The Birth Connection: An Examination of the Relationship between her Birth Event and Infant Feeding among African American Mother

There is an epidemic of maternal and infant death rising in plain sight in the United States. The maternal and infant mortality rate of Black/ African-American mothers is three times that of White/European Americans in the US. Current research indicates that breastfeeding lowers both. While African-American mothers had the highest breastfeeding rates through the start of the twentieth century, by its close of the century, their rates precipitously declined. Presently, they have the lowest rates of breastfeeding in the United States. In this paper, I examine how the ideas that Black/African American mothers had about breastfeeding before, during, and after pregnancy (postpartum) affected initiation and duration of breastfeeding. Also, I investigate how mothers' healthcare providers affect their decision making, as well as how the type of birth that a mother has, e.g. preterm, vaginal, c-section, full term, affects her actual versus idealized infant feeding practice. I present a discussion of how doctors, nurses, breast pumps, etc., affect breastfeeding practice and how the practice impacts mothers' beliefs about themselves as "good" mothers. In order to understand the interplay of the decision-making process and these constructs, I conducted a qualitative study in which I participated in face-to-face interviews with a diverse group of thirty African-American mothers. They ranged in age from 18 years-old to 50-years-old. At the time of her interview, each mother had at least one child who was three years old or younger. Through our discussions, we explored how pre-pregnancy perceptions, lived experiences as a mother, familial influences, and the discourses surrounding motherhood within an African-American context affected the perceptions and experiences that the mothers in the study had with their infant feeding practice(s). Findings suggest that pregnancy and birth experiences of the mothers in the study influenced whether or not they breastfed exclusively, combined breastfeeding and infant formula use or used infant formula exclusively. Specifically, the interplay of invocation of agency (the ability to control their bodies before, during, and after birth), birth outcomes and the interaction that the mothers in this study had with resources, human and material, had the highest on the initiation, duration, and attitude toward breastfeeding.

Introduction

The highly publicized cases of the mistreatment that celebrities Venus Williams and Beyoncé experienced during their respective births shone a light on the ongoing disparities that exist in the treatment that Black mothers receive in the healthcare system. In the past half century, rates of breastfeeding among African-American women have shifted significantly. According to the Centers for Disease Control, African-American mothers are the group least likely to breastfeed their babies regardless of their class, age, or educational status. According to the Centers for Disease Control and Prevention (Centers for Disease Control and

Prevention, n.d.), while 83% of all newborns discharged from the hospital are breastfed, among African Americans the figure is 74%. By the six-month mark (the duration for exclusive breastfeeding[1] recommended by the American Medical Association), only 44% of African-American mothers are still breastfeeding at all. Non-Hispanic Black[2] women have the highest rate of maternal and infant mortality in the US. Breastfeeding can reduce both.

I explore how the birth event, beginning with pregnancy, affected the infant feeding choices that mothers made. Specifically, I examine how their birth experiences, including their interaction with birth attendants and other healthcare providers, impacted the feeding method that they chose to use, as well as how they viewed their options for feeding their babies. Further, I connect these factors to what the respondents in the study think about themselves as mothers in relation to their feeding experiences. According to my findings, the pregnancy and birth experiences of the participants in the study influenced whether or not they breastfed exclusively, combined breastfeeding and infant formula use or used infant formula exclusively. Specifically, the interplay of invocation of agency (the ability to control their bodies), before, during, and after birth, birth outcomes and the interaction that the mothers in this study had with resources, human and material, shaped the initiation, duration, and attitude toward breastfeeding and infant formula use among the mothers in this study.

Background

While in the late 1800s most babies in the United States were breastfed, the act of feeding from the breast was viewed as most suitable for lower-class white women, African Americans, and other people classified as "colored." The high incidence of using wet nurses among upper- and middle-class white women stands as a testament to this orientation. Within this society, breastfeeding was viewed as primitive and animal-like. When the first commercially-available "formula" for infant food was introduced to European and American markets in 1867, it was embraced by the predominantly white, middle- and upper-class women who could afford its costly price tag. Babies who drank the product developed health problems like diarrhea, dehydration, constipation, and other gastrointestinal problems that the fledgling group of doctors who focused on children's health (pediatricians) could treat (Blum 1998, Levenstein 1988). Mothers were marked as "haves" or "have nots" based on whether or not they could afford to purchase this engineered human breastmilk substitute. Over the following decades, companies like Nestlé and Mead Johnson refined their products to add ingredients approximating some of the ingredients found in human breastmilk. As the cost of infant formula fell, making it more accessible to greater masses of people, "formula" makers (supported by the medical establishment) began aggressively attacking breastfeeding, depicting the female body as fallible and unsterile (Blum

[1]Exclusive breastfeeding means that the baby is only fed breastmilk.

[2]Throughout this article, the terms African American and Black are used interchangeably because that is the accepted, common practice among Black people in an American context.

1998, Levenstein 1988). Among mothers in the US, African Americans were the last group to widely use infant formula (Blum, 1988). By the early 1970s, the majority of babies born in the US, across all racial lines, were formula-fed. During that time, maternalists and other feminists focusing on women's health began protesting the human breastmilk substitute commonly used in US hospitals. As a result, a revitalization of breastfeeding was promoted among predominantly middle- and upper-class women (Blum,1988). By the 1990s, breastfeeding rates had begun to rise, but remained low compared to breastfeeding rates in other equally industrialized nations (Blum,1988). While the latest data from the Centers for Disease Control and Prevention indicate that breastfeeding rates have continued to rise across racial lines among women in the US, African American women's breastfeeding rates remain significantly lower than the national average (CDC, n.d.).

