Breastfeeding Experiences of Black Women in Oregon:

A Phenomenological Approach

By

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TABLE OF CONTENTS

List of Tables III

List of Abbreviations IV

Acknowledgments V

Abstract VI

Chapter 1: Introduction 1

Benefits of Breastfeeding 1

Breastfeeding Recommendations and Current National Statistics.. 2

Chapter 2: Background.. 6

Study Setting: The Oregon WIC Program.. 6

U.S. Black Women and Breastfeeding.. 7

Mother's Environment Influences Breastfeeding Intention.. 9

Prenatal Intention Influences Decision To Breastfeed.. 11

Maternal Autonomy Enhances Successful Breastfeeding.. 12

Significance.. 15

Specific Aims and Hypothesis.. 17

Study Objective.. 17

Chapter 3: Methods.. 18

General Design.. 18

Qualitative Method:A Phenomenological Approach.. 18

Quantitative Method.. 20

Participant Recruitment.. 20

Study Participants.. 22

Data Cleaning and Management.. 22

Confidentiality and Participant Consent.. 24

Chapter 4: Results.. 25

Descriptive Statistics.. 25

Development of Codes and Themes.. 26

Primary Themes.. 26

Mothering Self-Efficacy…… 26
Closeness: The Mother-Child Bond…… 28
Benefits of Breastfeeding……30
African Immigrant Mothers and Breastfeeding……. 33
Breastfeeding Advice from Study Participants…… 35
Secondary Influence of Relationships on Breastfeeding…… .. 36
Chapter 5: Discussion ……38
Summary……38
Mothering Self-Efficacy…… 38
Closeness: The Mother-Child Bond…… 39
Benefits of Breastfeeding…… 40
African Immigrant Mothers and Breastfeeding…… 41
Limitations of Study……42
Future Directions …… 43
Conclusions…… 44
Implications of Research……46
Tables…… 48
References……51
Appendix……. 53
A: Participant Recruitment Letter…… 53
B: Appointment Reminder Card…… 54
C: Participant Consent Form…… 55
D: Script for Interview…… 57
E: Results from InVivo Coding Analysis…… 59

TABLES

Table 1: Comparison of U.S. Breastfeeding Rates and Healthy People 2010 Goals For Initiation and Duration of Breastfeeding 3

Table 2: Comparison of Progress Toward Healthy People 2010 Goals for Initiation and Duration of Breastfeeding By Race/Ethnicity 4

Table 3: Comparison of Breastfeeding Initiation and Duration Rates Among U.S., Oregon, U.S. WIC, Oregon WIC and Black Women in Oregon WIC 5

Table 4: Descriptive Characteristics of Participants 25

Table 5: Primary Themes Influencing Successful Breastfeeding Among Black Mothers In Oregon: Maternal Self-Efficacy 48

Table 6: : Primary Themes Influencing Successful Breastfeeding Among Black Mothers In Oregon: Closeness: The Mother-Child Bond 48

Table 7: Primary Themes Influencing Successful Breastfeeding Among Black Mothers In Oregon: Benefits of Breastfeeding 49

Table 8: Secondary Aspects of the Breastfeeding Experiences Among Black Mothers in Oregon 50

LIST OF ABBREVIATIONS AND ACRONYMNS

AAP	American Academy of Pediatrics
HP2010	Healthy People 2010
WIC	The Supplemental Nutrition Program for Women, Infants, & Children
PNSS	Pediatric and Pregnancy Nutrition Surveillance System
CDC	Centers for Disease Control and Prevention
NHANES	National Health and Nutrition Examination Survey
NIS	National Immunization Survey
WHO	World Health Organization
TWIST	The WIC Information System Tracker

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Abstract

Breastfeeding decreases the rate of disease in children, provides immunological benefits for the infant and benefits overall health by reducing the prevalence of overweight and obesity in children (1). In the United States, 74% of infants are "ever breastfed" (2). Initiation of breastfeeding varies between racial/ethnic groups with the highest initiation rate of 82.1% belonging to Hispanic women followed by 73.8% among Caucasian women (2). Since the 1970's, Black women have had the lowest rates of breastfeeding in the United States (3). The current national breastfeeding initiation rate for Black women is 65% (2). In Oregon, over 90% of infants born are reported as "ever breastfed"(4). Among these infants, 63% are breastfed for six months or more (5). Black women in Oregon have a breastfeeding initiation rate of 83%; exceptionally higher than the national average (2).

The primary objective of this project was to use a phenomenological approach to explore the unique breastfeeding experiences of Black women in Oregon who were enrolled in WIC, successfully initiated breastfeeding, and breastfed for a minimum of one month. The secondary aim was to determine elements for success that can be translated to increase breastfeeding rates of Black women outside of Oregon.

A list of potential participants was extracted from the Oregon WIC client database. Fifty-two women met the eligibility criteria including non-Hispanic Black, English speaking, with a breastfed child under 1-year of age, and a duration of breastfeeding greater than one month. Thirty-seven women had accurate contact information and were invited to participate. Ten of these women completed a one-hour

guided interview about their breastfeeding experiences. Interviews were transcribed verbatim and InVivo and Pattern coding were used to identify major themes.

Three primary themes emerged from the data and were identified as influencing successful initiation of breastfeeding among Black women in Oregon. Primary themes identified included maternal self-efficacy, importance of the mother-child bond, and belief in the benefits of breastfeeding. Eight secondary aspects of the breastfeeding experiences within the study population were also explored. Participants who were recent immigrants from Africa expressed unique opinions about breastfeeding compared to the African-American women in the study. Four of the ten women were multiparous and had a decrease in breastfeeding duration with every additional pregnancy. Participants, independent of breastfeeding duration, believed that all mothers should attempt to breastfeed.

The high rates of successful initiation of breastfeeding among the Black WIC mothers interviewed in this study may be attributed to both personal and environmental factors. Although most mothers experienced a number of barriers that could have led them to stop breastfeeding, their unwavering commitment to both motherhood and breastfeeding helped them continue. Encouragement to breastfeed from midwives, WIC, friends and family was appreciated but was not the deciding factor for initiating breastfeeding. Understanding the link between a woman's perception of her role as a mother and her internal motivation to successfully breastfeed may be a critical component in designing interventions for women at high risk for not breastfeeding. In addition, since each woman's motivation for breastfeeding was quite

individual, tailored education rather than a one-size fits all approach has a greater potential for achieving success.

Chapter 1: Introduction

Benefits of Breastfeeding

The nutritional composition and immunological components of breastmilk are ideally suited to the needs of an infant during their first year of life. Breastmilk contains essential amino acids and micronutrients such as calcium and iron (6). The infant immune system is not fully developed until around five years of age. Antibodies found in breastmilk provide immunological benefits during the first year of life that cannot be obtained by other means. The immunoglobulin IgA, the most abundant antibody in breastmilk, plays a role in the infant immune process by developing “good bacteria” in the gut (7). The protein lactoferrin is also found in breastmilk and inhibits iron-dependent bacteria and assists in developing the infant’s gastrointestinal tract (8). The unique benefits of breastmilk on the gastrointestinal tract are thought to be one of the reasons that there are fewer cases of diarrhea during infancy in breastfed babies (9).

In addition to micronutrients and immunological properties, breastmilk offers appropriate nutrient density. Breastmilk includes a higher fat content than infant formula to assist with meeting energy needs for growth while the protein composition of breastmilk is lower to maintain a safe nitrogen load for the baby’s immature kidneys (10). The protein component of breastmilk is optimally whey-casein balanced and therefore easier to digest than infant formula (11). The micronutrients in breastmilk are highly bioavailable and therefore easily absorbed by the baby’s gastrointestinal tract (11). Adequate nutrition is essential for proper infant growth. A typical infant is expected to double his/her weight in the first six months of life and triples his/her

weight by twelve months (10). Breastmilk is also essential to support optimal neurodevelopment during childhood (12).

There are many advantages and positive outcomes related to breastfeeding children. Breastfeeding also decreases the risk and prevalence of infant and childhood infectious disease, obesity/overweight, and common illnesses of infancy such as ear infections, respiratory tract infections and diarrhea (13). Breastfed infants have 23% fewer ear infections, 72% fewer hospitalizations during the first year of life, 27% fewer cases of asthma compared to formula-fed infants; and 14% less childhood obesity later in life than infants not fed breastmilk (14). Most importantly the prevalence of type 2 diabetes, heart disease, high cholesterol and other similar chronic diseases are significantly reduced in breastfed infants (12). The short and long-term benefits of breastmilk can determine the fundamental health of a child.

Breastfeeding Recommendations and Current National Statistics

The American Academy of Pediatrics recommends "exclusive breastfeeding for the first six months of life and continued breastfeeding with addition of complementary foods for at least the first 12 months" (15). The two primary breastfeeding objectives established in 2000 by *Healthy People 2010* include achieving a breastfeeding initiation rate of 75% or more and a goal of 50% of mother-infant pairs continuing to breastfeed for at least six months (16). In 2009, data from the National Immunization Survey revealed that 74% of mothers in the United States initiated breastfeeding (2). This is just below the 75% goal from *Healthy People 2010*. However, despite relatively good

initiation, duration is not adequate (17). A comparison of *Healthy People 2010* goals and breastfeeding rates as of 2008 are displayed in Table 1(10).

