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Supporting breastfeeding equity: A cross-sectional study of US birthing facility administrators

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ABSTRACT

Disparities in breastfeeding have continued in the United States (US) despite efforts to increase breastfeeding rates. Hospitals are in a unique position to enable breastfeeding and help reduce disparities; however, it is unclear whether hospital administration is supportive of breastfeeding equity practices or plans. This study aimed to assess birthing facility plans to support breastfeeding among women of low income and women of color across the US. We administered electronic surveys to 283 US hospital administrators between 2019 and 2020. We assessed whether facilities had a plan in place to support breastfeeding among women of low income and women of color. We assessed associations between Baby-Friendly Hospital Initiative (BFHI) status and having a plan in place. We examined reported activities provided through open-ended responses. Fifty-four percent of facilities had a plan in place to support breastfeeding among women of low income and 9% had a plan in place to support breastfeeding among women of color. Having a plan was not associated with having a BFHI designation. A lack of plan to specifically help those with the lowest rates of breastfeeding may perpetuate rather than reduce inequities. Providing anti-racism and health equity training to healthcare administrators may help birthing facilities achieve breastfeeding equity.

1. Introduction

Although rates of breastfeeding initiation in the United States (US) have increased over time, rates of exclusive, sustained breastfeeding have remained low (Centers for Disease Control and Prevention, 2022). This is especially true for infants of color and those from low income households (Centers for Disease Control and Prevention, 2022). Among children born in 2018, 39.9% of African American infants were exclusively breastfed at 3 months and 19.8% were exclusively breastfed at 6 months (Centers for Disease Control and Prevention, 2022). Among white infants born that same year, 50.6% were exclusively breastfed at 3 months and 28.8% were exclusively breastfed at 6 months (Centers for Disease Control and Prevention, 2022). Similarly, exclusive breastfeeding rates among infants categorized as living in poverty were 37.2% at 3 months and 20.4% at 6 months compared to 53.4% at 3 months and 30.9% at 6 months for those in the highest income category (Centers for Disease Control and Prevention, 2022). These suboptimal rates of breastfeeding have been associated with greater incidence of infections (Duijts et al., 2010), and sudden infant death syndrome (Thompson et al., 2017) among children, a greater incidence of certain cancers (Chowdhury et al., 2015) and chronic diseases among women (Stuebe et al., 2011; Gunderson et al., 2018), and an increase in healthcare costs for both women and infants (Bartick et al., 2017).

A variety of factors influences a woman's decision and ability to breastfeed, including parental leave and workplace policies (Steurer, 2017), healthcare factors (Perez-Escamilla et al., 2016), cultural and individual-level factors (Carlin et al., 2019). Best practices in postpartum care, such as skin-to-skin contact between mother and baby within the first hour of birth can help improve breastfeeding outcomes (Gomez-Pomar and Blubaugh, 2018). Inpatient providers can also help mothers gain important breastfeeding skills and can help with early identification and management of problems, such as the perception of insufficient milk supply (Gatti, 2008). Evidence also suggests that in-hospital care and practices can help improve breastfeeding duration (Vehling et al., 2018; Murray et al., 2007), however, connection to outside resources and support is crucial for long-term breastfeeding success (Perez-Escamilla et al., 2016). Despite this, research suggests that women of color receive less attention in care as a result of presumptions made on the basis of race (Robinson et al., 2019). In the context of breastfeeding care, this often means more limited assistance

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for women of color when problems arise or fewer referrals for lactation support (Robinson et al., 2019). Recent evidence has suggested that intention of equity is necessary to help promote equitable implementation of breastfeeding support practices and reduce inequities in breastfeeding outcomes (Knutson and Butler, 2022). Interventions and care that specifically focus on increasing breastfeeding rates among women of color and provide training on racial bias are necessary to help achieve breastfeeding equity (Hemingway et al., 2021; Johnson et al., 2015).

The Baby-Friendly Hospital Initiative (BFHI) is a hospital-based intervention designed to support breastfeeding initiation and duration (WHO Guidelines, 2009). The BFHI endorses the "Ten steps to successful breastfeeding" in addition to other supportive practices and policies in hospitals" (Baby-Friendly USA). One important step of the BFHI is the requirement for hospitals and birthing facilities to link women to community resources and supports to encourage continuation of breastfeeding post-discharge. In 2018 the World Health Organization provided updated implementation guidance that required coordination of linkages to community resources rather than the provision of information on them (World Health, 2018), which shifted the responsibility to birthing facilities. This requires birthing facilities to establish relationships with outside organizations.

