



Published in final edited form as:

Arch Sex Behav. 2020 August ; 49(6): 2117–2128. doi:10.1007/s10508-020-01683-1.

Perceptions of PrEP use within primary relationships among young Black gay, bisexual, and other men who have sex with men (MSM)

Katherine G. Quinn¹, Meagan Zarwell², Steven A. John¹, Erika Christenson¹, Jennifer L. Walsh¹

¹Medical College of Wisconsin, Department of Psychiatry and Behavioral Medicine, Center for AIDS Intervention Research, Milwaukee, WI

²University of North Carolina, Charlotte, Department of Public Health Sciences, Charlotte, NC

Abstract

A significant proportion of new HIV infections among gay, bisexual, and other men who have sex with men (MSM) occur within primary relationships. Although PrEP use continues to increase, there is a need to better understand the factors that contribute to PrEP decision-making within primary relationships. We qualitatively examined how relationship context influences perceptions of PrEP and decisions to initiate and discontinue PrEP among young Black MSM to provide a nuanced understanding of PrEP use within relationships. Between late-2017 and mid-2018 we conducted ten focus groups with young Black MSM ($n=80$) in Milwaukee, WI, Minneapolis, MN, Kansas City, KS, and Detroit, MI. We used inductive thematic analysis to examine how young Black MSM make decisions about PrEP use within the context of primary relationships. We identified three primary themes: 1) perceptions of PrEP as an indication of distrust and infidelity, 2) perceptions of PrEP use as necessary, even in primary relationships, and 3) the influence of partners on PrEP. Our results demonstrate the considerable variation in how young Black MSM view PrEP within primary relationships and the influence of primary partners in PrEP use decisions. The dynamics between two or more individuals can shape an individual's conceptualizations of and decisions around PrEP use, and these may be key drivers of racial disparities in HIV and PrEP use.

Keywords

Pre-exposure prophylaxis (PrEP); relationships; Black men who have sex with men (MSM); HIV prevention

INTRODUCTION

Between 2010 and 2015, racial and ethnic disparities in HIV incidence increased among gay, bisexual, and other men who have sex with men (MSM) in the United States. In 2015, HIV

incidence rates among Black MSM were 10.5 times as high as the rate among white MSM (compared to 9.2 times as high in 2010; McCree et al., 2019). One factor contributing to increasing HIV disparities may be the racial and ethnic disparities in use of HIV pre-exposure prophylaxis (PrEP; Goedel et al., 2018). Since 2014, there has been a 500% increase in PrEP prescriptions, yet Black persons received only 10% of those, despite accounting for nearly half of all HIV incidence (Bush et al., 2016; Maulsby et al., 2014). Although awareness of PrEP among racial and ethnic minority MSM is increasing (Finlayson et al., 2019), compared to their white counterparts, Black MSM are significantly less likely to use PrEP (Kanny et al., 2019).

MSM in primary relationships tend to have low HIV risk perception (Stephenson et al., 2015), yet data indicate that 32–68% of new HIV infections among MSM occur through main partnerships (Goodreau et al., 2012; Sullivan, Salazar, et al., 2009). Stable primary partnerships can reduce perceived need and desire to use condoms and emotional or physical intimacy is a frequently-cited motivator for condomless sex (Gamarel & Golub, 2019; Starks et al., 2014). Within primary and monogamous relationships, condomless sex can be seen a symbol of love, trust, and commitment (Díaz & Ayala, 1999; Rhodes & Cusick, 2000). Similarly, relationship status may contribute to decisions about PrEP use (Starks et al., 2019; Whitfield et al., 2018). Partnership dynamics, including perceived risk of sexual partners and changes in sexual risk trajectories, are likely key drivers of PrEP decision-making among couples (Hojilla et al., 2016). Given the promise of PrEP in reducing new HIV infections and curbing racial disparities in HIV (Jeness et al., 2018), and the high incidence of HIV occurring within primary relationships (Goodreau et al., 2012; Sullivan, Hamouda, et al., 2009), research is needed to understand perceptions of PrEP within the context of primary partnerships.