Table 1: Comparison of U.S. Breastfeeding Rates and Healthy People 2010 Goals for Initiation and Duration of Breastfeeding

	Healthy People 2010[1] **(% of mothers)**	**United States[2]** **(% of mothers)**
Initiation	75%	74%
Duration (≥6 mo)	50%	43.4%
Duration (≥12 mo)	25%	22.7%
Exclusive (3 mo)	60%	33.1%

(CDC[1] & NIS[2], 2008)

The table above provides evidence that the breastfeeding goals of *Healthy People 2010* have not been met. The Centers for Disease Control and Prevention (CDC) reported that recommended breastfeeding duration, defined as continued breastfeeding for > 6 months, was "proportionally lower than the Healthy People 2010 objective with less than 45% of U.S. infants breastfed for at least six months" (17). Although current breastfeeding rates are below *Healthy People 2010* goals, these numbers reflect a 17% increase in the proportion of infants that were 'ever breastfed' between 1993 and 2006. (18). An increase in the number of breastfed infants has been one of the *Healthy People* goals since goals were established twenty years ago.

A review of national breastfeeding rates among women of different racial/ethnic backgrounds finds significant differences between groups. Table 2 displays breastfeeding rates for three major racial/ethnic groups, with rates among Black/African-American women, who will be referred to as Black women for the remainder of this paper, being significantly lower than rates for Caucasians and Latinas (2). This gap has been evident since collection of this data source began in the 1970's and has continued in the subsequent decades with only 20.2% of non-Hispanic Black infants being breastfed for at least 6 months (19).

Table 2: Comparison of Progress Toward Healthy People 2010 Goals for Initiation and Duration of Breastfeeding By Race/Ethnicity

	Healthy People 2010[1] (% of mothers)	**Caucasian[2] (% of mothers)**	**Hispanic/Latina[2] (% of mothers)**	**Black/African-American[2] (% of mothers)**
Initiation	75%	73.8%	82.1%	65%
Duration (≥6 mo)	50%	44.3%	48.5%	27.5%
Duration (≥12 mo)	25%	22.6%	27.2%	12.3%
Exclusive (3 mo)	60%	35%	35.7%	18.8%
Exclusive (6 mo)	25%	14.6%	14.9%	5.6%

(CDC[1] & NIS[2], 2008)

Despite a lag in breastfeeding rates at a national level, women in the state of Oregon are exceeding *Healthy People 2010* goals with 91.4% initiating breastfeeding and

63% continuing to partially breastfeed at 6 months (2). Oregon's unique position holds true amongst women of varying socioeconomic strata and racial/ethnic groups. For example, data from the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), a common proxy for low-income status, shows that 91% of its participants initiated breastfeeding (20). Although initiation rates are lower for Black mothers in Oregon WIC, 83% still initiate breastfeeding, putting them above *Healthy People 2010* goals despite being a group identified as being at higher risk for not breastfeeding (20). Table 3 compares breastfeeding rates at the national and state levels, for all mothers and those who participate in WIC.

Table 3: Comparison of Breastfeeding Initiation and Duration Rates Among U.S., Oregon, U.S. WIC, Oregon WIC and Black Women in Oregon WIC

	U.S.[1] (% of mothers)	**Oregon[1] (% of mothers)**	**U.S. WIC[2] (% of mothers)**	**Oregon WIC[2] (% of mothers)**	**Oregon WIC[2] (% Black mothers)**
Initiation	64%	91.4%	62%	91%	83%
Duration (≥6 mo)	43.3%	63%	26.9%	43.2%	35.9%
Duration (≥12 mo)	22.7%	37.0%	19.1%	26.4%	17.9%
Exclusive (3 mo)	33.1%	56.6%	12.9%	45.7%	N/A
Exclusive (6 mo)	13.6%	20.8%	7.2%	35.8%	N/A

(CDC[1], 2008 Oregon WIC Annual Report[2])

Chapter 2: Background

Study Setting: The Oregon WIC Program

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is a federally funded public health nutrition program that has served lower-income families for over 30 years (21). Specifically, the program provides nutrition and health screenings, breastfeeding support and education, referrals and vouchers to buy specific food items targeting the nutrients most commonly deficient in this population (21). To be eligible for WIC, one must be a pregnant, breastfeeding (up to one year), or postpartum women (up to 6 months) or a child under the age of 5; and reside in a household with an income at 185% of the federal poverty level (21). In 2009, the Oregon WIC program served 179,127 participants; which represents 38% of all births in that year (20). In rural counties, Oregon WIC serves 51% of all births (20). In the state of Oregon, 1 out of 3 children receives WIC services at some time during their childhood (20).

Black mothers comprise 3% of the Oregon WIC program population and while small, this group may offer meaningful insight due to their initiation of breastfeeding exceeding the average for Black women in the U.S. The Black population in Oregon is also small, only 2.2% of the total state population, with the majority (86%) residing in the Portland-Metro area. Furthermore, the successful breastfeeding of Black women in Oregon extends to the more vulnerable population served by the Oregon Supplemental Nutrition Program for Women, Infants and Children (WIC). Serving almost 50% of the

entire maternal population in Oregon, the Oregon WIC program is an integral and influential part of breastfeeding promotion and support within the state (20).

U.S. Black Women and Breastfeeding

The Black population makes up 13.5% of the United States population and is expected to reach 15% by 2050 (22). The growing diversity in the U.S. population has generated interest in the Black community's health values and behaviors. Of particular importance is assessing maternal and child health among the Black population (23).

Several studies in the last decade have investigated the breastfeeding beliefs of low-income, inner-city Black women. A mother's intention to breastfeed has been described as one of the most influential indicators of successful breastfeeding (19). In 2009, a study by McCarter-Spaulding and Gore examined the correlation between self-efficacy and intention to breastfeed with a sample of Black women from an inner-city area in New England (15). The study took into account maternal characteristics including race/ethnicity, level of education and both breastfeeding intention and duration (15). Only 5% of the participants intended to breastfeed for 25-36 weeks (15). In addition, 36% of participants didn't know how long they would breastfeed for, implying that their intention to breastfeed was undecided (15). This study further investigated relationship between prenatal breastfeeding intention and postpartum outcome. McCarter-Spaulding and Gore defined self-efficacy in their study as "both the strength of the belief and the affirmation of the capability to perform a specific behavior"(15). To assess self-efficacy, the Breastfeeding Self-Efficacy Scale-Short Form (BSES-SF), a 14-question,

self-report questionnaire was administered (15). Participants answered questions on a Likert scale of 1 to 5 with the scale implying “1= not at all confident and 5=very confident” (15). The purpose of each question was to assess the self-efficacy of each participant in the area of breastfeeding.

Scores from the BSES-SF revealed that women that identified themselves as African-American had lower scores of self-efficacy versus those that identified themselves as African, or recent African immigrants (15). Results also revealed that with every increase in one unit of self-efficacy score, women had a “decreased risk of having weaned by 1 month postpartum (15). It was concluded that an important aspect of promoting breastfeeding among the Black population is creating resources and support programs to build confidence. Breastfeeding promotion should include prenatal counseling focused on struggles an expectant mother might face postpartum (15). By presenting realistic expectations about breastfeeding and education about the benefits of breastfeeding, a woman will feel both empowered and prepared for breastfeeding her infant.

Lee et al. conducted a study in a multi-ethnic group of low-income pregnant women residing in urban Philadelphia (19). Although the participants were from varied ethnic backgrounds, 60% of the women were Black (19). Maternal characteristics assessed included maternal employment status, systems of social support, “material hardship” (inadequate income, medical care, etc.), and stress factors such as emotional behaviors and environmental influences (19). Participants were asked to complete a survey during their primary prenatal care visit that included questions on the degree of

breastfeeding intention. Descriptive statistics and the survey results were used to draw conclusions about factors that could influence breastfeeding intention.

Results from the study provided important information about the correlations between level of education, marital status, number of pregnancies and intention to breastfeed. Women with at least a high school education were significantly more likely to state they expected to breastfeed compared to women with less than 12 years of education (19). Participants that were either living with someone or married were also more likely to intend to breastfeed compare to single women implying the importance of relational support in successful breastfeeding (19).

Conclusions from the previous two studies provide potential factors that influence breastfeeding intention in Black women. Continued research is needed to fully understand intention to breastfeeding within this population. Although there is a broad scope of influences that might deter Black women from breastfeeding their child, key factors that may be most influential in her decision have been identified (24). Based on past research, examples of primary indicators for successful breastfeeding among Black women include the mother's environment, prenatal breastfeeding intention and beliefs about breastfeeding (1).

Mother's Environment Influences Breastfeeding Intention

In 2004, Cricco-Lizza completed an ethnographical study on the breastfeeding experiences of Black women in the New York-Metro area. The purpose of this study was to better understand the breastfeeding behavior among these women in relation to

their environment and beliefs. A total of 319 individuals were included in the study, 130 of these participants were Black women enrolled in WIC (BWEW). Personal interviews and observations in WIC clinics were conducted over an 18-month period (25). Cricco-Lizza believed that “knowledge, attitudes, and social support”, that are part of the Black community and culture, have fueled the stigma of breastfeeding among Black women (25). The benefits of breastfeeding were “offset by perceived barriers of embarrassment and inconvenience” related to breastfeeding in public and among family and friends (25).

The results from this study revealed that participants view breastfeeding through the lenses of deep emotional reactions to their past and present environment. The lack of desire to breastfeed was attributed to loss and stress in the mother’s past (25). For example, the participants spoke about family-related deaths, economic problems, fears of abuse and racism as potential life stressors (25). These feelings usually left the mother depressed and overwhelmed by the idea of caring for a child. Breastfeeding, to these women, was another demand on their life and more energy they would need to give to their baby.

