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Experiences Using Pre-Exposure Prophylaxis for Safer Conception Among HIV Serodiscordant Heterosexual Couples in the United States

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Abstract

Antiretroviral pre-exposure prophylaxis (PrEP) is a promising HIV prevention strategy for HIV serodiscordant couples (HIV-infected male, uninfected female) seeking safer conception. However, most research on PrEP for safer conception has focused on couples in sub-Saharan Africa; little is known about the perspectives or experiences of heterosexual couples in the United States. We conducted qualitative interviews with six couples (six women and five of their male partners) receiving PrEP for conception services at an urban safety net hospital in the US Northeast. In-depth interview guides explored couple relationships and contextual factors and attitudes, perceptions, and decision-making processes surrounding PrEP for safer conception. Thematic analyses focused on identifying the following emergent themes. We found that couple relationships were situated within broader social and cultural contexts of immigration, family, and community that shaped their experiences with HIV and serodiscordant relationship status. Despite strong partner support within relationships, HIV stigma and disapproval of serodiscordant relationships contributed to couples' feelings of social isolation and subsequent aspirations to have ''normal'' families. By enabling ''natural'' conception through condomless sex, PrEP for safer conception provided a sense of enhanced relationship intimacy. Couples called for increasing public awareness of PrEP through positive messaging as a way to combat HIV stigma. Findings suggest that relationship dynamics and broader social contexts appear to shape HIV serodiscordant couples' fertility desires and motivations to use PrEP. However, increased public awareness of PrEP for safer conception may be needed to combat HIV stigma at the community level.

Keywords: HIV prevention, pre-exposure prophylaxis, serodiscordant couples, heterosexual couples, fertility, conception

Introduction

Heterosexual contact drives new HIV infections among adult and adolescent females in the United States.[1] Given the high social and economic costs of HIV, preventing transmission within HIV serodiscordant couples is a priority.[2,3] Treatment as prevention, involving the promotion of combination antiretroviral treatment (cART) uptake and adherence with the associated decrease in levels of virus and restoration of immune function, dramatically improves health and wellbeing among HIV-infected individuals while also preventing transmission within serodiscordant couples.[4,5] Given the improved life expectancy of HIV-infected individuals receiving cART, many serodiscordant couples in the United States report similar fertility desires and childbearing motivations as HIV-uninfected couples,[6,7] and low-cost artificial insemination strategies (e.g., using a syringe or baster at home) have helped increase live births among HIV-infected women.[8] However, for heterosexual couples in which the male partner is HIV-infected and the female partner is uninfected, transmission risk during conception is of high concern. HIV is transmitted more

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efficiently from men to women, and even with viral suppression among HIV-infected male partners, unprotected sex may still carry some, although small, risk of HIV acquisition among female partners.[9–13] Furthermore, these couples continue to face challenges in accessing affordable options for safer conception, as assisted reproductive technologies [e.g., sperm wash with intrauterine insemination (IUI) or in vitro fertilization (IVF)] can be costly.[14]

In addition to consistent use of cART among the infected partner and assisted reproductive technologies, another promising safe conception method for these couples includes condomless sex combined with the uninfected partners' use of antiretroviral pre-exposure prophylaxis (PrEP). PrEP is highly efficacious in preventing HIV acquisition when it is taken daily as prescribed.[15,16] It also offers individual agency among women over their sexual health.[17] While cART alone for the infected partner is an effective prevention tool, viral loads might not always be consistently suppressed and could still intermittently shed virus.[9] PrEP could thus add a layer of protection to the negative partner at risk for HIV infection. With condomless intercourse limited to periods of fertility, ''PrEP for conception'' is safe, effective, and CDC-endorsed conception strategy for serodiscordant couples.[3,17–19]