The BFHI has been suggested as a tool to help reduce disparities in breastfeeding (Hawkins et al., 2015), however recent evidence suggests that disparities in in-hospital breastfeeding are still present in BFHI facilities (Hemingway et al., 2021). Provider biases, both implicit and explicit, can impact interactions with patients, decisions about care, treatment plans, and health outcomes (Maina et al., 2018; Mateo and Williams, 2020). These biases at decision-making levels within a birthing facility may also influence how care and services are prioritized and connected, and whether existing protocols may serve to reduce inequities or further them. In this paper we assess hospital administrators' responses regarding their facility's plan to support breastfeeding among women of low income and women of color.

2. Methods

For this exploratory study, we administered electronic surveys using REDCap to a random sample of nurse managers and hospital administrators at 1,285 US hospitals, for which we had contact information from the American Hospital Association database. Surveys were administered in the final quarter of 2019 and the first quarter of 2020. The online system sent two automatic e-reminders to all survey recipients (at one week, and then two weeks after the first reminder). We received notifications of failures to send the electronic survey for n = 82 hospitals. We then called those facilities to determine updated contact information. Of those, n = 43 no longer had labor and delivery services, and we were able to find updated contact information for the remaining n = 39 facilities. Survey instructions included language reminding respondents to consider their organization's perspectives rather than their own. The survey included up to 30 questions, depending on responses and skip logic. Of these, five questions were related to respondent demographics, five questions were related to facility characteristics, four questions asked about the respondent's role in the facility, and the remainder of questions were related to the organizational practices, policies, and challenges in providing breastfeeding support. Survey demographics questions (Benjamin Neelon et al., 2017) and questions asking respondents to choose the most important answer to a question where multiple answers were possible (Whitaker et al., 2009) were used in previous research. Two questions focused on breastfeeding equity and asked whether there was a plan in place to specifically support 1) women of low income and 2) women of color. Respondents were given the opportunity to provide an expanded qualitative response to this question in addition to a yes/no response. We assessed quantitative and qualitative responses to questions about each facility's plan to provide support for breastfeeding among women of low income and women of color. We also collected information on whether facilities had a current, in-progress, or past Baby-Friendly designation, and information on hospital/facility size. This research was deemed exempt by the Johns Hopkins Institutional Review Board (IRB No: 00009842).

2.1. Data analysis

We calculated frequencies for whether facilities had a BFHI designation (current, in-progress, no designation, or designation not renewed) and for whether facilities had a plan in place to support breastfeeding among 1) women of low income and 2) women of color. We also created a dichotomous BFHI variable for which we categorized facilities as either having a BFHI designation (current or in-progress) or not having a BFHI designation (no designation or not-renewed). We conducted chi-square tests to assess whether there was an association between having a BFHI designation and having a plan in place to help women of low income or women of color (significance level of $p < 0.05$). We also analyzed qualitative responses to the questions in cases where respondents opted to elaborate. We carefully reviewed the text of all responses and used deductive coding to organize and assess responses. We calculated frequencies for each code. Qualitative analysis was conducted using Atlas.ti (version 9).

3. Results

We received surveys from 317 facilities (25% response rate). However,15 of these only completed the demographic questions,19 completed 2 questions or fewer. Those that completed ≤ 2 questions were excluded from analysis. Our final sample included 283 birthing facilities, 25.7% of which had a current BFHI designation, 12.8% with a designation in progress, 59.5% with no designation, and 2.0% with a past designation (not renewed). Having a BFHI designation was not associated with having a plan in place to support breastfeeding among women of low income ($p = 0.05$) or women of color ($p = 0.5$). Significance of results did not change when we excluded from analysis facilities that did not renew their designation. Respondent demographic characteristics are presented in Table 1. Among respondents, 94.3% identified

Table 1
Demographic characteristics of survey respondents.

	N (%)
Race	
White	267 (94.3)
Black/African American	8 (2.8)
American Indian/Alaska Native	4 (1.4)
Asian/Asian American	3 (1.1)
Other	1 (0.4)
Hispanic or Latinx ethnicity	
Yes	15 (5.3)
No	268 (94.7)
Age (years)	
20–34	30 (10.6)
35–54	156 (55.1)
55–74	94 (33.2)
75–84	1 (0.4)
Prefer not to answer	2 (0.7)
Education	
Some college/2-year degree	40 (14.1)
4-year college degree	118 (41.7)
Graduate degree or higher	125 (44.2)
Length of time in current position	
>1 year	27 (9.5)
1–4 years	96 (33.9)
5–10 years	49 (17.3)
More than 10 years	110 (38.9)
Missing	1 (0.4)
Gender	
Female	274 (96.8)
Male	9 (3.2)

as white, 2.8% identified as Black/African American, 1.4% as American Indian/Alaska Native, 1.1% identified as Asian or Asian American, and 0.4% preferred not to report their racial background. The majority of respondents (55%) were between the ages of 35 and 54, over half of respondents reported being in their current administrative position for 5 or more years, and slightly fewer than half of all respondents (44.2%) had completed a graduate degree or higher.

