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Prevention

"You Never Know What Could Happen": Women's Perspectives of Pre-Exposure Prophylaxis in the Context of Recent Intimate Partner Violence

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A B S T R A C T

Background: Vulnerability to human immunodeficiency virus (HIV) infection is a significant public health issue for women experiencing intimate partner violence (IPV). Despite the increased risk of human immunodeficiency virus infection, women only represent 4.6% of pre-exposure prophylaxis (PrEP) users in the United States. IPV may present additional difficulties to PrEP access. In this qualitative study, we examined how IPV and the relational context shaped women's decisions, attitudes, and engagement in the PrEP care continuum.
Methods: We conducted semistructured interviews with 19 women residing in Connecticut who participated in a prospective cohort study. We purposively recruited our sample to include women who reported physical and/or sexual IPV in the past 6 months, and used a grounded theory approach to analyze the qualitative data.
Results: Our findings suggest multiple ways that the relational context can affect women's decisions, attitudes, and engagement in the PrEP care continuum. We identified five aspects of women's relationships that can shape women's interest, intentions, and access to PrEP: 1) relationship power struggles, 2) infidelity, 3) trust and monogamy, 4) male partner's reactions, and 5) "season of risk" (i.e., PrEP use only during times of perceived human immunodeficiency virus risk). Collectively, these findings suggest that women experiencing IPV might face additional relational challenges that need to be adequately addressed in settings administering PrEP.
Conclusions: Communication on sexual risk reduction strategies should address relational factors and promote women's autonomy. Future research on long-acting and invisible forms of PrEP may help to circumvent some of the relational barriers women experiencing IPV may face when considering PrEP care.

Intimate partner violence (IPV) disproportionately affects women in the United States (Black et al., 2011) and is strongly associated with poor sexual and reproductive health outcomes (Decker et al., 2009; Silverman, Raj, & Clements, 2004; Stockman, Campbell, Campbell, Sharps, & Callwood, 2010; Willie, Callands, & Kershaw, 2018a; Willie, Stockman, Perler, & Kershaw, 2018e). IPV is defined as physical, sexual, and psychological harm by a current or former partner or spouse (Spivak et al., 2014); in the United States, it affects more than one in three women (37.3%) in their lifetime (Black et al., 2011). IPV can increase women's risk to acquire human immunodeficiency virus (HIV). Women who experience IPV may face difficulty negotiating safe sex practices with abusive partners owing to fear of violent retaliation (Campbell & Soeken, 1999; Overstreet, Willie, Hellmuth, & Sullivan, 2015). Also, the abusive nature of the relationship can place women at risk for sexual assault by a risky male partner, which directly affects women's HIV acquisition (Campbell &

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Soeken, 1999; Stockman, Lucea, & Campbell, 2013). IPV shapes women's risk of HIV through multiple co-occurring and reinforcing pathways (Dunkle & Decker, 2013; Stockman et al., 2013). Therefore, research focusing on optimizing and disseminating user-controlled HIV prevention methods is needed for this population.

Despite being the most innovative HIV prevention strategy to date, pre-exposure prophylaxis (PrEP) is underused by women in the United States. In 2012, the U.S. Food and Drug Administration approved the dissemination of PrEP, a daily oral medication HIV-negative persons can take to reduce their risk of sexually acquired HIV (U.S. Food and Drug Administration, 2012). PrEP has the potential to be a novel woman-controlled HIV prevention method because, unlike condoms, women are not required to negotiate its use with their sexual partners (Braksmajer, Senn, & McMahon, 2016; Willie, Kershaw, Campbell, & Alexander, 2017a). Although women represent 19% of all new HIV diagnoses in the United States (Centers for Disease Control and Prevention, 2017), only 4.6% of PrEP users are women (Siegler et al., 2018). Research investigating the implications of IPV among women interested and engaged in PrEP care may provide better understanding of this underuse. In particular, some studies found that women who experience IPV express high interest in PrEP as an HIV prevention method (Willie et al., 2017a; Willie, Stockman, Overstreet, & Kershaw, 2017b). However, women who experience IPV may also be concerned that their partner will try to control their access and adherence to PrEP (Willie et al., 2017b), which could quickly dampen women's intentions to receive PrEP. Further, the Partners PrEP demonstration study in Kenya and Uganda found that individuals who experience IPV had a three times higher odds of stopping their PrEP use than individuals without these experiences (Cabral et al., 2018) and also had an increased risk of low PrEP adherence (Roberts et al., 2016).