However, research on PrEP and other biomedical HIV prevention strategies, including topical microbicide gels and vaginal rings, has revealed a range of uptake and adherence behaviors.[15,20–25] This behavioral variation has raised questions regarding the acceptability of biomedical products and highlighted challenges with uptake among women at risk of HIV acquisition. Qualitative research on serodiscordant couples' use of biomedical prevention strategies has emphasized the importance of PrEP-related attitudes, HIV risk perceptions, male partner support, trust between partners, communication and decision-making processes within relationships, community norms surrounding biomedicine, HIV-related stigma, and related concerns regarding disclosure of HIV or serodiscordant status.[26–30] Much of this research, however, has focused on women and heterosexual couples in low resource settings in sub-Saharan Africa.[31]

Not only is very little known about serodiscordant couples' attitudes, acceptability, or decision-making processes surrounding PrEP for conception in the United States, but also awareness of PrEP for this purpose is low.[32] In particular, the relationship dynamics and social contexts that may promote or hinder US couples' adoption of PrEP for conception have not been adequately explored.[3,33] Additionally, while our sample was mainly comprised of foreign-born couples, there is limited research that focuses on couples emigrating from countries disproportionately impacted by HIV. Our study thus uniquely gains perspectives from foreign-born serodiscordant couples coming from high-prevalence countries.[34]

Given the promise of this strategy for female-uninfected serodiscordant couples desiring children, we undertook a qualitative study of the relationships and experiences of a sample of ''early adopters'' of female-uninfected serodiscordant heterosexual couples using PrEP for conception in the US Northeast. We found that couple relationships and social experiences indeed matter, as they do in other settings, and carry unique implications for efforts to expand awareness, acceptance, and uptake of these promising sexual and reproductive health technologies for heterosexual serodiscordant couples in the United States.

Methods

Study design and sample

We recruited couples from the multisite ''PrEPception Study'' on PrEP for safer conception among male-infected, female-uninfected serodiscordant couples (Clinical Trials Identifier NCT02233192). The PrEPception Study clinical protocol involved a detailed treatment plan, including documentation of male partners' HIV status, cART adherence, maintenance of undetectable HIV viral load, and semen analysis; documentation of female partners' HIV negative status; testing and treatment for coincidental sexually transmitted infections; prescription of PrEP and related adherence counseling for female partners; and safer conception counseling, including guidance on limiting condomless intercourse to proscribed periods of fertility and using condoms when not attempting to conceive.[18,35]

Additional data collection for the parent study involved baseline and 1-year follow-up surveys of both partners, monthly adherence surveys of female partners, and documentation of pregnancy outcomes. For this qualitative substudy, we recruited six diverse couples enrolled through Boston Medical Center, an urban safety net hospital serving a large, racially and socioeconomically diverse patient population. One male partner declined participation, resulting in a sample of 11 individuals (6 women, 5 men). Participants provided written informed consent to participate in study activities, including qualitative interviews for this substudy. The Institutional Review Board of the Boston University Medical Center approved all study protocols.

Data collection

From September 2015 to January 2016, a trained qualitative interviewer with experience in the PrEPception protocol conducted in-depth, confidential, audio-recorded interviews lasting 19–59 min (mean: 42 min) with female and male partners separately. Semistructured qualitative interview guides contained open-ended questions and probes regarding key topics of interest, including: (1) relationship nature, dynamics, and contextual factors; (2) attitudes and perceptions regarding PrEP for conception (e.g., ''Tell me what you think about PrEP''); and (3) decision-making processes surrounding PrEP (e.g., ''How did you decide to start using PrEP?''). Interviews were digitally recorded and professionally transcribed verbatim for text analysis.

Data analyses

Transcripts were reviewed for quality and to identify emergent themes.[36] Drawing from standard qualitative research methods, including grounded theory and the constant comparative method,[37] thematic analyses involved multiple rounds of coding and data analysis. To develop the coding scheme, we employed a collaborative process[38,39] in which four research team members independently read selected transcript excerpts and generated preliminary content codes and definitions based on key domains of interest (i.e., topics from the interview guide) and additional emergent themes. Analysts independently applied these preliminary codes to

another set of transcript excerpts. They then met to compare consistency in code application, discuss discrepancies, and modify the codebook as necessary. Final codes were applied to transcripts using nVivo. Finally, more in-depth analyses involved synthesizing coded data, identifying emergent themes and connections between themes, and comparing themes between women and men and across couples.[37] To illustrate key findings in this article, we present representative quotes using pseudonyms to protect confidentiality.