Methods

I conducted qualitative, in-depth, face-to-face, semi-structured interviews that were videotaped and transcribed. I utilized snowball sampling wherein each of the participants were asked to provide up to 3 referrals of other Black mothers who they knew to participate in the study. As a qualifier, each participant had at least one child, who was at least three years old at the time of the interview. For this study, I intentionally focused on African American, biological mothers because I sought to centralize our voices. Demographic information for the respondents can be found on Table 1, Table 2 shows what food/s the mothers in the study chose to feed their babies. Table 3 presents the frequency and duration of breastfeeding and infant formula use in relation to the number of adults and children in the home.

Table 1. *Demographic Information*

Alias	Age	# Kids	Income	Marital Status	Religion	# Adult In home	Ed	Job
Shaniqua	28	1	35-45K	M	Christian	2	BA	Clerk
Chelsea	22	1	Below 14k	S	N/A	1	Some college	Ext Day Tchr
Hadiatu	26	2	35-45K	M	Muslim	2	BA	Full Mthr
Elaine	32	3	25-35K	M	Christian	2	AA+ 2 yrs	Men. Hlth tech/ Student/ 98% mother
Amy	18	1	>15K	CoHab	Christian	4	HS	Data Entry
Kim	27	3	25-35K	M	Christian	2	AA	Domestic Engineer
Diedre	20	1	>14K	S	Spiritual	1	Some	Student/

							college	Mother
Leila	38	2	100K+	M	Christian Baptist	2	BA	Registered Nurse
Lydia	27	2	25-35K	S	Christian non-denomination	1	Some college	Correction Officer
Yvonne	51	2	45-59K	M	Buddhist	2	Some college	Lactation Counselor
Carla	36	3	35-45K	M	Christian non-denomination	2	BA, grad work	Stay at home mom
Dejonae	36	3	35-45K	M	Christian Baptist	2	BA	Full time mother
Yvette	35	2	45-59K	M	Christian Catholic	2	BS	Stay at Home
Evelyn	21	1	35-45K	M	Christian	2	HS	Med Assist.
Diana	40	3	60-79K	M	Baptist	2	MSW	Social Worker
Nzingha	34	3	35-45K	D	Christian	1	Some College	Billing Clerk
Cassandra	38	2	No Answer	CoHab	Christian	2	Some College	Full time Mom
Esther	37	2	45-59K	M	Christian	2	Some College	Homemaker
Rachel	28	3	45-59K	M	Christian	2	BA	Missionary At-Home-Mom
Kendra	29	2	60-79K	M	Baptist	2	BA	Homemaker
Yolonda	30	2	80-90K	M	None	2	Some College	S-A-H Mom
Monica	33	2	100+	M	Christian	2	MA	Housewife
Faluke	34	2	100+	M	Christian	2	Grad School	Stay-at-Home Mom
Destanni	31	3	60-79K	M	Baptist	2	BS	Occupational Therapist
Denitra	26	2	>14K	S	NA	1	HS	Cosmetologist
Brihanna	32	2	25-35K	S	Baptist	1	Some College	Bank Teller
Melissa	32	1	25-35K	S	Goddess Centered	1	BA	Lactation Counselor
Sholanda	34	2	80-99K	M	Christian	3	MA	Director Grief Prog

Juanita	31	2	80-99K	M	African Tradition	2	BA	FT mom Art Direct
Danielle	36	2	80-99K	D/ Remarry	Non-Denomination		BA	HS Teacher

Table 2. *Feeding Practices*

Alias:	# Kids	Breast/Bottle/ Both:	Age Weaned:	# Adults In the home:
Shaniqua	1	Breast/ Rice milk	9 months	2
Chelsea	1	Both	4-5 weeks	1
Hadiatu	2	Both	15 months/ 18 months- still nursing	2
Elaine	3	Both	6 weeks	2
Amy	1	Both	3 months	4
Kim	3	Breast	Still nursing 6-week-old	2
Diedre	1	Both	>2 months	1
Leila	2	Both	3 months	2
Lydia	2	Both	2 days	1
Yvonne	2	Breast	18 months	2
Carla	3	Both	10 months 16 months	2
Dejonae	3	Both	3 months (oldest) 13 months 8 weeks	2
Yvette	2	Breast	2 years Goal: 2 years	2
Evelyn	1	Breast	Ongoing: 2 months	2
Diana	3	Both	10 months Formula (twins)	2
Nzingha	3	Both	3 months 11 months	1

Cassandra	2	Both	6 months Still baby	2
Esther	2	Formula	N/A	2
Rachel	3	Breast	1 year 11 months Ongoing - 3 months	2
Kendra	2	Both	3 months	2
Yolonda	2	Breast	9 months Ongoing - 8 months	2
Monica	2	Both	1 week	2
Faluke	2	Breast	1 yr Still – 2 months	2
Destanni	3	Both	6 months, 6 months, 12 weeks	2
Denitra	2	Breast	1 year 1year	1
Brihanna	2	Breast	Formula Ongoing – 6 months	1
Melissa	1	Both	18 months	1
Sholanda	2	Breast	14 months Ongoing – 2 months	3
Juanita	2	Breast	10 months 2 years	2
Danielle	2	Both	10 months Ongoing -10 months	2

Table 3. *A Crosstabulation of Infant Feeding Practices*

Count: Infant Feeding Practices:

	Breastmilk Only (11)	Formula Only (1)	Both (18)	Total (30)
# of Adults:				
1	**2**	**0**	**5**	**7**
2	**8**	**1**	**12**	**22**
3+	**1**	**0**	**1**	**2**
# Children:				
1	**1**	**0**	**5**	**6**
2	**8**	**1**	**7**	**16**
3+	**2**	**0**	**6**	**8**
Age Weaned:				
0-4 weeks	**0**	**N/A**	**1**	**1**
5-8 weeks	**0**	**N/A**	**4**	**4**
9-12 weeks	**0**	**N/A**	**5**	**5**
4-6 months	**0**	**N/A**	**0**	**0**
7-12 months	**1**	**N/A**	**3**	**4**
1-2 years	**1**	**N/A**	**3**	**4**
2+ years	**1**	**N/A**	**0**	**1**

Birth (Interrupted)

"It's time." This phrase has been uttered in movies and television alike to mark the moment when a pregnant woman recognizes (or medical professionals identify) that it is time for her baby to be born. While the woman is pregnant, there is space for speculation about everything from what she will call the baby to what she will feed the baby. Once the baby is born, fantasy becomes tangible reality. The preliminary "maybes" morph into actualities which have to be addressed. Feeding is one such actuality. The decisions that the respondents made about infant feeding were shaped by how and where they gave birth to their babies. Also,

their experience(s) of birth informed how they felt (physically, and emotionally) about what they chose to feed them, as well.

