Breastfeeding in Incarcerated Settings in the United States: A National Survey of Frequency and Policies

Ifeyinwa V. Asiodu, Lauren Beal, and Carolyn Sufrin^{2,3}

Abstract

Objectives: To assess the existence of prison and jail policies and practices that allow incarcerated women to breastfeed while in custody, and prevalence of women in custody who pumped human milk for their infants. **Methods**: We surveyed 22 state prison systems and 6 county jails from 2016 to 2017 about policies related to breastfeeding and other programs for pregnant and parenting women in custody. In addition, 11 prisons and 5 jails reported 6 months of monthly, prospective data on the number of women pumping human milk, as well as information on placement of infants born to women in custody.

Results: Eleven prisons and five jails had policies that supported the practice of expressed milk, either through pumping or breastfeeding. Over 6 months at these sites that allowed lactation, there were 207 women who gave birth in the prisons and an average of 8 women/month who pumped human milk; at the jails, there were 67 women who gave birth and an average of 6 women/month who pumped human milk. Most infants born to women in custody were placed in the care of a family member.

Conclusions: Breastfeeding and the provision of human milk are critical public health issues. Our data show inconsistent implementation of policies and practices supportive of breastfeeding in prisons and jails. However, there are institutions in the United States that are supportive of incarcerated women's breastfeeding and lactation needs. Further research is needed to identify the barriers and facilitators associated with implementing supportive breastfeeding policies and practices in the carceral system.

Keywords: incarcerated women, breastfeeding, lactation, policies and practices, equity

Introduction

The United States has the largest population of incarcerated women in the world, with >226,000 women in jails and prisons in 2018. 1,2 Women of childbearing age account for $\sim\!75\%$ of all women who are imprisoned, and 67% of women who are incarcerated identify as mothers and caretakers to children. 1,3 With at least 1,000 births to women in custody annually, and an unknown number who become incarcerated within 1 year of giving birth, we know that there are postpartum women in prisons and jails. 4,5 Therefore, carceral institutions must address comprehensive perinatal care. One aspect of the perinatal period that can impact the health of the mother—infant dyad is lactation and breastfeeding. 6,7 However, little is known about institutional policies and services that hinder or support lactation among women experiencing incarceration.

Breastfeeding is protective of maternal and infant health across the life course.^{6,7} Optimal breastfeeding—exclusive breastfeeding for the first 6 months and up to 1 year post-partum—could contribute to preventing >820,000 child deaths and 20,000 maternal deaths, saving \$300 billion annually in reduced health care costs and improved economic outcomes, globally.^{6,8} When we place these breastfeeding benefits in the context of U.S. incarceration, where numerous forces of structural racism and oppression disproportionately incarcerate women of color and erode family bonds,^{9,10} then ensuring that incarcerated women can provide human milk to their infants becomes a matter of health equity and justice.¹¹

Following birth in custody, postpartum separation of the mother-infant dyad is often guaranteed, as there are few opportunities for the dyad to remain physically together after discharge from the hospital; in some cases, even while in the hospital for postpartum recovery the mother may have

¹Department of Family Health Care Nursing, School of Nursing, University of California, San Francisco, San Francisco, California, USA.

²Department of Gynecology and Obstetrics, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA.

³Department of Health, Behavior and Society, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, USA.

Table 1. Key Differences Between Prisons and Jails*

| | Prisons | Jails | | |
|---------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--|--|
| Geography | Under state or federal control, are often located far away from someone's home community | Under local jurisdiction and located in the communities where people live | | |
| Temporality (time served) | Sentences tend to be longer than a year (average length is 2.6 years) ¹ | Shorter stays (average length is 25 days) ² | | |
| Maintaining milk supply | Distance can present challenges to getting human milk from the incarcerated mother to the infant | Essential since the mother will likely return to her community after a short period of time | | |

^{*}See Carson1 and Zeng.2

limited ability to initiate breastfeeding or bond with her newborn, owing to unnecessarily restrictive hospital policies for this group, or to the prison or jail pushing expedited postpartum discharge to return to the institution. ¹² Infant care arrangements after a person in custody gives birth typically involve the infant being cared for by a family member or foster care; the ability for in-person, contact visits is highly variable. Once the mother returns to prison or jail after birth. her ability to provide human milk when separated is limited and depends on the policies of the institution. The differences between prisons and jails are many, and have implications for the ability of incarcerated women to provide human milk to their infants (Table 1). Furthermore, infant placement and separation of any duration can significantly impact lactation and breastfeeding. Research has shown that infant proximity and physical contact between the dyad may influence lactation and infant self-regulation behavior. ^{13,14}