Another interesting finding from this study was the concept of independence. Autonomy had a significant effect on the woman’s decision to breastfeed (23). Due to intense and tragic circumstances in the women’s lives, many of them had learned to take care of themselves, and possibly others, at a very young age. Therefore, autonomy was highly-respected and deemed of utmost importance in the raising of their children. Cricco-Lizza stated “Independence was strongly valued by the women that I interviewed

and observed. The women's strong beliefs in independence also extended to their children" (25). Independence became a "survival mechanism" that could be jeopardized by breastfeeding. Past research has provided evidence that there is a correlation between breastfeeding and a strong mother-child bond. The participants of this study felt that to breastfeeding would create a sense of helplessness from their children and therefore an inability to take care of themselves in the future (25).

The potential influence of intense environmental factors such as loss and stress in a Black woman's life may alter breastfeeding behavior. The effect of one's personal experiences, specifically related to cultural experiences, is a vital component of breastfeeding intention. Breastfeeding promotion campaigns/materials should be sensitive to this element of cultural influence.

Prenatal Beliefs Influence Decision To Breastfeed

The likelihood that a mother will breastfeed relies heavily on her attitude about breastfeeding prior to becoming a mother (26). In a study conducted by Saunders-Goldson, et al., the theory of planned behavior was used to better understand the impact of prenatal intentions among Black women in military hospitals (16). The theory of planned behavior describes as the effect behavioral intention has on follow-through of a particular behavior (16).

At two U.S. military prenatal hospitals in the Northeast, surveys were administered to 150 African-American women (16). Survey participation was voluntary and specifically targeted women who intended to breastfeed. Six aspects of the theory

of planned behavior were included in the assessment; “behavioral beliefs, attitude toward the behavior, normative beliefs, subjective norms, control beliefs, perceived behavior control”(16) . Of the 100 women who self-selected to complete the survey, 95 stated they intended to breastfeed. However, only 26 said they intended to do so exclusively (16).

The results of this survey provided evidence that relationships in the mothers' lives, such as with their spouse, relatives, sibling(s), etc., affected intention to breastfeed. Normative beliefs ranked the highest of all six categories (16). In this study, women were more or less compelled to breastfeed based on the perceived expectations they felt from their family, peers and healthcare providers (16). Results suggest that breastfeeding promotion must be targeted at both the mother and the network of individuals in her life.

Maternal Autonomy Enhances Successful Breastfeeding

Independence is important to women in the Black community (27). Secondary to this need for independence, there is a desire for self-assurance and confidence in taking care of oneself. In a recent study conducted by the U.S. Department of Health and Human Services, confidence in the act of breastfeeding was hypothesized to be a primary characteristic in Black women with sustained breastfeeding (27). Early cessation of breastfeeding was due to “a mother's lack of confidence in her ability to breastfeed” (27).

Focus groups were conducted with Black and Caucasian women from Chicago, New Orleans, and San Francisco (27). Decision to breastfeed compared to formula-feed was evenly distributed between the focus groups. Black women accounted for almost 57% of the participant total (27). Background of the participants, including occupation, income, and level of education, was diverse among both sets of women (27).

The focus groups were divided into "structured activities and semi-structured interviews" groups (27). Each group had a facilitator whose express purpose was to assist in cultivating discussion about motherhood and breastfeeding (27). For the purpose of brevity, there will be a discussion on the semi-structured interviewing aspect of the study only. The results of the individual participant interviews were combined to determine if a significant theme could be found within all the focus groups. "Confident commitment" was identified as a significant and overarching theme that resonated throughout the majority of participants interviews (27). Three components of "confident commitment" were identified: "confidence in the process of process of breastfeeding", "confidence in one's ability to breastfeed", and "commitment to making breastfeeding work despite challenges or lack of support" (27). The lack of commitment on the part of the mother was evident by what was noted as an "I'll try it out" attitude towards breastfeeding. This attitude was described as a lack of committed intention to breastfeed. Early cessation of breastfeeding was attributed to uncertainty that breastmilk was nutritionally adequate for their child, expectations of breastfeeding discomfort/pain and possible challenges the infant might face while breastfeeding (27). These mothers were also dissatisfied with their experience in the hospital noting that

that they had little to no support for breastfeeding during their time there (27). In addition, the hospital environment was credited with introducing children to bottles and thus a preference for bottles over breastfeeding.

Qualitative approaches to understanding breastfeeding have provided significant insight about Black women's infant-feeding decision. The findings from previous studies, in addition to the limited information about successful breastfeeding among Black women, led to this research inquiry. Understanding the unique breastfeeding experiences of Black women in Oregon may provide new understanding and assist the public health community in preparing culturally appropriate materials for the Black community.

Significance

In a breastfeeding cost analysis study, Bartick and Reinhold projected that $13 billion a year could be saved in healthcare costs if 90% of U.S. infants were breastfed for at least six months or more (28). In addition, a total of 911 deaths could also be prevented (28). The reasons for this are many. Breast fed infants have lower infant mortality because they are less likely to suffer from necrotizing enterocolitis, otitis media, gastroenteritis, hospitalization for lower respiratory tract infections, atopic dermatitis, sudden infant death syndrome, childhood asthma, childhood leukemia, type 1 diabetes mellitus, and childhood obesity than formula fed infants. If the estimate of breastfeeding compliance is adjusted to 80% of U.S. infants breastfed for at least six months, an estimated savings of $10.5 billion and 741 lives is predicted (28). Of course these are only estimates but the evidence clearly indicates breast feeding decreases infant morbidity and mortality. Unfortunately, 80-90% of women breastfeeding is not a target that has been realized for all groups.

In 2004, national data revealed that, only 45% of Black women reported ever breastfeeding their children compared to 68% of Hispanic and 66% of Caucasian women (29). Four years later, there was a gradual increase in the number of Black women that had ever breastfeed (50.2%) however, the 2008 Pediatric and Pregnancy Nutrition Surveillance System (PPNSS) concluded that, although the percentage of initiation had increased, duration of breastfeeding among Black women was still below recommendations (3). Only 20.2% of Black infants were being breastfed for at least six months and 12.9% for at least 12 months; far below the goals of 50% and 25%

respectively (30). U.S. breastfeeding rates vary between women by race and ethnicity and reveal that culture significantly influences decision to breastfeed. It is evident that Black women have lower breastfeeding rates compared to other U.S. mothers.

Research elucidating successful breastfeeding experiences of Black women is limited to date. The state of Oregon and its unique Black population provide an unprecedented opportunity to investigate these experiences. This study may assist other parts of the country in providing culturally appropriate health promotion materials by understanding the unique motivators and supports of Black women. Health care workers in the Black community will be able to incorporate concepts learned from in-depth interviews with successful members of this population. Currently, breastfeeding advocacy emphasizes the techniques of breastfeeding as its educational approach (24). A better understanding of the breastfeeding practices of Black women in Oregon may assist health professionals in counseling Black women and their families in other regions of the United States.

Specific Aims

Study Objective

The purpose of this study was to better understand the breastfeeding experiences of Black WIC participants in the state of Oregon. The specific aims of the purposed study are:

Aim 1: Explore the unique breastfeeding experiences that lead to a higher breastfeeding initiation rate among Black participants in the Oregon WIC program

Aim 2: Identify elements for success that can be translated to increase breastfeeding rates in Black women outside of Oregon

Aim 3: Report findings that can help close the gap that exists in breastfeeding rates between Black women and their White and Latina counterparts in Oregon

Chapter 3: Methods

General Design

A mixed-method research approach was used based on the explanatory design method (31). The explanatory design is a qualitative research approach that explains an unexpected phenomenon in a particular population by collecting and assessing qualitative data from the participants within the population. The purpose of the explanatory design is to elaborate on unique quantitative findings by using the experiences of those that can explain the findings best (31). This approach was chosen for two important reasons. Primarily, Black women in Oregon have higher breastfeeding rates compared to Black women in other regions of the country. The quantitative method, by way of evaluating descriptive statistics, provided this evidence. Secondly, interviews of eligible participants utilized qualitative methods and assisted in explaining this phenomenon.

Qualitative Method: A Phenomenological Approach

A qualitative approach is based in research methodology that utilizes rich experiences and expressions of people. This approach to research requires effective communication skills, strong rapport with study participants and an ability to acknowledge personal bias that may affect the research process (31). Qualitative research produces strong evidence and data that supports further research and/or program development. This type of research is important because it brings an

awareness of individual people's experiences which might otherwise be disregarded in other methods of research.

The phenomenological approach was chosen as the qualitative research method for this study. Phenomenological research is defined as that which "describes the meaning for several individuals of their lived experiences of a concept or a phenomenon (31). Phenomenology captures a theme within the stories of a handful of participants. The essence of this approach allows the research to be participant-driven. Participants share their beliefs, attitudes and experiences that generate conclusions about the research topic. The foundation of phenomenology requires that a "phenomenon" or unique characteristic be found in the chosen population (31). The phenomenon of interest for this study was the exceptionally high rate of breastfeeding initiation among Black Oregon WIC participants.

The focus of phenomenology "is to reduce individual experiences within a phenomenon to a description of the universal essence"(31). There are four key aspects of phenomenology: a return to the traditional tasks of philosophy, a philosophy without presuppositions, the intentionality of consciousness, and the refusal of the subject-object dichotomy (31). Explanation of two of the aspects will be brief but necessary to understanding the fullness of the phenomenological approach to research.

The concept noted as a "return to the traditional tasks of philosophy" simply means that knowledge gained during this type of research is to build one's wisdom and depth of understanding in the area of research. Another aspect of phenomenology is the "philosophy without presuppositions"(31) A phenomenological approach requires

that the researcher approach the participants and outcomes of the study with his/her bias put aside. This is defined as “bracketing” and means that the researcher recognizes his/her bias about the research but does what is necessary minimize its affect on the research process and/or the conclusive outcomes from the study (31).

