

Structural vulnerabilities and breastfeeding among female sex workers in Mumbai

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Abstract

Breastfeeding has numerous health, environmental, and economic benefits, and the promotion and support of breastfeeding has been at the centre of efforts from many global organizations such as WHO and UNICEF to promote maternal and child health. Interventions developed from such policies tend to be inaccessible to those who are economically marginalized, however, and thus may further inequities. Understanding the lived experiences of women occupying this segment of society, such as sex workers, illuminates the social and structural determinants of breastfeeding and how they constitute structural vulnerability that renders breastfeeding difficult. This qualitative study explores breastfeeding practices and decisions among sex workers in Mumbai and the factors shaping their experiences. We look at proximal factors—those that women directly indicate as influencing their breastfeeding decision-making or behaviour, and distal factors—macrolevel forces identified by the women, as indication of their structural vulnerability, particularly in relationship to the decision to initiate and sustain breastfeeding. We conclude with discussing the need to promote appropriate infant feeding practices through culturally responsive interventions and mechanisms, taking both proximal and distal factors into account, to work towards equity in health outcomes.

KEYWORDS

breastfeeding, commercial sex, maternal health, qualitative, sex work

1 | INTRODUCTION

Breastfeeding is promoted worldwide as the ideal way to feed an infant. International efforts to promote breastfeeding have been underway for nearly 30 years, from the 1990 Innocenti Declaration and the UN Convention on the Rights of the Child (Rollins et al., 2016). The advancement of breastfeeding is a priority for a number of multinational organizations such as the United Nations and the WHO (UNICEF, 2016; United Nations, 2015, 2016). WHO recommends

exclusive breastfeeding to 6 months and partial breastfeeding up to 2 years of the infant's life or longer (WHO, 2018).

The World Health Assembly has launched The Global Breastfeeding Advocacy Initiative to reach a 50% rate of exclusive breastfeeding by 2025. Failing to achieve this optimal breastfeeding rate has both economic and environmental costs as well as health implications—including maternal and child morbidity and mortality (Rollins et al., 2016). Breastfeeding is critical in low-resource areas where communicable diseases are the primary cause of mortality

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and morbidity, and access to clean water for formula is scarce. Breastfeeding is a mechanism of disease prevention as formula fed infants have increased risk of infant mortality because of conditions such as diarrhoea, respiratory infections such as pneumonia, and undernutrition (WHO, 2016). The increased availability of formula has resulted in an increase in the infant mortality rate by 9.4 per thousand in regions where clean water is scarce (Anttila-Hughes, Fernald, Gertler, Krause, & Wydick, 2018). Approximately 13.8% of deaths among children under 2 years of age in low- and middle-income countries could be prevented if breastfeeding were increased to optimal levels; 87% of these preventable deaths would be in infants less than 6 months of age (Victora et al., 2016).

1.1 | Breastfeeding in India

In India, 54.9% of all infants under 5 months of age are exclusively breastfed (Robinson, Buccini, Curry, & Perez-Escamilla, 2019). Breastfeeding is a key strategy to improve population health as it prevents infant death; infant mortality rates in India are exceptionally high (47 deaths per 1,000 births; Gupta, Dadhich, & Faridi, 2010). Daily Adjusted Life Years (DALY) measures population health by tallying the loss of one "healthy" year, in this case as a result of suboptimal breastfeeding practices. For the entire Southeast Asia region, DALY has decreased between 1990 and 2010 (Institute for Health Metrics and Evaluation, 2013); however, there is variation within and across nations. In India, there was modest improvement during this time-frame in the proportion of the population exclusively breastfeeding through 6 months of age; however, examination of this trend by wealth quintiles shows that gains were made among those in the highest economic quintile. Comparatively, the lowest quintile was stagnant (Roberts, Carnahan, & Gakidou, 2013). Across the world, India has the highest absolute DALY attributed to suboptimal breastfeeding (Roberts et al., 2013).

