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**A Qualitative Analysis of Paternal Perspectives on Breastfeeding Support
Among Black Fathers in Connecticut**

By Jasmine Rios

A Thesis

Submitted to the Department of Social & Behavioral Sciences at the

Yale School of Public Health

In Partial Fulfillment of the Requirements

For the Degree of Master of Public Health

Under the Supervision of Thesis Advisor Kathleen O'Connor Duffany

And Second Reader Rafael Pérez-Escamilla

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Abstract

Background: Despite the persistence of racial and ethnic disparities in breastfeeding in which Black mothers breastfeed at lower rates, little is known about Black fathers' experiences with breastfeeding and breastfeeding support services (e.g., maternity hospital-based care, lactation specialty care). This thesis reports Black fathers' perceptions of breastfeeding, influencers of breastfeeding, and breastfeeding support services in Connecticut using a qualitative, community-based participatory approach.

Methods: The study's focus group guide was co-developed with community partners and adapted from the Barrier Analysis Tool to identify breastfeeding facilitators, barriers, and service improvement areas. Per study design, all participants were fathers to a child under three years old, Connecticut residents, and self-identified as Black. The qualitative data were analyzed using rapid template analysis involving deductive and inductive coding.

Results: Focus groups revealed factors influencing breastfeeding at the individual, interpersonal, institutional, and community/policy levels. Identified breastfeeding facilitators included high paternal breastfeeding knowledge, paternal breastfeeding involvement, parents' shared decision-making, extensive maternity hospital discharge support, ongoing breastfeeding support into the postnatal period, community breastfeeding resources, and designated spaces for public breastfeeding. Noted breastfeeding barriers include low paternal breastfeeding knowledge, familial discouragement, insufficient prenatal breastfeeding education, exclusion of the father from breastfeeding support services, and stigma against breastfeeding in public.

Conclusions: These findings illustrate the current climate for breastfeeding in Connecticut as perceived by Black fathers and help to contextualize racial and ethnic disparities in breastfeeding. Practice implications include the desire for ongoing, personalized breastfeeding education coordinated from prenatal to postnatal periods and the need for breastfeeding support services to directly engage fathers as breastfeeding participants and decision-makers.

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Introduction

Breastfeeding is widely recommended by health organizations as the optimal infant feeding method due to the constellation of health benefits it offers both mother and child. Across countries, including the U.S., breastfed infants have a reduced risk of mortality, chronic conditions like asthma and obesity, and acute illnesses like sudden infant death syndrome (SIDS), ear infections, upper respiratory tract infections, and diarrheal diseases (Bartick et al., 2017; Binns et al., 2016; Li et al., 2022; Victora et al., 2016). Breastfeeding may also impart long-term advantages to infants, as breastfed infants have higher cognitive development during childhood and earn more income as adults (Victora et al., 2016). Mothers who breastfeed can lower their risk of hypertension, cardiovascular disease, type 2 diabetes, ovarian and breast cancer (Binns et al., 2016; Tschiderer et al., 2022). However, disparities persist in breastfeeding initiation and retention among Black mothers. In Connecticut, a 9.1% difference in mothers who initiate breastfeeding exists between Black mothers and Asian mothers, the group with the highest breastfeeding rate (Chiang et al., 2021). This inequity is of concern as recent research has demonstrated that desire and intent to breastfeed do not differ by racial or ethnic group (Hamner et al., 2021). Ethnic or racial disparities in breastfeeding thus persist due to differentials in socio-ecological barriers that hamper one's ability to breastfeed successfully.

The low rate of breastfeeding among Black mothers has been increasingly researched, revealing several potential barriers and facilitators of breastfeeding – individual, interpersonal, institutional, and community/policy factors. Barriers to breastfeeding include cultural stigma, inaccessible lactation support, economic and employment characteristics, medical provider bias, and segregated health resources (Davis et al., 2021; Griswold et al., 2018; Gyamfi et al., 2021; Tran, 2021). For Black mothers, schemas of oppression intersect, creating a unique set of barriers resulting from the joint experience of being both Black and a woman, and often having low socioeconomic status. Institutionalized racism and distrust of medical systems restrict educational and material resources necessary to breastfeed successfully, while cultural stigma due to sexualization of the breast and low community levels of breastfeeding restrict social support for breastfeeding (Davis et al., 2021; Gyamfi et al., 2021).

Conversely, Black mothers describe several facilitators to breastfeeding like spirituality, generational breastfeeding, building community with other mothers, workplace policies to protect mothers, informative breastfeeding education, and having a strong support network including the father (Gill et al., 2007; Gyamfi et al., 2021; Tran, 2021).

One key facilitator gaining interest but for which there is a dearth of studies is the role of paternal support in breastfeeding. The limited research available suggests that paternal support during breastfeeding influences overall breastfeeding practices (Arora et al., 2000; Hunter & Cattelona, 2014; Rempel et al., 2016). First-time mothers who receive support in the early post-partum period of breastfeeding from their partners are more likely to continue breastfeeding after leaving the maternity hospital (Hunter & Cattelona, 2014). Paternal support perceived to be responsive to the mother's needs was associated with a longer duration of breastfeeding and higher overall breastfeeding satisfaction of the mother (Rempel et al., 2016). Conversely, the mother's perception that the father had negative attitudes toward breastfeeding was associated with an increased likelihood of bottle-feeding (Arora et al., 2000). Acknowledging the potential role of paternal support on breastfeeding, several intervention-based studies have confirmed the influence of father-based education programs, support groups, and peer-to-peer counseling on breastfeeding practices (Baldwin et al., 2021; Bich et al., 2019; Furman et al., 2016).

Despite some research suggesting the potential impact of paternal support on breastfeeding practices, there is still a lack of depth and breadth in research exploring the father's perception of breastfeeding and breastfeeding support services. Tohotoa et al. (2009) explored maternal and paternal attitudes towards fathers supporting breastfeeding in Perth, Australia. The qualitative analysis revealed a theme among fathers of "*Wanting to be involved*" and identified that fathers wanted more information and accessible resources to understand how exactly to support their partners (Tohotoa et al., 2009). Merritt et al. (2019) explored paternal knowledge and opinions of breastfeeding and breastfeeding support services in Wiltshire, England. Many of the fathers interviewed felt that they knew little to no information about breastfeeding before their first child and even described shock at the notion that the interviewers wanted their perspectives on breastfeeding as the father (Merritt et al., 2019). Several other qualitative studies

describe similar pictures of fathers who want to be involved but feel they do not have the necessary information to do so and are often left out of the process (Ayton & Hansen, 2016; Giugliani et al., 1994).

While these qualitative studies provide some context for fathers' roles in, knowledge of, and attitudes toward breastfeeding, they do not adequately address the interpersonal, institutional, or community/political influences posited by the Socio-Ecological model (Bronfenbrenner, 1977; Ngoenthong et al., 2020; Snyder et al., 2021). Given that fathers are or want to be involved in breastfeeding alongside mothers, they should conceivably also witness or experience barriers and facilitators to breastfeeding. Community members made a similar observation during a review of a previous thesis study by the New Haven Breastfeeding Task Force on breastfeeding barriers and facilitators as perceived by mothers (Tran, 2021). The thesis study presented herein was conducted based on the identified gap in fathers' viewpoints on breastfeeding and support services that influence breastfeeding outcomes.

This study explores Black fathers' perceptions of breastfeeding, influencers of breastfeeding, and breastfeeding support services in Connecticut. This study adds to the literature about paternal support in breastfeeding by describing attitudes toward breastfeeding among Black men as influenced by the levels of the Socio-Ecological model (Bronfenbrenner, 1977; Snyder et al., 2021). This study also aims to describe recommendations by Black fathers for improving breastfeeding support in healthcare settings, hereinafter referred to as *formal support services*. Finally, this study is unique among other related research in its community-based participatory approach, in which community members initiated the research question, and the qualitative focus group guide was co-developed by leaders of community-based organizations.

This study was carried out in partnership with New Haven Healthy Start and Real Dads Forever with support from the Community Alliance for Research and Engagement (CARE). CARE is co-housed at Yale University School of Public Health and Southern Connecticut State University.

Study Aims

The overall aim of this study was to explore Black fathers' perceptions of breastfeeding and breastfeeding support services in Connecticut. The study set out with three specific aims: 1) to describe Black fathers' experiences, knowledge, and attitudes towards breastfeeding as influenced by levels of the Socio-Ecological model (e.g., individual, interpersonal, institutional, and community/policy factors); 2) to assess perceived influencing factors as either facilitators or barriers to breastfeeding; and 3) to outline recommendations to improve breastfeeding support offered by formal support services in Connecticut.