All of the participants in this study had health insurance coverage (private and government sponsored) when they gave birth. Tables 1.4 & 1.5 lists where and with whom the participants in the study gave birth, as well whether or not they had access to Lactation Consultants. Six of the participants used Medicaid to pay for the cost of their prenatal care, the birth of their babies, and the extended stay of the mother and/or child (when necessary). Twenty-four of the mothers in the study relied on private health insurance to cover those medical expenses. As a result of having health insurance to pay for their birth related medical expenses, mothers who had c-sections were able to benefit from extra recovery days in the hospital. The extra time in the hospital became a double-edged sword for the participants in the study. On one hand, extra recovery days meant that the mother could rest, and have others take care of her while she was in the hospital. Also, she had easier access to her and her baby's healthcare provider(s). Another benefit of being in the hospital, specifically if her child had to stay in the hospital for an extended time because of prematurity or a birth-related complication to the child's health, was that the mother was in the same facility as her child(ren). When mothers were in close proximity to their new babies, they were able to have more frequent with the child. Also, when mothers were mobility-challenged after birth, the babies could easily be brought to them. As a result, mothers could have skin-to-skin contact with their babies, even if they were not able to physically feed them at the breast[3]. Also, mothers in the study who birthed at hospitals which had lactation centers were more likely than other respondents to have facilities where they could pump and store their breastmilk. Also, hospitals which invested in on-site lactation centers, had a greater likelihood of having full-time lactation consultants on staff than did hospitals which did not invest in those facilities[4]. The downside of being in the hospital was that mothers in the study felt that because of the rules and practices within the hospital, they had lost control of their bodies and their babies. In the hospital, their movements were monitored, and nurses controlled when (and how) they had access to their children.

The feelings that the participants had about "losing control" of their children were exacerbated when they were discharged from the hospital, but their children had to remain there. Nzingha, a 34-year- old billing clerk, reflected on her experiences with breastfeeding after her first child was born,

[3]Kangaroo skin-to-skin refers to the practice of having mother and baby have direct physical contact. Preference is placed on having the baby on her/his mother's chest. This practice has been shown to help the child regulate her/his breathing and body temperature. Also, it has been suggested that this type of contact positively affects the mother's milk supply, as well as, her mood.

[4]Lactation consultants are healthcare providers who are recognized as experts in the fields of human lactation and breastfeeding. They do everything from watching a mother latch her baby onto her breast to providing hands-on assistance with breastfeeding and providing pro-breastfeeding external resources to mothers.

> they kept him, he was there, I want to say for probably five days, it could be from 3-5 days they kept him, and I said I was going to breast-feed, but they sent me home and they kept him, so I had to keep coming back and forth, and I did it for probably about one or two days, going back and forth to the hospital to feed him, and I just said no I can't do this, so I waited for them to release him. Then when I brought him home, he had already been having all these bottles, so it was hard for me. I think that's what caused the problem.

Nzingha's plan to breastfeed her child was disrupted by the hospital's policy of keeping newborns in the hospital beyond birth, even when there were no complications (to mother or child) during birth and the child. According to Nzingha, her child was full term and her attending doctor told her that her child did not have any medical problems. Nzingha attempted to work within the system so that she would be able to follow through with her feeding plan and remain compliant to the rules and regulations established by the medical authorities who were responsible for her child. Once her son was released to her, she had to reconcile the postnatal infant feeding plans that she had oriented herself toward during her pregnancy with the reality that her child had grown accustomed to being bottle-fed infant formula while he was in the hospital. As a result of her compromise, Nzingha's feeding experience was greatly compromised. She struggled with maintaining her breastmilk supply and getting her son to latch on to her breast for feedings. Nzingha wasn't opposed to her child being fed infant formula as an alternative to breastmilk, but she wanted to choose when (and how much) it was used. Once Nzingha's milk supply started to decrease, her son weaned himself. Ultimately, her "one to two years" breastfeeding plan with the possibility of occasional infant formula use was replaced with the reality of three months of breastfeeding and a primary reliance on infant formula. At the time of the interview, Nzingha remained angry about what had transpired after the birth of her first child. The experience reinforced her distrust of the medical establishment. She blamed the problems that she had with breastfeeding on the doctors keeping her son and feeding him bottles. Once she was able to reflect upon her first infant feeding experience, Nzingha resolved that when it came to her future child(ren) she would not just go along with what she was told by doctors. The unexpected interruption in her feeding plans intensified her desire to breastfeed her child(ren) past six months. At the time of the interview, she had breastfed her third (and youngest child) until she was eleven months old.

When mothers in the study experienced complications with their birth or the baby developed health challenges, they were more likely to feel gratitude towards and surrender their decision-making power to medical authorities. In Amy's case, she had a c-section with her first (and only) child. She said:

> So yeah, I couldn't feed her because I had too much medicine in my system after I had it. So they started giving her Good Start from the day she was born, but then I switched over to breast milk.

Amy, who was an 18-year-old data entry clerk at the time of the interview, talked about the events in a matter-of-fact way. Even though she had planned to

breastfeed her daughter from birth, she accepted the decision that her doctors made to initially feed the child infant formula. Although it wasn't what she had planned, she trusted that the doctors would do what was best for her baby. Amy adapted to her new circumstances by adjusting her feeding plan. She chose to (and was comfortable with) temporarily relinquish her control over her daughter's daily care because she believed that she would be able to regain it and that choosing to let medical authorities take over the care of her daughter was in the child's best interests. Once she was cleared to breastfeed her daughter, mother and child did not experience any challenges with latching and Amy had an ample milk supply. She judged herself to be a "good" mother and her child to be a "good" girl because even though they took a detour from her initial plan, they were able to get back on course without any problems.