The majority of research on PrEP use among couples has focused on HIV-serodiscordant MSM, where HIV-negative partners have expressed high levels of PrEP adoption intentions (Brooks et al., 2011, 2012). The Partners PrEP study examined PrEP adherence among HIV-serodiscordant couples and found that PrEP provided partners with a sense of opportunity, whereby couples could safely have condomless sex (Ware et al., 2012). Less research has focused on seroconcordant relationships among MSM who are HIV-negative. Golub and colleagues found no difference in PrEP adoption intentions among MSM in romantic relationships compared to single MSM (Golub et al., 2013). In a diverse sample of MSM, Gamarel and Golub found that desire for intimacy was among the strongest predictors of PrEP intentions for men in primary relationships, as PrEP facilitated safe condomless sex (Gamarel & Golub, 2014). Other studies have similarly found that PrEP can promote increased sexual pleasure and decrease anxiety among MSM (Hojilla et al., 2016; Mabire et al., 2019).

Data on ways in which relationship contexts influence perceptions of and decisions to use PrEP among young Black MSM remains limited. Notably, the majority of research on PrEP use within primary relationships has been with samples of primarily white MSM. This is important, as there are documented racial differences in relationship and sexual partnership characteristics among MSM. For example, Black MSM tend to have less condomless sex and have more racially homophilous sexual networks than other racial and ethnic groups

(Newcomb & Mustanski, 2013). Additionally, Black MSM more often face distal structural factors including poverty (Sullivan et al., 2014), racism, homonegativity (Quinn & Dickson-Gomez, 2016; Quinn, Bowleg, & Dickson-Gomez, 2019), more limited social support networks than white MSM (Zarwell & Robinson, 2019), and challenges accessing healthcare (Quinn, Dickson-Gomez, Zarwell, Pearson, & Lewis, 2019), which may shape their relationship experiences and access to and interest in PrEP. Research with Black MSM is needed to better understand how relationship factors influence PrEP decision-making and inform intervention development in an effort to reduce racial disparities in HIV incidence and PrEP use. We examined how relationship context influences perceptions of PrEP and decisions to initiate and discontinue PrEP among young Black MSM.

METHODS

We analyzed qualitative focus group data from two mixed-methods studies designed to understand PrEP use, adherence, barriers, and facilitators among young Black MSM in several mid-size midwestern cities in the United States. The first study (referred to throughout as Study One) aimed to understand how various forms of stigma and oppression affect PrEP awareness and uptake among Black MSM, aged 16–25. In late 2017 and early 2018, we conducted four focus groups with 44 young Black MSM living in Milwaukee, WI ($n=44$). Eligibility criteria included cisgender men between the ages of 16 and 25 who identified as Black or African American; gay, bisexual, or had sex with another man in the previous 24 months; and self-reported negative or unknown HIV status. Current and former PrEP users were eligible, although PrEP use was not part of our inclusion criteria for this study. The second study (referred to throughout as Study Two) aimed to understand barriers and facilitators to PrEP adherence among young Black MSM. In early 2018, we conducted six focus groups in four mid-size midwestern cities: two in Milwaukee, WI; one in Minneapolis, MN; two in Detroit, MI; and one in Kansas City, MO ($n=36$). Eligibility criteria included cisgender men who were current or former PrEP users between the ages of 18 and 30 who identified as Black or African American and gay, bisexual, or otherwise reported having sex with men. In both studies, focus groups aimed to identify and discuss perspectives on PrEP including factors that contribute to PrEP decision-making. Focus groups are useful to explore cultural norms and expectations, and the interactions among participants can increase the depth of our understanding about perceptions of PrEP among young Black MSM (Patton, 2002).

The same research team designed and conducted the focus groups for these studies and both studies followed similar protocols. Purposive samples were recruited through partnerships with HIV and LGBTQ youth-focused service providers, health clinics, STI/HIV testing centers, and PrEP providers. Key staff at these organizations hung flyers and distributed materials in person and electronically (e.g. via the organization's website, Facebook page, and other social media sites) to potentially eligible participants. Interested participants were screened for eligibility by phone and scheduled for a focus group. Prior to the start of each focus group, individuals completed a brief demographic form and the informed consent/ assent process. Focus groups were held in community settings, conducted during weekend and evening hours to accommodate school and work schedules, and lasted approximately 90 minutes. Upon completion of each focus group, all participants received \$50 cash incentives

for their time. Both research protocols were approved by the Institutional Review Board at the Medical College of Wisconsin.