A growing body of research has examined associations between IPV and PrEP among women (Braksmajer, Leblanc, El-Bassel, Urban, & McMahon, 2018; Cabral et al., 2018; Garfinkel, Alexander, McDonald-Mosley, Willie, & Decker, 2016; Roberts et al., 2016; Willie et al., 2017a; Willie et al., 2017b; Wingood et al., 2013), yet few studies have investigated how relational factors shape women's engagement in the PrEP care continuum (i.e., interest, adherence, and retention; Nunn et al., 2017). To date, only two qualitative studies have illustrated ways in which IPV shapes PrEP acceptability (Braksmajer, Leblanc, El-Bassel, Urban, & McMahon, 2019) and adherence (Roberts et al., 2016) among women. Braksmajer et al. (2019) found that some barriers to PrEP acceptability among women experiencing IPV included concerns about side effects and potential partner interference. Also, Roberts et al. (2016) found that IPV affects women's PrEP adherence by compromising their psychological well-being (i.e., higher stress levels and memory disturbances); in addition, abusive partners sabotage women's PrEP medication use. These findings provide key insights and can be also expanded in two important ways. First, some of these findings only reflect the experiences of women engaged in a clinical trial as opposed to real-world community health and community-based settings. Some early PrEP demonstration studies in the United States suggest several structural, social, and clinical barriers to PrEP engagement such as cost and medical insurance coverage (Arnold et al., 2017) and "season of risk" (Namey et al., 2016), which may be more relevant in general community-based samples. Second, some of these findings largely focus specifically on adherence, which is along the distal component of the PrEP care continuum. It is possible that IPV and other relational factors may interfere with and/or facilitate women's engagement in the proximal components of the PrEP care continuum such as interest.

To address these gaps, the current study examined how women experiencing IPV navigate along the earlier stages of the PrEP care continuum in the context of an abusive relationship. Specifically, we examined how the relational context shaped 1) women's interest in PrEP, 2) women's future intentions to use PrEP, and 3) women's conversations surrounding PrEP with their romantic and/or sexual partner(s).

Methods

Setting

This study is set in Connecticut, where the lifetime prevalence of IPV reported by women (37.7%) is very similar to the national prevalence (37.3%) (Smith et al., 2017). In the context of HIV surveillance, Connecticut ranked 29th among the 50 states in the number of HIV diagnoses in 2015 (National Center for HIV/AIDS, V. H., STD, and TB Prevention, 2017) and the estimated rate of HIV diagnoses per 100,000 people in 2016 was 8.2 (National Center for HIV/AIDS, V. H., STD, and TB Prevention, 2015). Connecticut has been responsive in providing PrEP services. As of May 2017, there were 23 clinical and community sites registered with the Connecticut Department of Public Health that provide PrEP services, of which five had a formal PrEP Navigation program, a Department of Public Health HIV prevention intervention (Connecticut Department of Public Health, 2017).

Sampling and Recruitment

We purposively recruited women experiencing IPV who participated in a prospective cohort study examining factors influencing engagement in the PrEP care continuum (Willie et al., 2019; Willie et al., 2018d). Women were invited via phone using a standard script to complete a qualitative interview. Women were eligible if they reported physical and/or sexual IPV during their baseline survey. The identification of women with recent IPV was conducted solely to identify potential interview participants. For this study, IPV was defined as at least one physical and/or sexual abuse incident with a male partner in the past 6 months, and was assessed using the physical assault subscale of the Conflict Tactics Scale-2 (Straus, Hamby, & Warren, 2003) and the Sexual Experiences Survey (Koss & Oros, 1982). For the present study, we analyzed data from the semistructured qualitative interviews.