Quantitative Method

Quantitative data was extracted from the Oregon WIC database, The WIC Information System Tracker (TWIST), by the state WIC data team staff. TWIST houses all information about the WIC enrollees including duration of breastfeeding, age of child, and race/ethnicity identification. Specific data elements that were extracted from TWIST included mother’s name and date of birth, baby’s name and date of birth, mother’s current breastfeeding status, marital status and education level.

Participant Recruitment

In November 2009, a sample of potential participants was drawn from the TWIST database. Eligible participants included women who were active clients of the Multnomah County Oregon WIC program. Female participants with a child 12 months or younger were also eligible for the study. A waiver was obtained from the Oregon Department of Human Services (DHS) Institutional Review Board to allow minors to participate in the study without parental consent. This was allowed based on the fact that minors may enroll in the WIC program without parent involvement. Of those invited to participate, English had to be selected as their primary language and

Black/African-American as race/ethnic group in the WIC database. The mother also must have breastfed for at least one month or more. Exclusion criteria included mothers with children older than 12 months, speak another language other than English, not currently enrolled in the Oregon WIC program, and having breastfed for less than one month postpartum.

Women that met the inclusion criteria were identified in the TWIST program and contacted first by a letter sent to their homes notifying them about the nature of the study and their eligibility. Letters of invitations were sent to fifty-two women to achieve a desired sample of thirty. This was due in part on past recruitment experience where a larger initial pool was needed to guarantee the desired sample size was met. In qualitative research, sample size is not statistically calculated but instead is determined based on exhausting the research topic. Once letters had been sent, the participants were contacted by a study coordinator to invite participation and schedule an interview. Ideally, the interview was to be scheduled following one of the participant's regular WIC appointments to limit participant burden. All interviews were held at the Northeast Multnomah County and East County Gresham WIC clinics. A week prior to the interview date, the participant was sent a reminder card in the mail and a phone call to discuss any questions or concerns. Following the interview, participants were given a $10.00 gift certificate to a local grocery store and recipe book.

Study Participants

A total of fifty-two mother-infant pairs met the inclusion criteria; only thirty-seven had current contact information and were asked to participate. Of the thirty-seven, ten women agreed to participate in the study and completed interviews with the study coordinator. Four of the ten participants were clients of the Northeast Multnomah County WIC clinic; the remaining six were clients of the East County Gresham WIC clinic. An interview, lasting approximately 45 minutes, was conducted on recently pregnant, Black females enrolled in WIC with children 2 months to 12 months of age. The interview consisted of 10 open-ended questions exploring a mother's experience, thoughts and influencers of her most recent breastfeeding experience. Refer to interview questions in Appendix C.

Data Cleaning and Management

Attribute coding was completed based on the information extracted from the WIC database TWIST. Applicable information from the eligible population was placed into a Microsoft Excel spreadsheet and then imported to the Statistical Package for the Social Sciences (SPSS) for analysis of descriptive statistics. Descriptive characteristics included the mothers that participated in the study (n=10).

Following completion of the semi-structured interviews with the ten participants, interviews were transcribed verbatim and coded with an identification number. Transcripts from the interviews analyzed in keeping with techniques used in the phenomenological tradition to develop key themes. Data analysis was completed by

the study coordinator and two research analysts from the state of Oregon WIC program. Conclusions drawn were discussed and full consensus was achieved by the study coordinator and research analysts to exclude any researcher bias.

InVivo and Pattern coding were the two primary qualitative methods used to explore interview data. InVivo, meaning “in which is alive”, is a method of coding that uses specific excerpts and quotes by the participants to explain the data. Pattern coding is the final step of coding used to identify emergent patterns or overall themes from the data. Microsoft Excel was used to organize responses by individual questions from the interview. The first cycle of coding included an initial read-through of transcripts for important themes and was completed individually by all three researchers. Following the initial read-through, the study coordinator and research analysts met together and discussed similar conclusions. Once consensus was reached about initial themes, the second cycle of coding was individually conducted. This particular process of coding determined overall themes. Study coordinator and research analysts meet for a second time to discuss themes identified by Pattern coding. A full agreement was reached on primary and secondary themes that emerged from the data. These themes were placed into tables with their subsequent codes to enhance organization and clarity in discussing the study’s outcomes. After transcription and analysis, original interview recordings were deleted.

Confidentiality and Participant Consent

Participant consent forms, tape recordings and researcher notes of the interviews were the only information that was collected during the study. The digital recordings and transcriptions were labeled with a study number and not with names or other identifiers. Study information was stored on a password-protected computer to which only the researchers had access. The consent forms had the participants name on it and therefore were stored in a secured location that was different from where the tape recordings and transcripts were stored. The research results do not contain participants' names or information that might identify them. Those involved in the study were trained to keep records and personal information private. The persons who were authorized to use and disclose this information are all investigators with approval from the Oregon Department of Human Services, and the Oregon Health and Science University (OHSU) Institutional Review Board. The study was approved by the Oregon Department of Human Services Institutional Review Board (DHS IRB). The Oregon Health and Science University Institutional Review Board (OHSU IRB) then reviewed this study, and agreed to waive IRB oversight for this project to the DHS IRB.

Chapter 4: Results

Descriptive Statistics

Descriptive statistics were run on the ten women who completed an interview and are displayed in Table 4. Half of the women were married and the majority had completed a high school diploma or GED. The participants ranged in age from 16 to 38, with an average age of 26. Women born in the U.S. slightly outnumbered those born on the African continent. Four of the ten women were still breastfeeding at the time of the study.

Table 4: Descriptive Characteristics of Study Participants

Age	26 (Range: 16-38 yrs.)
Marital Status	Married = 5 Single = 4 Domestic Partner = 1
# of Children	2 (Range: 1-3)
Education Level	High School Diploma/GED: 5 High School Student: 2 No High School Diploma/GED: 3
Clinic	Northeast County: 4 East County (Gresham): 6
Nationality	U.S.: 6 African Immigrants: 4
Child's Age (mo)	7 (Range: 2-12)
Duration of Breastfeeding (mo)	4.4 (Range: 1-continuous)

Development of Themes

Based on results from InVivo and Pattern coding analysis, three primary themes emerged from the data and were identified as influencing successful initiation of breastfeeding among Black women in Oregon. Primary themes identified included maternal self-efficacy, importance of the mother-child bond, and belief in the benefits of breastfeeding and are presented in Tables 5, 6 and 7. Eight secondary aspects of the breastfeeding experiences within the study population were also explored and are summarized in Table 8. Secondary aspects are not discussed in detail but provide evidence for future research directions with this population. Refer to Appendix E for results of InVivo coding analysis.

Primary Themes

Mothering Self-Efficacy

Of the three primary factors, mother's self-efficacy in the act of motherhood was expressed by all ten participants. This was defined as maternal belief in breastfeeding and confidence in the infant to breastfeed. Responses surfaced into four main concepts: personal choice/decision to continue or stop, baby needs to eat, breastfeeding is only something you can do/unique contribution, and ability to overcome the difficulties of breastfeeding.

The belief that breastfeeding is a personal choice was represented by responses such as "it's up to you for you to figure out if you want to do it or not" and "Maybe they think it[breastfeeding] is a waste of their time. Some people stop breastfeeding because

they don’t have enough milk. All this, you cannot say, everybody is just different”. When discussing the decision to breastfeed, participants were clear that they do not invoke their thoughts and feelings about breastfeeding upon other women. Instead, they wanted each women to determine for herself if breastfeeding her child was the best option. This being said, the participants were highly confident in their decision to breastfeed based on the observed health benefits for their child and the connection and bond; both of which will be discussed.

Participants also expressed confidence in their child’s ability to breastfeed. Even during difficult breastfeeding experiences, mothers felt there child would learn to successfully breastfeed if given the opportunity. These thoughts were described by statements such as “He wasn’t sucking for long periods of time; didn’t really bother me too much. I knew he would get it eventually”, and “I don’t see why it is hard because the baby will definitely be getting enough, being healthy, you don't need to look at whatever supplements to try and content the baby”. These mothers believed that breastfeeding is a natural part of life for both infant and mother. This resulted in the confidence they displayed in their child.

Breastfeeding was also seen as a unique and special contribution the mothers were able to give to their child. Participants shared feelings of pride in the ability to provide food for their child. One mother responded by saying “I thought it was pretty cool to be able to feed my child”. There was also a sense that their child knew them confidently as “mommy” because of breastfeeding. One such statement from a mother read “But I definitely felt like he knew me over anyone else. Because I had my sister

there to help and he knew she didn’t have the food, that mommy had the food”. The dependence these mothers sensed from their children enhanced their desire to breastfeed.

The ability to overcome difficult breastfeeding experiences also related to mothering self-efficacy. The mothers retold stories of challenging moments during the early postpartum period and the influences that motivated them to stay committed to breastfeeding. Key factors in the decision to continue with breastfeeding included health benefits of breastfeeding for the infant, the expense of buying formula, personal commitment to breastfeed for a predetermined amount of time, and the desire to be sole provider of nutrition for their child. Responses that validated this concept included “I wanted him to be healthy and get all the good nutrition from my body instead of formula. I wanted to try, I didn't want to give up right away”, “I didn't want to go out and buy a can of formula. It was like this is still cheaper”, and “My baby was hungry and I had milk”. The commitment to breastfeeding, independent of circumstance, was an important indicator of successful breastfeeding in this population.