Results

Participant and couple characteristics

Among 11 participants (6 women, 5 men) enrolled in the study, median age was 37 years (interquartile range: 10.5 years; Table 1). Reflecting the racially/ethnically diverse patient population served by Boston Medical Center, all participants self-identified as non-Hispanic black, and seven (64%) were foreign born. Five participants (45%) were unemployed or employed part time. Among the six couples represented, four were currently married. Most men (80%) had children from previous relationships; one couple had children together. Before this study, three couples had previously used fertility treatments ($n=2$ couples) or other safer conception methods (i.e., cART and timed intercourse; $n=1$ couple). All male partners were HIV infected with undetectable viral loads (<20 copies/mL) indicative of good cART adherence, and five women were using PrEP at the time of the interview (one had discontinued PrEP due to changes in fertility plans).

From qualitative interviews, we identified the following key themes: (1) couple relationships are situated within broader social and cultural contexts of immigration and community; (2) low community awareness and stigma surrounding HIV and serodiscordant relationships result in limited social support and isolation; (3) aspirational notions of normal relationships and families lead to new and renewed fertility desires; and (4) by enabling natural safer conception, PrEP benefits relationships (e.g., through enhanced relationship intimacy) in ways that could be highlighted in marketing that more positively frames PrEP for safer conception and health promotion. After describing these themes in the sections below, we discuss related implications for and improving the awareness, acceptance, and uptake of PrEP for conception among serodiscordant couples in the United States.

Relationships within social and community contexts

In qualitative interviews, couples described their relationship formation and dynamics within broader social and cultural contexts of immigration and community that appeared to influence their experiences with HIV, serodiscordant couple status, and eventual PrEP attitudes and uptake. The majority of the sample was foreign born. One couple emigrated from

Table 1. Characteristics of Six HIV Serodiscordant Couples Using Pre-Exposure Prophylaxis for Conception ($N=11$)[a]

Variable	*Male* (n=*5*)	*Female* (n=*6*)	*Overall* (n=*11*)
Individual characteristics			
Age in years; median (IQR)	39 (36–48)	35.5 (30–41)	37 (34–44)
Race: black/African American	5 (100%)	6 (100%)	11 (100%)
Ethnicity: Hispanic/Latino	2 (40%)	0 (0%)	2 (18%)
Foreign-born[a]	4 (80%)	3 (50%)	7 (64%)
Employment status			
Employed fulltime	3 (60%)	3 (50%)	6 (54%)
Employed part time	0 (0%)	3 (50%)	3 (27%)
Unemployed	2 (40%)	0 (0%)	2 (18%)
Highest level of education			
Completed high school	3 (60%)	1 (17%)	4 (36%)
Some college	1 (20%)	2 (33%)	3 (27%)
Completed college	1 (20%)	3 (50%)	4 (36%)
Attends religious services regularly			
Never	0 (0%)	0 (0%)	0 (0%)
Less than weekly	1 (20%)	1 (17%)	2 (18%)
Once per week	3 (60%)	4 (67%)	7 (64%)
More than once per week	1 (20%)	1 (17%)	2 (18%)
Has children	4 (80%)	2 (33%)	6 (55%)
Male partner's HIV viral load is undetectable (<20 copies/mL)	5 (100%)	—	—
Female partner currently using PrEP at the time of interview	—	5 (83%)	—
Relationship characteristics[b]			
Relationship duration with current partner, years; median (IQR)	—	—	4.7 (1.6–11 years)
Married	—	—	4/6 couples (67%)
Has children together (with current partner)	—	—	1/6 couples (17%)
Previously used assisted reproductive technologies or safer conception methods with partner	—	—	3/6 couples (50%)

[a]Foreign-born participants were born in Rwanda ($n=2$), Ghana ($n=2$), Uganda ($n=1$), Haiti ($n=1$), and Honduras ($n=1$).
[b]One male partner declined participation.
IQR, interquartile range; PrEP, pre-exposure prophylaxis.

