, a specific relationship partner is an attachment figure, and

specific relationship is an attachment relationship partner accomplishes three important functions.” The authors are stating for someone to be considered an attachment figure they need to fulfill three major functions in the attachment relationship. First, the attachment figure is available during the times of stress and need. If the attachment figure is not available, then separation from the attachment figure causes the person in need emotional distress. Second, the emotional attachment figure is considered a “safe haven” that can provide security, comfort and protection. Third, the attachment figure becomes a secured based, meaning the child or adult relationship with the attachment figure is unique (Obegi and Berant 2009). The relationship the adult and child build with the attachment figures allows them to feel a sense of protection, comfort, and security, which enable them to restore emotional balance and exhibit normal behavior in social and physical environments. If an attachment figure does not provide comfort, security, and protection, then the person who depends on the attachment figure would exhibit behaviors of insecurity and stress (Obegi and Berant 2009). The attachment figure has a huge impact in the attachment relationship by fulfilling its three functions and the emotional needs of the child or adult, however, if the attachment figure fails the adult and child experience emotional distress causing an emotional response.

They are two coping strategies people use when their attachment figure fails in their role in providing comfort, protection, and security. First coping strategy is called the secondary attachment strategies, which presents in two forms. The forms are called hyperactivation and deactivation. Hyperactivation is known as an anxiety attachment and anxiety attachment occurs when the attachment figure is unresponsive and unavailable (Obegi and Berant 2009). The anxiety response is shown when a person protest by intensifying effort, such as being clinging

and controlling to receive comfort (Obegi and Berant 2009). Deactivation is known as attachment avoidance and the person who uses this strategy is escaping, avoiding, and minimizing hurt and pain because the attachment figure is unavailable and unresponsive (Obegi and Berant 2009). Deactivation strategy enables a person to be emotionally distant and independent. Obegi and Brenant (2009) suggested a three-component theoretical model of attachment system dynamics in adulthood that can be best explained as “if-then” situations. First, if the adult feels the attachment figure is a threat or is not fulfilling its part in the attachment relationship, the adult will seek protection from the attachment figure or seek someone else who can provide comfort, protection and security. Second, if the attachment figure is not a threat and can fulfill its role in the attachment relationship, then the adult would feel love and comfort, which allows the adult to return to normal activities. Third, if the attachment figure is unreliable and unresponsive, then the adult display secondary attachment strategies (Obegi and Berant 2009). The second coping strategy an adult show when an attachment figure is unavailable is developing an emotional attachment to an object. Research shows if person attachment figure fails to provide comfort, protection, and comfort, then the person would seek emotional attachment towards objects (Keefer et al. 2012). Religion can also be a coping strategy where a deity can be an attachment figure. Religious practices such as prayers and icons can create a sense a security for adult with insecure attachments allowing them to convert quickly and practice intensely (Keefe et al. 2012). Although religion is not an object researcher believe that adults can develop an emotional attachment to material objects just like with other attachment figures: people and religion. Keefer and colleagues (2012) explained objects makes a perfect attachment figure since objects are exceptionally reliable and are easily controlled, quickly

summoned, and discarded. An adult develops an emotional attachment to an object due to its personal attachment figure being unavailable and unreliable. These objects are known as transitional objects. This attachment to transitional object is seen with children when they are aware their attachment figure is emotionally unavailable, eventually, the children exhibit an emotional attachment toward personal objects, such as, a blanket for reliability (Keefer et al 2012). This coping strategy is to not be confused with materialism, for materialism is the valuing of an object and object attachment is finding the purpose of the object to fulfill one's emotional needs (Keefer et al 2012). Keefer and colleagues (2012) suggested adult who exhibit an emotional attachment toward transitional object experience attachment anxiety and attachment avoidance.