Closeness: The Mother-Child Bond

Mothers from this study believed that the act of breastfeeding resulted in a unique mother-child bond. Specifically, there were four concepts identified and included: motherhood is fun and enjoyable, previous experience in mothering/care-taking role, long-held positive image of being a mother, don’t want to separate from my child, and baby is a source of unconditional love.

Participants shared an overall enjoyment of motherhood. Breastfeeding was seen as an enhancement of the entire mothering experience and not necessarily an inconvenience on the mother's life. The idea that motherhood is fun and enjoyable was clear in responses such as "I just like being able to teach them and share their experiences. Everything about being a mom is good.", and "I really love being a mom; it's something exciting". This love of motherhood was also recognized as part of the participants' lives before having children of their own. Previous mothering experiences were characterized as past experience the mother had as a caretaker. Examples of this included taking care of a younger sibling, relative, or friend. An example of a participant's response to this concept was "I love being a mom because I had that experience when I was a child too, taking care of my brother and sister. So I thought 'oh being a mom would be great.' If I had my own kids to take care of". These women had positive, past experiences as "caretaker" for others and in response, had optimistic thoughts and expectations about being a mother to their own children.

A similar result was a long-held positive image of being a mother. This was supported by one mother's thoughts; "Anybody would be happy to be a mother. If you can bring someone into the world you will definitely be happy about it. Like seeing someone that looks like you, come out of you, you will be so proud about it. One of the joys of being a mother is knowing that you are able to bring someone into this world". Participants of this study wanted to be mothers and evidently believed motherhood would be a good experience. It may be that a positive image of breastfeeding was secondary to a positive image of mothering.

Maternal self-efficacy within mothers of this study was enhanced by feelings of unconditional love from their children. Participants expressed feelings of empowerment to be better, more capable mothers in response to the strong affections and dependence they felt from their child. When one mother was asked the reason she loved being a mom, her response was “The unconditional bond I have with my child. The fact that I feel she needs me”. Participants also believed that time spent with their child while breastfeeding strengthened this connection and thus resulted in an increased likelihood that the mother would breastfeed. The concept of the baby as a source of unconditional love represented the mother-child bond most effectively and in response, participants did not want to separate from their child. One participant expressed this well when she said “But if you love children, you cannot separate from them. It's exciting”. A similar thought was shared related to the unconditional love mothers feel from their baby; “You know, that you are adored and needed and that you can never do anything wrong. Even if you do something to make them cry, they love you like two seconds later”.

Benefits of Breastfeeding

The belief in the benefits of breastfeeding was categorized into four concepts: health benefits from breastfeeding, closeness and connection of breastfeeding, breastfeeding more convenient than bottle feeding, and formula/bottles are risky. The concepts of this particular theme are echoed throughout the results of this study. The

belief in the benefits of breastfeeding, in a way, summarizes all the influences of successful breastfeeding in this population.

The mothers that felt encouraged by the benefits of breastfeeding believed that breastmilk promoted optimal growth and development for their child. The nutritional composition of breastmilk was the greatest influence. Two of the mothers had personally educated themselves about the benefits of breastmilk. One mother in particular responded that "I never had any other thoughts except breastfeeding. I know the facts. I am not doing it blindly; I am doing it out of knowledge". The opportunity to provide, what they believed, was the best source of nutrition for their child also strengthened their resolve to breastfeed. Participants responded with statements such as "For me I just gonna do it anyway because its healthier", "I saw many woman breastfeeding…they [breastfed children] would grow good and healthy", and "I love breastfeeding. It makes them intelligent. And they don't get, like, sick when you are breastfeeding".

The mother-child bond that results from breastfeeding was also a benefit to the women of this study. The participants felt they were closer to their breastfed infants compared to mothers that choose to formula-feed as one mother stated "Well, the closeness also. They seem alot closer than babies that don't breastfeed". The mothers shared the emotional and psychological experiences that breastfeeding had brought to motherhood. These responses were the most revealing of the participants' motivation to become breastfeeding mothers. Breastfeeding became a time of bonding between mother and child.

The convenience of breastfeeding was also identified as a factor in decision to breastfeed. Mothers of this study shared that providing breastmilk was much simpler than putting together formula in a bottle. Three mothers expressed similar ideas as they responded that "But I just liked, it [breastfeeding] was easier than getting out of bed and making a bottle too", "At night, it [breastfeeding] was pretty convenient, I just popped it into his mouth and he would go back to sleep" and "I really didn't have to get up in the night because their sleeping pattern was a lot better. And then when they did wake up, it was like all I had to do was to latch them on and lay there. I didn't have to get up and make bottles and all that". The expense of formula also was a concern for these mothers and many of them enjoyed the fact that breastmilk was free. This was evident in responses such as "In a time where formula is so expensive, it is a cheaper way to go" and "Because I knew for myself that yea, they [your breasts] may sag but it's easier, it's cheaper". Economically, these participants felt that breastfeeding was beneficial compared to formula that was presumed to be too costly.

Attitudes and beliefs about formula had a significant impact on breastfeeding decision in this population. Feelings of apprehension and insecurity about the nutritional quality provided by formula concerned many of the mothers. One mother responded that "I got this thing in my head that formula just really wasn't made for babies….So now that all of a sudden they make some powder substance for a child, doesn't mean that you just neglect your job". Other participants expressed the belief that breastmilk is superior to formula and should be consider as the primary option for feeding a child. One mother expressed her thoughts as "I consider it [formula] a

supplement if you cannot produce enough milk then you can use formula. But if not, please breastfeed". It is evident that negative thoughts about formula and positive images of breastfeeding equally influence infant-feeding beliefs of Black mothers in Oregon.

African Immigrant Mothers and Breastfeeding

Four of the ten participants were immigrant mothers from Africa. These women provided unique breastfeeding experiences compared to the U.S. born women in this study. The influence of acculturation on the beliefs and attitudes of breastfeeding were evident in the stories that these African mothers shared.

Breastfeeding was recognized as a normal part of motherhood to the immigrant mothers. One woman stated "In my country you breastfeed the kids *before* formula. Maybe if you have not breastmilk then you can try formula but we prefer the breast". The role of the mother was to breastfeed her child and formula was a secondary option used for exceptional circumstances. There was not a concern whether these mothers would breastfeed or even for how long they would breastfeed their child. Instead, the concern was providing their child with the best nutrition they felt was available. This was evident in one of the mothers' thoughts; "In my country [Burundi, Africa], I saw many woman breastfeeding their children and their children growing, they would grow good and healthy". Observing the benefit of breastfeeding within their culture was part of breastfeeding being a natural part of mothering.

The women also expressed fear and concern for bottles and formula. Similar to the other participants, the nutritional adequacy of formula was in question for these women. However, there was also an addition concern about the use of bottles. A mother expressed the concern in one statement, "Breastfeeding….it's just, as I have told you, in my culture, mothers breastfeed most of the time because leaving your kids bottle…..Maybe it will get dirty and they won't wash it out, a lot of things, so you can't take a chance". Concerns for sanitation and clean water were serious to these mothers and formula was not only believed to be inadequate but possibly dangerous to the infants' health. A Ugandan mother responded with this statement: "There is a lot of factors that can bring problems with the formula. Sometimes they are not ready on time, sometimes they are too hot, sometimes the water is not clean and you could poison the baby. All these factors are there and I have to consider what is best for my child". Breastfeeding was the safe and pure method of providing nutrition to children according to these mothers.

Among these women, breastfeeding duration decreased with an increase number of years in the United States. Clear evidence of acculturation's effect on sustained breastfeeding was witnessed in one of the African mothers. A mother of three children, her oldest son was born in Africa and was breastfed for a total of 16 months. While still in Africa, she had another son and began to breastfeed him in addition. She moved to Oregon when her second oldest child was five months old and only continued to breastfeed him for another three months totaling eight months of breastfeeding. Her third child, a daughter, was born in Oregon and was only breastfed for two months. She

commented that “The 2 year old I breastfeed him for like only 8 months because of being in America. Like back home [Africa], you would have nothing to do like going back to work”. This concern over the length of maternity leave in the U.S. was similarly felt in other participants. One mother stated “In Africa you would stay like a year before you go back to work. A long time but here, only 3 months. I had to go [back to work]”. In addition to returning to work, there was also a sense that the American lifestyle was not conducive for breastfeeding. When asked the reason for cessation of breastfeeding, one mother responded “I feel like after 2 months he didn’t like it because there was not enough milk in the breast.… Oh, that’s because a little stress. Like in my culture if you stress up then you dry up”.

The four African mothers provided another layer of knowledge and a unique perspective to this study. These women had the opportunity to share, not only, their experiences breastfeeding as a Black woman in the United States but also as an African woman. Their experiences were also revealed different degrees of food security and safety in other countries; this, too, impacted breastfeeding decision.

Breastfeeding Advice from Study Participants

Participants, independent of breastfeeding duration, encouraged all mothers to attempt breastfeeding. Mothers of this study, despite experiencing common difficulties of breastfeeding, agreed that breastmilk was the optimal source of nutrition for infants. When asked what advice each woman would provide to other Black woman in the country, all ten participants agreed that breastmilk should be the primary food source

for babies. Each mother, in her own words, emphasized that the baby will benefit from any amount of breastmilk received whether it be for a couple of days or for several months. This was evident in a statement from one mother: “Even if you could do it for only one week, it’s better than not to do it at all because the doctor said that the first part of the milk [colostrum] is some of the healthiest and its better for your child. I think breastfed babies are smarter”.