Qualitative Data Collection Procedures

Qualitative interviews were conducted between February 2018 and May 2018. During their participation in the cohort study, women were provided background information on PrEP via a self-administered survey, and they were offered a resource guide and business card with local PrEP providers' contact information. The PrEP background information included details on dosing, efficacy, and side effects. More details on the quantitative survey procedures can be found at Willie et al. (2019); Willie et al. (2018d). For the qualitative interview, participants were asked about their romantic and/or sexual relationships, challenges associated with communicating about HIV prevention, experiences in the PrEP care continuum (i.e., interest, uptake), and barriers and facilitators of PrEP uptake. Interviews were

completed either over the phone or in person in private rooms at the research study space, lasted between 30 and 90 minutes, and were audio recorded. Audio files were coded and transcribed verbatim. Participants were compensated with a $25 gift card. All interviews were conducted and coded by the same researcher. The Yale University Human Investigation Committee approved all study procedures.

Data Analysis

Interviews were coded and analyzed using a grounded theory approach (Strauss & Corbin, 1998). Initially, four interviews were used to open code for emerging themes. This preliminary data analysis co-occurred with data collection to ensure that emergent themes were being captured adequately. Analytical memos were created after each interview. The memos and open codes were discussed among a team of interdisciplinary researchers to develop a preliminary codebook. The preliminary codebook was used to code four initial transcripts. We discussed inconsistencies in code application and interpretation, confirming and disconfirming cases, and also provided an opportunity for reflexive discussion about the way that researchers' prior assumptions and experiences shape their interpretations. The codebook was modified and finalized based on these discussions. Using Dedoose Version 4.5 (2013), a single coder applied the finalized codebook, and coding questions were discussed as a team. All names were changed and randomly assigned pseudonyms to protect and maintain participants' identity.

Findings

Sample Characteristics

Table 1 provides sample characteristics. More than one-half of the women identified as non-Hispanic Black (52.6%), had less than a Bachelor's degree (68.4%), were unemployed (63.2%), and made at least $30,000 per year (52.6%). In the past 6 months, 42.1% of women reported both physical and sexual IPV, followed by physical IPV only (36.8%), and sexual IPV only (21.1%). The majority of women reported a history of inconsistent or no condom use (89.4%), followed by having multiple sexual partners (26.3%). In terms of PrEP attitudes and experiences, 31.6% of women were aware of PrEP before the cohort study started, 36.8% intended to receive PrEP after learning about it, and no women had a current PrEP prescription.

Table 1
Characteristics of 19 Women Experiencing IPV

Characteristic	*n* (%)
Age, mean (SD)	26.5 (5.8)
Race and ethnicity	
Non-Hispanic Black	10 (52.6)
Non-Hispanic White	3 (15.8)
Hispanic	3 (15.8)
Non-Hispanic other race	3 (15.8)
Highest completed education	
Less than bachelor's degree	13 (68.4)
Bachelor's degree or higher	6 (31.6)
Employment status	
Unemployed	12 (63.2)
Employed (full or part time)	7 (36.8)
Income status	
<$30,000	9 (47.4)
≥$30,000	10 (52.6)
Types of IPV experienced in past 6 months	
Physical and sexual IPV	8 (42.1)
Physical IPV only	7 (36.8)
Sexual IPV only	4 (21.1)
PrEP eligibility criteria	
History of inconsistent or no condom use	17 (89.4)
HIV-positive sexual partner	0 (0)
Recent STI	3 (15.8)
≥2 sexual partners	5 (26.3)
Commercial sex work	3 (15.8)
PrEP attitudes and experiences	
Aware of PrEP before study	6 (31.6)
Intended to receive PrEP	7 (36.8)
Had a current PrEP prescription	0 (0)

Abbreviations: HIV, human immunodeficiency virus; IPV, intimate partner violence; PrEP, pre-exposure prophylaxis; STI, sexually transmitted infection.