Methods

Design

This study was designed to parallel methods used in Tran (2021), a prior study on Black mothers' perspectives on breastfeeding in Connecticut, including focus groups and qualitative analysis. However, the final research design used in this study was adapted to investigate paternal perspectives within a community-based participatory framework, including a co-developed focus group guide with community partners to better suit the population of interest. The Barrier Analysis Tool was used to guide the design of the focus group guide and analysis template to determine facilitators and barriers to breastfeeding perceived by fathers (Kittle, 2017). The Barrier Analysis Tool uses determinants of health behavior in line with several theories of behavior change, including the Health Belief Model (e.g., perceived self-efficacy, perceived severity, perceived susceptibility, positive and negative consequences) (Janz & Becker, 1984), the Theory of Reasoned Action (e.g., perceived social acceptability) (Glanz et al., 2015), Perception of Divine Will (Kittle, 2017), and the Transtheoretical Model (Glanz et al., 2015). As a quality improvement study, this study was exempted from Institutional Review Board (IRB) by Yale University IRB.

Setting and Relevant Context

This study was administered in Connecticut, centered primarily around the partnering organizations reach and the area for focused interventions, Greater New Haven and Greater Hartford areas, populous, diverse urban centers. New Haven and Hartford counties were appropriate for this study

as they are the most diverse counties in Connecticut, where Black people represent 15.2% and 15.8% of the population, respectively (*U.S. Census Bureau QuickFacts*, n.d.).

Sample

The population of interest was Black fathers in Connecticut with a child who was ever breastfed. The following criteria were used for participation in this study: self-identification as a father to a child under three years old or expectant father to a child due within the next six months, self-identification as Black and/or African American, Connecticut resident at the time of their child's birth, over 18 years old, and has or had a partner who ever breastfed their infant. During the recruitment process, the team expanded the original inclusion criteria to include expectant fathers to a child due within the next six months. This decision was made to reflect participant and community partner feedback.

Recruitment involved outreach by community partners, New Haven Healthy Start (NHHS) and Real Dads Forever (RDF), to their membership base of fathers. Both organizations were given recruitment materials, including a flyer, survey, and contact information of a researcher to determine eligibility and identify interested fathers. Participants were assigned to one of four focus groups depending on availability and relationship with NHHS or RDF.

Opportunity sampling was used because of the existing relationships between directors of NHHS and RDF and their members. The sample size was set by estimations of code saturation (the point at which the whole set of themes and sub-themes has been identified) and meaning saturation (the point at which a rich understanding of issues has been developed). Based on prior studies, our team estimated saturation would be reached after three to four groups of 6-8 participants.

Data Collection

Focus groups were held in February and March 2022, immediately following recruitment. One facilitator and one notetaker led each session. All facilitators were leaders at one of the partnering organizations with ties to the community as residents and health advocates. Facilitators were chosen based on their shared identity (e.g., race, fatherhood, place of residence) with participants, extensive

experience conducting focus groups, and previous work with fathers. The notetaker was a graduate student trained in qualitative data collection. All facilitators and notetakers were provided training materials developed by the Yale-Griffin Prevention Research Center. Prior to conducting the focus groups, all reflected on their positionality in discussions during study design and assignment of focus group roles.

Even though the study was exempt from IRB review, verbal informed consent was obtained from each participant at the start of the focus groups. All participants verbally agreed to participate and to be audio recorded. A brief questionnaire to collect socio-demographic information was also administered before the discussion.

Focus groups followed a semi-structured guide adapted from the Barrier Analysis Tool (Kittle, 2017). This focus group guide was co-designed with community partners and checked for cultural appropriateness (see Appendix). During the focus groups, fathers were asked to describe experiences with breastfeeding, identify influencers of breastfeeding, and provide recommendations for breastfeeding. Facilitators asked questions and probes to understand the fathers' views and experiences with breastfeeding care and their supporting role.

The focus groups lasted 90 minutes and were conducted over Zoom. Three sessions were audio-recorded through the Zoom platform and hand transcribed verbatim by a professional transcription company (Rev.com). One session was not audio recorded due to researcher error. Participant comments were captured via verbatim notes during the focus group and reflective notes from facilitators recorded immediately after the focus group. No personal identifying information that could be linked with the data was collected. Data are stored on a secure password-protected network drive, accessible only to the research team.

Data Analysis

Demographic characteristics of the sample were analyzed using SAS. Qualitative data was analyzed using rapid analysis. Rapid analysis was chosen in response to a time-sensitive request for results to be made available to community partners to inform strategic planning and priority setting and to

improve facility-based breastfeeding support services. Rapid analysis is commonly used in complex health emergencies for “rapid identification of context specific issues that need to be addressed locally and as a guide for resource allocation,” (Johnson & Vindrola-Padros, 2017). These benefits bolster the community-based participatory goal to identify timely, practical change opportunities for the community of interest.

The qualitative data were analyzed using rapid template analysis involving both deductive and inductive coding. The analysis template prompted coders to synthesize participants’ responses as they corresponded to analytic questions of interest (see Appendix for template excerpt). *A priori* health behavior determinants were used as hierarchical codes (e.g., self-efficacy, perceived risk) to cluster analytic questions and were adapted from the Barrier Analysis Tool (Kittle, 2017).

Two coders performed template analysis independently on each focus group transcript to promote intercoder reliability. Both coders were graduate students with experience in qualitative data analysis and trained in rapid template analysis by qualitative researchers. Coders met to discuss discrepancies and form a consensus to create a final combined analysis of all focus groups. The lead researcher then deductively identified facilitators and barriers from the template analysis presented in this paper. Finally, these facilitators and barriers were mapped onto the Socio-Ecological Model to identify level for interventions.

Following data analysis, the sample did reach both code saturation and meaning saturation. In the final focus group, themes and subthemes identified in the prior focus groups were repeatedly represented, indicating an adequate sample size and no need for further data collection (Saunders et al., 2018).

Results

Sample Characteristics

Thirty fathers participated in four focus groups (See Table 1 for participant characteristics). Per study design, all participants were fathers or expectant fathers to a child under three years old who self-identified as Black and residents of Connecticut at the time of their child’s birth or while their partners were expecting a child. Many participants described a strong desire to breastfeed shared with their

partner, and all except one (an expectant father) had previously attempted it. Some described the breastfeeding experience as easy, happy, and natural. However, several fathers expressed challenges in the breastfeeding process, including latching, low breast milk production, and maintaining a feeding schedule that allowed the parents to get some sleep. Some fathers described a combination of breastfeeding and formula-feeding to help mitigate these challenges.

Table 1. Description of the Sample of Fathers from New Haven and Hartford, Connecticut.

| Characteristic | N (%) |
|---------------------------------------|--------------|
| Age (years) | |
| 18-24 | 2 (6.7) |
| 25-34 | 19 (63.3) |
| 35-44 | 7 (23.3) |
| 45-54 | 2 (6.7) |
| Education | |
| High school graduate | 13 (43.3) |
| At least some college | 12 (40.0) |
| College degree or beyond | 5 (16.7) |
| Marital status | |
| Married | 14 (46.7) |
| In a domestic partnership | 7 (23.3) |
| Never married | 9 (30.0) |
| Number of children | |
| 0 (Expecting) | 1 (3.3) |
| 1-2 | 19 (63.3) |
| 3-4 | 9 (30.0) |
| ≥ 5 | 1 (3.3) |
| Expecting newborn (in next 6 months) | |
| Yes | 4 (13.8) |
| No | 25 (86.2) |
| Breastfeeding history | |
| Yes, successfully breastfed | 22 (75.9) |
| Not successfully, but planning to | 4 (13.8) |
| Not successfully, and not planning to | 3 (10.3) |

The study revealed several themes related to fathers' perceptions of breastfeeding and breastfeeding support services. Fathers identified various facilitators and barriers to successful breastfeeding at the individual, interpersonal, institutional, and community/policy levels (See Table 2 for exemplary quotes).

Individual Level

Knowledge of Breastfeeding Benefits

Nearly all fathers stated their top considerations in the decision to breastfeed were the positive consequences of breastfeeding. Three levels of breastfeeding knowledge emerged from the data: detailed knowledge of breastfeeding benefits, broad or vague knowledge of breastfeeding benefits, and low knowledge of breastfeeding benefits.

Fathers with detailed knowledge of breastfeeding benefits identified several benefits of breastfeeding. These fathers with detailed knowledge stated that breastfeeding enhances the baby's immune system, promotes digestive health, advances brain development, makes the mother happier, relieves engorgement, and increases the mother-baby bond. Some fathers described their concern for health issues that could affect their newborns if they were not breastfed and instead fed formula. Several participants described formula as less beneficial for both the mother and baby than breast milk, citing concerns about constipation, malnutrition, formula recall scares, and adverse reactions to formula.

Fathers with broad or vague knowledge of breastfeeding knowledge knew of some general benefits of breastfeeding, characterized by statements about breastfeeding as healthy, nutritious, and "*just natural*." Some fathers identified practical benefits of breastfeeding, like saving time and money. Still others recognized the benefits for the baby but were not as familiar with the benefits to the mother.