Mothers in the study, who opted for pharmaceutical intervention(s) in their birth experiences, faced the effects of the drugs on their new babies with aplomb. Yvette, a 35 year-old mother of two, knew that she wanted to breastfeed. She did not experience any complications during (or after) her vaginal birth, but:

> Yvette: She was kind of sleepy, so we had to give her a little bit of formula there just to make sure that she wouldn't dehydrate.
> Interviewer: Why was she sleepy?
> Yvette: I think it was from the epidural, but I'm not sure, I didn't think to ask, but they think it might have been, they think that it might have been.

Yvette planned to breastfeed her child exclusively for her first six months. Because of her daughter's sluggishness--a common response that babies exhibit when their birth mothers receive epidurals during the birth process--she did not immediately respond to being breastfed. After this was explained to Yvette, she adapted to the new situation, which nurses caring for her daughter told her necessitated her daughter being fed infant formula. She kept her general plan, and took her daughter to the hospital's lactation consultant before she was discharged from the hospital. While she did not experience any challenges with breastfeeding, once her daughter's grogginess subsided, she "wanted to make sure that the latch was okay." Yvette was determined to have a positive breastfeeding experience, both for herself and her child, so she made use of all of the resources that were available to her.

When participants in the study experienced complications with their birth and/or complications to their child's health, and breastfeeding, they blamed themselves (faulty bodies) and absolved medical professionals of any culpability if they experienced problems with breastfeeding. According to Kendra, a 29 year-old homemaker, with two children,

> My thoughts on formula, frankly, I thought it was an easy way out. I didn't think that it was the best option for babies. Honestly, when I had to use formula with him, I was disappointed. When I wasn't able to breast feed, I took that as a failure on my part that I wasn't able to take care of my son on a bare and basic level.... Since my son has had to take it, he's fine. If people want to use formula, fine. If they want to use breast feeding, I'm open to anything. I'm not quite as judgmental.

Like other mothers in the study, who were opposed to using infant formula, Kendra's unexpected birth outcome and her child's health shaped the way that she thought about her feeding experience. She developed an apologetic narrative which supported her decision to use infant formula as the primary food for her baby. The apologia provided her with a comfortable counterbalance to the guilt and disappointment she felt about not breastfeeding. Once she became a regular infant formula feeder, Kendra changed the way that she judged people who fed their babies infant formula. This concession was common among the participants who did not initially plan to privilege infant formula use over breastfeeding in theory or practice, but wound up having to primarily feed their children infant formula and maintain breastfeeding as supplementary or discontinue it altogether.

When mothers in the study had a vaginal birth with little or no complications and proceeded to breastfeed without any challenges, they focused on the process of birth and breastfeeding as "natural." They believed that their experiences reinforced the actuality that women's bodies were made to do both (grow people and breastfeed). In regards to the mothers in this study, belief in the "naturalness" of breastfeeding, after experiencing an "uneventful" vaginal birth was not a reliable indicator for initiation and/or duration of exclusive breastfeeding. These mothers were equally likely to exclusively breastfeed for six months or more as they were to initiate breastfeeding and begin supplementing with infant formula shortly after their babies were born.

The participants in the study who had c-sections discussed feeling a greater obligation than the women who had vaginal births to breastfeed their babies. According to Amy,

> I wanted to get up and do things on my own, because I didn't just want to be sitting there. If my baby started crying, I would go pick her up. I knew I wasn't supposed to be doing that stuff, but I had to get up and start moving and start interacting with my baby, because I felt like if all those people are around my baby, she is not really going to get to know me. . . . if she needed to be fed I would be like, don't, leave her alone, I'll come get her, I'd pick her up, put her on, do what she needs to do.

Despite the fact that she was in the process of recovering from major surgery and had been advised to avoid lifting, going to the bathroom without assistance, and to reduce her movements, Amy believed that she had to go to her baby and breastfeed her so that her daughter would "know her." She believed that simply being around her child was not enough because she had to create a physical bond. Although her child had already been fed formula, she insisted on breastfeeding her. Like other mothers in the study, Amy held firm to her beliefs about what was "natural" for herself and her baby. While her birth and initial feeding was interrupted by an unnatural act, she would make sure that her child would experience natural feeding from the body of her mother. While she could (and would) adapt to less than ideal circumstances, like the need for surgical intervention in her birth experience, she would do her best to expose her daughter to the natural things that she "needs to do."

Table 4. *Birth Outcomes Data List*

Alias	Birth Type	Birth Attendant	Lactation Consultant	Birth Location
Shaniqua	V	Midwife	Y	Birth Center
Chelsea	V	Midwife & OB	N	Hospital
Hadiatu	V & c-sect	OB	N	Hospital
Elaine	V	OB	Y	Hospital
Amy	c-sect	OB	N	Hospital
Kim	V	OB	Y	Hospital
Diedre	c-sect & VBAC	OB Midwife	Y	Hospital Birth Center
Leila	c-sect	OB	Y	Hospital
Lydia	V	OB	N	Hospital
Yvonne	V	OB	Y	Hospital
Carla	V	OB Midwife	Y	Hospital Birth Center
Dejonae	V& c-sect	OB	Y	Hospital
Yvette	V	OB	Y	Hospital
Evelyn	V	Midwife	Y	Birth Center
Diana	V	OB	Y	Hospital
Nzingha	V	OB	Y	Hospital
Cassandra	V	OB, Doula	Y	Hospital
Esther	c-sect	OB	N	Hospital
Rachel	V	OB, Midwife (Last Child)	Y	Hospital
Kendra	V (Preemie)	OB	Y	Hospital
Yolonda	V	OB	Y	Hospital
Monica	c-sect	OB	Y	Hospital
Faluke	V	OB	Y	Hospital
Destanni	V	OB	N	Hospital
Denitra	V	Midwife	Y	Birth Center
Brihanna	V 1st c-sect 2nd	OB	Y	Hospital
Melissa	V	Midwife	N	Hospital
Sholanda	c-sect	OB	Y	Hospital
Juanita	V	Midwife	Y	Home
Danielle	c-sect	OB	Y	Hospital