As these women encouraged other woman to attempt breastfeeding, they also encouraged woman not to give up at the first sign of trouble. Instead, they suggested trusting in yourself as a mother and your infant to be capable of breastfeeding. These mothers had provided stories of perseverance in the midst of struggling with breastfeeding. One mother said “Don’t give up. It’s worth it. Like, I wouldn’t change it for the world. As much problems as I had in the beginning, I still wouldn’t change it”.

Secondary Influence of Relationships on Breastfeeding

Other aspects from this study highlighted the importance of the social environment in breastfeeding behaviors of Black woman. Women from this study expressed a wide spectrum of advice received from friends, family and health providers. However, independent of external advice from friends, family and health providers, Black mothers in this study choose to breastfeed on their own accord. When positive breastfeeding messages were provided by others, the advice was well-received by the mother and seemed to have played a secondary role in influencing her to breastfeed. Overall, the mothers of this study frequently expressed that their final intention to

breastfeed was due to their own personal choice and not directly related to advice from others.

Chapter 5: Discussion

Summary

This study was an initial exploration into the successful breastfeeding experiences of Black women in Portland, Oregon. Primary themes found in this study support similar studies completed on other Black populations in the United States (32). This study provides evidence for the importance of qualitative research in understanding breastfeeding experiences of Black women. The phenomenological approach allowed for attention on individual lived experience of Black mothers in drawing larger conclusions about this population. The semi-structured interviews with the 10 mothers provided vivid, rich descriptions of these mother's experiences with breastfeeding. Previous studies that have employed research approaches similar to phenomenology also reveal the depth of data provided when participants are asked to speak about personal experiences (25). Overall, attention to successful breastfeeding experiences is importance in understanding breastfeeding among Black women.

Mothering Self-Efficacy

The participants of this study exhibited confidence as mothers in addition to confidence in their children. It was clear that this confidence not only persisted throughout all ten participants but also significantly enhanced their breastfeeding experiences. As the mothers expressed difficult situations, constant endurance and commitment to breastfeed still persisted. An unwavering commitment to breastfeeding

was a significant influencer to the successful breastfeeding experiences of the participants. These mothers also felt an overwhelming sense of pride and responsibility to breastfeed their children. They felt that because of the health benefits, it would be doing an injustice not to provide breastmilk to their children. Similar results are seen in previous studies and are emulated by Black women that are committed to breastfeeding initiation (15). In these instances, Black mothers that feel the most committed and confident about breastfeeding and about motherhood tend to breastfeed longer and more successfully compared to their counterparts that do not feel confident about breastfeeding (33).

Closeness: The Mother-Child Bond

Previous studies have shown that breastfeeding mothers believe that stronger feelings and attachments with their infants are in direct relation to breastfeeding compared to women that formula-feed (32). Some mothers have expressed concern of developing a strong bond with their child and the effect it may have on the child's future independence. In these studies, mothers choose to formula-feed for the express purpose of not developing this bond with their children (25). In our study, the emotional connection felt by mother and breastfeeding infant was coveted by the participant. This type of bond may enhance the mothering experience and can also result in sustained breastfeeding for a longer period of time.

A woman's view about motherhood will greatly affect her infant feeding choices. Women that tend to find motherhood stressful and the demands of an infant

overwhelming, prefer to formula-feed (23).In addition, there is the belief that formula and bottles are more convenient compared to breastfeeding (25). On the contrary, women who choose to breastfeed, prefer the convenience they feel is related to breastfeeding such as the lack of preparing a bottle for their infant (25). In addition, there is a belief that the bond created during breastfeeding is unique and cannot be replicated in a formula-feeding environment (25).

Benefits of Breastfeeding

Participants of this study expressed a trust in breastmilk for nutrition, enhancing the mother-child bond, and providing a better option compared to formula and bottles. One mother summarized these thoughts when she stated “Substituting for…..it [breastfeeding] just can bring many more problems than what I can give her. Then I would rather go ahead and continue with that [breastfeeding]”. A previous study conducted on a group of WIC mothers from Louisiana also investigated the belief in the multi-faceted benefits of breastfeeding (24). Although the majority of women in this study were Caucasian (51.5%), almost half of the participants were Black women (43.5%) (24). Of the mothers in the study who breastfed, it was concluded that a belief in the benefits of breastfeeding was the primary influencer in the decision to breastfeed (24). These results mirror the conclusions of this study conducted on Black mothers in Oregon.

African Immigrant Mothers and Breastfeeding

The influence of cultural differences in decision to breastfeed was most profound in the recent immigrant mothers. Reasons for the unique experiences of these women was likely due to different social expectations of mothers in Africa, such as the assumption that breastfeeding is not an option but rather status quo for infant feeding. In addition, limited access to clean water deterred the use of formula and bottles. Previous studies investigating the influence of acculturation on breastfeeding finds similar results (34). Barriers to use of formula in third world countries increases the likelihood that mother will breastfeed her child. Cultural expectations must also be taken into account in addition to barriers such as limited food and monetary resources.

The decrease in the duration of breastfeeding with the addition of more children witnessed in African immigrant participants is commonly seen in circumstances of acculturation to the United States. These instances significantly affect infant feeding practices (35). The effect of acculturation on breastfeeding has been investigated not only in the Black population but in other racial and ethnic groups such as Hispanic women. Similar outcomes persist with early cessation of breastfeeding with increased time spent in the United States (36).

Limitations of the Study

Limitations of this study must be recognized and could be relevant to future study development with this population. This was an initial exploratory study of the breastfeeding experiences of Black mothers in Oregon. The intention of the study was to better understand the unique breastfeeding practices of this population. Therefore, cause-and-effect conclusions were not determined. However, exclusion of hypothesis testing is allowed for the study to be participant-driven. The small sample size of this study also renders limitations. With only ten participants, it was not possible to determine influences of breastfeeding in the larger Black population of Oregon. Also recognized is the unique setting and population chosen for this study. The state of Oregon already boasts the highest breastfeeding rates in the United States. This provides a conducive and highly supportive environment for women to feel encouraged to breastfeed their children. It is likely that the supportive breastfeeding environment of Oregon also significantly influences breastfeeding initiation among Black women independent of their personal experiences. Although the aim of this study is to share conclusions with other Black populations in the nation, generalizability of results may be limited. In addition, due to the timeline of this project, time spent with subjects was limited. Previous studies exploring this topic among the Black population have allowed for extensive time for participant interaction (25). Consequently, the researcher is able to build rapport and trust with the participants and their community. Unfortunately, in this study, the one-time guided interviews were the only interaction the research had with the participants.

Future Directions

Future research on the breastfeeding experiences of Black women in the United States should be conducted to determine other potential influences on successful breastfeeding in this population. Of importance is determining elements that may bolster self-efficacy among Black mothers. In this study, it was evident that the successful breastfeeding experiences of the participants were due to the mother's belief in breastfeeding and self-confidence with regards to breastfeeding her child. Future studies are needed to better understand methods that might instill self-efficacy in Black mothers.

Another study that may be of interest, but would be unique to the Northwest region of the United States, is a better understanding of midwifery's influence on breastfeeding among Black mothers. In our study, women acknowledged a strong relationship with their midwife and felt influenced by breastfeeding advice from the midwife. Although the midwife was not the primary reason the mother choose to breastfeed, sustained breastfeeding was attributed to the assistance given by the midwife to the mother in the postpartum period. Future research could explore the experiences Black mothers have had with midwives. For instance, two groups of women selected; those that had/have midwives during postpartum feedings and those that had not. Implications could be drawn by comparing the successful breastfeeding of these two groups related to length of breastfeeding duration and how the mother felt about her breastfeeding experience overall. Midwifery is a particularly important influence on

maternal health in the Western region of the United States and therefore, an addition study may be limited to that specific area of the country.

Finally, investigation of the beliefs and attitudes about formula within a successful breastfeeding Black population is also of interest. Participants in our study expressed negative feelings about formula and believed that artificial feeding was not optimal for their baby's health. However, seven of the mothers did eventually provide formula to their children either as a supplement with breastmilk or as the sole source of nutrition after complete cessation of breastfeeding despite initially feeling formula was not an optimal nutrition source for their child. The study of interest may help to understand the reason these mothers choose artificial feeding despite early postpartum concerns about formula. This concept did not fully develop from the data and warrants further research to determine any conclusions. This could be accomplished by interviewing breastfeeding women using an approach similar to this study but instead questions would focus on the mother's thoughts about formula compared to breastmilk. Results may help to describe the degree of influence that formula feeding beliefs have on the decision to breastfeed in Black mothers of Oregon.

Conclusions

The successful breastfeeding of Black mothers in Portland, Oregon can be attributed to several social and environmental factors. Overcoming barriers to breastfeeding among this population may be credited to the mother's personal and unwavering commitment to breastfeeding her child. The mother's perception of

motherhood is a strong indicator of breastfeeding success among Black women in Oregon. Therefore, it can be concluded that technical training and education about breastfeeding is not the primary influence of successful breastfeeding within this population. Instead, the relationship between mother and child significantly influences decisions to breastfeed. Despite our unique setting, barriers and motivators identified by Black women in Oregon may assist others in elucidating the low breastfeeding initiation and duration among Black women observed in most parts of the nation.