Fathers with low knowledge of breastfeeding did not have much knowledge or information about breastfeeding benefits. One father whose child was formula-fed described uncertainty around the benefits of breastfeeding compared to formula. The quote below suggests that low breastfeeding knowledge may relate to indifference towards breastfeeding.

I heard breast milk is better, but I don't know. I feel like...she definitely sleeps longer. But, I don't know, ever since she switched to the Similac Sensitive [formula], she been out like a light too.
(Participant 23, Focus Group 4)

Assumed Role in Breastfeeding

Participants often described providing their partners with a mix of different types of breastfeeding support. Three main types of paternal support emerged from the data: direct involvement, support system, and hands-off. Furthermore, focus group participants' beliefs about the father's expected role in breastfeeding changed over time and were related to their initial knowledge about breastfeeding.

Direct involvement refers to participation in breastfeeding as a secondary feeder for the newborn beside the mother. Fathers often described this type of paternal support as essential to their role as a parent to care for their newborn and ease the responsibility on their partner. Fathers directly involved with breastfeeding facilitate breastfeeding success by sharing breastfeeding responsibilities with the mother and lessening the risk for negative breastfeeding consequences like sore nipples or fatigue. Examples of direct involvement include bottle-feeding expressed milk, taking over nighttime duties to let the mother rest, creating breastfeeding schedules, assisting with breastfeeding tools like pumps, and actively seeking information about breastfeeding through research.

Support system refers to indirect participation in breastfeeding by creating a positive environment for the mother to breastfeed. Participants often described this type of paternal support as auxiliary to breastfeeding, such that breastfeeding remains the mother's role while the father assists. Though the support system style was often described as general emotional support, some specific examples include encouraging a healthy diet, taking over household duties, and comforting the mother. Fathers who act as a support system during breastfeeding facilitate successful breastfeeding by promoting positive health behaviors like drinking water, minimizing the risk for negative consequences like emotional exhaustion, and increasing the mother's self-efficacy to breastfeed.

Hands-off refers to non-participation in breastfeeding. Fathers would be considered to take the hands-off approach if unable to describe ways they supported either the mother or newborn during breastfeeding, attributing the practice to a maternal duty. This type of support was rare in practice but described by several fathers as their perception of the paternal role in breastfeeding prior to becoming a father. Fathers taking a hands-off approach may be a barrier to breastfeeding such that the mother would

not be able to find support when faced with physical and emotional fatigue. However, one participant reported that his hands-off approach to breastfeeding was intentional to promote the mother-child bond.

One participant noted they had a distinctly different experience. This dad described mom dealing with post-partum [depression] and noting that one-on-one time with the baby was the only way that mom could get through it. So, all feeding was done by mom; she was very independent and he even felt useless at one point. (Notes, Focus Group 3)

This excerpt suggests that the assumed role of the father in breastfeeding as a facilitator or barrier may be situation dependent. Nonetheless, whether direct or indirect, paternal involvement in breastfeeding appears to facilitate breastfeeding by increasing the mother's self-efficacy and lessening the risk for adverse breastfeeding consequences.

Interpersonal Level

Shared Decision-Making

Fathers' roles in the decision to breastfeed were similarly connected by participants to their knowledge about the benefits and risks of breastfeeding. Participants had a wide range of involvement in the decision to breastfeed. Fathers who took an active role in the decision to breastfeed described high breastfeeding knowledge prior to becoming a father because of shared information gathering between the father and mother. Conversations about the decision to breastfeed often included the perceived benefits of breastfeeding. Shared decision-making seems to facilitate breastfeeding by pooling both parents' knowledge and attitudes towards breastfeeding, creating a stronger desire to breastfeed.

Fathers with high levels of breastfeeding knowledge also reported high levels of involvement in the decision-making process. Those who had discussions about the decision to breastfeed prior to childbirth discussed plans and anticipated potential complications increasing readiness and effectiveness against barriers. While not explicitly discussing it with their partners, other fathers identified breastfeeding as natural and assumed it was the thing to do. Many felt they had some say in the decision-making process and discussion but highlighted that it was ultimately up to the mother because it is her body. One participant explained, "*I learned a long time ago that when your girl decided something when it has to do with her body, you have no lines in that script. You support your woman,*" (Notes, Focus

Group 3). Fathers who expressed similar deference to the mother were often indirectly involved, recognizing breastfeeding as the mother's role.

Familial Support and Generational Breastfeeding

More interpersonal factors that significantly influenced reported breastfeeding success were familial support and generational breastfeeding. Female family members, particularly mothers and mothers-in-law, were identified as primary sources of breastfeeding support for many participants, providing encouragement and remedies for breastfeeding issues to new mothers. Others experienced familial discouragement from breastfeeding. Some fathers recalled active discouragement from family members who were unaware of the benefits or uncomfortable with breastfeeding. Participants with discouraging familial experiences described these as difficulties or challenges they had to navigate, suggesting that the lack of familial support is a barrier to breastfeeding.

Parents would experience generational breastfeeding if their mothers or aunts breastfed around them during childhood. The source of most fathers' knowledge about breastfeeding prior to becoming a father was generational breastfeeding. As a result, many fathers described breastfeeding as a normal and natural way to feed newborns, influencing their desire to breastfeed their children. Thus, generational breastfeeding may promote normalization and awareness of breastfeeding in fathers, equipping them with the knowledge necessary to be involved in the breastfeeding process. A few participants did not have generational breastfeeding in their family growing up and, consequently, did not have exposure to breastfeeding as a normal process. The excerpt below from a directly involved father suggests that the lack of generational breastfeeding may delay but not hinder fathers' engagement with breastfeeding.

No, nobody discouraged me. I always looked at it like it was a good thing, you know what I'm saying? But I didn't think it was a normal thing, because none of us got breastfed. My mother, she got three boys. So, none of us had got breastfed or nothing like that. So, I didn't think nothing of it until I got a little older. (Participant 25, Focus Group 4)

Institutional Level

The types of *formal breastfeeding support services* (e.g., breastfeeding education and support delivered by maternal healthcare professionals like physicians, nurses, doulas, midwives, lactation

counselors) accessed by parents were varied, including parenting classes, maternity hospital-based care, and lactation specialty care. Participants' experiences with formal breastfeeding support services provide insight into institutional facilitators and barriers to breastfeeding and generate suggestions to improve them (See Table 3 for proposed solutions).

Differential Access to Breastfeeding Information

Participants' perceived experiences with formal breastfeeding support services differed widely, primarily related to accessing breastfeeding information. Three potential barriers to successful breastfeeding arose from the data: access to breastfeeding information and resources, the timing of breastfeeding education, and the quality of breastfeeding support resources accessed by parents.

Access to breastfeeding information and resources varied among participants. Some fathers reported they were prepared to support breastfeeding because of parenting classes, personal research, and previous children. These fathers had access to information on the benefits of breastfeeding or had a role in breastfeeding before childbirth, facilitating a smooth transition into the postnatal period. Others felt underprepared before childbirth and stated they needed more knowledge about breastfeeding and their role in order to help effectively. One father felt frustrated that he did not know where to turn for resources and attributed his low knowledge to the timing of breastfeeding education. He explained that prenatal care only focused on getting the mother and baby to childbirth healthy, but he wanted help preparing for caregiving beyond the birth period. The hospital only delivered information on available breastfeeding resources and breastfeeding education after the baby was born.

Timing of breastfeeding education such that parents have insufficient breastfeeding knowledge in the prenatal period can hinder the decision-making process. One participant accessed breastfeeding support in different states and stated, "*And up here in Connecticut is where they gave us some information. But if you were a first time [parent] breastfeeding, it wouldn't be enough to help you make the decision,*" (Participant 07, Focus Group 2). He suggests that limited prenatal breastfeeding education may be a barrier to breastfeeding because parents are not equipped with adequate information about

breastfeeding benefits to decide whether to breastfeed. Parents may also lack sufficient information about techniques to breastfeed effectively.

At the maternity hospital during the delivery stay, perceived experiences with breastfeeding support varied based on the location of healthcare services and who was caring for the family. When asked about the quality of breastfeeding support services, one father said, *“I think it depends on where you go, where you at, because one of the guys was talking about they told him certain things that I know I wasn't told,”* (Participant 24, Focus Group 4). This quote suggests a lack of standardization of breastfeeding education and support provided by maternity hospitals, WIC offices, and community programs in Connecticut. Fathers also identified within-system differences, where some healthcare providers were more informative than others. Many fathers recognized lactation counselors and alternative birthing attendants like doulas or midwives as supportive and helpful, primarily because of their personal relationships and availability to answer questions. Conversely, some participants noted that maternity hospital breastfeeding services provided by physicians and nurses were not always robust. According to participants, the usefulness of information given by healthcare providers at the hospital even *“depend[ed] on the mood of the nurses”* or the healthcare provider’s knowledge.