Focus group content

Semi-structured focus group guides ensured consistency in discussion of broad topics, while providing flexibility to probe and follow-up as needed and follow participants' direction of the conversation. The focus group guides for each study identified: 1) patterns of PrEP use and adherence, 2) the influence of relationship status on PrEP decision-making, 3) barriers and facilitators to PrEP use and adherence, and 4) PrEP stigma, and 5) perceptions and stereotypes of PrEP users. One research associate, who identifies as a Black gay man, facilitated all 10 focus groups to ensure consistency in the facilitation style of structured discussions and to allow for conversational patterns to explore emergent lines of inquiry.

Data analysis

Both studies followed similar analysis procedures. All focus groups were audio-recorded, transcribed verbatim, and coded using MAXQDA qualitative analysis software to categorize the data. We used a team-based multi-stage analytic coding strategy (Corbin & Strauss, 2015). First, all transcripts were coded with focus group characteristics (e.g. study city, number of current PrEP users in the group). Then, a team of four independent coders used open coding to code a randomly selected transcript line-by-line, generating the initial codebook (Saldana, 2016). We discussed code definitions, discrepancies in application, and refined the codebook until we reach consensus on relevant codes to include in the codebook. We then applied the initial codebook to another focus group, discussed discrepancies, and refined the codebook until we reached consensus. For Study One, the final codebook included a total of 25 parent codes and 46 subcodes. For Study Two, our final codebook included 36 parent codes and 52 subcodes. Both codebooks included a combination of emergent codes and a priori codes from relevant public health literature to adequately organize the data (Saldana, 2016). Examples of parent codes relevant to these analyses include motivations for using PrEP, PrEP use in primary relationships, PrEP breaks, and perceptions of PrEP users. Axial coding was used to identify dominant codes, and group and draw connections among codes (Boeije, 2002). All ten focus group transcripts were coded twice by two members of the research team to refine codes and ensure adequate application of codes. Coded focus groups were then analyzed using thematic analysis to identify themes and understand narratives around PrEP among young Black MSM in primary relationships (Braun & Clarke, 2006). We read through coded segments of the data to analyze content and patterns in the data, seeking to identify and relationships among codes and themes. This was an iterative process that included reading the entire data set, analyzing the coded segments, considering relationships among codes, and writing about identified themes (Braun & Clarke, 2006).

RESULTS

In total, we had 80 young Black MSM participate in 10 focus groups, six of which occurred in Milwaukee. In Study One, we conducted four focus groups with 44 young Black MSM in Milwaukee, WI. In Study Two, we conducted six focus groups with 36 young Black MSM

Milwaukee (two groups; $n=18$), Minneapolis ($n=7$), Detroit (two groups; $n=6$), and Kansas City ($n=5$). Sample characteristics for both studies are presented in Table 1. In the total sample, the mean age of study participants was 23.9 (SD 3.5). The majority of participants identified as gay ($n=58$, 73%). Half were single or reported only casual sexual partners ($n=44$, 55%), 10 (13%) were casually dating 1 or more individuals, and 25 (31%) were married or in primary relationships. The primary difference between the two study samples was in PrEP use. Over two-thirds of participants in Study One had never used PrEP ($n=34$, 77%). In contrast, because current or prior PrEP use was an eligibility criterion for Study Two, 75% ($n=27$) were current PrEP users and 25% ($n=9$) had previously used PrEP.

We triangulated data (Patton, 2002) from these two similar studies to examine how relationship status, particularly primary partnerships among HIV-negative partners, influenced perceptions of and decisions surrounding PrEP use for young Black MSM. Importantly, study participants defined their relationship status using various terms (e.g. “boyfriend,” “husband,” “committed,” etc.) and it was clear that relationship status and expectations of monogamy within a partnership often changed over time. For this study, we use the term ‘primary relationships’ to define those in which study participants described a main partner or boyfriend. Primary relationships were frequently, but not necessarily monogamous. This distinction is made throughout our results.