Oxytocin

Oxytocin is a hormone mothers produce while breastfeeding their infant, however, oxytocin is also a neurotransmitter and a paracrine substance in the brain (Uvnas Moberg and Prime 2013). This hormone has key influences when come to mother infant bonding, such as, bonding attachments, social interaction, and inhibition of stress. As a mother breastfeeds, oxytocin is released into the brain of the mother and the infant creating variety of functional responses. Chemically oxytocin functions as a system activator and often influencing the release of signaling substances, such as, opioids, serotonin, dopamine, and noradrenaline (Uvnas Morberg and Prime 2013). Because of these activations different psychological and physiological effects occur and become adaptive patterns cause by stimuli or environmental factors (Uvnas Morberg and Prime 2013). In this section I will be discussing how oxytocin

affects mothers psychologically and how it influences their behavior, such as, developing an emotional attachment.

Oxytocin is released systematically into the brain, which affects breastfeeding and mother-infant interactions. For example, oxytocin increases social interaction, decreases anxiety, decreases cortisol level, decreases blood pressure, and increases gastrointestinal tract functions (Uvnas Morberg and Prime 2013). In fact, when mothers have skin to skin contact with their infant, the infants express social approach behavior, which breast seeking behavior. The interactions between the mother and the infant becomes calmer, there is less crying from the infant, less pain, cortisol level decrease, and the temperature in the mother breast and infant body increase due to oxytocin being released in the brain (Uvnas Morberg and Prime 2013). Oxytocin also create a secure attachment between the infant and the mother. The hormone is released, and its oxytocin affects how the infant recognizes it mother through sight, voice, and smell. Throughout time the infant has an image of their mother allowing them to remain happy and calm if she is not around. If the infant experience fear, then the infant would need physiological touch, such as, skin to skin contact from their mother or primary care giver to become happy and secure (Uvnas Morberg and Prime 2013). Long term effects of oxytocin release due to close relationship with primary care givers allows the infant to develop a chronic state of happiness and calmness, which lead to a secure attachment (Uvnas Morberg and Prime 2013). Oxytocin is a hormone that affect mother infant bonding that can lead to a secure attachment and can maybe explain why mother have an emotional attachment to their breast milk.

Emotive Value

There are a few things that can influence a mother to develop an emotional attachment to breastmilk, such as, social influences, psychological influences, neurological influences, and altruism. But what if the emotional attachment is not to the breastmilk, but what the breastmilk represents. Carter and Reyes-Foster (2020) introduce a concept called emotional materiality, which explains the emotional response to milk is composed through labor and material involved in producing an obtaining. For example, in their book, *Sharing Milk: Intimacy, Materiality and Bio-Communities of Practice*, a mother named Ana describe a fridge full of freezer like “Christmas” because it took a large amount of work, resources, time and effort for her to obtain the milk for her baby (Carter and Reyes-Foster 2020). Ana shows emotional materiality by showing value on fridge full of milk reflecting that is because of the labor she put to obtain that milk, but also Ana showed emotive value. Emotive value is a concept that describes mothers who put labor into human milk to form value. This is also seen with mothers who donate their breastmilk and participate in a moral gift economy, which allows them to be satisfied with themselves (Carter and Reyes-Foster 2020). Emotive value and emotional materiality can explain why mothers have an emotional attachment to breastmilk, by clarifying the meaning behind the breastmilk is what causes the emotional response.

Chapter 3: Methodology

Methods

In this thesis, the ethnographic research method highlights mothers' experiences with their emotional attachment to breastmilk. Methods used to conduct this ethnographic study were in-depth interviews and participant observation. For this research, I completed fourteen in-depth interviews with mothers who were milk bank donors via a zoom conference call. Mothers who wanted to participate received an IRB 254 Explanation of Research form explaining the interviews' procedures and process. The mothers I interviewed were not the mothers whose milk arrived thawed at the milk bank because I did not receive HMBANA approval to contact those mothers. I received HMABANA approval after I already conducted my interview and collected my data. I gathered the mother's and milk bank employees' names, phone numbers, and emails during the interviews, but pseudonyms were used to replace the mothers' real names. During the in-depth interviews, I asked questions about mothers' responses to losing their milk and how donating milk makes them feel. These questions were to explore if there was an emotional response to losing and donating breastmilk. In the results section, the mothers' testimonials on their emotional attachment and response identify and highlight why an emotional attachment to breastmilk occurs.