Breastfeeding support before discharge from the maternity hospital appeared to be the most diverse experience among participants. Breastfeeding education was often delivered to parents by healthcare providers in the period between parturition and discharge from the maternity hospital. Several fathers described receiving clear breastfeeding support, including techniques for effective feeding and information about the benefits of breastfeeding. A few fathers even laughed about how healthcare providers *“push breastfeeding onto you”* by providing breastfeeding pumps and discouraging parents from formula (Notes, Focus Group 3). Others felt that they had to take the initiative to access breastfeeding support services and resources, including instruction on breastfeeding techniques and pump usage. Lack of breastfeeding promotion and support at the hospital may also serve as a barrier to breastfeeding. One father discussed how the hospital did not emphasize breastfeeding. The quote below illustrates how he had to be his and his wife’s advocate to ensure that his child was breastfed.

Because what [the maternity healthcare providers] did, they just start with the formula themselves. I'm the one who even stopped them, no, no, no, no. My wife can pump the milk. So let me ask her to pump the milk, I'll bring you the breast milk. (Participant 08, Focus Group 1)

In addition to differential breastfeeding promotion by healthcare providers, some participants felt that the instruction on breastfeeding techniques like latching or hand-expressing milk was insufficient for their partners to continue breastfeeding at home. One father described rushed and unclear instructions on breastfeeding from nurses. Two other participants described their partners' physical pain from engorgement and emotional distress resulting from the inability to breastfeed successfully in the postpartum period. Both quotes (See Table 2) reveal that the mothers were not previously instructed on breastfeeding techniques and resolved the problems once they met with their health care providers. Lack of adequate breastfeeding care prior to discharge from the hospital perpetuated initial failure with breastfeeding, resulting in avoidable bouts of breast pain and reduced self-esteem.

As illustrated by the quote below, fathers felt very strongly about improving breastfeeding support services to equip them with the information necessary to help the mother when facing breastfeeding difficulties.

I would want the remedies for a woman that has a bad experience breastfeeding. What should she do? It feels too much and can't because it's too painful. What should we do? (Participant 09, Focus Group 1)

Participants commented on an imbalance of breastfeeding education, with one stating, *"Everyone, the doctor and lactation counselor was for it, the breastfeeding and formula but they didn't tell us the side effects of it,"* (Notes, Focus Group 3). While many were taught about breastfeeding benefits, few could identify adverse breastfeeding outcomes unless they had personally experienced them. For those who did face breastfeeding issues like low milk production, many felt helpless to soothe or aid the mother during distressing experiences. Thus, fathers expressed a desire for formal support services to provide better education on these potential issues so they could be better prepared to resolve them.

The variability in access to quality breastfeeding support services was identified as a weak point of the current breastfeeding care in Connecticut. This sentiment was shared by other fathers who did not

describe dissatisfaction with breastfeeding services but still identified knowledge gaps because of unstandardized and rushed care delivery. Overall, positive experiences with breastfeeding support services suggest the fathers appreciate breastfeeding education early in the pregnancy period and personal relationships with their providers. Participants also desired more robust information on breastfeeding techniques, benefits, and solutions to potential issues before discharge from the maternity hospital.

Continuum of Breastfeeding Care and Support

Prenatal-to-postnatal breastfeeding support services were heavily favored and requested by participants. Participants expressed a desire to learn more about what to expect after the baby is born during the prenatal period. Fathers noted that breastfeeding education and support could take the form of classes, appointments, or even reference packets that parents could access throughout infancy.

Fathers also requested that support be maintained after childbirth. Those who did not have experiences with prenatal-to-postnatal support expressed knowledge gaps like breast pump usage, balancing a combination of formula and breastmilk, and when and how to wean off breastmilk. Like other participants described, these areas could be addressed by continual personalized breastfeeding support services from prenatal through postnatal periods.

When describing positive breastfeeding support, fathers typically referenced lactation counselors, doulas, and parenting class instructors. Participants appreciated the personalized support and accessibility of these healthcare providers, commenting on their ability to “*call [the] lactation counselor at two in the morning to get advice on what to do at that point,*” (Notes, Focus Group 3).

Engaging Fathers in Breastfeeding Care

All participants described a strong willingness to help with breastfeeding, but differences in effectiveness and paternal involvement style varied by breastfeeding knowledge. Fathers who felt prepared for breastfeeding attributed their knowledge to formal support services like classes or prenatal appointments that specifically engaged fathers. One participant described his experience in a fatherhood group, stating they would “*discuss things on what kind of father you want to be...it was a really good*

program, and I learned a lot,” (Participant 29, Focus Group 4). This quote suggests that breastfeeding support services play an essential role in fathers’ self-efficacy concerning breastfeeding involvement.

Several participants felt they were engaged just as much as the mother was by healthcare providers. However, most fathers described breastfeeding education delivered to both parents concurrently with a focus on the mother. While lactation specialists did visit and engage with the fathers while in the room with the mother and baby, one participant noted that it would be “*good to have support and information [just] for dads, as well as moms,*” (Participant 07, Focus Group 2). Others felt that providers were responsive to questions from the father but did not directly engage fathers in the education or initially include them in the process. One father expressed frustration with himself for not knowing what questions to ask, highlighting the obligation placed on the father to request breastfeeding information rather than the healthcare provider to deliver breastfeeding information.

Exclusion of the father from breastfeeding education may act as a barrier to paternal involvement in breastfeeding. Fathers described hospitals focusing on the mother and baby when delivering breastfeeding education. Participants reported being included in the process at times, but rarely did fathers receive information about the paternal role in breastfeeding. Many even described an assumption that fathers were uninterested in receiving breastfeeding education: “*I feel like sometimes they might feel like the dad might not be so interested in all the information because that's sometimes how us as guys are,*” (Participant 11, Focus Group 1). Several fathers felt they were unsure what their role in breastfeeding could or should be, stymying their overall engagement with feeding their newborn breastmilk.

Specifically engaging fathers in breastfeeding education and support may empower them with the knowledge necessary to be involved in breastfeeding. One father received education specific to his role as a father from support services, including information on relieving breast tension for his wife. Another father suggested that services provide education on what fathers can do when alone with their newborn, especially if the mother works or the father takes on feeding duties at night. He stated,

But what about to help the dads when the moms are not around and we got to feed the kid the bottle... is there a type of... for us to put [the baby] on our chest to hold them, to make them think

they getting some [breast] or something? We be stressed out three, four in the morning, when they cry I want to cry with them sometimes. So, it's kind of like, I don't know what's going on here. We need a little support on just that end right there. Just that. And we'll be able to help mom one on one. (Participant 29, Focus Group 4)

This quote illustrates how one participant believes father-focused breastfeeding education can increase paternal self-efficacy for breastfeeding, allowing him to be directly involved in breastfeeding his child. Other participants regarded specific education for fathers highly, suggesting that Black fathers in Connecticut would be receptive to father-focused breastfeeding support.

Father-focused engagement may also come from community-based breastfeeding support services, like classes or support groups. Participants expressed an interest in an educational program for fathers. Suggested program content includes information on the benefits of breastfeeding, details of what the mother might experience during breastfeeding, discussion of the father's role in breastfeeding, information about potential risks and remedies to breastfeeding complications, and longitudinal support to aid in weaning off breast milk. Several fathers connected their interest in gaining breastfeeding knowledge to a strong desire to be involved in their child's life, referencing factors like a "*man's pride*" and frustration when feeling they were ineffective fathers.

Support groups may also be a viable way to increase breastfeeding knowledge among fathers. Participants expressed a desire to share their experiences with other fathers. Many had difficult experiences with breastfeeding and wanted to be a source of mentorship for other fathers or wanted a space to share their experiences with others dealing with issues. One father shared that he wanted to share his expertise with first-time parents, reasoning that fathers need "*to encourage each other in certain things. Because I listen to the other fathers [and] what they went through, I didn't go through that, so it's very good information,*" (Participant 05, Focus Group 2). Similar comments reveal a desire for breastfeeding services that facilitate social support and connections between fathers.

Community & Policy Level

Normalization of Breastfeeding

Most fathers felt their communities viewed breastfeeding as a positive, everyday happenstance due to cultural norms that support and encourage breastfeeding. Still, many fathers described stigma against public breastfeeding in their communities despite this. Judgment towards public breastfeeding was received from family members, broader communities, and even held by some participants themselves. Participants believed that stigma against breastfeeding in public was due to the sexualization of breastfeeding and general discomfort with exposing the breast without cover in public. One participant cited concerns over the mother's safety when breastfeeding in public due to the sexualization of breastfeeding. Other fathers personally believed that women should not openly breastfeed in public, though they could not clearly articulate why.

