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Commentary

Hormonal contraception, breastfeeding and bedside advocacy: the case for patient-centered care

Amy G. Bryant[a,b,*], Anne Drapkin Lyerly[c], Stephanie DeVane-Johnson[d], Christine E. Kistler[e], Alison M. Stuebe[f,g]

[a] University of North Carolina School of Medicine, Department of Obstetrics and Gynecology, Division of Family Planning
[b] Gillings School of Public Health Department of Maternal and Child Health
[c] University of North Carolina School of Medicine, Department of Social Medicine, Department of Obstetrics and Gynecology, Center for Bioethics
[d] Duke University School of Nursing
[e] University of North Carolina School of Medicine, Department of Family Medicine
[f] University of North Carolina School of Medicine, Department of Obstetrics and Gynecology, Division of Maternal Fetal Medicine
[g] Carolina Global Breastfeeding Institute, Gillings School of Public Health

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ABSTRACT

Postpartum contraceptive decision making is complex, and recommendations may be influenced by breastfeeding intentions. While biologically plausible, concerns about the adverse impact of hormonal contraception on breast milk production have not been supported by the clinical evidence to date. However, the data have limitations, which can lead providers with different priorities around contraception and breastfeeding to interpret the data in a way that advances their personal priorities. Discrepancies in interpretations can lead to divergent recommendations for individual women and may cause conflict. Furthermore, providers must recognize that decision making about contraception and breastfeeding takes place in complex cultural, historical and socioeconomic contexts. Implicit bias may influence a provider's counseling. Unrecognized biases toward one patient or another, or one practice or another, may influence a provider's counseling. It is crucial for providers to strive to recognize their own biases. Providers need to respectfully recognize each patient's values and preferences regarding hormonal contraception and breastfeeding. Developing a patient-centered decision tool or implementing patient-centered interview techniques specifically around breastfeeding and contraception could help to minimize provider-driven variability in care.

1. Introduction

The following situation occurred at our institution: a 15-year-old Latina gravida 2, para 0111 had a spontaneous vaginal delivery of an extremely preterm infant. On her day of discharge from the hospital, a lactation consultant entered her room just as an obstetrics and gynecology resident was eliciting her consent for a contraceptive implant placement. The lactation consultant asked the medical student who was in the room with the resident whether breastfeeding had been discussed with the patient. Once prompted, the resident advised the patient of "a possibility" that the implant could impact her milk supply. The patient decided not to have the implant placed at that time.

One author (A.M.S.) received a text from the attending obstetrician later that day that read:

> I just talked to one of the lactation consultants who advises women that immediate postpartum contraception (Nexplanon) may decrease milk supply. I'm not aware of any literature to support this. This was in a 15 year old on her second pregnancy who just delivered a 25 weeker. Obviously I'm all for breastfeeding but I feel like presenting her something that is based on the LC's experience is not really neutral and fair especially in such a high risk teen and when the literature on PP immediate contraception is so compelling.

1.1. The controversy: hormonal contraception and breastfeeding

The limitations of the evidence on contraception and breastfeeding leave the existing data open to a range of interpretations. Interpretations are often seen through the lens of the interpreter, leading to conflicting and disjointed care. During the last 50 years, multiple studies

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* Corresponding author. Tel.: +1 919 843 5633.
E-mail address: Amy_bryant@med.unc.edu (A.G. Bryant).

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have evaluated the impact of hormonal contraception on breast milk production and infant growth. The preponderance of the evidence shows that hormonal contraception does not reduce milk production or breastfeeding [1–3]. Multiple randomized trials, cohort studies and case–control studies failed to show that hormonal contraception adversely impacts breastfeeding, despite the biological plausibility of such an effect. These findings are reassuring regarding the safety of hormonal contraception for breastfeeding; however, these findings may not always be applicable to the complex, heterogeneous postpartum populations seen in the United States. Heterogeneity in study designs, populations and outcomes limits the interpretation of the results. For example, most studies enrolled women with healthy, term infants; none evaluated women with extremely premature or low-birthweight infants. No studies have evaluated women with a variety of risk factors for difficulties with breastfeeding, such as women who must exclusively pump breast milk as opposed to feeding at the breast, who are morbidly obese, or who have hypertension or diabetes [4,5]. Studies have also used a wide variety of methods and studied a wide variety of contraceptives, some of which are not in use today.