Rwanda (both partners), one emigrated from Ghana (both partners), three couples comprised of one foreign-born partner (from Uganda, Haiti, and Honduras) and one US-born partner, and one couple comprised of two US-born partners. Related to their experiences as immigrants and minorities in the United States, couples discussed the importance of building new community ties. This often occurred through participation in local religious organizations, which helped ease transitions into new communities and provided important sources of social support, capital, and identity. For example, as Rwandan-born Mutesi commented about her relationship with Gahiji, ''We are together, living like any other couple; we are Christian, we love each other, we do everything together.'' However, although ''turning to God'' and church participation provided couples with a sense of social integration into their new communities, the social support and capital they received from these organizations did not extend to issues relating to HIV or serodiscordance, making the navigation of couples' health and conception efforts more difficult, as described below.

Low community awareness and stigma surrounding HIV and serodiscordant relationship status

Several male partners learned that they were HIV infected after immigrating to the United States; their HIV diagnoses were described as shocking and destabilizing for their relationships, causing two couples to breakup temporarily. After education on HIV and serodiscordant status, couples were better able to accept male partners' HIV diagnoses. Nevertheless, due to low awareness and acceptance of HIV within couples' social networks and immediate families, couples could not rely on social support from community or family members during these difficult periods.

For example, Jean Caleb felt unable to disclose his HIV status within the Haitian community or discuss HIV risk more generally: ''I don't even bring it up or try to explain it to them, to make sure they watch out for the blood transfusions and sex with other people or stuff like that…It's really hard in the community. People don't let anyone know about these things. It's misunderstood [and] no one wants to hear [it].''

Couples also described general disapproval of serodiscordant relationships. Even though Mutesi said that she and Gahiji were ''together like any normal couple,'' they did not know any other couples ''with the special case like us where one is positive and one is negative, so when I talk to my friends about it, when I tell them, some think it's mad.'' The feeling of disbelief within their community that ''someone who's negative can trust someone who's positive and they can live together and plan their life'' led Jean Caleb and Nina to delay disclosing their serodiscordant status to others: ''In our case, we would have a lot to worry about. We're not from a community in which these things are spoken about…There's a lot of reason to not want to [disclose] that, at least not until we're ready, so there won't be any unfortunate circumstances.''

The low HIV awareness and stigma within the communities that couples otherwise so readily identified led to feelings of social isolation, and partners felt reliant only on each other for coping with HIV within their relationships. For example, when Honduran-born Edgar told his father about his HIV status, ''He got mad and told the whole family about our problem [HIV].'' To help cope with their ''situation,'' Edward's partner Mikayla said, ''I try to support him and tell him I love him regardless if people make fun of him…Be careful who you tell your business to, because people will use it against you.''

Similarly, Isaiah described how he and Hailey decided to rely on each other instead of seeking social support from those outside of their relationship: ''I know a lot of negative [critical] people, some of them are family, but we don't need them. If you're not going to be an asset to our family, to our dreams, then you're not trying to help us.'' Hailey also reflected on the social rejection and stigma they had experienced, countering that, ''I don't even want to call it a 'disease.' It is a health issue, and a person can get isolated. Not everybody deserves that.'' Jean Caleb and Nina also affirmed that they would work together to ''cope with that situation because we came here as partners'' and ''share in everything.''

Notions of "normalcy" and new/renewed fertility desires

Stemming from the low social support for coping with HIV and serodiscordance described above, several participants' narratives revealed how aspirational notions of ''normal'' couples and families contributed to their new or increased fertility desires. Having children was perceived as a way for couples to demonstrate that they could be ''normal'' as described by Oko when explaining traditional Ghanaian beliefs: ''We come from a place [with] some thought that [infertility] could be from evil forces, that witches can prevent you from getting pregnant. That is our belief back home [that] the man can give you the sperm, but spiritually those evil forces can take out the sperm.''