To combat the stigma against public breastfeeding, participants suggested normalizing breastfeeding and creating private spaces for breastfeeding in public. To normalize breastfeeding, one father attempted to address their family members' discomfort with public breastfeeding by comparing breastfeeding in a bathroom to "*eat[ing] a sandwich in the bathroom,*" to illustrate the irrationality of their request. Others suggested that breastfeeding should be shown more often in media. For mothers who do not wish to breastfeed openly, participants noted that private spaces like mothers' rooms were rare and often inaccessible to mothers. They suggested that more mothers' rooms be created and distinctly marked like changing rooms are. Creating these rooms would increase the spaces where mothers feel comfortable breastfeeding and allow the public to view breastfeeding as routine as changing diapers.

Fathers agreed that normalization of breastfeeding was necessary to create a more comfortable experience for both the mother and the child. Some noted that the lack of policies to support breastfeeding made it challenging to normalize breastfeeding. Only one participant correctly identified policies that prohibited discrimination against breastfeeding. Fathers also identified personal concerns over public breastfeeding, suggesting fathers may also benefit from the normalization of breastfeeding through the

desexualization of the feeding breast and enacting policies to protect breastfeeding mothers. The quote below illustrates one father's concerns over the sexualization of his partner breastfeeding in public.

At the end of the day, you got pervs. You know what I'm saying? At the end of the day, you know what I'm saying? You got... I just want to check my woman. That's what it's really about. It ain't really about she can't be a woman and be natural, because what she's doing is beautiful.

(Participant 23, Focus Group 4)

Table 2. Summary of breastfeeding facilitators and barriers with exemplary quotes by Black fathers in New Haven and Hartford, Connecticut.

| Facilitators to Breastfeeding | | |
|--------------------------------------|---|---|
| Socio-ecological model level | Facilitators | Exemplary quote(s) |
| Individual | Father has high (detailed) breastfeeding knowledge | <i>It does help with calorie burning for the mom too. It helps get a lot of their baby weight off. I did a lot of, obviously research on all this stuff and it's something that I had to learn because I didn't know any of this stuff either... And versus formula nutrition wise, if you look up the nutritional value for formula versus breast milk, there's almost an infinite amount of nutritional value in breast milk and there's maybe 13 points on formula, that it might be good for your baby. (Participant 07, Focus Group 2)</i> <i>So the more information we got, the better we felt, and the more equipped we were to make our decision. (Participant 07, Focus Group 2)</i> |
| | Father is directly involved in breastfeeding | <i>So for me, because the baby kept on waking up at odd hours. So we decided my wife to pump milk into, let's say a breast milk bottle... We scheduled my time for feeding the baby. I feed the baby during the wee hours of the night. So it was my duty to feed the baby at night hours so that my wife will get some enough sleep and able to go to work well and maybe be productive. (Participant 02, Focus Group 2)</i> |
| | Father is indirectly involved in breastfeeding (support system) | <i>So my role was to tell her, drink water... Encouraging her to do those things... So my advice for other fathers would be it's more of an emotional support. There's nothing physical, I think you can't do... but it's encouraging the mom to be patient in case there's any issues. And that's what I would say, be encouraging, be helpful, especially in the emotional side of things, if there's issues there. (Participant 06, Focus Group 2)</i> |
| Interpersonal | Shared decision-making | <i>It was both of us. We both attended classes. We both found stuff on our own time and shared with one another and shared articles and stuff like that. Like I said, we wanted to make the best decision together instead of it just be like, well, you know what formula. And it really isn't the best thing for you, baby. (Participant 07, Focus Group 2)</i> Some had explicit conversations with moms. These dads specifically referenced preparation in case of complications like post-partum depression and breastfeeding issues. (Notes, Focus Group 3) |
| | Familial support | <i>Oh, the biggest support we got was from my mother. She encouraged [my wife] to breastfeed. (Participant 04, Focus Group 2)</i> |

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| | Generational breastfeeding | <i>Myself, my mother always tell me that I was always getting breast feeding. I was always breast feeding, not using the formula. So we just learn from the family background so that we need to give to our children, the best way to get our children to be fit and more healthier is to give them the, to breastfeeding them. (Participant 10, Focus Group 1)</i> |
| Institutional | Community breastfeeding support services | <i>So we took classes to see the benefits of breastfeeding. Like they showed us the whole chart, everything, so we prepared a lot for our first child. So that was a lot of the knowledge that we just carried on to each child after that. (Participant 07, Focus Group 2)</i> <i>My wife, she, she works at the Community Action and she does nursing. So she's shown me all those things, there's options. There's angles to go around, there's places to get the information, to get the help, to get the support. (Participant 11, Focus Group 1)</i> |
| | Extensive discharge support | <i>When we were at the hospital, yes. They gave us the proper way of doing it, and they were trying to help while we were in the hospital. Actually, our baby was premature a little bit, like a month or two premature. So, they were trying to help us with his strength and everything and figuring out how he could be on the [breast] most effectively and everything, or most efficiently. (Participant 27, Focus Group 4)</i> |
| | Take-home materials | <i>And like just put together packets, hand out a packet or something just to inform. Even if you forget, they might not want to say it all the time, so a packet, having a packet there in the office or whatever, and we could take it and read for ourselves. (Participant 24, Focus Group 4)</i> |
| | Personalized support (e.g., home visits) | Noted several services that helped, mainly seemed like availability to answer concerns or questions was important to dads, like lactation counselors, midwives, and doulas. <i>“Able to call lactation counselor at 2 in the morning to get advice on what to do at that point.” (Notes, Focus Group 3)</i> |
| | Ongoing support from prenatal to postnatal period | <i>Also, too, I can't really remember, but we had a tough time knowing when to wean the baby off, that period of time was like murky. We couldn't really understand when should we stop, when should we give her more solid food? So having more guidance in that area would help too. (Participant 03, Focus Group 2)</i> One dad said that he wished he knew more about transitioning from breastmilk to formula because he was unprepared. He said he <i>“learned the hard way at 12 at night.” (Notes, Focus Group 3)</i> |
| | Formal support services directly educate/engage the father | <i>Definitely. [The hospital] gave me different ways of how I can help relieve the tension up there, the pressure that all of that causes. That was one of the major things actually, because he, our son stopped breastfeeding himself pretty much. He didn't really want to continue doing it. And so it was just like there was extra pressure there. So, trying to</i> |

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| | | <i>help with that, and different things like that. And yeah, support just emotionally and everything too. (Participant 27, Focus Group 4)</i> |
| Community/Policy | Community acceptance of breastfeeding as normal | <i>Myself, I learned from my background, I was born in Africa and we don't give too much formula to the baby, our parents give birth to 10 children. You find our mother give birth to maybe some... Most of them are in Africa, they always have so many children and they all give them breast milk and they look much healthier. And then they always advise other woman and then to always use the breast milk. (Participant 10, Focus Group 1)</i> |
| | Breastfeeding visibly in media | <i>I definitely agree with him that social media definitely made it a norm. Girls are breastfeeding in Chuck-E-Cheese, or wherever now, in the mall. But they'll take a picture of it now, and give other women, I guess, confidence to do it now. You can see other mothers doing it. So, all they really have to do, some girls don't even put [a cloth]] no more, they just pop it right out now. But it's a norm, it's a beautiful thing, know what I mean? Nothing wrong with that. (Participant 25, Focus Group 4)</i> |
| | Policies to protect breastfeeding in public and the workplace | <i>I can't think of what the law was, the actual name of it. I just know that it, they cannot discriminate you for breastfeeding your baby in public or having because for a while it was even bad for the moms in the workplace to actually pump, be excused to pump. Moms were losing their jobs for that and they're still getting a hard time at some places, but there's laws in place to protect the mom because your body's producing whether the baby's there or not. (Participant 07, Focus Group 2)</i> |
| | Private spaces clearly marked for breastfeeding | <i>"Something that could make it easier, you don't really see... my girl didn't even know what a mother's room was, no signs, nothing... explaining what a mother's room is..." One dad added that having these spaces for moms to breastfeed clearly marked would encourage questions from kids. This would expose them early in life and help to normalize breastfeeding. (Notes, Focus Group 3)</i> |
| Barriers to Breastfeeding | | |
| Socio-ecological model level | Barriers | Exemplary quote(s) |
| Individual | Father has low breastfeeding knowledge | <i>P: I honestly I don't know because I don't know really what they need when they breastfeeding. And I don't know if they need anything for like their chest or anything like that. Because don't get wrong, my first daughter, her mom, she breastfed with her and stuff. I was there for it and stuff, but I didn't have to do nothing. I was really just sitting there but this one is different. So I'm trying to be more involved with everything. F: Okay. So you probably want to be a little bit more knowledgeable about it, so when that time comes. P: Yeah. Mhmm. (Participant 08, Focus Group 1)</i> |