1.2 | Breastfeeding recommendations and practices of female sex workers

To meet breastfeeding goals among those most at risk of poor health outcomes, we must examine how women in the lowest economic quintiles (e.g., female sex workers [FSWs]) are counselled to feed their infants. Ideally, recommendations from health care providers on the safest way to feed an infant would be based on a woman's medical status and the provider's assessment of her specific risk factors (Suryavanshi et al., 2003), grounded in current knowledge about when breastfeeding is recommended and when it is contraindicated. For example, WHO recommends breastfeeding for women who are HIV+ in limited-resource settings, in part to mitigate the risk of infant mortality associated with a lack of access to clean water, hygiene, and sanitation. This recommendation applies to women who are HIV+, if the mother is compliant with an antiretroviral (ARV) regimen and exclusively breastfeeds (as opposed to supplementing and/or

Key messages

- Breastfeeding is widely promoted as a mechanism to reduce maternal and child health inequities and can prevent infant death, particularly when water safety is of concern.
- To be effective, global policies must focus on those who are most at risk of not breastfeeding in these settings (e.g., sex workers) to comprehend their unique cultural and structural context.
- This qualitative study advances our understanding of how female sex workers' structural vulnerabilities shape their breastfeeding decisions and practices.
- These findings can help shape the development of culturally responsive, and more effective programmes for female sex workers, to encourage and support breastfeeding when indicated.

introducing complementary food prior to 6 months; Alvarez-Uria, Midde, Pakam, Bachu, & Naik, 2012). Even if a woman is not able to follow the ARV regimen, breastfeeding may still be advised as their infant remain at lower risk depending on the woman's setting and ability/resources to prepare formula safely. This illustrates the complexity that health care providers face when advising sex workers on how best to feed their infant. Those providers may lack important information about breastfeeding recommendations based on the women's risk factors and may categorically advise FSWs against it or be inconsistent in their recommendations (Bharat & Mehendra, 2007; Sharif, Saxena, Nair, Sharma, & Jain, 2017).

Medical care is extremely difficult for FSWs to access (Karandikar, Gezinksi, & Kaloga, 2016); thus, many may not receive prenatal care or breastfeeding recommendations (Willis, Welch, & Onda, 2016). Nevertheless, a relatively high percentage of FSWs in India initiate breastfeeding. One exploratory study of breastfeeding among FSWs in India found that 81.6% had initiated breastfeeding (Yerpude & Jogdand, 2012). Little is known on the duration of breastfeeding, or breastfeeding exclusivity among FSWs, however.

A woman's decision about breastfeeding is complex and encapsulates attitudes, beliefs, and knowledge, as well as cultural norms and perception of risk. These may be shaped by a wide variety of situational factors including infant feeding practices among her peers, accessibility to her baby during feeding times, ability to express milk, employment status, assessment of her ability to breastfeed, sufficiency of her breastmilk production, support, and/or overall convenience (Chugh Sachdeva et al., 2019; Sharif et al., 2017). It is important to understand the contexts and factors shaping women's breastfeeding decisions, in order to ensure that overarching global human rights policies can be actualized in a way that is effective and accessible to those who are most at risk. The purpose of the current

study is to explore FSWs breastfeeding decisions and capture how they are informed by factors constituting their distinct sociopolitical context.

1.3 | Guiding theories

Two organizing concepts were applied to this study—a conceptual model of determinants of breastfeeding as introduced by Rollins et al. (2016) and structural vulnerability. These were selected given the need for breastfeeding research that “highlights the complexities of making an informed and healthy choice under suboptimal conditions” (Shankar et al., 2005, p. 961).

1.3.1 | Conceptual model of determinants of breastfeeding

To understand patterns of breastfeeding, it is not sufficient to view it as an individual health behaviour; rather, we must contextualize it as nested within historical, structural, cultural, and market factors. Rollins et al. (2016) introduced a model that includes structural factors influencing women's sociocultural context, which in turn informs individual-level determinants (e.g., women's breastfeeding knowledge and skills). This framework illuminates structural and cultural factors and highlights how women experience and interpret them within their lived experiences, given their particular social positioning.