Similarly, Nina commented on her partner Jean Caleb's Haitian family: ''For him, [PrEP] allows having a child in the most natural way possible. He comes from a very large family [with] a dozen kids running around. It was a prideful thing for his father to have a family, and so I think he's looking at it in the same way.'' Challenging the perception that serodiscordant couples were different would ''never have a kid,'' Amaka and Kojo were ''really just looking forward to having babies and, like, a complete family.''

Desires to have children led to new and renewed interests in conceiving safely and ''in the most natural way possible.'' Compared with assisted reproductive techniques, many participants like male partner Gahiji preferred PrEP for safer conception over ''artificial'' insemination because he questioned how ''natural'' these other options were: ''We don't like artificial stuff…You know, we were born in a natural way…I don't want [our] kids to be conceived in a machine.'' Female participants like Mikayla also expressed similar interests in conceiving ''naturally:''

> It's not normal. When we want to have a family, we have to go through those processes, keep coming back to appointments, you know, and pay a lot of money and stuff. Other couples can just have babies if they want and be fine. It's stressful. I just want to have a baby naturally. I wish he never had [HIV], you know, it's scary, and so much to go through just to have a baby.

By enabling natural and safer conception through condomless sex, PrEP was more appealing than fertility treatments for those who wanted to be ''just like a normal family.'' After learning about PrEP, Nina and Jean Caleb became more willing and motivated to expand their family. Mutesi and Gahiji also became interested in PrEP after learning that it would enable them to have condomless sex to ''get pregnant just like other people, like the normal way to

get pregnant.'' Mutesi also perceived PrEP for safer conception as ''a way to protect'' future children from HIV, ensuring that they could be normal too. PrEP thus provided a natural strategy for expanding couples' families that appealed to their cultural values and general aspirations for normalcy despite HIV and their serodiscordant relationship status.

Relationship benefits of PrEP and raising awareness

By enabling natural safer conception through condomless sex, participants described a new sense of enhanced relationship intimacy and strength as another significant benefit of PrEP. For example, Mikayla described PrEP as strengthening her relationship sexually and emotionally, stating that, ''I feel better that we're protecting each other and it helps our sex life.'' Her partner Edgar also said that her PrEP use made him feel like ''a proud man, because she's really doing it for me, and I really appreciate her for that.''

For Amaka and Kojo, who had been accustomed to always using condoms together, PrEP changed the nature of their sexual relationship, as Amaka described: ''Since I met him, [he] was HIV positive. You can't just have sex, just like that, anywhere, anytime. You have to be really prepared and remember the condom. But it's really different now.'' Nina also stated that her sexual relationship with Jean Caleb was ''different…I mean, for a couple that has been pretty strict and rigid about, you know, a condom every single time, it's absolutely a different experience, not using anything.'' PrEP also helped her feel closer to her partner and better understand the experience of living with an HIV diagnosis: ''This process does help you, in some sense, to understand what it means to really take care of yourself. Taking a pill like my husband takes…it's a pretty sobering experience.''

Despite the natural conception efforts and increased sexual intimacy afforded by PrEP, participants voiced concern that PrEP and its benefits were not well known within the public sphere. There were multiple statements about how the media never publicized PrEP, and as a result, participants' communities and families had low awareness of methods that could help HIV-positive and serodiscordant couples lead healthy lives. These statements, as expressed by Hailey, reflected a strong sentiment that expanded advertising was needed to raise awareness of PrEP:

> Why live your life isolated and in fear? How you going to tell someone, ''I'm HIV positive,'' if the world doesn't know that there's a preventative? I'm surprised that nobody knows about Truvada. Why not spread that? Why not tell everybody? Because that solves a lot of isolation; it solves a lot of problems…If we can advertise for cancer, for diabetes, then we need to put Truvada out there for everybody to know that it's okay. Don't not like or be around or love someone just because [of HIV]. There's preventatives…I don't see Truvada in the media, but it should be, like you advertise everything else.