KEY= V-Vaginal Delivery; c-sect- Cesarean Section; VBAC-Vaginal Birth After Cesarean; OB-Obstetrician

Table 5. *A Crosstabulation of Birth Outcomes*

Count Type of Birth

Birth Attendant*	**Vaginal (20)**	**C-section (9)**	**VBAC (1)**	**Total(30)**
Midwife	**8**	**0**	**1**	**9**
Obstetrician	**14**	**9**	**0**	**23**
Birth Location				
Hospital	**15**	**9**	**0**	**24**
Birth Center	**4**	**0**	**1**	**5**
Home	**1**	**0**	**0**	**1**
Lactation Consultant				
YES	**16**	**6**	**1**	**23**
NO	**4**	**3**	**0**	**7**

N=30

* Two of the mothers in the study reported having both an obstetrician and a midwife.

Tech Support

Released in theaters in the US in May 2024, the movie Babes showcases the birth and infant feeding experiences of an African American mother and her European American, Jewish best friend. Through their interactions, detailed birth experiences, and foibles with infant feeding the audience is shown two typical examples of birthing in America and the subsequent journey to feed infants. From the onset, the audience is shown that the process of birth is predominantly managed by obstetricians, gynecologists (OB/GYN) professionals and technological intervention. Throughout the film, the audience is shown that mothers have access to different technologies and that they shape the way that mothers experience birth and by extension infant feeding. In order to understand these phenomena, I explore the relationship between those who provide technical support to birthing/ postpartum girls, women, and nonbinary people who were assigned female at birth (obstetricians, midwives, lactation consultants, and nurses), technology (breast pumps and infant formula), and their intersectional impact on the infant feeding experiences of the mothers in this study.

The Machine

> I swear there should be a book in the Bible called "breast pumps" [Laughter] because it was one thing after the other.
>
> (Shaniqua)

Shaniqua, a first time mother, wanted to do everything "naturally." She wanted to have her birth with a midwife at a birth center. She didn't want any drugs during her labor. She wanted to breastfeed her baby as soon as he was born. She stuck to her plan and had a drug-free labor at a birth center with her midwife. According to Shaniqua,

> He knew what to do. I didn't. That's why I was like, okay, everything is going to go easy. He came out, and he was like [Slurp] [Laughter]. He latched right on. . . . I was like, okay, no problem, no conflict; he knows what to do. I just let him do it.

Everything seemed all right. One week passed without incident then:

> I started to feel pain in my right breast. I would nurse him. I tried nursing him on my side, and he wouldn't nurse. I'm thinking he's full, but he would still be upset. It didn't take long for me to realize something was wrong. I'm like go ahead and eat, and he would try, and then he would stop and be upset. Something is wrong. There was pain. I thought it was because I was engorged, but it was clogged. He wouldn't nurse on this side. We were like, okay, it's time to get a pump.

Shaniqua found out that she had a clogged milk duct and thrush[5]. She found relief (and a means of continuing to breastfeed) by pumping her breastmilk and feeding it her son in a bottle. Initially, she bought the most cost effective breast pump that she could find at a local store. She quickly discovered that, "all pumps are not created equal." Shaniqua talked to her midwife. Her midwife referred her to a lactation consultant who recommended a specific brand of breast pump. The cost of the pump was prohibitive, but Shaniqua got one as a belated shower gift. After she began using it, she saw an immediate difference in the amount of milk that was able to extract from her breast. She summed up her feelings about breast pumps when she said, "You get what you pay for." Shaniqua was able to build supply of breastmilk that could be stored and fed to her son while she was healing from her infection. Without the proper pump, she would have been forced to use infant formula which she did not want to do.

Elaine, a 32-year-old mental health technician, was happy when her first child began breastfeeding without any challenges. Her mother was not able to breastfeed her and she was afraid that she would experience problems with breastfeeding, as well. Her child latched on to her breast and suckled happily. For good measure, she agreed to try using a breast pump at the hospital. She wanted to

[5]Thrush is a fungal infection which is characterized by White spots inside the baby's cheek or on the gums. It can be caused by taking antibiotics or oral contraceptives (La Leche League International, 1995).

make sure that she was prepared with expressed milk, "just in case." Speaking about her first experience with a breast pump, she said,

> I didn't like being milked. I had no problem with the birth thing, but I didn't get nauseated until they milked me. They put the little milk suction thing on me, and literally I got nauseous. I'm like I'm being milked, and I didn't like it [Laughter]. I was like get this off of me, so they brought the baby, and then we worked more with him getting the milk from me as opposed to the entire suction machine thing. I felt better.

The breast pump did not suit Elaine, but her child nursing from her breast did. Elaine decided that she did not want to use a breast pump. Also, she was not comfortable with expressing milk from her breasts with her hands. She turned to infant formula as her "just in case" food.

Edibles

Fledgling doctors, who would cement themselves as specialists in children's medicine, promoted the scientific food which could replace the need for a woman to use her breast to feed a baby (Blum, 1998). According to the CDC, touted as the "formula" for babies, human breastmilk substitutes have replaced human breastmilk as the primary food that is fed to infants in the US. At the time of their interviews, eleven of the mothers in the study had not fed their infants infant formula. The rest had either consciously chosen to feed their babies infant formula, or had the choice made for them by their doctors and/or nurses. Among the participants in the study who chose to exclusively breastfeed, one mother began to supplement her child with rice milk when he was nine months old. At the time of the interview, three of those mothers had babies who were younger than six months old. Three others weaned their babies between the ages of nine and ten months old. Subsequently, each mother transitioned her child either to cow's milk or soy milk.