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| | Father is not involved with breastfeeding (hands-off) | <p>F: Before becoming a father, did you think men had a role in deciding to breastfeed or bottle feed?</p> <p>P: <i>No. I didn't even think about it.... I didn't even think about it until he came. And then I still didn't really know what my place was when it came to breastfeeding. (Participant 24, Focus Group 4)</i></p> <p>P: <i>No, I didn't think anything like that. Because it's more of a role to the women, but when the child came that's when I saw it's a role for both genders. (Participant 01, Focus Group 2)</i></p> |
| Interpersonal | Familial discouragement from breastfeeding | <p><i>Only other difficulties was certain family members didn't really understand the necessity of breastfeeding because they either didn't know what value it had or they just felt uncomfortable with that. (Participant 07, Focus Group 2)</i></p> <p><i>Well...my wife reminded me that my mother actually discouraged breastfeeding. She said, "why don't you feed that baby some real food." And I don't know what kind of food she was talking about, but she discouraged it. So that was a negative output, that kind of had its time for a minute. (Participant 03, Focus Group 2)</i></p> |
| Institutional | Lack of access to breastfeeding resources | <i>Yeah, I think that's a problem. It's lack of information and not knowing where to get resources, to know about breastfeeding. It's almost like when you become pregnant, your wife and yourself it's like the only thing you think about is the actual day the baby is due and that's like the end of it. But it would be more helpful if we had more resources to, or to pull off of so that we're prepared. (Participant 03, Focus Group 2)</i> |
| | Insufficient breastfeeding preparation | <p><i>And up here in Connecticut is where they gave us some information. But if you were a first time [parent] breastfeeding, it wouldn't be enough to help you make the decision. So it, some areas could use work as far as teaching nutritional value of what the breast milk can actually do for mom and baby, or as far as the program here. But they did provide us with pumps or anything else like that we need. (Participant 07, Focus Group 2)</i></p> <p><i>We, we didn't get that support. You see its more, the gynecologists are more concerned about the baby, just the baby needs to come. And then we get that support from when the baby was born, like in my case, my baby was in the hospital, in the incubator. So they try to teach us then. (Participant 10, Focus Group 1)</i></p> |
| | Insufficient discharge support | <p><i>Some nurse also used to speak to us about. Not really the medical doctor, but the nurse, they were busy talking about the importance of the feeding. And then they give us some paper to read and then go through it. So, yeah, but it was in the rush. They didn't go through it in details. But we just learned more from families and then so, what's happening. (Participant 10, Focus Group 1)</i></p> <p><i>I would say her experience was more so like soreness, engorgement...And I think because when she first started off, like the first week, it was like she didn't really know how to do it correctly yet. But when she went to the appointment, they showed her. And when they showed her, I guess she was already kind of like sore from the first couple of days of trying to latch on just naturally knowing how to do it. (Participant 23, Focus Group 4)</i></p> |

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| | | <i>Our first son...she had trouble breastfeeding, so she kind of felt, she felt like something was wrong with her. But, really what it was, was that no one ever properly showed her how to get the milk out. You've got to do it a certain way. (Participant 28, Focus Group 4)</i> |
| | Lack of breastfeeding promotion | <i>I think I'm the one even who talk to them about, and they say, "Okay, yeah, it's good. It's good. The breast, the breast milk is coming. Oh, it's good. You can give the baby that one." And then I said to them, okay, my wife's... going to pump from the room. (Participant 10, Focus Group 1)</i> |
| | Exclusion of the father from breastfeeding support services | <i>I feel like it's usually kind of based on how engaged I am. I take the initiative to ask questions a lot sometimes. I don't know all the questions to ask. And sometimes I actually get frustrated that I didn't know to ask a certain question because then later on when it's something that comes up, I would've wanted to know the answer. But I will say that they are good that, if you ask the questions, then they'll give you the answers. If they don't have the answers, then they have the resources to give to you to find the answers. (Participant 11, Focus Group 1)</i> |
| Community/Policy | Sexualization of breastfeeding | <i>I just see a lot of bad things happen to women. It's so important to protect women...It's just like she could be doing her thing, and then some creep with a phone... you know what I'm saying? Because them type of videos is out there. You know what I'm saying? She just minding her business, trying to feed her kid. (Participant 23, Focus Group 4)</i> <i>People are sexualizing breastfeeding trying to turn it into something that its not. (Notes, Focus Group 3)</i> |
| | Stigma towards breastfeeding in public | <i>I wasn't disagreeing about how females just openly do it, like just whip out they boob in public. Yeah, I'm against that. But if you have some type of... females should always have a baby blanket on hand, no matter what. As long as we got a blanket, you can whip it out all you want. Just cover yourself. (Participant 30, Focus Group 4)</i> <i>I mean, all right, I totally disagree with the whole public thing. I feel like it is natural, I do. But doing it in public is like me going to the bathroom in public. (Participant 23, Focus Group 4)</i> |
| | Low awareness of policies to protect breastfeeding | <i>See, that's [not being able to breastfeed at work] what make me think that it wasn't as normal as we might be saying it is. Because with a lot of other stuff, there's stuff put to the side for specific things. Breastfeeding, I think growing up I didn't see it like that. It probably was happening, but I didn't see it like that. (Participant 30, Focus Group 4)</i> <i>There should not be any problem about that. Because the baby doesn't know that doing it is some kind of illegal issue. (Participant 02, Focus Group 2) Breastfeeding is legally protected in all public spaces and workplaces in CT.</i> |

Discussion

The study's findings reveal several facilitators and barriers to breastfeeding identified by Black fathers in Connecticut. These factors can be mapped onto the Socio-Ecological Model, enabling an understanding of breastfeeding as subject to various levels of influence and interventions. From the results, we discuss potential explanations for facilitators and barriers and implications of these findings presented as recommendations to improve breastfeeding outcomes.

At the individual level, it appears that fathers' breastfeeding knowledge shapes their notions of the father's role in feeding their newborn. Positive, informed breastfeeding advice is needed to motivate the father to be directly involved in breastfeeding and the decision to breastfeed. Participants' initial breastfeeding knowledge primarily reflected exposure to breastfeeding in their communities, while their learned knowledge came from online research, healthcare appointments, and parenting classes. Formal support services such as breastfeeding education delivered during prenatal appointments can bolster paternal attitudes toward breastfeeding and, subsequently, their level of breastfeeding involvement by providing robust information to parents about the benefits of breastfeeding and the consequences of formula-feeding. Content may include breastfeeding health benefits for the infant, health benefits for the mother, practical benefits (e.g., time, cost considerations), and emotional benefits for all family members, including the father. Healthcare systems should also provide online content for families to access easily.

In line with the Health Belief Model, knowledge of breastfeeding outcomes can be perceived as either a facilitator or barrier to fathers' involvement style depending on how favor falls for or against breastfeeding (Janz & Becker, 1984). Based on the collected data and the Health Belief Model, direct and indirect involvement were classified as facilitators of breastfeeding. However, past studies on the correlation between paternal behaviors and breastfeeding practices have produced mixed results. Some research suggests paternal involvement contributes to successful breastfeeding (Atkinson et al., 2021; Ogbo et al., 2020), like Hunter and Cattelona (2014), who found that 97% of mothers who received paternal support in breastfeeding continued breastfeeding after leaving the hospital, compared to only

64% of mothers who did not receive paternal support. Conversely, Rempel et al. (2016) found that only indirect involvement, characterized by responsiveness to the mother's needs rather than direct involvement in feeding their infant, is positively associated with breastfeeding. The extreme variation in experiences with breastfeeding and the assumed role of the father observed in this study align with the mixed results of existing literature. Therefore, more research is needed to understand what specific actions taken by fathers may facilitate breastfeeding.

Our findings could provide a framework for understanding how fathers may differently conceptualize their role in breastfeeding (e.g., direct involvement, support system, or hands-off) upon which future research can explore the association with breastfeeding practices. It may also inform breastfeeding promotion programming and interventions. Formal breastfeeding education and support services might meet the father where he is based on a baseline assessment of current beliefs about the role of fathers in breastfeeding. This tiered strategy may be advantageous in busy settings like hospital care delivered immediately following childbirth, accompanied by a guide for fathers to take home and reference for additional support strategies. Additionally, culturally tailored multimedia strategies such as videos, websites, or social media resources may be particularly useful to increase fathers' exposure to Black fathers involved in breastfeeding. Such multimedia strategies are currently used to promote narratives of Black mothers breastfeeding but could reasonably be transposed to raise awareness of the possibilities of paternal breastfeeding support (Robertson, 2014).

At the interpersonal level, many fathers were not explicitly involved in the decision to breastfeed, though shared decision-making did appear to facilitate breastfeeding initiation. Shared decision-making, characterized by explicit conversations about breastfeeding prior to childbirth, may foster stronger intent to breastfeed and guard against anticipated barriers to breastfeeding. The findings suggest that fathers can be an essential partner for mothers when deciding to breastfeed. Therefore, formal support services may engage fathers in breastfeeding education as change agents to promote breastfeeding. Previous research supports shared decision-making as a facilitator, stipulating that attention is paid to the balance between paternal encouragement and the need to respect the mother's breastfeeding wishes (Henshaw et al., 2021).