Understanding current practices in prisons and jails is critical to ensuring incarcerated women's perinatal health care needs are met. Yet, data on breastfeeding policies or how many incarcerated women breastfeed are lacking. The purpose of this study was to report policies and practices that are supportive of lactation and breastfeeding among a national sample of U.S. prisons and jails, as well as breastfeeding rates among incarcerated women, and infant placement after the mother returns to prison or jail.

Methods

We used data from the Pregnancy in Prison Statistics (PIPS) study, a cross-sectional policy survey and an epidemiologic surveillance study of pregnancy and postpartum outcomes from 22 state prison systems and 6 jails (Table 2). Recruitment details are described elsewhere. ^{4,5} All PIPS sites completed a baseline survey describing their policies regarding lactation, including an open-ended question to de-

scribe the details of their protocols; presence of programs that allow newborn infants to reside with their mothers in the prison or jail (also known as "nursery programs")¹⁵; existence of other programs for pregnant and postpartum women; and whether postpartum women could have contact visits, where women can hold their newborns, in the first 3 months. We did not review policy documents from the sites, nor did we ask about the site's eligibility criteria for nursery programs. When we report whether an institution "allowed lactation," this refers to whether they have policies and services in place to support pumping and/or breastfeeding; we did not assess the presence or absence of policies that prevent or suppress lactation. When we report "lactation," this includes either pumping, breastfeeding, or both; if it is just pumping or breastfeeding, then we indicate that practice separately.

The PIPS study collected monthly data for 1 year, from 2016 to 2017, on pregnancy outcomes. For 6 months, a subset of sites—13 prisons, and 5 jails—completed an optional, supplemental, monthly reporting form on numbers of women who were lactating (Table 2). This subset reported the following aggregate, de-identified numbers for each month: total number of women lactating (defined as either pumping human milk or breastfeeding) that month and number of women within 3 months of delivery on the last day of that month. A subset also reported placement information for infants born to women in custody.

Each study site had a designated person who tracked and reported these numbers at the end of each month either through the study's online system or an electronic PDF. ¹⁶ The assessments of women lactating and infant's placement status were based on the site reporter's knowledge of these outcomes. We used the secure, web-based application Research Electronic Data Capture (REDCap) to collect and manage data. ¹⁷

Because of the nature of aggregate data collection, no specific demographic characteristics about individual pregnant women—such as race, age, and gender identity—were

TABLE 2. PARTICIPATING STATE PRISONS AND JAILS

Participating state prison systems reporting policies $(n=22)^a$

Participating jail systems reporting policies, county (n=6)

Prison systems that reported 6 months of breastfeeding data (n=13)

Jail systems that reported 6 months of breastfeeding data (n=5)

AL, AZ, CO, GA, IA, IL, KS, LA, MA, MD, ME, MN, MS, OH, OK, PA, RI, TN, VT, WI

Cook County (IL), Dallas County (TX), Hampden County (MA), Harris County (TX), Los Angeles County (CA), New York City (NY)

AZ, CO, IA, IL, KS, MD, ME, MN, OH, RI, VT, WA, WI,

Cook County (IL), Hampden County (MA), Harris County (TX), Los Angeles County (CA), New York City (NY)

^aAll states except WI reported state-level data; WI reported data for one of the two prisons in the state that housed pregnant women.

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collected; nor could we correlate individual details of pregnancy outcomes with lactation outcomes. We tabulated frequencies and other descriptive statistics using Stata (StataCorp. 2015, Stata: Release 14, Statistical Software; StataCorp LP, College Station, TX) and Microsoft Excel. Because of the highly variable nature of health care delivery systems among institutions of incarceration, we did not assess statistical associations of policies at institutions; however, we did stratify lactation according to presence of a nursery program or other special pregnancy or postpartum programs and according to infant placement status.