1.3.2 | Structural vulnerability

Structural vulnerability can be used to examine how macrolevel risk factors are embodied through diseases, perspectives, or health behaviours (Rhodes et al., 2011). Although elements of marginalization or oppression are often generalizable, say for all individuals of a lower caste, specific populations in particular sociopolitical contexts (i.e., FSWs) experience many nuanced distinctions. To date, there have been studies applying the concept of structural vulnerability to FSWs generally (see Miller et al., 2011); however, there are none specific to breastfeeding among FSWs.

Macrolevel policies that contextualize breastfeeding as a health behaviour decision constrained by overarching forces (e.g., the WHO Baby-friendly Hospital Initiative) are predicated on the idea that macrolevel factors such as laws, policies, and regulations matter in the promotion and support of breastfeeding. However, it can be difficult to account for structural vulnerabilities in research because they are inherently abstract and are often invisible to individuals nested within those environments (Quesada, Hart, & Bourgois, 2011). This study seeks to move the concept of structural risk factors and the direct ways in which they are experienced by FSWs into the concrete and practical realm. This type of thick description can be used to develop clinical tools as well as policies and practices that work on

multiple levels to support women where they are (Bourgois, Holmes, Sue, & Quesada, 2017) and to work towards dismantling those structural forces resulting in oppression and marginalization (Quesada et al., 2011).

2 | METHODS

This qualitative study answers the following research questions: (a) How do women working as FSWs in Mumbai, India, describe their infant feeding decisions and experiences? (b) What proximal factors did women identify as directly shaping their infant feeding decision and/or practice? and (c) What distal factors are representative of FSWs' broader social-cultural context that may impact breastfeeding?

2.1 | Participants

Interviews were conducted with 25 female FSWs in the Kamathipura red-light area of Mumbai, India. Fifty-two percent of the women reported being trafficked into sex work, whereas 48% stated that they began working as a result of economic circumstances. Participants included women who had either birthed one or more of their children while engaging in sex work ($n = 17$) or who began sex work within their infant's first year of life ($n = 8$). Women's ages ranged from 23–50 years, with a median age of 30 years. Participants had between one and five children, with a median of two. Although women were asked about their reproductive health, they were not explicitly asked to disclose their HIV status. Fifty-two percent of the women voluntarily discussed their HIV status; of those, 61.5% indicated they were HIV+.

2.2 | Procedures

The second author of the study, who has over 15 years of research and practice experience with FSWs in India, conducted daily field visits to the red-light area of Mumbai, India (Kamathipura), to describe the study and recruit participants. Women interested in participating were asked to contact the second author. A snowball sampling strategy was also used to recruit additional participants. After verbally consenting to participate, women were engaged in in-depth interviews, following a semistructured interview guide. These were completed in December 2018. Interviews lasted from 1 to 3 hr and took place in brothels where the women worked. Questions focused on maternal health, infant feeding, and mothering. Each respondent received 500 rupees (approximately \$8) for participation. Interviews were conducted in Hindi by the second author of the paper and were translated and transcribed into English. Strategies for rigour included detailed journalizing during data collection and analyses for reflexivity and to track the development of key concepts. Members of the research team brought a diverse range of applicable skills and

expertise applicable to this topic including the aforementioned research and practice experience with FSWs in India (second author), research and practice experience related to breastfeeding (first and third author), and experience with human trafficking and social determinants of health (fourth author). Each author has one or more graduate degrees in social work and experience working in public health or studying topics relevant for the discipline. Biases and knowledge gaps were identified and acknowledged throughout the project through ongoing in-person and phone conversations. Analyses were conducted using MAXQDA2018. All research were approved by the Institutional Review Board at The Ohio State University. Given the vulnerability of the population, measures were implemented to protect participants' privacy and ensure the research was conducted ethically. For example, given varying levels of literacy, women were verbally informed of the purpose of the study and their rights related to participation, and they were asked to provide verbal consent to participate. Participants also self-selected the pseudonym that was used across all study materials, and women were not asked to provide any identifiable data.