Implications of Research

Counseling Black women about breastfeeding should target a mother's confidence in the act of breastfeeding and motherhood. Discussing common breastfeeding difficulties with Black women prior to becoming mothers may help to decrease early cessation of breastfeeding. This may also help to deter the mother's apprehension about breastfeeding and affirm to her that successful breastfeeding is possible. Developing breastfeeding education for Black mothers including strategies to overcome breastfeeding difficulties is also warranted. Misunderstandings of common breastfeeding difficulties and feelings of inadequacy to overcome these difficulties were reasons women in this study stopped breastfeeding. Strategies to increase breastfeeding self-efficacy should include assuring the mother that she and the baby are fully equipped to successfully breastfeed. Understanding that breastfeeding is a natural part of being a mother, despite its challenges, may help to secure the mother's fears about breastfeeding. Women should also be made aware that breastfeeding can be difficult. Mothers should be warned of common difficulties such as nipple cracking, poor latching by the infant and varying quantities of breastmilk production, all of which can happen during the first year of life. Educating women that breastfeeding is a skill that improves with time and practice is important. Early cessation of breastfeeding tends to correlate with a particular, unexpected struggle the mother encounters during her breastfeeding experience. Assuring Black women that difficulties are common and can be resolved may decrease the risk of mothers giving up on breastfeeding earlier than

planned. In this discussion, the mother should be assured of the adequate nutrition breastmilk provides and the many health benefits that result from breastfeeding.

Women should also be encouraged to learn about breastfeeding on their own. Mothers from our study admitted to independently investigating breastfeeding and its benefits. These mothers attributed some of their success of breastfeeding to this personal exploration. This also led to a sense of ownership about the decision to breastfeed. Black women may be more likely to breastfeed if they feel they reached that conclusion on their own accord.

Finally, attention to successful breastfeeding experiences is important when understanding breastfeeding among Black women. The importance of this implication is the attention to positive aspects of breastfeeding in the Black community. The majority of the discussion about breastfeeding in the Black population focuses on the lower rates of breastfeeding among Black women (29). This could lead to self-defeated attitudes about breastfeeding among this population. Women from our study could be used to encourage other Black women that successful breastfeeding does exist within their community.

Tables

Table 5: Primary Themes Influencing Successful Breastfeeding Among Participants: Maternal Self-Efficacy

MATERNAL SELF-EFFICACY	
Code	**Participant's Response(s)**
Personal choice/decision	"It's up to you for you to figure out if you want to do it or not"
Baby needs to eat	"Oh, because you want the child to eat, so you just have to do that"
Breastfeeding is a unique contribution	"I thought it was pretty cool to be able to feed my child"
Ability to overcome the difficulties of breastfeeding	"…..I wanted to try, I didn't want to give up right away"

Table 6: Primary Themes Influencing Successful Breastfeeding Among Participants: Closeness: The Mother-Child Bond

CLOSENESS: THE MOTHER-CHILD BOND	
Code	**Participant's Response(s)**
Motherhood is fun/enjoyable	"……being able teach them and share their experiences"
Previous mothering experience	"…..taking care of my brother and sister. So I thought 'oh being a mom would be great."
Positive image of mothering	"If you can bring someone into the world you will definitely be happy about it"
Unconditional love from baby	"…..you are adored and needed and that you can never do anything wrong"

Table 7: Primary Themes Influencing Successful Breastfeeding Among Participants: Benefits of Breastfeeding

BENEFITS OF BREASTFEEDING	
Code	**Participant's Response(s)**
Health benefits	"I saw many woman breastfeeding…they [breastfed children] would grow good and healthy
Closeness during breastfeeding	"They [breastfed children] seem alot closer than babies that don't breastfeed"
More convenient than formula	"It [breastfeeding] was easier than getting out of bed and making a bottle…"
Risk of formula/bottles	"I got this thing in my head that formula just really wasn't made for babies…."

Table 8: Secondary Aspects of the Breastfeeding Experiences Among Participants

Prenatal Intention • Always knew I would breastfeed • Benefits of breastfeed encouraged me • Formula questioned as healthy for infants • Observed positive benefits of breastfeeding • Didn't want to breastfeed initially • Advice from others influenced choice
Relationship with WIC • WIC asked me the standard breastfeeding questions but didn't really give advice • WIC did not give me advice about breastfeeding or I don't remember it • Technical advice that wasn't very helpful • Pump source or pumping advice
Relationship with Health Provider • Breastfeeding is best for baby • Strong relationship with midwife • Encouraged by doctor • Didn't hear very much from healthcare providers
Hospital Experience • Breastfed in hospital • Engorgement issue • Early breastfeeding important for mother-baby connection • Nipple shield • Breast pump • Pain
Influence of Relationships • Family and/or friends were encouraging/supportive • Family and/or friends were not encouraging/supportive • Significant other/spouse influenced breastfeeding • Family member influenced breastfeeding
Breastfeeding At Home • Easier and more comfortable compared to hospital experience • Harder and more difficult compared to hospital experience • Difficulty with technique and mechanics of breastfeeding
Influence of Race/Ethnicity in Relationships • Race made a difference • No diversity in social network • Fear/stigmas about breastfeeding based on race
Advice for Other Black Mothers • Mother's personal choice to breastfeed • Best choice is to at least attempt breastfeed • Don't give up on breastfeeding/provide encouragement

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Appendix A: Participant Recruitment Letter

Department of Human Services
Health Services
800 NE Oregon Street
Portland, OR 97232
(503) 731-4030-Emergency
(971) 673-0040
(971) 673-0071-Fax
(503) 731-4031- TTY Nonvoice

Dear (Participant's Name):

The State of Oregon WIC program would like to invite you to participate in an important research project about breastfeeding practices of African-American women in Oregon. We are specifically interested in talking with women with infants less than one year old. If you are willing to participate, you will have an interview with a researcher to talk about your experiences during your last pregnancy and feeding your baby. The interview will lasts about 45 minutes to an hour and will be audio taped.

In the next two weeks, a member of the Oregon WIC program will be calling you to see if you are interested in participating in the study and if so, to schedule an interview. The call should take no longer than 10 minutes. Your participation in the interview is completely voluntary. If you decline to participate, it will *not* affect your ability to access WIC services.

Once the research project is over, there will be a report of the results. Your name or information that might identify you will not appear in the report. Everyone involved in the study will be trained to keep records and personal information private. The information gathered from this study will help to better understand the successful breastfeeding of Black women in Oregon. This may help to raise breastfeeding rates among Black women in other states.

If you have any questions about this study, please do not hesitate to contact me.
Sincerely,

(Research Name)
Research Analyst
State of Oregon WIC Program
(###) ###-###

"Assisting People to Become Independent, Healthy and Safe"
An Equal Opportunity Employer

Appendix B: Appointment Reminder Card

Dear (Participant's Name):

I would like to remind you that you have agreed to participate in a research project with the Oregon WIC program on the breastfeeding experiences of African-American women in Oregon. Participation in the project will include a 45 minute to 1 hour interview with a researcher to talk about your experiences during your last pregnancy and feeding your baby.

Your interview is scheduled for (Date, Time) at Northeast Multnomah County WIC clinic.

Located at: 5329 NE Martin Luther King Jr. Blvd
Portland, Oregon 97211

Thank you for agreeing to participate in this study. We look forward to meeting you.

Sincerely,

(Researcher Name)
Research Analyst
State of Oregon WIC Program
(###) ###-###

"Assisting People to Become Independent, Healthy and Safe"
An Equal Opportunity Employer

Appendix C: Participant Consent Form

State of Oregon WIC Program

Consent to Participate in a Research Study

The State of Oregon WIC program is conducting a study to understand the breastfeeding experiences of Black women. Black women in Oregon have higher rates of breastfeeding than their counterparts in other areas of the United States. Understanding the reasons for success of Oregon's mothers may help to raise breastfeeding rates among Black women in other states.

You have been asked to be in this study because you have a baby less than a year of age, and WIC records indicate that you breastfed for at least one month. If you agree to be in the study, you will have an interview with a researcher to talk about your experiences during your last pregnancy and with feeding your baby. The interview will last 45 minutes to an hour and will be audio taped.

It is very unlikely that participating in this study could harm you physically or mentally. However it is possible that being in the study could bring up feelings that may be upsetting, such as disappointment. There is also a risk of loss of privacy if a researcher failed to follow the strict rules about confidentiality.

Your participation in this project is free. You will receive a $10.00 gift certificate upon completion of the interview. Your participation in this study will help the WIC Program learn how to better assist other breastfeeding mothers.

Once the research project is over, there will be a report of the results. Your name or information that might identify you will not appear in the report. Everyone involved in the study will be trained to keep records and personal information private. The recording of your interview will be deleted once its content has been written up, checked for accuracy, and your name has been removed.

If you have any questions or concerns, please contact the (name), WIC Research Analyst at ###-###-###. For questions about your right as a participant in a research study, call (name), at (###) ###-###.

If you decide not participate in the project, it will not affect your WIC benefits in any way. You can decide you don't want to be in the project at any time.

If you are willing to be a part of this study, please fill out the information below.

Thank you!

I agree to be a part of this study. I have had my questions answered by the researcher.

Date: ______________________________

Your Signature: ______________________________ WIC ID #: ________________________

Print Name: ______________________________ ________________________

______________________________ ________________________

OFFICE USE ONLY:

If you need this material in large print or an alternate format,
please call (971) 673-0040.
WIC is an equal opportunity program and employer.

Appendix D: Script for Interview

Hi, I'm [researcher's name] and I am a graduate student at OHSU who is studying nutrition right now. I just want to first thank you for coming in today and for you and your child being part of this study. I'd love to hear all different points of view on the questions I ask – there is no right or wrong answers. We are recording this conversation to make sure that we hear all of your good ideas all the way through. This will help me to focus more on getting to know you and hearing about your experiences and less on trying to write down everything we discuss. Whatever is said in this room will not be repeated. Only myself and the researchers for this project will ever hear the tapes or see any of the notes from this discussion and no names will be connected with any of your comments. Taking part in the group today is voluntary. Our discussion will last about an hour and at the end you will receive a $10.00 gift certificate to the grocery store.