3.1. Plans to support women of low income

When asked whether their facility had a plan in place to support breastfeeding among women of low income or low resources (in and out of the hospital), 54% of respondents stated they had such a plan (Table 2). When stratified by BFHI status, 44.5% had a current or in-progress designation and 55% had no designation (including those who did not renew a prior designation). Among those who had a plan in place to support women of low income, 90.8% of respondents further elaborated with a qualitative response. Plans to provide women with free or reduced-cost breast pumps were described by 27 facilities, plans to provide or link women with breastfeeding consultants or support groups free of charge or at reduced rates were described by 77 facilities, a plan that included linking women to government services, such as WIC and health department programs was described by 74 facilities, a plan that included the provision of education or information about resources to women (without helping refer or connect women to these resources) was described by 25 facilities, supporting women of low income through case management and resources acquisition (excluding breast pump acquisition) was described by 15 facilities, and 16 facilities provided responses that fell into the "other" category. Responses in the "other" category included home visitation, or connecting women to additional programs and services not provided by a governmental agency.

3.2. Plans to support women of color

About one-fifth (20.4%) of facilities reported having a plan in place to support breastfeeding among women of color (Table 2). Of those, 80.7% provided an additional qualitative response. After initial review of qualitative responses, we re-coded 32 facilities as not having a plan to support women of color, as their qualitative response stated they provide the same care and resources to all women, regardless of race/ethnicity. Therefore, our final results show that only 25 facilities (9.0%) have a plan in place to support women of color in breastfeeding. Among those with qualitative responses, 6 facilities reported having or connecting women with support groups or programs geared toward women of color, 3 facilities had the same plan for women of low income and women of color, 2 facilities reported providing materials and information in languages other than English, and 11 facilities provided responses that fell into the "other" category. Responses in the "other" category included linkages to programs that had an equity intent or focus, for example Healthy Start (Health Resources, 2022). Only one facility stated that they do training with their staff to specifically help reduce disparities in care and lactation outcomes: "We do training and recognize the discrepancies in care [for women of color] in hopes of addressing this at the foundation and start of lactation in our unit with our care." Additionally, two respondents who stated they have the same plan for all women, regardless of race, appeared defensive and provided further negative commentary, such as "this is a ridiculous question."

Table 2
Facilities reporting having a plan in place to support breastfeeding among women of low income and women of color, overall and by Baby-Friendly Hospital Initiative (BHFI) designation.

	Overall (n = 283)	BFHI (n = 111)	Non-BFHI (n = 172)
	n (%)	n (%)	n (%)
Plan in place to support women of low income			
Yes	153 (54.1)	68 (61.3)	87 (50.6)
No	130 (45.9)	43 (38.7)	85 (49.4)
Plan in place to support women of color			
Yes	25 (9.0)	13 (11.9)	12 (7.1)
No	254 (91.0)	96 (88.1)	158 (92.9)
Missing	4	2	2

4. Discussion

In this study of 283 US birthing facilities we found that approximately half of our sample had a plan in place specifically to support breastfeeding among women of low income and only 9% of facilities reported having a plan in place specifically to support breastfeeding among women of color. Having a BFHI designation was not associated with having a plan to support women of color or of low income with breastfeeding.

Among the plans most commonly shared to support breastfeeding among women of low income were 1) access to low or no-cost consultation with a lactation expert or to a breastfeeding support group and 2) linkages to WIC or local health department services. There is ample evidence to suggest that having access to lactation support; especially in the first months can help ensure long-term breastfeeding (Gianni et al., 2019; Assibey-Mensah et al., 2019). Partnering with evidence-based nationwide programs, such as WIC, that are already providing services to women within most communities can be an easy way to help connect women of low income to breastfeeding resources. The evidence on the effectiveness of the WIC program in helping women breastfeed has been mixed (Zhang et al., 2019; Jensen, 2012), however recent studies show a positive association between WIC participation and improved breastfeeding outcomes (Gleason et al., 2020); particularly among sites that offer breastfeeding peer counseling and other lactation support services (Assibey-Mensah et al., 2019; Gleason et al., 2020).