2.3 | Analysis

Structural vulnerability was explored a priori as a sensitizing concept; however, it did not drive a prescriptive coding or thematic development process. The codebook was cocreated by two members of the research team using an inductive approach (Thomas, 2006). All transcripts were then dual coded; discrepancies were addressed through consensus. Focused coding was then used for thematic development, with an emphasis on identifying themes that aligned with the research questions, which were informed by structural vulnerability.

3 | RESULTS

Findings from the analyses are presented below, in direct response to each of the three research questions. The first section explores women's infant feeding practices, whereas the second and third sections focus on proximal and distal factors, respectively, that shaped women's breastfeeding decisions and practices.

3.1 | Infant feeding practices

Participants reported a range of infant feeding practices including only giving their children formula or "outside milk," initiating breastfeeding, but discontinuing shortly thereafter, or breastfeeding for up to 2 years. Among women who gave birth prior to engaging in sex work, a higher proportion initiated breastfeeding (87.5%) as compared with those who gave birth while they were a sex worker (75.0%). Among those who did initiate breastfeeding, their breastfeeding duration ranged from a few days to 2 years.

Women discontinued breastfeeding for a number of reasons. Several women who either breastfed a short duration or not at all indicated issues with breastmilk supply. They stated that either their milk did not come in immediately after giving birth or they had insufficient milk production. This may have been a perception of insufficient milk supply or may have been physiological given the constraints to breastfeeding on demand and the mothers' increased levels of stress (Geddes, 2007). Some women reported receiving an injection to stop their milk production, either voluntarily or by force.

For women who did not initiate breastfeeding, or who experienced early weaning, formula (often called bottled milk, powdered milk, or outside milk) was the most common supplemental infant feeding method. It is important to note that most women relied on formula as a result of breastfeeding constraints, rather than having an expressed preference for infant formula. In fact, the use and cost of formula often presented a significant challenge for women. Several described struggling to pay for formula; some had help from their adami (partner), whereas others borrowed money. One woman described selling her possessions to pay for milk:

I had to give my anklets to my gharwall [brothel-keeper]. She said she will sell to buy milk for him and food. It was really difficult ... no one to help me. No one fed my son. Not even me. I could not get help. He got outside milk and as soon as he could started eating some food. How my children suffered only I know.

This woman's experience also highlighted the early introduction of solid foods. WHO recommends that complementary feeding begins no earlier than 6 months of age. However, several participants indicated they introduced solid foods early.

3.2 | Proximal factors impacting infant feeding

Women identified six proximal factors that directly influenced either their infant feeding decisions or their feeding practices and the ways that these were experienced. Women described the relationship between working as a sex worker and infant feeding as complex and multifaceted; there was no singular factor that made breastfeeding and sex work largely incongruent but rather a constellation of the following factors.

3.2.1 | Return to work

Women discussed engaging in sex work until late in their pregnancies and returning to work quickly after giving birth, typically within a few weeks. For women who initiated breastfeeding, they were unequivocal about the impact this had on their ability to continue breastfeeding. Their return to work resulted in either a reduced amount of breastfeeding or discontinuation altogether.

3.2.2 | Milk supply

The inverse relationship between a woman's return to sex work and ability to sustain breastfeeding was largely due to the impact of working on her breastmilk production. This led to an increased use of formula, resulting in a decreased production of breastmilk. One woman described this cycle and her subsequent dependency on formula:

I gave breastmilk to my son for three to four months, then the milk was less, I did not have time to feed. I started giving outside milk. There was no one to help me. So, I just gave bottle milk. It was expensive but what could we do ... you have to.