Participant observation is a method used to identify, evaluate, and observe a social environment. For this research, I conducted participant observation at the Mother's Milk Bank of Florida, where I worked as a lab technician. At this location site, I received milk, interviewed lab technicians as key informants, and identified any patterns that might help explain why mothers experience an emotional attachment to breastmilk. Lab technicians who participated were also

provided with an IRB 254 Explanation of Research Form to explain the procedure and process of the interview. In the field, I was also able to take multiple pictures of milk bags with messages from mothers.

Open and Axial coding were used to analyze interview data. Using open coding, I was able to identify patterns that surfaced in the interview and created a category to organize my data. For example, in the interview, "hard work" is a common response that emerged. This response is categorized under emotional response.

Recruitment

Recruitment began with posting my IRB-approved flyer on social media platforms, such as Instagram, Facebook mothers and breastfeeding groups, and the Mother's Milk Bank of Florida Facebook page. Once the Mother's Milk Bank of Florida posted the flyer, I received a high volume of emails from mothers interested in participating in the research. Mothers received a follow-up email to set up a time and date for an online interview via zoom. Sadly, I received over twenty emails from mothers who wanted to participate, well over the number of interviews approved by the IRB, and I could not include them in this research. After I scheduled twenty interviews, I created a waiting list for remaining mothers for upcoming research. Later, HMBANA approved my research and was willing to help recruit participants by informing milk bank directors about the study. The mothers I interviewed were not mothers contacted by the milk bank about their milk arriving thaw because HMBANA approval occurred after the interviews. The mothers I did interviewed were mothers who emailed me through the flyer posted on social media. At the Mother's Milk Bank of Florida, it was not hard to recruit milk

bank employees. I asked my supervisor if she was willing to participate in an interview as a key informant, and she said yes to participating in the study.

Data Analysis

I created two quantitative data tables and a timeline from my analysis. The first table explains the demographics of the mothers I interviewed. This table shows the mothers' ethnicity and household income, and a brief explanation is provided to explain how the data in the first table correlates to mother's emotional responses to breastmilk. The second table shows the mothers emotional responses and the three common themes from those responses. The three themes are "hard work", "frustration", and "I cried". The mother's names would be put with corresponding responses. Lastly, a timeline was created with the mother's milk storage bags to show mothers log memorable events and moments of an infant's life. The logging of memorable moments and events are emotional responses that mother exhibits. Both table's data and the timeline are described thoroughly in the results section.

Chapter 4: Results and Discussion

The concepts mentioned in the literature review such as moral motherhood were possible ideas explaining why mothers develop an emotional attachment to their breastmilk. After interviewing 14 mothers, I noticed three common responses from the mothers when asked about their pumped milk being spilled or going to waste. The first common response was “hard work”, second common response was “frustration”, and third common response was “I cried”. The mother’s responses suggested that mothers are not emotionally attached to their breastmilk, but emotionally to what the breastmilk represents. Emotive value and altruism were the best concepts to apply while analyzing the interview dialogues because they best explain why mothers have an emotional attachment to breastmilk.

Kim: “Your body creates and sustains life”

Previously defined in the literature review, emotive value is a concept that describe a mother who put labor into human milk to form value (Dr. Carter and Dr. Reyes-Foster 2020). The mothers I interviewed demonstrated how they valued their breastmilk by talking about the “hard work” of obtaining milk. For example, I interviewed Kim, a mother of two who also lost 2 pregnancies. Kim breastfed her children, but she pumped breastmilk to donate to the MMBF. I asked her the question, “have you ever had an emotional response to losing your breastmilk due spilling milk or leaving it outside?” Kim responded, “Yes”. I began to ask her why and Kim replied with, “it is hard work”, “it was going to waste”, and “your body creates and sustains life”. Previously a bereaved mother, she was grateful to be able to breastfeed again. Her response correlates with her choice to become a breastmilk donor. She states she felt pride, and she wanted to help others. Her responses illustrate emotive value when she described her emotional

response toward losing her breastmilk because it represented her hard work and the purpose for that hard work being lost. This breastmilk she lost during pumping had a purpose and a significance. She knew the impact of donating milk would help other infants. Kim exhibit emotive value as she donated her breastmilk and responded emotionally when she spilled her breastmilk.