Further complicating this relationship, breastfeeding itself is known to reduce fertility and can be used as a form of contraception, the Lactational Amenorrhea Method (LAM) [6,7]. A woman who is breastfeeding fully, is less than 6 months postpartum and has not resumed menses has a risk of pregnancy less than 2% during that time. However, misconceptions about both how to use LAM and its effectiveness may cause confusion among some women, with some feeling overconfident in their contraception because they are breastfeeding and others not appreciating its efficacy if used correctly [8].

Few studies have evaluated the impact of exogenous hormones in the immediate postpartum period, before breast milk production is established. Most studies of immediate postpartum long-acting reversible contraception (LARC) and breastfeeding have been small, with only one study enrolling more than 100 women. Limitations of studies of immediate postpartum LARC include using breastfeeding as a secondary rather than primary outcome [9,10] and selecting a noninferiority margin that may in fact represent a clinically meaningful decrease in the context of hormonal contraception and breastfeeding [11,12]. For a woman who strongly desires to breastfeed, even a very small risk of iatrogenic lactation failure may be clinically relevant. All of these limitations of the data raise questions about the applicability of these studies to many breastfeeding women in the US today.

1.2. Bedside advocacy: same data, differing interpretations

Public health advocacy promotes important public health goals, such as increasing breastfeeding among new mothers or preventing unintended pregnancies. Public health advocacy should be done on a programmatic or population level. What we see in the clinical scenario above is an example of "bedside advocacy" — when different providers with different health priorities offer differing interpretations of the data *via* bedside counseling and influence patient outcomes.

This scenario above depicts a young mother and her infant caught in the middle of two providers advocating for their particular public health priorities: (1) contraception for birth spacing to prevent unintended pregnancy and recurrent preterm birth (and presumably to prevent another pregnancy in an adolescent woman) and (2) establishing breastfeeding to ensure an adequate breast milk supply to a premature infant. On a population level, both priorities should be promoted, and patients should be educated about their benefits. How these priorities are reconciled at the level of the individual patient is more challenging. This case illustrates how discord between the lactation consultant and the obstetrics provider ill-serves the patient's complex needs. Further, women may value the benefits of breastfeeding or contraception differently than their care providers. Public health advocacy with an individual seeking healthcare, or "bedside advocacy," is unlikely to lead to care that is consistent with individual patient's needs or values.

As noted, the limitations of the evidence on contraception and breastfeeding leave the data open to differing interpretations. For example, lactation counselors tend to emphasize evidence gaps. In one study on the contraceptive counseling practices of lactation consultants, more than 90% believed that the risks of progestin implants and injections to breast milk production outweighed the benefits, and three quarters believed this of progestin-only pills. Almost 70% reported that the women they counsel ask them about postpartum contraception [13]. The Academy of Breastfeeding Medicine guidelines on contraception state that the "published evidence is insufficient to exclude these risks," meaning that hormonal contraception may reduce breast milk production or worsen infant health [14]. This framing may lead to an overestimation of the potential adverse impact of contraception on milk production. Family planning experts, in contrast, tend to emphasize the lack of evidence for adverse impact. For example, the United States Medical Eligibility Criteria for Contraceptive Use produced by the Centers for Disease Control [15] offers guidance that indicates that the use of hormonal contraception with breastfeeding is safe and reasonable. While a reasonable interpretation of the preponderance of the evidence, this may lead to false reassurance for unstudied populations.

Differing interpretations are understandable based on the quality and heterogeneity of the available data. However, postpartum women may be placed in the difficult position of making decisions about contraception and breastfeeding when they receive conflicting information and recommendations from different health care providers.