Themes

These sections describe how relational factors affect women's interest, discussions, and intentions surrounding PrEP. These findings address relational factors that act as barriers to women's interest and intentions to use PrEP, but also acknowledge potential facilitators. Finally, we discuss how these relational factors occur within the context of IPV and further complicate potential PrEP engagement for women.

Relationship Power May Shape Women's Access to PrEP

Women often shared their experiences of relationship power struggles that constrict their autonomy and well-being. Women's experiences of power struggles could interfere with their ability to access PrEP. For example, Stephanie discussed how her partner refuses to make compromises: "He's not willing to change or budge either. What he says is what it is, and how it goes. It can be a little challenging at times."

Several women discussed how these power tensions manifested themselves across multiple domains, including education and work. For example, Kia stated: "He can be controlling at times as well. He doesn't want me to work or go back to school. So, we get into fights about that." Similarly, Riley discussed how arguments develop because of disagreements on her work and education choices:

> Our values were not aligned in the relationship. . . . He had this idea that when women [have] babies, they stay at home all the time and they don't work and they don't go to school. But at the same time, he expected me to still continuously split all the expenses with him.

Maria also shared how her partner's expectations misaligned with her choices. She said, "He got really upset that I was going to school to try to do nursing. He felt as if I needed to be home [with the kids]. He wanted me to quit my job and sell my car and be at his beck and call."

The power dynamics that occur within women's relationships may impact women's sexual decision making. Some women described their lack of power during sexual decision making in their relationships. For example, Monica said: "Honestly, I would usually just give in to whatever they wanted to do. I would state what I wanted and if there was any resistance from them—[I would] basically just give in. Whether it was to use a condom or to not use a condom."

Collectively, relationships that reduce women's autonomy and agency in the context of economic and sexual decision-making may limits women's ability to afford, obtain, and access PrEP.

"Fearing the Unknown": Infidelity Affects Women's Decisions and Attitudes Toward PrEP

Although relationship power struggles may curtail women's access to PrEP, several women described concerns about infidelity as a motivating factor for their interest and intentions to use PrEP. For some women, their male partner committed infidelity in the past and, as a result, they were concerned that those behaviors would place them at risk for HIV. For example, Joseline described how nervous she was about HIV during her prenatal appointment because her partner had recently committed infidelity. She said:

> I knew that in the back of my head. But you never really know, like 100% sure what your partner is really doing. So, I would always feel like nervous and stuff. When I went to my prenatal appointment and I remember when they drew my blood, I was just so nervous. I didn't know how it was going to go.

Although Joseline had recently ended the sexual relationship with her male partner, she discussed how she would have used PrEP in that relationship by stating: "If I was to continue having a sexual relationship with my ex, I would consider taking it [PrEP]."

Some women had concerns about infidelity that stemmed not from specific incidents, but from an inability to account for their partners' time and interactions in other interpersonal relationships. This was particularly true for women whose male partner did not agree with the use of condoms as a form of HIV prevention. For example, Eva described how difficult it can be to use condoms with her male partner. She said:

> I always wanted to use them [condoms], because again he's a man and I don't know what he does when I'm not around. But he just gets very angry and says "You're my wife, I don't like them [condoms]. I'm not using them [condoms]."

In contrast with condom use, Eva expressed interest in and positive attitudes toward PrEP. She said:

> I'm having unprotected sex with my husband. So that just makes me feel like I would benefit from it [PrEP].

Similarly, Monica noted that PrEP is a good HIV prevention option for single women because of the possibility of infidelity:

> I am currently single. Although I just want to be with one person, sometimes it doesn't end up that way. I may know someone on one level but then I don't know what they are doing when I am not with them. I would like to be protected [by PrEP].