Carrie Crew: Emotional Response by Pumping

Carrie Crew is a mother of two who breastfed her children for over 3 years. Her story is different from Kim's because her emotional response to breastmilk was not provoked by a spill or loss of breastmilk. Instead, Carrie's emotional response to breastmilk was due to pumping itself. She explained, "Pumping is emotional in away because it was for my baby's health". Carrie also donated breastmilk to the MMBF. She said she participated in both formal and informal milk donation. The formal reason to why she donated is due to overproduction of milk, to help sick babies, and to help others who need it. The informal reason is to help her friend who is a foster mom, it provides self-comfort, and breastmilk is better over formula. Carrie describes her motivation to donate breastmilk as, "making a difference", and "personal". She also expressed positive emotion when she received the thank you emails from the MMBF. In this interview, Carrie showed emotive value and altruism. Pumping was the labor she put to feed her infant and the breastmilk the infant received was valuable for the infant health, therefore, Carrie's words can be understood from the perspective of emotive value. Altruism was revealed as part of Carrie's reasons of donation. Her willingness to share her most valuable source to help other infants and foster moms shows sign of selfness.

Ashley Wilson: "The milk is love"

Ashley Wilson is a mother of five but lost her fifth child 24 days after birth. Recently bereaved, Ashley pumped for her baby while she was in the NICU before she died. She explained that mindset is important when pumping breastmilk because it was difficult for her to pump breastmilk when she knew her baby was in critical condition and she was experiencing stress. However, she stated, a relaxed mindset made it easier for her to pump milk. I asked her about her emotional response toward losing or spilling milk and she replied with, "I had emotional breakdown", "traumatizing", and "frustrating". When asked why she had an emotional response, Ashley responded with, "Its hard work", "the milk is love", "the milk is a bond", and "It's what the milk symbolizes". In fact, she mentioned the milk is discarded on days she was drinking, and she did not experience any emotional response toward losing her breastmilk on those days. However, on days where she spilled milk that would have been used for her infant, she felt "frustration". After her daughter's death Ashley became a milk donor for MMBF. She donates her milk to connect with her daughter and to help other infants in the NICU. She empathizes with mothers who struggle pumping their first few ounces for their newborns in the NICU because she went through similar experiences. Ashley stated, "I donate to comfort mothers" and "honoring my daughter". Ashley was the first mother to tell me her emotional response was not towards her breastmilk itself, but the purpose behind the breastmilk. When she used phrases like, "I make mine with love" and "the milk is bond", it reflects that she is aware of why she is responding emotionally to her breastmilk. She is also aware the same reason she emotionally responds to breastmilk is the same reason why she donates breastmilk, which is for her daughter. Emotive value and altruism are strongly exhibited in this interview, such as when

Ashley describes the labor in pumping milk to donate, connecting with her lost child and helping comfort other mothers whose babies are in the NICU. There is a pattern in all these interviews with the common responses of “hard work” and “helping others”, which shows emotive value and altruism are common attribute seen in mothers who experience an emotional attachment to breastmilk.

Amy Brannan “everything is for a blessing”

Amy Brannan is a first-time mother who works at the hospital. Her experience with breastfeeding was comfortable and had no difficulties with her baby latching. The problems she did face were at work. She only had 15 minutes break to pump breastmilk. She stated that pumping breastmilk was stressful. However, she said her coworker was supportive. When asked about her response towards losing breastmilk, Amy stated she cried over spilled milk because it was hard work for her infant. She uses phrases like "every ounce matters," "hard work," “everything is for the baby”, “blessing”, and "save as much as you can" to describe why she responded emotionally towards losing breastmilk. She also believed her emotional reaction could be due to postpartum or hormonal reasons. Her responses reflect emotive value because the "hard work" she put into pumping breastmilk had value, and her phrases exhibit the exigency of breastmilk.