Are there any question you might have before we get started with the interview?

1. To start off, I would love to hear about your life with your new baby. Tell me something about being a new mom.

2. Thinking back to when you first found out you were pregnant, what were some of your thoughts about breastfeeding? How did you think you feed your baby? Did you continue to feel that way throughout the rest of your pregnancy?

3. Let's move forward a little bit to the time during your pregnancy, tell me something about your experience with your prenatal provider's advice about breastfeeding

4. What were your experiences with breastfeeding when you were in the hospital after having your baby? What do you remember about breastfeeding in the hospital and those first days you were home with your new baby?

5. When thinking about your experiences with breastfeeding your baby, what are some things that you love(d) about it?

6. Tell me something that you found to be a struggle with breastfeeding. What were some feelings you had during those hard times when you felt as if you couldn't continue on with breastfeeding? What did you do to turn those hard times around? What really kept you going during the hard times?

7. Thinking about the people in your life and the different relationships you have with them, tell me something about your friends' and family's experiences with breastfeeding?

8. As you probably know, we are here today to talk about Black women and their personal experiences with breastfeeding. When thinking about your friends and their experiences, do you feel that their thoughts and/or feelings about breastfeeding were different based on their race/ethnicity.

9. Lastly, as you might know, I am interested in better understanding how Black women in Oregon have different experiences with breastfeeding than women in other parts of the United States. I would like to ask you for your own personal opinion why do you think Black women in Oregon have different breastfeeding experiences than Black women in other parts of the United States?

10. Thinking back to all that you have shared today with me, what do you think is the most important point you would like me to know about your experiences with breastfeeding? Is there anything else you would like to share?

Once again, I just want to thank you for being part of this study and let you know how much I appreciate you taking the time to meet with me today.

Appendix E: Results of InVivo Coding Analysis

Responses to Question #1 and Related Codes: What Is One Thing You Love About Being A Mom?

Code	Participants' response(s)
Fun/Enjoyable	"It's fun, it keeps me busy, it's motivating"
Previous mothering experience	"I have that experience when I was a child too, taking care of my brother and sister"
Personal aspiration	"knowing that you are able to bring someone into this world"
Connection/Bond	"The unconditional bond I have with my child. The fact that I feel she needs me."
Unconditional love	"you are adored and needed and that you can never do anything wrong"

Responses to Question #2 and Related Codes: What Were Your Initial Thoughts About Breastfeeding?

Code	Participants' response(s)
Always confirmed	"From the beginning I knew I was going to breastfeed.
Encouraged by benefits	"For me I just gonna do it anyway because its healthier"
Questioned formula	"I got this thing in my head that formula just really wasn't made for babies"
Observed benefits	"I saw many woman breastfeeding…they would grow good and healthy."
Didn't want to breastfeed initially	"I was more rather looking, thinking about getting a job and stuff like that."
Influenced by other's advice	"People told me that breastfeeding is much more healthier for the child…so I felt like that is the least I could do."

Responses to Question #3a and Related Codes: What Were Some Advice You Heard From Your Doctor And/Or Midwife?

Code	Participants' response(s)
Doctor	"he said breastfeeding is the best for the baby. You have to breastfeed….."
Midwife	" are you planning on breastfeeding….went over the benefits of breastfeeding"
No advice	"Hmm.. Not very much advice at all. They really don't give you too much"
Personal initiative	"I had a midwife with my last but she already knew I had two kids and that I had breastfed with them. So she knew that I knew what I was doing"

Responses to Question #3b and Related Codes: What Were Some Advice You Heard From WIC?

Code	Participants' response(s)
Asked standard questions	" asked me if I was going to breastfeed…didn't really go into any details about it"
No advice	"I didn't have any WIC advice. Like I told you, I study, I researched for myself"
Technical advice	"WIC gave me a few brochures and talked about it…told me it would probably hurt"
Pump source/advice	"well and then they can help you with the pump"

Responses to Question #4 and Related Codes: What Was Your Experience With Breastfeeding In The Hospital?

Code	**Participants' response(s)**
Breastfed in hospital	"Yes, did breastfeed in the hospital"
Engorgement/pain issues	" it forever hurt…my breasts were swollen and they hurt real bad"
Initiation important	"I didn't want them to give him a bottle at all. I didn't want him to get any formula"
Nipple shield/breast pump	"we started having an issue with him latching……tried out the breast shield,"

Responses to Question #5 and Related Codes: What Are Some Things You Remember About Breastfeeding Your Baby In The First Weeks?

Code	**Participants' responses (examples)**
Easier/more comfortable	"It was more comfortable….I was able to lay the way I wanted to and it was quiet…"
Harder/more difficult	"It was hard. It was hard because sometimes it was crying"

Responses to Question #6 and Related Codes: What Did You Love About Breastfeeding?

Code	**Participants' responses (examples)**
Health benefits	"….it (breastmilk) kept my baby healthy. She is very advanced for her age"
Closeness/Bonding	"Because it shows more love. A mother's love. Just connecting"
More convenient than formula	"But I just liked, it was easier than getting out of bed and making a bottle too"
Risk of formula/bottles	"Maybe it (bottle) will get dirty and they won't wash it out, a lot of things"
Personal contribution	"But I thought it was pretty cool to be able to feed my child."
Health benefits	"….it (breastmilk) kept my baby healthy. She is very advanced for her age"

Responses to Question #7 and Related Codes: What Kept You Breastfeeding During The Tough Times?

Code	Participants' response(s)
Health benefits	"Just the health benefits of it…I knew that I would help their immune system"
Personal determination	"And plus I knew it was something I wanted to do until they were at least 6 months"
Needs of baby	"Oh, because you want the child to eat, so you just have to do that"
Cheaper/cost	"…I didn't want to go out and buy a can of breastfeeding formula"

Responses to Question #8 and Related Themes: What Were Your Friends And/Or Family's Advice About Breastfeeding?

Code	Participants' response(s)
Encouraging/supportive	I wanted to stop but daddy kept saying I am not stopping"
Not supportive	"Well my mom, she was like, 'you aren't going to want to do it. It hurts!"

Responses to Question #9 and Related Themes: Did You Notice Difference In Advice Based on Race?

Code	Participants' response(s)
Difference in race	my Spanish friends…'do it
No diversity	"I didn't have much diversity (in my friends) Yeah
Fears/stigmas	" my African-American friends….would ask

Responses to Question #10a and Related Codes: What Makes Black Mothers In Oregon More Successful?

Code	**Participants' response(s)**
Knowledge/education	"There is knowledge about what a wonderful experience it can be…"
Lifestyle factors	Maybe it's just that traditions are different, traditions in different areas…"
Don't know	"That one I don't know. I have no clue"

Responses to Question #10b and Related Codes: What Is The Most Important Thing To Know About Your Breastfeeding Experience?

Code	**Participants' response(s)**
Everyone's choice	"I think breastfeeding is everyone's own personal choice"
Best choice	"I would advise anybody to do breastfeeding. It is just good for the baby"
Persevere/encouragement	"Don't give up. It's worth it. Like, I wouldn't change it for the world"

InVivo Coding By Theme

Theme	Participants' response(s)
LOVE OF MOTHERHOOD	▪ "Anybody would be happy to be a mother. If you can bring someone into the world you will definitely be happy about it" ▪ "And the joy of handling them. I mean they are a lot, I don't know how to put it but they are a lot of love if you look at them. There is enough of them to make you stay connected. It's exciting. It's exciting for anybody. But if you love children, you cannot separate from them. It's exciting. " ▪ "Like that, you know, that you are adored and needed and that you can never do anything wrong."
HEALTH OF INFANT	▪ "I love breastfeeding. It makes them intelligent. And you don't get, like, sick when you are breastfeeding." ▪ "For me I just gonna do it anyway because it's healthier and I've seen like the difference with my sisters not breastfeeding and me breastfeeding; the development in the kids." ▪ "In my country I saw many woman breastfeeding their children and their children growing, they would grow good and healthy. I wanted to because my baby is happy and he is growing well." ▪ "I breastfed all my kids because I knew it would build up their immune system and it was the healthier choice. I was always confirmed I was going to breastfeed."
CLOSENESS/CONNECTION	▪ "Because it shows more love. A mother's love. Just connecting. Like in my culture they say if you breastfeed a baby, the baby will have more feelings for you." ▪ "Well the closeness also. They seem a lot closer than babies that don't breastfeed." ▪ "The nutrition part of it and the connection that you have with your child. And that is very important because you are bond with the baby. It's not just anything you can get from anyone." ▪ "Staring into my daughter's eyes. When she is eating and looking happy. "

PERSEVERANCE/ENDURANCE	▪ "Oh, because you want the child to eat, so you just have to do that. You could give them formula but I prefer to give them breast milk." ▪ "Even though I didn't want to continue breastfeeding, I still wanted him to have my breast milk, so I wanted to pump for him." ▪ "My baby was hungry and I had milk. Yea and I wanted to feed for at least 6 months and he was only 3 [months]" ▪ "Because he was so young. I wanted him to be healthy and get all the good nutrition from my body instead of formula. I wanted to try; I didn't want to give up right away."
MORE SUCCESS IN OREGON	▪ "Maybe it's just that traditions are different, traditions in different areas, different areas do different things." ▪ "I don't know. It could be a number of reasons. Either they just get scared from all the stories they hear or they give up" ▪ "Probably because they are much more advanced and faster. In all honesty, the economy is low in other states, in other places they might have to go back to work and they might not have time to breastfeed like people in Oregon." ▪ "I just think there is knowledge not only about what a wonderful experience it can be but also how beneficial it is to your child."