3.2.3 | Lack of time

Engaging in sex work also impacted breastfeeding because of its time-consuming nature. One woman succinctly stated "Who has the time to sit and feed and sleep and all that?" Another woman elaborated:

Madam in this line everyone gives outside milk. No one has time to sit and feed and rest and sleep. It's all about grabbing more and more clients, making money. If we don't sit one night then no food the next day.

For women who were able to breastfeed for an extended duration, they contextualized this by stating they were able to do so because they were not working. One woman explained, "I gave breastmilk for 2 years and I didn't work at all ... it was possible to feed back then for me. I had no job, only my child and me."

3.2.4 | Food insecurity

Women's return to sex work in the postpartum period was often related to her economic instability broadly but more specifically her food insecurity. Some women reported feeling weak and unhealthy during pregnancy and in the immediate postpartum period due to not having enough to eat. One woman discussed this:

When the second one was born, I didn't have anything to eat. I could not feed him. Breastmilk was not coming so I had a difficult time. I didn't try much. I was sent home the day after the delivery with some stitches but had no place to rest. I could have not fed him.

3.2.5 | Medical factors and provider recommendations

Women discussed their own health at length, particularly their HIV status. This indicates that women may have had some interactions

with medical providers; however, only one woman directly connected her medical care based on her HIV status to breastfeeding:

At that time [during the first pregnancy], I did not take any medicines, there was no HIV testing anything. Now they do all kinds of testing when they find out about pregnancy. Now they do HIV testing. For my daughter [second born], the doctor gave me some medicine. Nothing for my son [first born].

Some women indicated having directly received infant feeding advice from a medical provider; however, it was not in support of breastfeeding. One woman succinctly stated, "even the doctor says give power milk [formula]." For other women, this was connected to their mode of childbirth; three women who had a caesarean section were told they would not produce sufficient milk.

3.2.6 | Mother's physical proximity to her child

One of the most direct factors shaping a woman's decisions to breastfeed was her physical proximity to her child. Some women were separated from their children, other women received support to allow their children to remain with them.

Mother's separation from her child

Several women's children were being raised by family members in their village, which directly impacted her capacity to breastfeed. "When the baby was born I took him to my mother. She raised him, fed him ... I left and came here." Many women deemed that the village was a safer place to raise children:

I took them [children] to my mother's home and she raised them. I sent money. All my children lived away from me. I was by myself. I thought that was the best as they would be sick here... this is not good. The village is also not good but it's away from this.

A woman's decision to send her children to family members may also be related to the stigma of sex work. Women often indicated that neither their family members nor their children knew what kind of work they did.

When I go there [her village] she says she [daughter] wants to come with me. I cannot bring her here. I tell her I work in factory and the boss is bad. So, I don't bring her. I don't want her to even know what I do.

In some instances, the child was forcibly removed by another family member when they learned about the mother's sex work.

I was pregnant with one kid, and another was 2 years old. Then my parents came to know [about sex work].

So my father came. He took away the kids and some money that I had. I could not go back out of shame.

Organizational support for remaining with her child

Some women were able to keep their children with them with support from sansthas (i.e., organizations that provided early education to their young children) or childcare at night. Although the women did not discuss these specifically related to their infant feeding practices, they were unequivocal about how instrumental sansthas were in making it possible for their children to remain with them and in providing them with overall support. One woman who had poor health explained, "My children are just getting help from the organizations, I would not be able to survive without them."

Social support for remaining with her child

For many women, the ability to remain with their child (ren) stemmed from informal support, often cobbled together from a number of different people including partners, friends, coworkers, and landlords. One mother described her complex network of care for her son:

He stays with me and sometimes goes to his daddy's home. His dad lives in another area and I live here. I send him to school in the morning and he gets back at 2 and then I take him to his dad's at night, so I work at night.