1.3. Racism, classism, and the social context of contraception and breastfeeding

Further complicating the concept of "bedside advocacy," social injustices surrounding reproduction may have deeper implications regarding approaches to breastfeeding and contraception. A long and unfortunate history of policies and practices that value wealthy, white women's reproduction over those of poor women and women of color must be considered in any conversation about these issues [16]. Forced sterilizations of poor women and women of color throughout the 20th century are part of our shared history and may affect the perceptions that women of color bring to health care encounters [17,18]. As recently as the 1990s, welfare benefits in some states were tied to use of Norplant [16]. In more contemporary situations, women of color have reported feeling pressured to use contraception by health care providers [19], and health care providers have been shown to alter their counseling based on a patient's race/ethnicity and perceived socioeconomic status [20]. Health care providers must make a conscious effort to avoid perpetuating the systematic devaluing of reproduction of poor women and women of color through coercive contraception counseling, whether conscious or unconscious [21].

Additionally, the African American community in the United States in particular has had a complicated history with breastfeeding. African American women have experienced unique transformative cultural and historical events, which potentially have legacies strong enough to disincline them toward breastfeeding. During slavery, the practice of "wet nursing," in which slaves were forced to breastfeed their masters' infants instead of their own, may have seeded a resistance toward breastfeeding with an enduring impact [22]. African American historians have estimated that 20% of white slave owners required African slaves to breastfeed the owners' children. This phenomenon was seen in a recent study of African American mothers, who voiced that wet nursing and the "mammy" caricature influenced their decision not to breastfeed. Advocates have posited that forced wet nursing may be an additional factor underlying the disparately lower breastfeeding rates among African American women [23–27].

A lingering effect of this history may lead some African American women to value formula feeding over breastfeeding. Additionally,

during the 19th century, increases in infant mortality were often attributed to malnutrition from breastfeeding [28]. This assumption fueled a surge in an alternative to breastfeeding, called "infant formula" [23]. Companies sought to glamorize and make a status symbol out of formula [29]. Additionally, moderate- to low-income families, a large proportion of whom were African American, may have felt inferior to white women for breastfeeding when they were not able to afford formula [28].

For more than 4 decades, African American women in the United States have had the lowest breastfeeding rates among all ethnicities. In 2015, only 69.4% of non-Hispanic black mothers initiated breastfeeding compared with 84.6% of Hispanic and 85.9% of white mothers [30–33]. Breastfeeding rates have increased in recent years; however, despite the measurable gains associated with breastfeeding practices, African American women in the United States do not breastfeed at rates comparable to their Caucasian, Hispanic and Asian American counterparts.

1.4. A way forward: centering around the individual patient and offering shared decision making

Women's healthcare providers are tasked with helping individual postpartum women with choices surrounding contraception and breastfeeding. Large, comprehensive studies that predict with accuracy whether a breastfeeding woman is at risk for reduced breast milk production due to hormonal contraception are not currently available. Additionally, it is important to convey both a deep understanding of the literature and the limitations of the literature with sensitivity to historical, cultural and socioeconomic context. Despite these many challenges, there is a way forward to help mitigate the issues: offering a patient-centered approach to care. A patient-centered encounter, which allows for shared decision making, brings two experts to the discussion: the woman, who is the expert in her life, experiences, preferences and values, and her provider, who may be an expert in breastfeeding and/or hormonal contraception [34,35].

For each woman to make a decision that is appropriate for her circumstances, freely chosen and based on the best evidence available, providers must strive to ensure that decision making around breastfeeding and hormonal contraception is evidence based and free of coercion or undue influence. Counseling on contraception and breastfeeding offers a critical opportunity for providing care that is respectful of and responsive to patients' individual needs, preferences and values. Shared decision making involves a process of engaging in a discussion of a patient's values, needs and preferences to make an optimal decision for her health [34]. Shared decision making is preferred by both patients and providers when multiple options are available and acceptable [34], and shared decision making is often relevant to issues arising in obstetrics and gynecology [36,37]. It is also recommended by both American Congress of Obstetrics and Gynecology and the Academy of Breastfeeding Medicine for decisions regarding contraception and breastfeeding [14,38].