Trust and Monogamy Halts Women's Interest in PrEP as a Form of HIV Prevention

In contrast with infidelity being a motivating factor for PrEP, several women described trust and monogamy as the primary source of HIV prevention in their relationship. For example, Teresa said, "Like me and my boyfriend, we are just with each other and that's how we protect ourselves from HIV." They also described inconsistent condom use being inextricably linked with trust and monogamy. For example, Beth said, "After we went to the doctors and started knowing each other more, that's when we stopped having protected sex. But I think once or twice before we went to the doctor's and stuff, we were using [condoms] but after that no I guess we trusted each other." Similarly, Annette said, "In the beginning of the relationship we did [disagree on when to use condoms], and then after a while we were like 'You want to be with me forever? Like, Yeah alright so screw it.' And then we just didn't have to use them [condoms] afterwards."

As a result, women who described their relationship as trusting and monogamous felt that PrEP was not a good option for them. Beth describes how she would have taken PrEP before but she does not feel that PrEP is necessary in her current trusting relationship. She said:

> Back in the past, I would have taken it [PrEP]. Now probably not so much because I kind of trust the person I am with. So, I don't think I would take it now. I think I would still consider it [PrEP] but I don't think I would go through with taking it [PrEP] now.

Male Partner's Reactions to PrEP

For some women who talked to their male partner about PrEP, the male partner began to feel as though women's interest in PrEP signified their lack of trust in their male partner's behavior. For example, when Stephanie learned about PrEP from our study she discussed with her partner the possibility of getting PrEP and her partner was concerned. Stephanie said:

> I did mention it [PrEP] to him. I asked him what he thought about it [PrEP]. He was like. "Why do you want to do that [talk to the doctor about PrEP], do you not trust me?" I was like, "No, it's not about trust, just things happen sometimes and you're gone all day." You never know what could happen.

Several women described the reaction (or hypothetical reaction) of their male partner to be indifferent, which creates a space for women to harness their sexual autonomy and engage in PrEP care if they choose. For example, Brooke shared that she would tell her male partner after she received PrEP and would receive an indifferent response from him: "I will tell him that I am taking it [PrEP]. He's not going to care."

Vanessa described how her male partner would have an indifferent reaction to her use of PrEP, but would get offended if she suggested he took it. She said, "It would just spark his curiosity as to why. But I don't think he would make a huge deal about it unless I suggest that he take it as well."

Additionally, some women discussed how they would be concerned and/or fearful of their male partner's reaction if they were to express interest in or use of PrEP. For example, Monica stated:

> A woman being in a relationship with a man and how receptive he would be to her taking that [PrEP]. So even dealing with that fear. Because first of all, a guy would be like "Hey, if I'm just with you why would that be something you need to take [PrEP]? What else are you doing?" So that part would bring drama to the relationship.

Similarly, a few women felt that their male partner would be supportive of their interest in PrEP, even though their partner might not agree with or act indifferent toward her choice. For example, Erika said, "He was very supportive [of her interest in PrEP] it was just the fact that he took the guy side of it and said, 'I'm not doing anything so what do you need it for.' Like I'm just trying to protect myself."

Women's Interest and Intentions in PrEP Fluctuates With Their "Season of Risk"

Given the potential challenges of one's relationship, many women stated that their interest and intentions to use PrEP was

dependent on their relationship status at the time. For some women who were currently in a relationship at the time of the interview, they would use PrEP if their relationship ended and they were dating again. For example, one participant stated, "I think it's [PrEP] a really good thing to have, to prevent HIV. I personally don't think I would need it unless my boyfriend and I broke up and I started seeing another person or something along those lines."

Teresa described that she would be willing to consider PrEP if her partner's HIV status changed or if she was in a relationship with someone who was living with HIV. She said:

> If he [boyfriend] cheated on me then I decided to stay with him and whoever he cheated on me with gave him AIDS, but if I decided to stay with him, then "Yes, I would want to protect myself [with PrEP]. I don't want to subject myself to that [HIV]". . . Or if my boyfriend and I ended up not being together for some reason and I found somebody who had AIDS that I wanted to be with, then, "Yes I would use it [PrEP]."