Although receiving help in caring for their children was instrumental for many women, it was not without risk. One woman described how she and others cared for their children stating "Some girls watched my kids when I worked. I watched theirs. That's the only way to help." However, she quickly followed up with her concerns: "What if someone runs away with your child? You cannot really trust anyone."

3.3 | Distal factors representing structural vulnerabilities

While discussing infant feeding decisions, women highlighted a number of macrolevel factors that shaped their lived experiences. Although in some cases, they were discussed as a direct factor shaping whether or not they chose to breastfeed, in most instances, they were integrated into the context they provided about what it was like to be both a mother and a sex worker. Although several of these could be understood as proximal factors in that they were directly experienced by individual women, the study team categorized these as distal factors. This stems from the use of structural vulnerability as a guiding theory for this study. Although women did experience these on the individual level, those experiences can be understood as an outgrowth of the intersection of their social marginalization and status as FSWs and macrolevel forces including laws, policies, and regulations.

3.3.1 | Maternal health

In addition to the proximal health factors directly impacting breastfeeding, women also reported a number of chronic or acute health conditions. In some cases, this was related to the woman's HIV status; in other instances, the aetiology was unknown. Reported conditions included knee pain, abdominal tumours, tremors, vaginal discharge and bleeding, and general weakness and lethargy. Women discussed a number of factors that impacted their health including their use of alcohol and/or substances and a lack of access to medical care. When women did access medical care, their experiences with providers for chronic health conditions, STI testing, or pregnancy shaped women's trust and willingness to disclose information to the health care provider, particularly regarding her work as a FSW.

3.3.2 | Economic vulnerability

Permeating every woman's experience as a sex worker was her precarious economic position. After all, economic vulnerability was the precipitating condition that led all participants to becoming a sex worker. In several instances, the woman came from a poor family, who then sold the woman into sex work. In others, a woman entered sex work following the death of their spouse. One woman described how engaging in sex work was her most viable employment option:

I had no father, no family there ... I could not find any good paying work in the village. So when my friends were telling me about how much money they can make in just one night, I decided to come here.

For many women, having children increased their economic vulnerability. Pregnancy and caring for a small child decreased the amount they were able to work, whereas expenses increased. For children who were being raised by family members, women often sent money to them. For women whose children remained with them, expenses related to childrearing such as formula and food increased.

3.3.3 | Violence

Across women's experiences, violence was pervasive. Women discussed the physical and/or sexual abuse they experienced by those who sold them into sex work, madams, brothel keepers, customers, and others. They discussed how experiences of violence impacted their mental, physical, and reproductive health:

We used to fight every day. He [husband] used to drink a lot and beat me or I beat him. We used to fight a lot ... He also hit me that night and I miscarried. After that I went in to so much depression."

They also connected physical abuse to their ability to breastfeed:

When I was pregnant I was happy with my husband. It was good but when the child was born he became a monster ... I was in so much tension, I could not feed her my milk.

3.3.4 | Criminalization of sex work

The criminalization of sex work shaped women's experiences, particularly among those who had been arrested. One woman described her experience after she was sold to a brothel at age 10 by her uncle: "I was in jail for 4 years. I was caught doing this work and I was under age so they put me in jail." Another woman was jailed for two and a half years at age 15, before being released by a madam to work in her brothel.

The criminalization of sex work is also directly connected to women's economic vulnerability. One woman described how it was increasingly difficult to get customers, as the area where she worked was known for having a police presence. This criminalization of sex work in conjunction with women's vulnerability and risk of violence made work dangerous, particularly as women often could not depend on law enforcement for safety. One woman stated, "It's common to get beaten in this line. Everyone is getting angry. Sometimes it's the madam, sometimes the adami (husband) or customer, or police also beat up women."