The Johns Hopkins University School of Medicine Institutional Review Board deemed this nonhuman subjects research, and we followed each institution's system for research approval. We acknowledge that although the study was categorized as "nonhuman subjects" research, each aggregate, de-identified number reported in this study represents aspects of the lived experiences of real people who experienced incarceration during the postpartum period. Regarding terminology, our study form asked respondents to report the number of women or mothers in various categories and used the term breastfeeding. We acknowledge that individuals may use various terms to describe personal infant feeding practices, and that language such as lactating individuals and chestfeeding may be preferred. ^{18,19} We report data according to the language used in the survey.

Results

Policies on lactation in custody

All 22 prisons and 6 jails reported their policies and procedures around lactation. Seven (32%) prisons and two (33%) jails had a written policy on lactation, and all those policies supported either breastfeeding, pumping, or both (Table 3). Of the 15 prisons without formal policies, 11 did not allow any means of lactation. One of the three jails with no written policy did not allow women to pump and none of them permitted breastfeeding. The remaining jail indicated that women could pump, but did not report whether this was formalized in a written policy. There was thus a total of 11 prisons (50%) and 5 jails (83%) that allowed women to express human milk, either through pumping (n=11 prisons, n=5 jails) or through both breastfeeding and pumping (n=4 prisons, n=1 jail).

Seven sites (n=5 prisons, n=2 jails) described that women could pump only to maintain their milk supply, but that the milk was then discarded. This included one prison that only stored milk for women in the nursery program, but non-nursery lactating women had to discard pumped milk. Two sites specified that they only allowed pumping for supply maintenance if the woman was close to their release date. Of note, for one of these sites, their monthly reporting form contradicted their policy report, which stated they did not allow pumping. Some sites shared that women pumped in their living quarters, and three sites specified pumping occurred in the medical unit.

There were 19 prisons and 5 jails that reported having programming specific to pregnant and postpartum women, with the most common being parenting classes (Table 3). The "other" programs reported by some sites included options like community-based drug and mental health treatment programs that allowed women to be with their children, a

TABLE 3. LACTATION AND OTHER PARENTING POLICIES AT U.S. PRISONS AND JAILS

| | <i>Prisons</i> (n = 22) | Jails (n=6) |
|------------------------------------------------------------------------------------------------------|-------------------------|--------------------|
| Proportion of the total U.S. female incarcerated population | 53% | 5% |
| Had a written policy on lactation ^a Allowed both breastfeeding and pumping of breast milk | 7 (32%) 3 (43%) | 2 (33%) 1 (50%) |
| Only allowed pumping of breast milk | 4 (57%) | 1 (50%) |
| Did not have a written policy on lactation | 15 (68%) | 3 (50%) |
| Allowed both breastfeeding and pumping of breast milk | 1 (7%) | 0 |
| Only allowed pumping of breast milk | 3 (20%) | 2 (67%) |
| Did not allow pumping or breastfeeding | 11 (73%) | 1 (33%) |
| Special programs for pregnant or postpartum women | 19 (86%) | 5 (83%) |
| "Nursery" program | 4 (21%) | 1 (20%) |
| Parenting classes | 17 (89%) | 4 (80%) |
| Pregnant women sent to a different site in third trimester before birth | 3 (16%) | 1 (20%) |
| Doula support services Other | 4 (21%) 7 (33%) | 1 (20%) 3 (60%) |
| Contact visits with newborns allowed in first 3 months | 21 (95%) | 4 (67%) |
| "Nursery" program | 4 (19%) | 1 (25%) |
| During regular visiting hours During additional postpartum visiting hours | 16 (76%) 8 (38%) | 1 (25%) 2 (50%) |

^aOne jail facility that allowed pumping only did not report whether they had a written policy.

mentoring program for mothers who give birth in custody, and parent support groups and mental health support groups for pregnant women. One prison, without a pregnancy program, did allow lactation (both breastfeeding and pumping), and two prisons with a program did not allow lactation. Whereas, one jail with no pregnancy programs did not allow lactation, the other five jails did allow lactation. Nearly all the prisons (n=21) and jails (n=4) permitted some version of contact visits between women and their newborns within the first 3 months of birth (Table 3). One prison indicated that they supported daily contact visits between mothers and newborns for the first 6 weeks of the infant's life, but only allowed pumping, not direct breastfeeding.