A few women who became single recently did describe PrEP as an option when they started having a sexual relationship. A participant said:

> I thought about it like "Yeah, that [PrEP] would be a good idea when I get back out there on the dating scene." You know as an extra protection and because condoms can only protect you from so many things. . . . I thought about it for when I get back out there because it's a fucking scary place out there. You never know.

Discussion

To our knowledge, this is one of the first studies to examine how the relational context shapes the perspectives of PrEP among women experiencing IPV. Although women had relatively positive attitudes and thoughts toward PrEP as an HIV prevention option, our quantitative findings suggest very low levels of intentions to use PrEP and no women had actually received PrEP. The low levels of PrEP uptake among our sample is consistent with the national data stating that women represent only 4.6% of PrEP users (Siegler et al., 2018). Several qualitative studies among U.S. women have documented potential barriers of PrEP as low awareness, stigma, adequate insurance coverage for PrEP, and costs (Auerbach, Kinsky, Brown, & Charles, 2015; Flash et al., 2014). Social factors are important barriers to address, and our study adds to the current body of knowledge by describing how aspects of women's relationships further complicate their decisions, attitudes, and eventually uptake of PrEP. Similar to previous research on condom use and women's vulnerability to HIV, our findings from women's narratives express that power struggles, concerns of partner's infidelity, trust and monogamy, their partner's reactions, and their season of risk may either encourage or discourage women from intending to use PrEP. In general, although an abusive relationship can create an unstable environment where relationship conflicts affect women's willingness to engage in PrEP, some women seem to be able to navigate this relationship space and may be open to engaging in PrEP.

In the context of PrEP, women did not directly discuss IPV as a potential barrier, but indicated how other aspects of relationships such as power struggles may limit their access to PrEP. In this study, women reported having conflicts with their partner surrounding education pursuits, condom use, and employment. IPV can limit women's sexual decision-making power (i.e., condom use negotiation) (Dunkle et al., 2004; Teitelman, Bohinski, & Tuttle, 2010), and increase the risk of inconsistent condom use and sexually transmitted infections. IPV can also interfere with women's work attendance and productivity (Adams, Sullivan, Bybee, & Greeson, 2008; Postmus, Plummer, McMahon, Murshid, & Kim, 2011), which could lead to economic dependency and limit women's ability to leave abusive relationships. Women whose abusive partners prohibit them from advancing their education and earning an income might experience financial difficulties that could limit their access to PrEP (e.g., affordability).

The narratives of women experiencing IPV suggest that infidelity is a particular concern and could be one way to facilitate women's interest in PrEP. Although several women reported loving their partner, they also expressed concerns and suspicions of their partner's infidelity. These qualitative findings are consistent with a number of studies showing that male perpetrators of IPV engage in risky sexual behaviors, specifically sexual infidelity and concurrent partnerships (Decker et al., 2009; Dunkle et al., 2006; Silverman, Decker, Kapur, Gupta, & Raj, 2007). Women's concerns of sexual infidelity and concurrent partnerships by their male partners could reflect the adoption of sexual scripts and gender-based power imbalances within the relationship. Sexual cultural scripts are socially constructed roles that guide sexual behaviors among women and men (Byers, 1996). These scripts indicate that women have "few sexual needs" and "view sex as synonymous with love," whereas men have "strong sexual needs" and "are obsessed with sex." Male perpetrators of IPV have a strong adherence to sexual cultural scripts (Willie, Khondkaryan, Callands, & Kershaw, 2018c) and traditional masculine norms (Reidy, Berke, Gentile, & Zeichner, 2015; Santana, Raj, Decker, La Marche, & Silverman, 2006), which could make them believe that their sexual infidelity is legitimate. For women experiencing IPV, accusations of sexual infidelity could be a trigger for a violent event (Buss & Duntley, 2014; Nemeth, Bonomi, Lee, & Ludwin, 2012). Therefore, women may feel more comfortable using a user-controlled HIV prevention method such as PrEP instead of communicating with their partner about sexual infidelity.