Participation Observation

The location I decided to do my participant observation is at the Mothers Milk Bank of Florida (MMBF). I am currently a lab technician at the MMBF, which allowed me to access the shipment department. In this department, I worked with Betty, the supervisor, who explained the proper steps for receiving milk. First, let me explain what receiving milk is. Human milk arrives through FedEx or is dropped off at our location by a mother, and a lab technician receives the milk from the senders. Milk is then brought into the lab to be check and logged in to the system. However, milk donations delivered from FedEx arrive in a box, and at this point, the lab technician opens the box and checks if the milk is thawed or frozen. Betty states, "if the bag of milk arrived thawed, then the temperature is taken to see if the milk can be used." I have witnessed two occasions where a box arrived late from FedEx, and the milk arrived thawed. Betty and I would check the milk and notify the director. The director calls the mother whose milk arrived thawed, and most responses were negative. Betty mentions mothers receive email updates of their milk, including what hospital received their milk or if their milk was not used. The email updates are the reason why the director calls the mothers.



Figure 1: Mother milk bag message

Mothers would cry or be angry when told their breastmilk was not useful due to FedEx's late delivery. These are the first cases of emotional response to breastmilk I witnessed. The second case occurs when I am physically organizing the milk by date to be put in food bins and moved to the walk-in freezer. Mothers like to write messages on the milk bags for us to read. Image 1 has a message written on the bottom bag saying, "May 21, 2020, I found out yesterday we are with #2." (Fig.1).

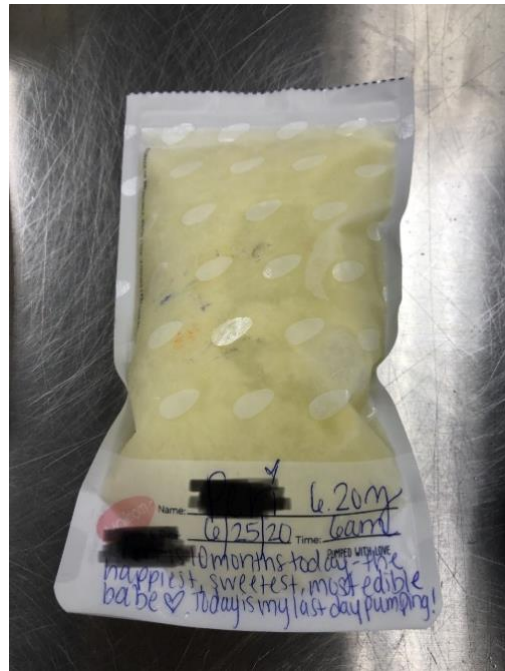


Figure 2: Mothers milk bag message

Image 2 also had a written message at the bottom of the pouch, written by the same mother in the image. The message states, "10 months today-the happiest, sweetest, most edible babe. Today is my last day of pumping!" (Fig. 2).

These images show that mothers do have an emotional attachment to their breastmilk that they convey through their written messages. Mothers who write on their milk bags strongly valued their milk because they wrote memorable messages. Both pouches signify important events allowing the mother to develop an emotional attachment to her breastmilk.

Class and Breastfeeding

This is a chart demonstrating the household income of the mothers being interviewed to see if household income influences their choice to breastfeed. Mothers were asked if the household income influenced their choice to breastfeed and emotional attachment to their breastmilk. Mothers responded with yes because breastmilk was “free” and “affordable”

compare to formula, which stated by the mothers as “expensive”. However, Phyllis and Noona (2012) research shows that women who breastfeed have lower lifetime earnings than women who do not, so breastfeeding has a negative long-term economic impact. Most mothers in this chart have a household income between 60,000-100,000, but all decided to breastfeed and had an emotional response toward losing their breastmilk.