Number of lactating women and infant placement data

Thirteen prisons and 5 jails, including all 11 prisons and 5 jails that supported lactation, reported 6 months of lactation frequency data (Table 4). Seven prisons and four jails had at least 1 month during which women were breastfeeding or pumping milk; this means that, despite reported policies allowing lactation, four prisons and one jail did not have a lactating person at any point during the study. During the 6 months of lactation reporting, there were 348 women who gave birth at all study prisons and 77 at all study jails. At the

| | Prisons, n (range) | | | Jails, n (range) 67 | | |
|--------------------------------------------------------------------|-----------------------------|------------------------------------------|------------------------------------------|---------------------|-------------------------------------|----------------------------------------|
| Lactation frequency ^a Total number of postpartum people | 207 | | | | | |
| | All prisons (n=11) | Prisons with pregnancy programs (n = 10) | Prisons without pregnancy programs (n=1) | All jails (n=5) | Jails with pregnancy programs (n=5) | Jails without pregnancy programs (n=0) |
| Average monthly number of postpartum women | 55 (43–60) | 54 (43–60) | 1 (0–1) | 22 (9–42) | 22 (9–42) | _ |
| Average monthly number of women expressing breast milk | 8 (5–14) | 7 (4–14) | 1 (0–1) | 6 (2–10) | 6 (2–10) | _ |
| Infant placement ^b | | | | | | |
| | Prisons, ^b n (%) | | | Jails, c n (%) | | |
| Number of infants born whose placement outcome was reported | | 245 | | | 27 | |
| Designated family member | | 166 (68) | | 20 (74) | | |
| Foster care | er care 24 (10) | | 5 (19) | | | |
| Designated nonfamily member | | 21 (9) | | 0 | | |
| Adoption 15 (6) | | 0 | | | | |
| "Nursery program" 19 (8) | | 2 (7) | | | | |

^aData on lactating women over the 6-month reporting period only for prisons (n=11) and jails (n=5) that allowed breast milk expression. ^bNineteen prisons reported 1–6 months of infant placement data (6 months=5 prisons; 5 months=4 prisons; 4 months=3 prisons; 3 months=2 prisons; 2 months=4 prisons, and 1 month=1 prison). Percentage total >100 due to rounding.

11 prisons and the one jail that did not allow lactation, there were 151 women who gave birth but thus did not have the opportunity to pump milk for their newborns (n=141 at prisons, n=10 at jails).

At the 11 prisons that permitted lactation, there were 207 women who gave birth; there was a combined monthly average number of eight lactating women, compared with a monthly average of 55 postpartum women. At the five jails that allowed lactation, there were 67 women who gave birth; there was a combined monthly average of 6 lactating women, compared with a monthly average of 22 postpartum women. The presence of postpartum women in an institution that supported lactation thus did not necessarily mean there was a lactating woman each month.

Of the infants whose placement locations were known, most were placed with a designated family member, with foster care as the second most common placement (Table 4). There were three prisons in our study with nursery programs. Only 19 of the 95 (18%) infants born to mothers at these prisons were placed with their mothers in nurseries. At these three prisons combined, there were, on average, seven lactating mothers per month (range: 3–12). One jail in our study had a nursery program. Of the three births that occurred during the lactation reporting time, one infant went to the nursery with the mother, and the jail reported one person as lactating. Despite reporting that written policies allowed lactation, two prisons and three jails had at least 1 month where the site reporter stated that breastfeeding/pumping was not allowed at their facility.

Discussion

The United States has the highest incarceration rate in the world with the largest population of incarcerated women.¹² Our results show that some prisons and jails allow postpartum women to provide human milk for their infants, but few incarcerated women actually do so, even at facilities that allow the practice. These data align with previous research that noted incarcerated women experience significant challenges and barriers related to breastfeeding and pumping.^{20,21} Furthermore, although our data demonstrate that it is feasible, direct breastfeeding or the pumping of human milk is not available to all women in U.S. jails and prisons; even when women experiencing incarceration are permitted to have visitation with their infants, they may not be supported to either directly breastfeed or provide their own pumped milk. Although one-third of study prisons and jails reported policies that supported breastfeeding, pumping or both, there was a disconnect between the permissive policies and actual breastfeeding frequency. This discordance suggests inconsistent access to breastfeeding support, promotion, and resources in custody, and also identifies opportunities for implementation of quality improvement projects focused on increasing equitable access to lactation support and resources. All individuals, including those in custody, should receive the necessary information and resources to make informed decisions and be supported with the highest quality of care.