Eighteen out the thirty mothers in this study used formula to feed their babies. Two of the participants in the study chose to introduce infant formula as their baby's first food. Eight of the respondents, all of whom had a c-sections, found out that their babies received formula after they were delivered. Each of these mothers had a variety of drugs in their system as a result of the sedation and added medication to stabilize their vital signs. As a result, they were instructed to wait to breastfeed their babies. After the complication of their interrupted birth, each mother was happy that she and her child was alive and healthy. She expressed disappointment that her birth deviated from her plan, but she did not display distress that her baby had been fed infant formula. According to the respondents, the nurses explained that their babies would be fed formula to keep them healthy. After the mothers indicated that they wished to breastfeed, they were told that once they bodies were clear of the medicines, they could breastfeed. The mothers in this group accepted this information and waited until they were cleared to breastfeed. In their collective opinion, technology was keeping their babies alive

and healthy, so that they could get better and take over the job of caring for their babies.

The mothers in the study had mixed feelings about the policy that their hospitals had of feeding newborns infant formula shortly after birth in the absence of breastmilk or colostrum. At the time of her interview, Brihanna was a 32-year-old mother of two. She had formula fed her first child, who was born 1997. Brihanna said that formula was all that she knew about at that time. Her son had ear infections and other health problems when he was younger. Over the years, she learned more about breastfeeding. When she found out that she was pregnant again, she decided that she wanted to breastfeed this child. Reflecting on her experience in the hospital with her second child she said,

> Well, when I had her I nursed and I told them definitely do not give her a bottle, not matter what the circumstances was, don't give her a bottle; if she needs to be fed bring her to me. And I kept her in the room for that simple fact. I kept her in the room with me the whole time was in the hospital.

Brihanna knew that using infant formula was fast and easy for the hospital staff. In order to prevent her daughter from being fed formula, she adamantly sought to keep her child near her. As a result of her objection to using infant formula, Brihanna positioned herself as able to breastfeed her daughter on demand.

Outside of the hospital, eighteen of the respondents in the study actively combined breastfeeding and infant formula use. Participants in the study, like Evelyn, a 21-year-old first time mother, began supplementing with infant formula when she return to her job as a medical assistant. For Evelyn, infant formula was a stand-in for her breastmilk. She experienced less stress about having food for her daughter on the days that she could not express the quantity of milk that she desired. Also, she could take formula along on trips and anyone could easily mix it without in her absence and feed the baby.

Leila, a 38 year-old mother of two, happily breastfed her daughter, but when her daughter wasn't producing dirty diapers, she thought that something was wrong. According to Leila, her pediatrician told her to stop breastfeeding and feed her daughter infant formula. Leila, a nurse, complied. She pumped her milk in the mean time. Her daughter began urinating and defecating so Leila continued feeding infant formula and expressed her breastmilk. Evelyn never put her daughter to the breast again.

Elaine completely transitioned each of her three children to infant formula. She said that initially she felt guilty about not breastfeeding them and then she "got over herself." Elaine evaluated what was important to her. After she observed that her children were not getting sick, as she feared that they might without her breastmilk, she relaxed into the ease that came with using infant formula. Despite whether or not each of the mothers in the study liked (or used) infant formula, they all agreed that its lure was that it was technology that made their (and other people's) lives easier. They believed that using infant formula meant that they didn't have to worry about their milk supply, the quantity or quality. Also, the cultural norm for the women in the study is that others (othermothers, their

partners, childcare workers, etc.) would be actively engaged in the care of their babies. So, they knew that having bottles that could be handed to anyone would facilitate this practice.

Human Resources

According to the participants in the study, obstetricians and midwives had opportunities to play significant roles in their infant feeding decision-making. The role of the healthcare provider was expanded when the respondents had challenges with their births and/or breastfeeding. When Lydia found out that her daughter had GERD[6], she relied heavily on the advice of her doctor when she determined how she would proceed with feeding her child. While she was committed to using infant formula, her daughter's pediatrician encouraged her to breastfeed the baby. Following his advice, Lydia breastfed her daughter for a few days and her child's health improved. Despite this positive turn of events, Lydia decided that breastfeeding was not something that she wanted to continue. She said,

> I tried pumps, I tried everything. I had like three or four pumps trying to get something out to give her. I wasn't comfortable with her latch[7]. I didn't like breastfeeding at all, it was just ugh. It hurt.

Lydia's negative experience with breastfeeding trumped the advice that she received from her daughter's pediatrician, as well as, the evidence that her daughter's health improved once she stopped receiving infant formula and started getting breastmilk. Lydia embraced infant formula. Although she did not choose to follow his initial recommendation to breastfeed, she sought him out to find a technologically enhanced formula that would easier for her daughter to digest. At the time of the interview, Lydia's daughter was three years old. She still suffered from the symptoms of GERD. Lydia believed that despite the episodic vomiting that her daughter experienced, the prescription infant formula that she used was the right choice because her child would be fed food that would not make her sick all of the time and provide Lydia with the option not to breastfeed her.

Esther, a 37-year-old, a full-time mother of two, found out that she had Hepatitis B before she got pregnant. She believed that she contracted it from her mother while she was breastfeeding. Esther's mother did not find out that she had contracted the disease until after she received a blood transfusion many years later. After Esther found out about her infection, she spoke with her obstetrician about the utility of discussing breastfeeding with a lactation consultant. According to Esther her obstetrician said that,

[6]Gastroesophageal Reflux Disease (GERD) is a condition in which the esophagus becomes irritated or inflamed because of acid backing up from the stomach.

[7]The term "latch" refers to when a baby takes her/his mother's nipple into her/his mother while breastfeeding.