Table 1: Breastfeeding and Household Income



Emotional Response

The information displayed in Table 2 shows the three most common answers the mothers responded with when asked why they had an emotional response towards their breastmilk. The common themes are hard work, frustration, and crying. In this chart, “hard work” had ten responses, “frustration” had five responses, and “I cried” had six responses.

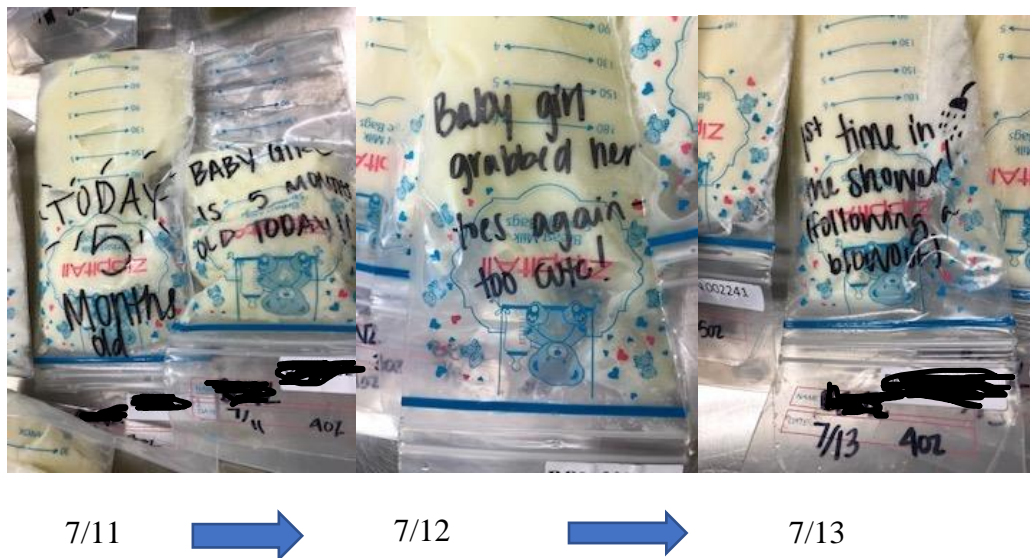
Table 2: Emotional Response Themes

Emotional Response Themes	Participants
“Hard work”	Julie, Ashley, Sam, Grace, Kim, Amy, Kayla, Aria, Amanda, Elly
“Frustration”	Ashley, Charlotte, Katrina, Sam, Grace
“I cried”	Ashley, Jenny, Suzy, Kayla, Aria, Elly

Milk Storage Bag

I created a timeline with the photo I captured in MMBF to show the messages on the milk storage bags, which resemble a type of emotional response through messages of value and purpose. The timeline is from July 11th to August 25th.

Timeline 1: Timeline on milk storage bag responses





8/11



8/25

Chapter 5: Conclusion

This study focuses on why mothers have an emotional attachment to breastmilk. In the literature review, most concepts discussed the possibility of why mothers can exhibit an emotional attachment directly to their breastmilk. However, after gathering and analyzing the data, I came to a different conclusion. I argue that mothers do not have an emotional attachment to breastmilk, but an emotional attachment to the breastmilk's meaning. The concepts of emotive value and emotional materiality support my argument, demonstrating that the milk's labor is the value that mothers respond to emotionally. In the interviews, the most common responses were "hard work," "frustration," and "I cried." The emotion response theme chart shows ten responses for "hard work," 5 responses for "frustration," and six responses for "I cried." These answers reflect the importance and value behind the labor. Mothers who breastfeed and mothers who donated milk use discourse that can be understood through the framework of emotive value and moral mothering due to the mothers wanting their infants to have the best feeding option and helping other infants receive the same opportunity. Most mothers who donated breastmilk stated donating breastmilk felt purposeful. The breastmilk's value and purpose are also seen in the milk storage bag figures and timeline 1. These messages exhibit how mothers consider each day and each moment valuable as they pump milk. When the mothers write or log an important event or moment, that is what the breastmilk represents. Memorable moments like celebrating age and an infant's first milestone are moments that make breastmilk purposeful. Mothers are also comforted by fulfilling the purpose of providing breastmilk, log in important events, and satisfying their moral obligation. Guidelines suggested by the WHO and APA on properly feeding your infant are moral obligations most mothers want to fulfill.