4 | DISCUSSION AND RECOMMENDATIONS

Factors shaping breastfeeding among FSWs were wide ranging, contextualized by women's social positioning as FSWs and the associated structural conditions they experienced. Underpinning nearly every proximal factor was the woman's economic instability. This impacted her food security and how quickly she returned to work after giving birth—both factors that decrease a woman's milk supply. Economic instability also impacted a woman's ability to remain with her child and her need to financially support her child (ren) from afar. Although the context of sex work is quite distinct, the inverse relationship between maternal employment and breastfeeding (often necessitated due to economic instability) is one of the most commonly cited barriers to breastfeeding worldwide (Kavle, LaCroix, Dau, & Engmann, 2017).

Additionally, the distal factors identified sharpen the focus on the structural vulnerabilities that FSWs experience and how they impact breastfeeding. The thread connecting many of these structural factors is the criminalization of sex work. For many women, this may increase their risk of being trafficked (Mehlman-Orozco, 2017), may put their health at risk through exposure to violence (Shannon et al., 2009), and may decrease their access to medical care (Platt et al., 2018). If women do not have access to or feel unsafe obtaining medical care,

this can negatively impact their health. It also deprives women of information on when breastfeeding is or is not safe and fails to equip them with the knowledge or skills necessary to breastfeed. Although women did not make this connection explicitly, very few women mentioned receiving information or recommendations about breastfeeding from medical providers; when they did, it was providers informing the woman that she would have an insufficient milk supply.

As we work to meet the breastfeeding goals set forth by transnational organizations, policies and interventions must account for the structural vulnerabilities that hinder breastfeeding specifically among marginalized groups, such as FSWs. This necessitates a multifaceted approach that can effectively work across individual, clinical, organizational, and policy levels (Arts, Taqi, & Begin, 2017). Although WHO has set forth a commitment to the promotion of breastfeeding, much of their focus is on the improvement of health facilities and/or educational interventions aimed at changing individual health behaviours, which may not be accessible to FSWs.

At the individual level, a strengths-based approach to intervention development may be most effective. The postpartum period represents an optimal time to empower women, to promote both her health and the health of her child as the centrality of a woman's identity as a mother can promote positive health behaviours (e.g., decreasing risk-taking behaviour) and prioritization of her own health (Basu & Dutta, 2011). One positive deviance study focused on an urban slum in Mumbai found that women were more likely to comply with optimal feeding practices when they had information about the benefits of breastfeeding and social support related to breastfeeding and child rearing (D'Alimonte, Deshmukh, Jayaraman, Chanani, & Humphries, 2016).

On the interpersonal level, there is a need for increased access to culturally responsive, supportive, evidence-based medical care for pregnant FSWs. Fostering a positive relationship between the health worker and the woman can support women in breastfeeding (D'Alimonte et al., 2016). However, health providers must also be trained on evidence-based breastfeeding recommendations for FSWs that account for the women's individual circumstances (Aryeetey & Dykes, 2018; Robinson et al., 2019). This is particularly important for FSWs who are HIV+. Recommendations for breastfeeding among HIV+ women are quite complex and depend on whether the woman has access to clean water, hygiene, and sanitation, have access to and are compliant with ARV regimens, and are able to breastfeed exclusively (Alvarez-Uria et al., 2012). Thus, in order for the health provider to make appropriate breastfeeding recommendations, they must be fully informed about the women's circumstances. This requires the women to feel safe visiting and sharing information with health care providers, which again has implications for the decriminalization of sex work.

Thus, at the macrolevel, a more tailored policy approach may be necessary for increasing breastfeeding rates. This requires an understanding of how women are served by existing programmes and designing and implementing new ones to be more responsive to the structural vulnerabilities of FSWs. For example, the Maternity Benefit Programme, a conditional cash transfer programme, can increase breastfeeding rates and promote health equity. However, explicit

attention must be paid to ensuring such programmes are responsive to the distinct factors impacting uptake among marginalized groups such as FSWs (Vellakkal et al., 2017).