Although institutional policies supportive of lactation existed, several front-line staff were unaware of them; for

^cFour jails reported 2–5 months of infant placement data (5 months = 1 jail; 4 months = 2 jails; 2 months = 1 jail). The jail with nursery program reported infant placement data for 12 months, and those results are reported here.

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instance, that five site reporters at institutions that did allow breastfeeding stated the opposite in their monthly reports suggests an unfortunate disconnect between policy and practice. This lack of awareness among staff may contribute to early cessation of lactation, ^{22–24} perpetuate the limited support and resources available to lactating women in prisons and jails, and also highlights potential bias. In addition, the lack of policy awareness also impacted data collection; the research team was unable to confirm that the low numbers of breastfeeding women at institutions with a lactation policy was owing to lack of implementation or of interest in breastfeeding on the part of the incarcerated women. A prior qualitative study of incarcerated pregnant women suggests that both may play a role, as it described how women strongly desired to breastfeed their infants, for the health benefits, their psychological well-being, and strengthening their sense of maternal worth; yet the women felt unsupported and illequipped to make breastfeeding plans in custody.²⁵

In some cases, study sites only allowed women to pump milk to maintain their milk supply so they could breastfeed upon return to the community, but discarded the milk.

At prisons and jails that do not discard pumped milk, there are many steps that need to occur in order for pumped human milk to get to the infant, such as proper storage and labeling and coordination between the institution and the infant's caregiver to deliver the milk. That the vast majority of infants were placed with a family member presents both opportunities and challenges for these caregivers, who may already be overwhelmed with unexpected caregiving responsibilities. Retrieval of milk may be especially challenging at some prisons, which are often located in rural areas and far from the infant.^{1,2} This process may impact exclusivity goals and increase the need for supplementation with formula. For women in jails, who typically have short stays,² the mother infant dyad is likely to be reunited soon. Thus, it is essential that, at a minimum, women in jail be able to establish and maintain their milk supply if they wish to do so, as a basic reproductive right. All but one of our study jails supported this practice, although our jail sample was skewed toward iails in large urban settings that may have more resources to enable pumping of human milk. Issues of timing of women leaving institutions and returning to their communities are controlled by the courts, probation, and parole who likely have little knowledge of lactation issues.

The inconsistent ability for incarcerated women to breastfeed or pump milk is in direct conflict with national breastfeeding recommendations. In 2011, the Surgeon General released a Call to Action to Support Breastfeeding declaring that every mother who desired to breastfeed be supported.²⁶ The National Commission on Correctional Health Care, which sets national standards on health care in institutions of incarceration, created a position statement that encourages institutions to establish systems that will enable postpartum women to provide human milk to their infants.²⁷ Despite these recommendations, prisons and jails are not required to follow any specific set of health care standards. The lack of standardization and oversight of health care in carceral institutions has enabled inconsistent breastfeeding policies, despite a constitutional mandate that prisons and jails address people's "serious medical needs."28

The structural constraints of unsupportive policies that disrupt lactation may lead to undesired and coerced weaning

and limit health benefits related to lactation for the motherinfant dyad. These challenges can further perpetuate maternal and infant health disparities. This is an important racial equity issue for Black and Indigenous mothers, as they are disproportionately affected by poor maternal and infant health outcomes, including higher incidence of prematurity, low birth weight, maternal and infant mortality; they also have lower rates of breastfeeding. ^{29–34} Maternal stressors accumulated across the life course and structural and social determinants of health, such as racism, discrimination, and bias, are key drivers of these persistent perinatal and infant health disparities, and also contribute to lower breastfeeding rates. 31,35 And structural racism also underlies the reality that Black women are imprisoned at two times the rate of white women.¹ Together, these factors place incarcerated women, more specifically Black women and other women of color, at risk for poorer perinatal outcomes and further exacerbate breastfeeding-related issues. Given the numerous health implications, incarcerated women should be afforded the same rights and abilities to provide life-sustaining human milk to their infants.