The majority of respondents who provided a qualitative response about their plan to support breastfeeding among women of color stated that their plan was the same for women of all races and ethnicities. Although a strategy that will improve breastfeeding rates for all women is commendable, it will likely do little to reduce the actual disparity. It is important to note that color-blind attitudes, such as the ones seen in many responses can be viewed as an implicit form of racism, in which racial differences are denied (Neville et al., 2013). A recent study on color-blind attitudes among police officers found that those who had low endorsement of color-blind racial beliefs were less likely to engage with minority youth (April et al., 2019). There is also evidence suggesting that color-blind racial attitudes may unintendedly lead to the perpetuation and normalization of explicit forms of racism (Apfelbaum et al., 2010). Systemic racism and discrimination have also led to a lower likelihood of having staff of color as care providers or in positions of power. Recent figures show that a small fraction of the healthcare workforce identifies as Latinx, African American, or American Indian (Salsberg et al., 2021). A lack of healthcare providers and decision-makers from communities of color may result in the assimilation and perpetuation of color-blind views. This research highlights the need to address color-blind attitudes among health care professionals in decision-making roles and improving access to high-quality educational opportunities in communities of color.

Among the responses coded as "other," it is worth noting that only one facility reported conducting training with their staff to help address the root causes of disparities in their unit and reduce disparities in breastfeeding. According to a report from the Robert Wood Johnson Foundation, it is necessary to place a focus on groups that have been historically excluded or marginalized in order to achieve health equity (Braveman et al., 2018). There is also evidence suggesting that African American women receive fewer referrals for lactation support, and tend to experience limited assistance when breastfeeding problems arise compared to white women (Robinson et al., 2019).

Additional responses from facilities who elaborated on their plan to support breastfeeding among patients of color included providing affinity support groups or linking women to breastfeeding support providers of color in their area. There is a bulk of evidence showing that lower rates of health services usage and uptake among African Americans has roots in medical mistrust, feelings of discrimination in care, and lack of healthcare providers of color (Arnett et al., 2016; Cuevas et al., 2016). Ensuring women have access to breastfeeding support services intended for African American moms, with providers and group facilitators from communities of color, can help women feel supported in their breastfeeding efforts.

Facilities in our sample were more likely to report having a plan in place to support women of low income than women of color. It may be that there are more resources available to help individuals of low income than to expressly support individuals of color. A few facilities reported having the same plan in place to support women of low income and women of color. Although communities of color are over-represented in poverty, middle and upper-class women of color still have worse breastfeeding outcomes than white women, likely due to the influence of systemic racism.

This research provides a novel perspective on organizational views toward breastfeeding support for women of low income and women of color. However, this study also has limitations. Although similar to samples from other studies including healthcare decision-makers, our study had a small sample size and the views represented in this study may not be representative of all birthing facilities. We did not collect data on breastfeeding support plan implementation or actual patient outcomes. Additionally, although respondents were asked to provide answers from the hospital point of view, it is possible that some organizational views may have included individual opinions. Responses were collected through surveys, so respondents were not given the opportunity to ask clarifying questions or elaborate upon request. Although researchers made an effort to use plain language in the wording of the two questions focused specifically on breastfeeding equity, the research team did not test these questions prior to survey administration. Therefore, it is possible respondents misunderstood the intent of the question or there was variation in interpretation. Also, it is possible that a lack of plan may be rooted in a shortage of available services for women of color in a given community. Finally, although we asked a distinct question about women of low income and women of color, these categories are not necessarily mutually exclusive. Despite these limitations, the findings of this study remain important and can serve to highlight the need for additional training and greater representation from medical providers of color in breastfeeding care and organizational decision-making. Although not a requirement of the BFHI, having plans in place to specifically support women of low income and women of color are necessary to help reduce inequities in breastfeeding by income and race (Braveman et al., 2018).

5. Public health implications

This study provides a novel perspective on organizational views and attitudes toward reducing disparities in breastfeeding. Although many birthing facilities claim to want to improve breastfeeding rates, a lack of plan to specifically help those with the lowest rates may perpetuate inequities rather than reduce them. Healthcare administrators would benefit from anti-racism and health equity training to help achieve equity in breastfeeding.

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CRediT authorship contribution statement

Sarah Gonzalez-Nahm: Conceptualization, Formal analysis, Writing – original draft. **Sara E. Benjamin-Neelon:** Conceptualization, Writing – review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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