Increased public awareness of PrEP for safer conception through expanded advertising was thus viewed as a strategy that could help destigmatize HIV and normalize the relationship of serodiscordant couples.

Discussion

PrEP with timed intercourse is an efficacious, promising HIV prevention strategy for female-uninfected serodiscordant couples desiring children.[17,18,40] It offers an autonomous tool for women at risk for HIV infection by adding a layer of protection in cases of inconsistent viral suppression or intermittent viral shedding among women's HIV-infected male partners.[9,17] To improve the adoption of PrEP for safer conception in the United States, where there is a dearth of research specific to serodiscordant couples desiring conception and awareness appears to be low,[3,32,33,41] we qualitatively explored the relationships and experiences of heterosexual couples enrolled in the innovative PrEPception study.

From interviews with a sample of predominantly immigrant and minority couples attending an urban safety net hospital in the US Northeast, we identified several themes pertaining to couple relationships and social experiences that have implications for efforts to expand the uptake of PrEP for safer conception.

Specifically, we found that couple relationships were situated within broader community contexts that shaped their experiences with HIV and serodiscordant relationship status. Despite strong partner support within relationships, HIV stigma and disapproval of serodiscordant relationships contributed to couples' feelings of social isolation from their larger community despite otherwise strongly identifying as a contributing member of these communities, and subsequent aspirations to have normal families. By enabling natural and safer conception through condomless sex, PrEP provided couples with a sense of enhanced relationship intimacy. However, participants voiced concern regarding the lack of public awareness of PrEP and called for increased marketing through positive messaging as a way to combat HIV stigma. While several of these themes confirm findings of earlier studies in sub-Saharan African contexts,[29–31,42–45] they also carry several unique implications for improving serodiscordant couples' health and wellbeing in the United States.

First, we found that couple relationships were embedded within larger social and cultural contexts of immigration and community in which they sought integration and acceptance. While church participation provided social capital and a sense of identity, couples were reluctant to disclose their HIV or serodiscordant relationship status to families or communities and felt constrained to rely on each other for social support in coping with HIV. Stigma surrounding HIV and serodiscordant relationship status has been found to adversely affect PrEP uptake and adherence in sub-Saharan African settings,[30,43–45] from where stigma reduction intervention strategies have been adapted for use in US healthcare settings.[46] However, new and expanded efforts may be needed to combat HIV stigma and normalize and correct misconceptions about serodiscordant couples at the family and community levels in the United States.

Examples could be drawn from media campaigns developed for other health conditions, such as the ''NoStigmas Project'' and ''Be Vocal'' campaign for mental health.[47,48] Another strategy could involve engaging religious organizations that emerged as highly important for our sample. There is a growing body of evidence supporting the potential role of African American churches in raising community awareness and informing public service announcements to help destigmatize HIV.[49–52] Given the unique cultural and traditional belief systems that also emerged from interviews with couples in our predominantly immigrant and minority sample, additional research may be needed to identify methods to tailor such efforts to specifically target stigma

surrounding serodiscordant relationship status within the diverse immigrant communities represented.

A second implication of our findings is that PrEP may provide serodiscordant heterosexual couples with a method for safely expanding their families that is both more feasible and acceptable than available assisted reproduction techniques. For heterosexual couples such as those in our sample in which female partners are HIV uninfected, fertility treatments that can help reduce the risk of HIV infection (e.g., sperm wash with IUI and IVF) are often inaccessible and costly.[14] As previously described (M. Drainoni et al., unpublished observations), most couples in our sample had health insurance plans that covered PrEP, but not fertility treatments that were thus prohibitively expensive. For those with insurance that did cover more costly assisted reproduction techniques (sperm wash with IUI or IVF), most couples in our sample did not have infertility problems and were merely hoping to conceive safely. PrEP was therefore a more financially feasible option for safer conception (M. Drainoni et al., unpublished observations). Due to couples' cultural ideals regarding childbearing and having normal families, PrEP was also viewed as a more natural form of conception (i.e., through condomless sex) than available fertility treatments. In agreement with other studies of serodiscordant couples (e.g., in Kenya), a critical driver of PrEP uptake may be couples' desire to return to a sense of normalcy despite living with HIV.[41] Related to desires to feel normal, in our sample, PrEP was also viewed as a strategy for achieving conception naturally. While ensuring access to all types of safer conception alternatives is ideal, given the fiscal realities and preferences of serodiscordant couples, healthcare providers should take both these financial and sociocultural norms into consideration. Specifically, providers should thoroughly describe and explore all options with couples so they can actively participate in the shared decision making with their medical provider regarding plans for safer conception.[53]