> He didn't think it [breastfeeding] was a good idea, but . . . .he wasn't a pediatrician and he didn't want to influence my decision, but this was his opinion as my doctor. He didn't think that it would be a good idea. And he told me this earlier on.

Esther's obstetrician's response was that she would not need one because he believed that she should not take the chance of passing the disease on to her child through breastmilk. He acknowledged that his expertise didn't lie in children's health, but he asserted his authority and his vested interest in her, as "her" doctor. The implicit message was that a pediatrician, her child's doctor would not be focused on "her " best interests, but on that of the child. So, what he said should hold more sway. Also, based on Esther's recollection, he clearly asserted his stance on her proposed feeding practices "early on," thereby reiterating his status as "expert" during the time that she was beginning to gather information about her options. Esther went on to interview pediatricians, so that she could choose one before her baby was born, and asked them what they thought about her breastfeeding even though she had Hepatitis B. According to Esther, all of the doctors believed that she should breastfeed. Each doctor based his decision about breastfeeding on the recommendation that was issued by the Centers for Disease Control and Prevention (CDC, n.d.) for Hepatitis B infected mothers and breastfeeding[8]. Despite their advice, Esther chose to use infant formula, although she had previously committed herself to breastfeeding. She "didn't want to take a chance." The fear of her child contracting the disease, which was reinforced by the OB she trusted, superseded everything else. Throughout the interview, she lamented the flaws of infant formula. She said,

> It was awful and I felt terrible because I'm like if I was breastfeeding this wasn't happen... I was so upset about it. I took him to specialists because it continued. He would have really, really hard bowel movements. And I switched his formula a couple of times and the same thing. He didn't have a problem with his intestines or his colon or anything they checked. His stomach was fine...it was just the formula.

Although she firmly believed that the food that she was feeding her son was keeping him sick, she did not attempt to breastfeed him. Esther exhausted every other possibility, even switching formula brands, but never modified her fear.

After giving birth to their babies, 28 out 30 mothers in the study initiated breastfeeding. Of those, 22 mothers delivered their babies in hospitals and six of the mothers delivered at birthing centers. Many of them, particularly first time breastfeeders, stated that they were plagued with the fear that they would not be able to get their babies to latch correctly. All of the mothers in the study who delivered at birthing centers received help from their midwives with latching their babies to their breasts after the baby was born. The form of help that was offered was either "supportive talk" or direct hands-on instruction. Supportive talk consisted of verbal encouragement and/or loose verbal instructions which guided the mother through taking the baby to her breast and positioning her/his head. Direct hands-on instruction involved the midwife touching the mother and baby.

[8]According the Centers for Disease Control and Prevention, Hepatitis B is not spread through breastfeeding.

She physically showed the mother how to get her child to latch on to her breast. Also, she showed the mother how the child's head should be positioned against her breast. According to the mothers in the study, this help was invaluable.

Participants in the study who birthed with obstetricians said that they did not receive advice about the mechanics of breastfeeding or any hands-on instruction from them. According to the mothers in the study who birthed at hospitals, *when* they received help with the mechanics of breastfeeding, nurses were the healthcare providers who helped them after they indicated that they wanted to breastfeed. According to Amy,

> Yea, a lady came in and sat with me the day after I had my daughter…she asked me what my decision was to breast-feed or formula feed, so I let her know I was going to be breastfeeding and she brought a pamphlet in there and let me, they had pictures of how to hold the breast and how to hold the baby and she showed me, she had this doll in there and she showed me how to hold the doll so that the doll would be like the baby, the baby would get a good amount of milk and it wouldn't hurt and everything. So I think that's why I had a good experience breastfeeding. Oh, it was really easy for me in the beginning. Because she showed me the steps and everything so I wouldn't hurt and (so)that my baby would get enough milk and be full.

Like other mothers in the study who said that they received help with breastfeeding while in the hospital, she credited her success with breastfeeding to the help that she received from a nurse. Amy had not experienced breastfeeding, nor did she know anyone who was doing it. The nurse provided her with a live person, not a book, a video or a disembodied voice on the phone, who could answer her questions about breastfeeding while physically guiding her when she had any problems. Also, the prop that the nurse brought eased some of Amy's tension and made it possible for the nurse to guide Amy through the physical aspects of breastfeeding without having to handle Amy's breasts. Having a medical professional there, who was eager to talk with her while she was breastfeeding, provided Amy with external validation about her mothering.

All of the mothers who birthed at hospitals did not have positive experiences with their healthcare providers. Chelsea wanted to breastfeed her daughter. She initiated breastfeeding, but began having problems. As we sat in her living talking about her early experiences with breastfeeding she recalled:

> I breast fed, and she was very hungry. . . . I don't know if I was doing it wrong . . .it was making my nipples really sore . . .They were teaching me how to do it. They were trying to show me the finger removal like when to stop and how to alternate breasts. The nurse showed me that, but it wasn't nothing really in details. To be honest with you, I don't really think that they were very helpful. I think if they may have been a little more helpful and a little bit more understanding as opposed to just saying it will be okay eventually, you'll get used to it, maybe I would have breast fed longer.

Chelsea received some assistance, but not the type of detailed, handson help that she felt that she needed to continue breastfeeding. When she spoke with her

obstetrician about the scabs that she was developing on her nipples because she believed that may have been breastfeeding her daughter incorrectly, he told her to "just keep trying" and that her feeding experiences would improve. He said that if they didn't she could just go to formula. According to Chelsea that advice did not reinforce her desire to breastfeed. Nor did it validate her breastfeeding experience. Instead, it provided her with a justification for quitting. She believed that her doctor's attitude supported the interchangeability of infant formula and breastmilk. Chelsea's breastfeeding experience did not improve so shortly after her visit to the doctor, she weaned her daughter and switched to infant formula. In sum, Chelsea breastfed her daughter for approximately five weeks. At the time of the interview, she said that if she had any other children, she would not initiate breastfeeding.