Women experiencing IPV using "mutual" monogamy and trust in the relationship were not interested in PrEP, which is consistent with previous research on condom use in heterosexual relationships (Amaro, Raj, & Reed, 2001; Katz, Fortenberry, Zimet, Blythe, & Orr, 2000; Riehman, Wechsberg, Francis, Moore, & Morgan-Lopez, 2006). Trust within a relationship provides a safety net where women's perceived vulnerability to HIV and other sexually transmitted infections is decreased (Crosby, 1999). Similarly, perceived mutual monogamy inhibits safe sex practices such as condom use (Conley, Matsick, Moors, Ziegler, & Rubin, 2015). Qualitative studies with women experiencing IPV also confirm that monogamy is important and believed to be practiced by both partners (Hearn, O'Sullivan, El-Bassel, & Gilbert, 2005). However, these studies also found that nonmonogamous male partners would become suspicious of women's fidelity because they were projecting their own behaviors, which led to acts of violence against the women (Hearn et al., 2005). Our findings suggest that some women may feel that the trust in their relationship would be challenged by their use of condoms and other forms of HIV prevention such as PrEP. Many women who felt this way were not interested in PrEP, even though they could likely use it without their partner's knowledge.

PrEP has the potential to be one of the few user-controlled HIV prevention methods; however, narratives with women experiencing IPV show that male partners' reactions have an influential role in their interest and intention to use PrEP. For some women, their male partners would react negatively to discussions of PrEP and interpret women's interest as a sign of mistrust. This finding is consistent with a study that found male partners reacted to the PrEP vaginal gel as a sign of mistrust (Montgomery et al., 2011). However, some women were fearful of broaching the topic of PrEP or disclosing to their partner that they were using PrEP. For some women experiencing IPV, PrEP discussions and disclosure of PrEP use could signal to a male perpetrator that either partner was engaged in concurrent sexual partnerships. This situation could lead to a violent event (Buss & Duntley, 2014; Hearn et al., 2005; Nemeth et al., 2012) and, to prevent violent retaliation, it may be easier for some women to avoid PrEP altogether. Contrary to these findings, some women experiencing IPV did share that their male partner reacted indifferently toward their potential use of PrEP. These reactions are inconsistent with previous research demonstrating male partner's coercion for reduced HIV prevention efforts (e.g., inconsistent condom use) among women experiencing IPV (Silverman et al., 2011; Teitelman et al., 2010; Teitelman, Tennille, Bohinski, Jemmott, & Jemmott III, 2011). However, it is possible that some women experiencing IPV are able to navigate their relationship in such a way that they can express their sexual autonomy, the ability to control and express one's sexual life (Willie et al., 2018a). Women's sexual autonomy can be an important skill in heterosexual relationships; some research shows a significant protective effect against sexually transmitted infection acquisition for both partners (Willie et al., 2018a). Although the women from our sample did not have PrEP at the time of the interview, future research should use a positive deviance approach and identify women experiencing IPV who have successfully engaged in the PrEP care continuum to understand PrEP uptake facilitators and disseminate autonomous engagement strategies to other women.

Despite women's positive attitudes toward PrEP, women described their interest and intentions to use PrEP as a dependent function of their relationship status. In particular, some women did not feel that PrEP was necessary unless their current relationship ended and they began dating other people. This finding is consistent with two qualitative studies that found women stopped using PrEP because their perceived season of risk ended (Namey et al., 2016; Watnick, Keller, Stein, & Bauman, 2018). Season of risk recognizes that a person may only use PrEP during perceived times of increased risk of HIV infection such as during the dating period, the beginning of a relationship, and when trying to conceive (Namey et al., 2016). Further, women's season of risk may be further complicated in an abusive relationship. For example, women experiencing IPV are at increased risk of PrEP interruptions (Cabral et al., 2018) and low adherence (Roberts et al., 2016). Further, our findings indicate that women perceived their abusive partners to be reluctant to support their PrEP interest. It is possible that the abusive partner's reluctant reaction made some women think they were not at risk for HIV infection, which can dampen enthusiasm for PrEP.