Further investigation of the influence of shared decision-making on breastfeeding outcomes might inquire about shared decision-making and sustained breastfeeding success. For example, how, if at all, do the father, other family members, or healthcare providers influence the decision to continue or terminate breastfeeding attempts when mothers are facing breastfeeding complications?

Furthermore, participants identified familial support as a facilitator to breastfeeding, while the converse was a barrier. The significant impact that family plays can be attributed to the observation that participants' primary source of informal support came from female family members who had experience feeding their children. Lack of familial support may isolate parents when strong support systems facilitate breastfeeding (Arora et al., 2000). Generational breastfeeding also fostered transmission of breastfeeding knowledge between female family members and enhanced understanding of the father's role, increasing the mother and father's self-efficacy. One potential implication of these findings is that efforts to improve breastfeeding outcomes for mothers today may positively impact future generations.

At the institutional level, access to quality breastfeeding resources varied greatly among participants. Gaps in breastfeeding services included differential dissemination of available breastfeeding resources (*I think it depends on where you go, where you at, because one of the guys was talking about they told him certain things that I know I wasn't told*) and lack of breastfeeding promotion and support services including upon maternity facility discharge. While not all fathers had negative reflections on their experiences with formal support services, breastfeeding care providers should still address areas for improvement to standardize the provision of quality breastfeeding care. To address concerns from fathers that breastfeeding information and support differs by the healthcare provider, hospitals could introduce training protocol or assessment of clinical competency in breastfeeding support/lactation management for healthcare providers (*Connecticut 2020 Report, 2021*).

The CDC's Maternity Practices in Infant Nutrition & Care (mPINC) survey provides context for institutional barriers to breastfeeding identified in the focus groups (Centers for Disease Control, 2021). The mPINC survey was administered to hospitals that offer maternity services and asked about best practices and policies that impact infant feeding (*Connecticut 2020 Report, 2021*; Sinha et al., 2015).

Connecticut hospitals outperformed the national average, but several best practices and policies are not employed by all hospitals that align with gaps identified by our focus groups. While 95% of Connecticut hospitals teach breastfeeding mothers how to “recognize and respond to feeding cues and to breastfeed on-demand,” only 85% teach specific breastfeeding skills like “how to position and latch their newborn, assess effective breastfeeding, and hand express milk,” (*Connecticut 2020 Report*, 2021). This statistic may explain participants’ descriptions of unclear breastfeeding instruction from hospitals that contributed to their partners’ breastfeeding challenges. One tactic to ensure that families accurately receive breastfeeding instruction is to create discharge criteria for breastfeeding newborns that require direct observation of at least one effective feeding at the breast. 80% of Connecticut hospitals currently have such discharge criteria (*Connecticut 2020 Report*, 2021).

The timing of breastfeeding education and support was identified as a concern, where many fathers felt their partners only received breastfeeding instruction in the maternity hospital immediately following childbirth. Even if the maternity hospital provides adequate breastfeeding education aligned with mPINC recommendations, parents may not be receptive to information immediately following childbirth, especially if they experience birthing complications. A multi-state analysis found that black mothers were 12% more likely to undergo a cesarean delivery than white mothers, even after controlling for income and insurance status (Chiang et al., 2021). These findings suggest that Black mothers are more likely to experience birthing complications, contributing to stress and increased costs associated with delivery. These factors may overshadow breastfeeding care or education provided by the maternity hospital during the childbirth hospital stay, further limiting the received benefit of breastfeeding education delivered before discharge from the maternity hospital. Strategies to increase uptake of breastfeeding information may thus include the assignment of a lactation counselor who is available as a breastfeeding educator and resource after discharge. This suggestion aligns with participants’ preference for personalized breastfeeding care provided by lactation specialists available in the perinatal period.

Finally, within the community and policy levels, participants described the stigma against public breastfeeding as a barrier and normalization of breastfeeding as a facilitator. Studies on stigma and

breastfeeding emphasize the inherent link between stigma against public breastfeeding and the sexualization of the exposed breast, rooted in “unequal gender relationships in society and the framing of breasts as sexual rather than nurturing,” (Grant, 2016). Stigma against public breastfeeding limits the spaces that mothers feel comfortable breastfeeding, which might pressure families to bottle feed instead. Messaging may therefore influence the palatability of public breastfeeding. Framing breastfeeding as “natural” through comparisons to animals (*I kind of learned about it, because my dog, she actually just had puppies and throughout the process, I was learning that it's very similar to humans in a way.*), comparison to previous generations (*It's not like formula has been around since the beginning of man so how were they feeding their kids before that?*), and emphasizing breastmilk as food and nutrition (*Well, can you go do it in the bathroom?" It's like, "Okay, would you go eat the sandwich in the bathroom?*) may desensitize those uncomfortable with breastfeeding.

As interpreted from the data, breastfeeding can be facilitated through widespread public breastfeeding, the generational transmission of breastfeeding knowledge, empowerment of breastfeeding women, desexualization of breastfeeding, increasing visibility of breastfeeding in media, and clearly marking spaces for breastfeeding. In other words, breastfeeding success requires a societal approach where fathers play a central role in the context of social and health care systems. The local legislature and workplace policies can contribute to lowering barriers to breastfeeding in public (Hirani, 2021). In Connecticut, laws protect breastfeeding mothers in all public spaces and workplaces (Connecticut Department of Public Health, 2011). Recently, Connecticut expanded its workplace breastfeeding policy, mandating employers to make a “reasonable effort” to provide a private space for breastfeeding (State of Connecticut, 2021). This expansion reflects the need identified in the maternal and paternal studies for breastfeeding-friendly policies over breastfeeding-tolerant policies (Tran, 2021). Further research is necessary on the effectiveness of similar breastfeeding-friendly policies on outcomes.

In addition to identifying facilitators and barriers in breastfeeding services, participants offered their ideas to improve formal support services. Overall, participants expressed a desire to participate in breastfeeding but identified a need for more engagement in formal breastfeeding care, defined as

breastfeeding education and support delivered by healthcare providers. Participants were interested in father-centered groups extending from the prenatal to postnatal periods to cover topics like remedies to common breastfeeding issues and the father’s role in feeding, recognizing their different information needs from mothers. Participants’ comments called for breastfeeding education focused on bolstering the father’s self-efficacy to soothe the mother and infant, including knowledge of what the mother might be going through, techniques to relieve breast tension, and skin-to-skin caregiving by fathers to their infants. They also wanted more transparency from healthcare providers about potential drawbacks of breastfeeding so that they could make informed decisions about breastfeeding and feel more prepared to support the mother. The literature supports these recommendations, where prenatal and postnatal breastfeeding education interventions increase breastfeeding initiation, duration, or exclusivity (Wouk et al., 2017). The participants also expressed interest in peer mentoring groups to share what they have learned with first-time fathers and find community amongst other fathers.

Table 3. Summary of proposed solutions for improving breastfeeding support as suggested by and interpreted from focus groups with Black fathers in New Haven and Hartford, CT.

| Suggestions for Improving Breastfeeding Support |
|---|
| <ul style="list-style-type: none"> • Provide breastfeeding education to fathers tailored to their initial knowledge about breastfeeding and beliefs about their role in breastfeeding. • Engage fathers as decision-makers in feeding by equipping them with information about the benefits and drawbacks of breastfeeding. • Create online breastfeeding resources from local community partners or healthcare providers that parents can recognize as reputable. • Provide take-home materials (e.g., reference packets or instructional videos) for easy reference and to support at-home breastfeeding. • Transparency from formal breastfeeding support services about risks or potential adverse outcomes of breastfeeding supplemented with strategies to mitigate these issues. • Outline standard care objectives for breastfeeding provided to all maternal health providers. • Teach/show mothers how to breastfeed before leaving the hospital, including instruction on specific breastfeeding skills like positioning, latching, and expressing milk. • Discharge criteria for breastfeeding newborns require direct observation of at least one effective feeding at the breast. • Introduce training protocol or assessment of clinical competency in breastfeeding support/lactation management for healthcare providers (e.g., physicians, nurses). • Integrate breastfeeding education into prenatal classes and appointments. • Refer all breastfeeding mothers to lactation specialists available for support after childbirth (rather than just one-time follow-up appointments or phone calls). |

- Breastfeeding education or support targeted specifically to fathers to specify ways that fathers can be directly and indirectly involved in breastfeeding.
- Frame messaging for breastfeeding as “natural” by using emphasizing the breast as nurturing and breastmilk as food for newborns.