Mothers in the study, who were breastfeeding for the first time, were most likely to desire the presence of a healthcare provider when they initiated breastfeeding. Participants in the study, who birthed in hospitals, which had lactation consultants, were most likely to have one visit them before they went home with their babies. According to the respondents, their presence and accessibility was both a blessing and an annoyance. According to Monica, a thirty-three year-old, housewife, the White lactation consultant at the hospital where she delivered her baby was too enthusiastic with her "help":

> It probably is similar to what happened to me at [the hospital] when everyone was forcing me to do something and they're whipping my breast out and giving it to the baby and they were always just pushing, pushing, pushing. Then I got kind of well, you know, no. I'm not going to do that. So now I'm going to formula-feed and there you go. . . . You can't make me do this with my body. I can do whatever I want to do with it.

Monica felt as though she was being pushed beyond her level of comfort because of the uninvited way in which the lactation consultant touched her body. Rather than feeling empowered to breastfeed her child, the lactation consultant's unsolicited manipulation of her breasts left Monica feeling violated, and her response was to reject breastfeeding. By rebuffing the act, she believed that she would be taking charge of how she would feed her baby and by extension, regain control of her body.

Discussion

While the specific birth experiences of the participants in the study influenced whether or not they breastfed exclusively or combined breastfeeding and infant formula use, the ability to invoke agency continued to be a recurrent theme throughout our conversations. Interaction with resources, human and material, played a significant role in the initiation, duration, and attitude toward nursing and infant formula use. I explore the interplay of these factors.

The mothers in the study who had been breastfed (or whose partners had been breastfed) talked about receiving a lot of positive support for them to breastfeed. Within their familial circles, breastfeeding was constructed as something that was

not simply "best" but also normal. In the end, participants weighed the advice that they received and balanced it with the preexisting knowledge that they had about breastfeeding and infant formula to make a wide variety of decisions.

While the chatter surrounding infant feeding did not disappear once their babies were born, the mothers in the study shifted their focus from the noise of others to the embodied experience (and consequences) of their birth. Mothers who had normal births[9] were more likely to focus on feeding on their own terms. They sought out human (like lactation consultants and childcare workers) and technological (breast pumps, nipples, etc) resources which would improve their breastfeeding outcomes. While having a healthy birth was the first step in having success with breastfeeding, it did not ensure it. Despite having healthy vaginal births, some mothers found themselves dealing with challenges like access to resources, and healthcare providers who did not respect the wishes and/or parameters of care established by the respondents. These elements negatively impacted the participants' duration of breastfeeding, especially when the mothers did not have access to family and friends who supported their breastfeeding efforts.

Mothers in the study who had premature babies and/or c-sections found themselves caring for healing bodies and dependent on the medical system. These participants were most likely to blame their bodies when their infant feeding plans were disrupted. Also, these mothers were most likely to view medical intervention positively. They adapted to the changing landscape of their personal care, as well as, that of their babies. While their breastfeeding outcomes differed, these respondents were most likely to use innovative ways, such as expressing breastmilk for three months without feeding from the breast or mixing breastmilk with infant formula because they were determined to feed breastmilk to their babies despite being instructed by their baby's doctors to formula feed. The participants in the study gained the most knowledge, experience, and comfort with breastfeeding when their healthcare and social service providers understood the boundaries of their roles and provided them with information and access to resources while remaining within those boundaries. Regardless of her birth experience, each mother did what she believed a "good mother should do."

Conclusion

Providing mothers with more relevant (beyond the superficial), and detailed information about the plethora of benefits of breastfeeding for them would enhance the appeal of breastfeeding. For example, all of the mothers in the study knew that breastfeeding speeds postpartum weight loss. Some of the mothers knew that breastfeeding increases the speed of the uterus returning to its pre-pregnancy size, but they did not know that breastfeeding immediately after birth significantly

[9]Following the medicalization of pregnancy and childbirth in this society, medical intervention during the birth process, e.g. epidurals, episiotomies, drug therapy to accelerate birth, etc., has been routinized and normalized. As a result, a normal birth is any vaginal birth that occurs without any medical complications.

reduces their chances of hemorrhaging or that weight loss reduces the co-morbidities of hypertension and diabetes. While women in the study understood the message that breastfeeding is best, the practice is not normalized in the larger society. As a nation, we have not universally addressed the structural issues that impede the breastfeeding choice by enacting policies like flex schedules for working, extended **paid** leave for ***all*** mothers, on-site daycare facilities, on-site lactation centers, abolishing laws that criminalize breastfeeding in public, etc. Further, my findings suggest that women are significantly receptive to information about infant feeding during pregnancy. During that time, healthcare providers are empowered to present soon-to-be mothers with materials (goodie bags, etc) and information (pamphlets, support group contacts, etc.) that normalize breastfeeding instead of human breastmilk substitutes. Also, mothers who have had challenges with their births and/or new mothers are particularly vulnerable to hospital practices regarding infant feeding. For the mothers in this study, nurses and lactation consultants were both helpful and harmful to the participants' feeding plan. My findings suggest that the respondents, particularly those who had little or no experience with breastfeeding, were pleased to be able to talk and work with a healthcare professional who could assist them with the mechanics of breastfeeding. But, the respondents were displeased when the nurse(s) and/or lactation consultant did not respect their physical and emotional boundaries. I argue that both nurses and lactation consultants, particularly those who are not Black women, should receive cultural sensitivity training which would provide them with information about guidelines for touching Black women's lactating breasts, as well as parameters for "encouraging" Black women to breastfeed. This training would affect Black women's birth experiences and therefore impact their infant feeding choices.

Finally, studying sites where a plethora of tangible options are made available to African-American mothers that encourage them to breastfeed and support their efforts would aid in understanding how structural policies impact breastfeeding rates among African American women and lead to creating and enacting policies, procedures, and practices that increase health equity, especially since these directly impact Black women's infant feeding choices.

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