The current study sought to understand how relational factors shaped women's engagement in PrEP care; however, it is important to understand these findings within the context of other important social determinants of health. Our sample comprised a large proportion of women who identified as African American or Black, had less than a bachelor's degree, and were unemployed. African American women are disproportionately affected by HIV compared with women in the other racial and ethnic groups in the United States (Centers for Disease Control and Prevention, 2017). African American women also experience high rates of IPV (Black et al., 2011). Structural oppression such as racism, sexism, and classism can create and maintain inequalities (e.g., access to health care services, economic dependence) that can place African American women at risk for poor health outcomes (Willie et al., 2017a; Willie, Kershaw, & Sullivan, 2018b), and exacerbate IPV-related health consequences (Stockman & Gundersen, 2018; Stockman, Hayashi, & Campbell, 2015). Recent epidemiological data suggest that African American women are less likely to use PrEP than women in other racial groups (Bush et al., 2016). Future interventions seeking to address racial disparities in women's HIV infections by increasing PrEP uptake among African American women should devise innovative ways to address the intersections of IPV and other social determinants of health (e.g., income, access to health care). For example, PrEP providers and other healthcare providers who are trained to provide culturally congruent, trauma-informed care might be needed to increase PrEP uptake among African American women, especially women experiencing IPV.

The current study describes the perspectives and experiences of PrEP among women experiencing IPV. However, there are some limitations to our findings owing to the study's sampling methods. Women involved in the qualitative study had to participate in the larger prospective cohort study on the feasibility of PrEP among women in relationships with male partners. Therefore, the attitudes and experiences of women in the qualitative portion could have been informed from the involvement in the larger study. For example, several women noted that they first learned about PrEP through their participation in this larger study. Additionally, these women were purposively sampled because they reported physical and/or sexual IPV in the past 6 months during the baseline survey. As a result, we are unable to discuss whether these findings would resonant for women who did not experience IPV. However, emerging literature on PrEP acceptability among women in the United States would suggest that some of our themes, in particular seasons of risk and trust and monogamy, would be relevant for women who did not experience IPV (Montgomery et al., 2015; Namey et al., 2016). Our small sample size did not allow for a further exploration of our findings based on the type of IPV experienced. Also, we did not include women who experienced other forms of IPV such as psychological IPV and controlling behaviors. Emerging research suggests a link between psychological IPV and women's sexual HIV risk behaviors (Overstreet et al., 2015), but psychological IPV tends to co-occur with physical and sexual IPV (Sullivan, McPartland, Armeli, Jaquier, & Tennen, 2012) and thus we are less concerned that this limitation affects the transferability of our findings.

Implications for Practice and/or Policy

Despite these limitations, this study is among the first to describe the perspectives and experiences of PrEP among women experiencing IPV. To our knowledge, very few studies have exclusively focused on the needs and concerns of this vulnerable population in PrEP research. Women experiencing IPV might experience additional relational difficulties and challenges that should be adequately addressed in clinical settings administering PrEP. For example, our findings suggest that trust

and monogamy represent potential barriers to PrEP intentions among women experiencing IPV. When assessing women's risk for HIV, routine screening for IPV needs to be conducted and, if disclosed, clinicians should explain to women how IPV and abusive relationships can impact their risk of HIV infection. Strategies on communicating sexual risk reduction in the context of IPV can be developed in collaboration with domestic violence agencies and medical providers (Willie et al., 2017b). Owing to gender-based power imbalances, sexual risk reduction (e.g., condom negotiation) might be difficult to achieve in the relationships of some women experiencing IPV. Thus, it is critically important to promote clinical and behavioral research on the feasibility of long-acting forms of PrEP (e.g., injections). The long-acting forms of PrEP might offer an avenue for women to circumvent the relational barriers to PrEP engagement such as male partners' negative reactions to PrEP, while also providing some alternative forms of user-controlled HIV prevention.

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