Finally, couples in our study described PrEP as enhancing intimacy within their relationships, implying that efforts to increase awareness of PrEP should emphasize the positive, protective potential of PrEP to strengthen intimate, family, and other social relationships. Serodiscordant heterosexual couples in Kenya, where perceived stigma surrounding HIV and ART use may pose important barriers to PrEP uptake,[44] also viewed PrEP as reducing stress and increasing trust within their relationships[45]; these relationship benefits of PrEP could be worked into marketing campaigns that focus on the positive aspects of protecting relationships and keeping partners healthy. For example, the Chicago-based ''PrEP4Love'' campaign enlisted diverse models to depict different types of same-sex and heterosexual couples at risk of HIV transmission who could benefit from PrEP.[54] Couples also discussed that increasing awareness of PrEP would allow them to feel more comfortable with their serodiscordant status and decrease stigma they felt from their communities and families. Couples believed that more advertising and awareness would start more conversations and knowledge about serodiscordant status, helping to decrease feelings of social isolation. With input from the immigrant and minority couples in our sample and an enhanced understanding of the perceived relationship benefits of PrEP for safer conception, aspects of existing awareness-raising efforts could be adapted to be more relevant for PrEP for safer conception among heterosexual serodiscordant couples.

It is important to interpret our findings in light of several limitations of our study, including its small, qualitative nature and focus on a single site of recruitment. Additionally, our sample comprised of mostly foreign-born couples. Although this represents a population disproportionately affected by HIV serodiscordance, our findings may not reflect experiences that are informative for the larger population of serodiscordant couples seeking conception in the United States. Larger quantitative studies will be needed to more fully assess the feasibility, acceptability, and outcomes of this particular PrEP for conception protocol. However, we recruited racial/ethnic minority and foreign-born women who experience heightened vulnerability to HIV acquisition from HIV-infected partners,[55] and our sample included a high level of diversity in birthplace, immigration experience, and relationship characteristics.

Nevertheless, more research is needed to capture a variety of relationship experiences, particularly because PrEP has been conceptualized as a strategy that could help women in violent relationships or those who experience reduced partner cooperation,[56] factors that did not emerge in our interviews. Moreover, we sampled couples who selected PrEP as a method of safer conception; thus, our study did not address the full range of perceptions and decision-making processes that could have emerged had the sample included couples who chose different methods of safe conception. Further research should be conducted on couples' initial decision making process. Finally, we relied on self-reported experiences and perspectives that could have been subjected to social desirability; however, our trained interviewer assured participants of their confidentiality, and interviews were conducted privately and separately from partners.

Despite these limitations, we believe that the experiences couples conveyed carry important implications for efforts to expand PrEP awareness, acceptance, and uptake among serodiscordant heterosexual couples in the United States, where PrEP for safer conception remains understudied and underutilized. Our findings highlight the social and cultural contexts in which serodiscordant heterosexual couples experience social support and integration, struggle with stigma surrounding HIV and serodiscordant relationship status, and develop new and renewed interests in fertility and natural safer conception. These findings carry implications for efforts to decrease HIV stigma, increase community acceptance of serodiscordant relationships, and promote the awareness and adoption of PrEP for safer conception among US serodiscordant heterosexual couples.

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