For Connecticut breastfeeding support services, the study’s identified facilitators, barriers, and recommendations are intended to guide quality improvement efforts. In line with the community-based participatory approach, results from this study and the mothers’ study (Tran, 2021) will be disseminated in multiple formats to both healthcare facilities and community organizations. Although this study aimed to generate recommendations for formal breastfeeding support services, community breastfeeding initiatives can also benefit from the findings. Fatherhood groups might use participants’ requests for breastfeeding education topics like remedies for adverse breastfeeding outcomes, specific strategies to support the mother, and how to soothe the baby when the father is alone for curricula development. They could also focus on creating a safe space to express feelings about breastfeeding and early fatherhood, like exclusion from the breastfeeding process or safety concerns about public breastfeeding. Our participants also expressed interest in mentorship opportunities for experienced fathers, revealing a largely untapped network of trusted messengers to engage in breastfeeding promotion efforts.

This study provides in-depth insights into the experience, knowledge, and attitudes toward breastfeeding among Black fathers in Connecticut with strengths in its community-based participatory approach. Past attempts at understanding breastfeeding perceptions among Black fathers have been limited by the number of recruited participants (Ringel-Kulka et al., 2011). Our community partners’ longstanding reputations and efforts in Connecticut allowed for more effective recruitment and engagement. The qualitative nature of the study allowed for nuanced insights into participants’ breastfeeding experiences and their knowledge of facilitators and barriers. Despite these strengths, the study has limitations in recruitment strategy, data collection discrepancies, and data analysis design.

Recruitment primarily occurred through our community partners, who are both breastfeeding promotion and maternal-child health organizations. Thus, our sample mainly consisted of fathers who were already engaged in conversation about fatherhood and breastfeeding. Although participants had a

wide range of experiences with breastfeeding and breastfeeding support services, most had a generally favorable opinion of breastfeeding. Those not captured in our sample, groups especially marginalized who may not often engage with formal support services, might perceive worse experiences than our participants. Accordingly, this study's results may not be generalized to other groups. Nonetheless, the qualitative nature of the study allows for a rich, detailed understanding of participants' experiences, identifying facilitators and barriers that can be reasonably integrated into efforts to improve breastfeeding care for all families in Connecticut.

One focus group was not audio-recorded and transcribed. Insights captured from this focus group were still used by analyzing notes taken during and after the session. All direct quotes from session notes and relevant excerpts from post-session scripts are notated as such throughout the study to indicate their procedural difference. Although audio transcription is standard procedure in public health qualitative research, data analysis performed on focus group notes can still produce an accurate and in-depth interpretation of participants' responses (Rutakumwa et al., 2020).

Finally, this study used rapid template analysis to produce the themes presented. Rapid template analysis proved to be a practical approach to working with a lengthy data set within a time constraint intended to be used for functional recommendation development. However, as with any thematic analysis, template analysis (and focus groups) did not allow for a holistic understanding of individual perspectives. Template analysis created between-case summaries of participants' perspectives, potentially obscuring minority perspectives (Brooks et al., 2015). To address this potential limitation, researchers considered participants' perspectives across different domains, creating narratives from which profiles of paternal involvement were created to maintain the observed variance in experiences.

Future research is needed to understand how different socio-ecological settings influence parents' perception of breastfeeding to bolster our understanding of breastfeeding facilitators and barriers. Our findings are specific to Connecticut, a state that consistently scores above national averages in breastfeeding metrics, including breastfeeding rates and feeding education and support in hospitals (Centers for Disease Control and Prevention, 2021). Understanding how facilitators and barriers manifest

in settings with different sociocultural and political climates can refine recommendations for mitigating breastfeeding disparities. Additionally, more research is needed to test the association between proposed facilitators, barriers, and breastfeeding outcomes to inform the co-design, implementation, and maintenance of future effective breastfeeding interventions involving Black fathers. This is key as a recent systematic review identified a dearth of breastfeeding interventions involving fathers of ethnic or racial communities historically discriminated against in the U.S. (Segura-Pérez et al., 2021).

Conclusion

This study aimed to describe Black fathers' perceptions of breastfeeding in Connecticut using a qualitative, community-based participatory approach. Focus groups revealed factors influencing breastfeeding at the individual, interpersonal, institutional, and community/policy levels. Breastfeeding facilitators identified by focus groups include high paternal knowledge about breastfeeding, paternal involvement in breastfeeding, parents' shared decision-making, generational breastfeeding, personalized prenatal-to-postnatal breastfeeding support services, engagement of the father by breastfeeding support services, community breastfeeding support resources, and designated spaces to breastfeed in public. Breastfeeding barriers perceived by study participants include low paternal knowledge of breastfeeding, paternal non-involvement in breastfeeding, familial discouragement, inadequate promotion of breastfeeding in the prenatal period, insufficient support following discharge from the maternity hospital, exclusion of the father from breastfeeding support services, and stigma against breastfeeding in public. These findings illustrate the current climate for breastfeeding in Connecticut and highlight areas in which breastfeeding support services can better serve breastfeeding families – including fathers.

Appendix

Figure 1. Focus Group Guide Questions.

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| <p>Perceived Self-Efficacy</p> <ol style="list-style-type: none"> 1. <i>Alright, can you tell me about mom's experience with breastfeeding your newborn?</i> <ol style="list-style-type: none"> a. <i>And could you tell us how that made you feel?</i> 2. <i>What ways did you support mom in giving breastmilk to your newborn?</i> 3. <i>Did you feel prepared to support mom in breastfeeding your newborn?</i> <ol style="list-style-type: none"> a. <i>What sorts of support would have made you feel more prepared? OR What sorts of support made you feel prepared?</i> 4. <i>What do you think the role of the father should be in supporting breastfeeding or feeding breastmilk?</i> |
| <p>Perceived Susceptibility/Risk</p> <ol style="list-style-type: none"> 1. <i>Did you have a say in the decision to breastfeed? What did the decision process look like?</i> 2. <i>When you and/or mom decided to give breastfeeding a try, can you tell me about why you chose to do this?</i> 3. <i>When deciding to breastfeed, what did you think or what have you heard that the benefits to breastfeeding were?</i> <ol style="list-style-type: none"> a. <i>Was your choice to breastfeed related to your baby's health? Was it related to the mother's health?</i> 4. <i>Where or from whom did you learn about the benefits to breastfeeding?</i> |
| <p>Positive and Negative Consequences</p> <ol style="list-style-type: none"> 1. <i>Besides health reasons that you mentioned, what do you think were some advantages of giving breast milk to your baby?</i> 2. <i>And what about disadvantages? What were some disadvantages, if you encountered any, of giving breast milk to your baby?</i> |
| <p>Perceived Social Acceptability</p> <ol style="list-style-type: none"> 1. <i>Before becoming a father, did you think breastfeeding was a normal thing to do? Why?</i> 2. <i>Can you think of people in your life who were supportive of breastfeeding?</i> 3. <i>Now, can you think of people in your life who may have discouraged mom from breastfeeding?</i> 4. <i>How do you think breastfeeding is viewed by members of your community? Do any stories come to mind?</i> <ol style="list-style-type: none"> a. <i>How do you think people feel about a woman breastfeeding in a public place?</i> |
| <p>Access</p> <ol style="list-style-type: none"> 1. <i>What things made it easier for you and mom to give breastmilk to your newborn? What things made it difficult to give breastmilk to your newborn?</i> 2. <i>Was it difficult for mom to get the support she needed to breastfeed or give breast milk to your baby? If yes, what were some of those difficulties?</i> 3. <i>Were you (as a father) engaged by doctors or other healthcare professionals to help support mom with breastfeeding or giving breast milk? If yes, how so? How did that make you feel?</i> <ol style="list-style-type: none"> a. <i>If there was an educational program created just for fathers, what information would you like to see included? Would you attend?</i> 4. <i>What other things/support do you think would help you be more engaged with breastfeeding or ensuring your baby receives breastmilk?</i> |

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| Policy |
| 1. <i>Do you know of any laws or policies that might have made it easier for mom to breastfeed? Like what?</i> |

Figure 2. Analysis Template Excerpt.

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| Perceived Self-Efficacy (e.g., How easy or difficult is breastfeeding? Do mom and dad feel empowered to breastfeed? Does dad feel like a part of the decision-making process?) |
| <i>How did participants describe the experience of breastfeeding? Was it easy or difficult?</i> |
| <i>How did participants describe their role in breastfeeding and feeding their newborn breastmilk?</i> |
| <i>Did participants feel prepared to support breastfeeding? Why or why not?</i> |
| <i>How did participants describe their feelings about supporting breastfeeding? These feelings could include emotions towards breastfeeding, emotions towards their role or lack thereof in breastfeeding, or emotions towards their newborn or partner impacted by breastfeeding.</i> |
| <i>Did participants have a say in the decision to breastfeed? How do they describe the decision-making process, if at all?</i> |
| <i>Any other comments worth capturing related to perceived self-efficacy?</i> |
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