I conclude the breastmilk symbolizes hard work, purpose, and comfort. It is hard work for the mother to breastfeed and pump milk for her infant or other infants. She is donating that milk too. It is purposeful because the mother wants her infant to receive the best feeding option, and for mothers who donate it fulfill their purpose to help another infant. It is comforting because once the purpose is fulfilled, the mother's moral obligation is satisfied. The mothers exhibit an emotional response when the purpose is not to fulfill, meaning the hard work was useless, and comfort is not provided. The mothers in this research reflected this by reacting emotionally once the milk was spilled or lost, then stating that the milk could not be used for their infant or other infants to whom they were planning on donating milk. Then their moral obligation to help others is not completed. The emotional response demonstrates the purpose, hard work, and comfort, which breastmilk provides.

I want this research to start a discussion and bring awareness to the mother's emotional experience at the beginning of motherhood by acknowledging that the mother's emotional response is not random and that other mothers experience it.

Appendix A

IRB Approval Letter



UNIVERSITY OF CENTRAL FLORIDA

Institutional Review Board
FWA00000351
IRB00001138, IRB00012110
Office of Research
12201 Research Parkway
Orlando, FL 32826-3246

EXEMPTION DETERMINATION

July 29, 2020

Dear Beatriz Reyes-Foster:

On 7/29/2020, the IRB determined the following submission to be human subjects research that is exempt from regulation:

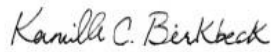
Type of Review:	Initial Study
Title:	Mothers' emotional attachment to breastmilk.
Investigator:	Beatriz Reyes-Foster
IRB ID:	STUDY00001950
Funding:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none">• Facebook text, Category: Recruitment Materials;• Flyer, Category: Recruitment Materials;• HRP-254-Form (Employees), Category: Consent Form;• Interview question, Category: Interview / Focus Questions;• Interview Questions (Milk Bank Employees), Category: Test Instruments;• Recruitment Email (Milk Bank), Category: Recruitment Materials;• Recruitment Email (Mothers), Category: Recruitment Materials;• Request for Exempt Status, Category: IRB Protocol;• Study information sheet (mothers), Category: Consent Form;

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in are detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Due to current COVID-19 restrictions, in-person research is not permitted to begin until you receive further correspondence from the Office of Research stating that the restrictions have been lifted or have been approved by the IRB and EH&S to follow the COVID-19 Human Subject Research (HSR) Standard or Study-Specific Safety Plan.

Sincerely,



Kamille Birkbeck
Designated Reviewer

Appendix B

HMBANA Approval Letter



4455 CAMP BOWIE BLVD. / SUITE 114-88
FORT WORTH, TX 76107

817-810-9984
WWW.HMBANA.ORG

November 3, 2020

To: chandelperez@knights.ucf.edu

Dear Dr. Reyes-Foster,

Thank you for submitting your application for research to the Human Milk Banking Association of North America (HMBANA) Research Committee. We have reviewed your protocol and found it to be innovative and extremely urgent at this time of global pandemic. We support your efforts wholeheartedly, and as such your protocol is approved for conduct in collaboration with the Mother's Milk Bank of Florida. Additionally, if you would like to expand your project to include samples of donors to other banks in different regions of North America, I encourage you to reach out to milk bank directors to do so. I will inform all the milk bank directors of your project so that they will be aware of this important work.

We wish you great success.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tarah T. Colaizy".

Tarah T. Colaizy, MD, MPH
HMBANA Research Director

Appendix C

Interview questions:

What made you donate?

Why do you prefer breastfeeding?

What happens if you are not able to breastfeed?

How did you react when told your breast milk can no longer be used?

How did you react when told your milk was lost?

Is breast milk important you?

Does donating milk feel comforting?

Does donating milk feel purposeful?

Does donating milk give you security?

How did you feel when told your milk was lost?

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