In order to increase breastfeeding rates, structural vulnerabilities must be directly addressed; this necessitates the decriminalization of sex work. As sex work is currently illegal in India, FSWs are marginalized, without the protections afforded to other women. This perpetuates structural vulnerabilities such as economic instability and food insecurity, which simultaneously placing women at risk of violence. Recognizing sex work as a legitimate form of employment can reduce some of these vulnerabilities, ensuring that women have more access to supportive services. This can also ensure that more accurate data are collected and more responsive interventions can be designed at the individual, interpersonal, organizational, and policy levels. This will better enable FSWs to breastfeed given their structural vulnerabilities and can work towards addressing those vulnerabilities.

4.1 | Strengths and limitations

This study has a number of strengths. First, rigorous qualitative practices were employed to reduce researcher bias and reactivity, including maintaining an audit trail throughout data collection and analysis. The study also has ecological validity given the focus on the social context and the location of interviews in the brothels. Participants reported a wide range of experiences related to parenting and infant feeding, resulting in a rich description of a previously understudied topic. Regarding limitations, although a number of women were engaged, we did not reach theoretical saturation. Women's experiences varied significantly, including the conditions in which she conceived and birthed a child, her capacity to care for her child while engaging in sex work, and her perceived or actual ability to breastfeed. Nonetheless, as the topic of infant feeding among FSWs has been understudied—particularly in regard to structural vulnerabilities—this study makes a significant contribution to theory building.

5 | CONCLUSION

The application of the conceptual model of determinants of breastfeeding and structural vulnerability provided a useful framework for understanding breastfeeding among FSWs in Mumbai, India. Each proximal factor can be understood in relationship to the broader distal factors, which taken together demonstrate how breastfeeding is a health behaviour nested within a distinct sociopolitical context. The participants' structural vulnerabilities stemming from their precarious social position impacted not only their decisions around infant feeding but also their ability to breastfeed. For example, a woman's physiological and psychological capacity to produce sufficient milk for her infant was directly related to her need to return to work, which was a function of her economic vulnerability. This study, by identifying and connecting those proximal

and distal factors and situating them within the sociopolitical context, can inform the development of microlevel and macrolevel policies and practices that support breastfeeding.

To date, concerted efforts to increase breastfeeding at the national level have stemmed from the adoption and enforcement of multinational breastfeeding policies. These are one necessary approach to increase breastfeeding; they raise awareness, shape practices at the policy and organizational levels, and direct targeted interventions to work towards the advancement of breastfeeding goals. However, alone, they are insufficient to fully impact breastfeeding, particularly for populations such as FSWs (Robinson et al., 2019). To increase breastfeeding, we must be vigilant in measuring the anticipated and unanticipated effects of our policies. For example, multinational codes and the resulting interventions may inadvertently exacerbate inequities by primarily engaging those who are easier to reach (i.e., engaged in the health care system; Hosseinpoor, Victoria, Bergen, Barros, & Boerma, 2011).

Certainly, this is not a straightforward issue to address; the very structural factors rendering women vulnerable in the first place are deeply entrenched and thus difficult to move. However, increasing optimal infant feeding practices among those most at risk gives us great opportunity to improve population health. Because those in the lowest economic quintile are most likely to be affected by suboptimal breastfeeding rates and diseases associated with infant mortality (e.g., diarrhoea and pneumonia), promoting and increasing breastfeeding rates is a tool that can be leveraged to promote health equity (Roberts et al., 2013). Effective, sustainable change is possible; however, it will take political support, financial investment, and the design and implementation of effective interventions to support and encourage breastfeeding (Rollins et al., 2016). Perhaps most importantly, it will take listening to the experiences of FSWs, understanding their specific structural vulnerabilities, and recognizing their inherent strength and resilience as women and as mothers.

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CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

CONTRIBUTIONS

SK recruited participants, conducted the interviews in Hindi, and transcribed audio recordings into English. RR and RM analysed the data including constructing the codebook and developing themes; all authors validated the themes. RR, RM, SK, and ME coauthored the paper. All authors have read and approved the final manuscript.

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