Despite noted challenges of supporting lactation in custody, there are existing arrangements—including those reported in our study—and model policies that demonstrate feasibility. Although prison and jail nursery programs may make it easier to breastfeed, these programs have limitations—for instance, overly restrictive and variable criteria to participate—and are not the optimal long-term solution for new mother—infant dyads. Investing in community-based alternatives to incarceration for pregnant and post-partum women can promote the health and well-being of the mother—infant dyad in a more realistic environment for them to parent.³⁶

Short of alternatives to incarceration, there are other ways to promote breastfeeding and the pumping of human milk that do not involve nursery programs. For instance, research has shown that doula support for women in custody increases the likelihood of initiating breastfeeding.²⁵ The Alabama Prison Birth Project, which provides doula support to birthing people in prison, sponsors the "Mother's Milk Initiative," which provides robust support to postpartum women in prison, including lactation advice, overnight shipping of pumped milk from the prison to infants' caregivers, and helping to create a well-appointed, clean space for pumping.³⁷ The California Breastfeeding Coalition has created, with multisector input, a model policy with step-by-step guidelines for how to implement a lactation program inside jails and prisons, from the logistics of equipment, space, storage, and transporting milk to the education and support services to help women pump milk behind bars.³⁸

There are several limitations to our study. Prisons and jails voluntarily participated, and the sample may be biased toward facilities that are more attuned to pregnancy and post-partum needs. We could not determine whether pumped human milk was actually delivered to the infants. Nor could we determine the breastfeeding initiation, duration, and exclusivity rates for any given prison or jail. Our study did not include the perspectives of incarcerated pregnant and post-partum women, including exploring their intentions or desires to breastfeed. In addition, our study could not assess hospital-level factors that may have promoted or prevented breastfeeding in the immediate postpartum period before

women went back to the prison or jail after giving birth. Finally, we did not assess desire to lactate or breastfeed. There may be a population of incarcerated women who do not wish to pump milk or breastfeed, or for medical or personal reasons may be advised to supplement with either formula or donor human milk.

Conclusions

To our knowledge, this is the first study to report the number of lactating incarcerated women and prison and jail policies that are supportive of lactation and breastfeeding. Whereas our data show lack of consistent implementation of institutional policies, support, and resources related to breastfeeding and lactation, our data also show that there are institutions across the country that are supportive of breastfeeding and lactation among incarcerated women. Contact visits, nursery programs, and accommodations for pumping milk can all enable human milk for infants. The ability of an incarcerated woman to partake in these activities is contingent on the policies of the prison or jail, support staff and equipment, and the geographic and other logistics of getting human milk from the institution to the infant. Future research in collaboration with current and formerly incarcerated women, specifically Black, Indigenous, and women of color, is needed to fully understand breadth of experiences and perspectives related to breastfeeding and lactation while in custody. Research among custody workers and infant caregivers to gain greater insight into the implementation barriers to supporting lactation and breastfeeding among incarcerated women is also warranted. Standardization of policies, practices, and education is essential to ensure all incarcerated individuals have adequate tools and resources necessary to initiate and sustain lactation and breastfeeding, especially when forced to be separated from their infants. Supporting lactation and breastfeeding among incarcerated women is an important part of a broader agenda to address deep inequities in maternal and infant health in the United States, which disproportionately and adversely affect Black women and infants.

Authors' Contributions

I.V.A.: Conceptualization; writing original draft; writingreview and editing. L.B.: Conceptualization; writing review and editing. C.S.: Conceptualization; project administration; writing original draft; writing-review and editing.

Acknowledgments

The authors thank Becki Ney from the National Resource Center on Justice Involved Women and Maureen Buell from the National Institute of Corrections for their assistance in recruitment. In addition, we acknowledge the site reporters at the participating prisons and the incarcerated women whose pregnancies are represented in these statistics. Finally, we thank Robbie Gonzalez-Dow from the California Breast-feeding Coalition.

The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Disclosure Statement

No competing financial interests exist.

Funding Information

This research was supported by the Society of Family Planning Research Fund (SFPRF9-JI1) and the National Institute of Child Health and Development (Grant No. NICHD-K12HD085845).

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Address correspondence to:

Ifeyinwa V. Asiodu, PhD

Department of Family Health Care Nursing
School of Nursing
University of California, San Francisco
San Francisco, CA 94143-0606
USA

E-mail: ifeyinwa.asiodu@ucsf.edu