One potential way to enhance the shared decision-making process would be the development of a patient decision aid to inform patients of their options, help them weigh the benefits and risks of a specific option given their own circumstances and personal values, and support clinicians in tailoring their counseling for specific patients. Decision aids can help clarify patients' values and have been shown to reduce decisional conflict [39]. In this case, a tool for women of all literacy levels would be particularly helpful for ensuring that breastfeeding specialists and family planning providers acknowledge their differing interpretations of the data and allow for women to choose their preferred course based on their specific values [40].

Engaging in patient-centered care also requires providers to be aware of the larger context of health disparities and of our own implicit biases [41]. Providers should recognize that decision making around contraception and breastfeeding takes place in complex cultural, historical and socioeconomic contexts. In addition, breastfeeding is a uniquely vulnerable physiologic state. It must be established early after birth and continued consistently to maintain milk supply. To the extent that disrupted lactation might be a potential side effect of hormonal contraception, not being able to breastfeed may have very different implications than simply experiencing a medication side effect. Providers must recognize that decisions about breastfeeding and contraception are very personal and involve assessing the risk and consequences of an unintended pregnancy, the health benefits and desire to breastfeed, the multiple contraceptive options available, potential side effects, and life context such as family and work. Furthermore, providers must vigilantly monitor their own biases and be aware of the many forces affecting our own perspectives and those of our patients.

Even without a specific tool, clinicians can provide patient-centered care by asking open-ended questions about patients' goals for breastfeeding and birth spacing, eliciting preferences for attaining these goals and inquiring about the values that inform these preferences. A few examples of possible questions are provided; however, it is important to tailor each conversation to the individual patient, as no validated questions are currently available. Follow-up questions such as "Tell me more about that" can be useful in deepening the conversation. Clinicians can use the patient's perspective to reflect responses back and help arrive at a decision that makes sense for her life and context (see Box 1).

Box 1
Questions for counseling on breastfeeding and the use of hormonal contraception.

Breastfeeding

- What have you heard about breastfeeding? What have you heard about the benefits of breastfeeding?)
- What are your goals for breastfeeding?
- Ideally, for how long would you like to breastfeeding?
- How is breastfeeding viewed by your community and/or family?
- What could make it harder for you to breastfeed?

Birth spacing/contraception

- Are you interested in having another baby after this one? (If yes) When might you want to have another baby?
- How important is it to avoid another pregnancy right now?
- Do you know how long is recommended to wait after giving birth to try and get pregnant again?
- How would you feel if you were to get pregnant sooner than the current recommendation?
- How would your family and/or community react to your pregnancy?
- What contraceptives worked well for you in the past? Do you have any preferences or concerns about contraception?
- What is important to you in a contraceptive method?
- What have you heard about getting pregnant while breastfeeding? What have you heard about breastfeeding and contraception?

Sexuality

- Are you sexually active with men?
- How soon after birth do you think you and your partner will want to resume intercourse?
- What questions do you have about resuming intercourse after giving birth?

Breastfeeding and hormonal contraception

- Most studies indicate that hormonal contraception does not affect a woman's ability to breastfeed, but more research is needed, and some specialists worry about an effect of contraception on milk production. How do you think you would feel if your contraception made breastfeeding more challenging?

Follow-up questions/phrases

- Tell me more about _____.
- It sounds like ___(*being able to breastfeed for a year, not getting pregnant, etc*) is really important to you. What do you think this means for ___? (*using contraception, breastfeeding, etc.)*
- Based on what you've told me, it sounds like you might____.

2. Conclusion

The first 12 weeks postpartum, sometimes called the Fourth Trimester, is a critical period with unmet maternal health needs [42,43]. The intense focus that women receive during the prenatal period is often not continued postpartum, and many women express frustration that the care that they receive postpartum does not align with their needs [42,44]. Not only do women want more personalized, tailored care, they would prefer comprehensive care that takes into account the multiple dimensions and competing priorities in their lives [42,44]. While both contraception and breastfeeding may be addressed in the postpartum period, how they intersect may not be acknowledged.

Providers should work together to develop a coherent approach to postpartum counseling to avoid conflicting messages and present a contextualized, balanced message on Fourth Trimester care. Using this approach, providers can be sure to avoid the potential for "bedside advocacy," offer more nuanced and debiased interpretations of the available data, and show careful attention to the values and preferences that influence the decision of the individual patient.

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