Participant narratives and dynamic conversations within focus groups revealed the complexity of PrEP decision-making within the context of primary relationships. We identified three themes in our inductive analyses that help contextualize PrEP use within primary relationships among young Black MSM: 1) perceptions of PrEP as an indication of distrust and infidelity, 2) perceptions of PrEP use as necessary even in primary relationships, and 3) the influence of partners’ perspectives on PrEP. As described within the first theme, for some individuals, PrEP was seen as unnecessary in primary relationships and as an indication of distrust and infidelity, particularly in monogamous relationships. In contrast, the second theme explores how some individuals conceptualized PrEP as an individual health decision and private act of love for themselves and their partners. We explore both of these perspectives on PrEP use in primary relationships, as well as the influence of partners’ views on PrEP, as described in theme three. Our results are organized around these themes and excerpts from the 10 focus groups are used to illustrate key findings.

“If y’all can’t trust each other, it’s not a real relationship:” PrEP use as an indication of distrust and infidelity in primary relationships

There were focus group participants in both studies, including never-, former-, and current-PrEP users, who viewed PrEP as an interference on and unnecessary in primary relationships. For example, participants in one focus group described not using PrEP while in a relationship as a demonstration of commitment and trust.

Facilitator (F): For those of you that aren’t in serious relationships, if you were in a serious relationship, do you think you would stop taking PrEP?

(Several participants say “yes”)

F: You would? Why?

Participant 1 (P1): I mean, that's the reason why. My risk is not that high anymore. So, if I felt like if somebody gained that trust and I mean you don't necessarily have that risk, why are you wasting the resources? I mean not to say that you shouldn't still protect yourself, but I just felt like if a person has that trust, you don't necessarily have to worry about it.

P3: So, when I went into my relationship, I stopped taking it right away. For me, I felt like it showed trust. I felt like if that pill's harming my bone [density], then why should I be taking it if I'm not at risk? And remembering to take it, so I cancelled it altogether, I'm in a monogamous relationship. (Study Two, Minneapolis)

As participant one (P1) explained, once he had a trusted, primary partner, there was no longer a need for PrEP, as his perceived HIV risk decreased. Similarly, participant three noted that upon starting his monogamous relationship, discontinuing PrEP use was a way to demonstrate trust to his new partner. He also mentioned the potential loss of bone density as a side effect of Truvada, noting a desire to minimize potential risks of a medication that he perceived himself to no longer need.

Conversations about PrEP use in primary relationships were closely intertwined with perceptions of trust and suspicions of infidelity. In a group of primarily non-PrEP users, participants disagreed about whether they would want their partners to take PrEP:

F: Would you look at that as more of a good thing or a bad thing overall if your boyfriend told you he was on PrEP?

P10: I look at it as a bad thing ... because you shouldn't be having sex with nobody else.

(group disagreement)

P10: I'm just sayin', like, don't ...

F: I hear what you're sayin'. So you automatically will hear him telling you he's on PrEP, automatically associate with possibly him cheatin' on you.

P10: Right. If you like taking pills just out of nowhere, I'm gonna ask you, like, "What the hell?" I be sittin' there thinking about it all day, you know, the two of us everywhere, just be thinking about it all day, like, "Why you wanna be on that?" (Study One, Milwaukee)

Importantly, concerns about infidelity were strongest when participants, like the individual quoted above, discussed current primary partners who "out of nowhere" wanted to initiate PrEP. For men in primary relationships where neither partner was using PrEP, the idea of one partner initiating PrEP generated significant concerns among participants in all groups, raising suspicion of infidelity and distrust. For newer partners or situations where partners were using PrEP prior to entering a primary relationship, the reactions to learning a partner was using PrEP were not always negative as described above.

In the following exchange, participants disagreed about the roles of PrEP and trust in relationships. In this group, participants were discussing a scenario in which someone was ‘not allowing’ their partner to be on PrEP, as it was perceived as an indication of infidelity. The conversation begins with one participant suggesting such behavior was controlling and an indication of distrust itself:

P7: Honestly, ‘cuz if you feel like your partner can’t be on PrEP or your partner don’t have to wear condoms, you really don’t trust him, that’s basically holding him on with a leash. You saying you having sex with me unprotected, so you can’t have sex with nobody else unprotected. But the thing is, they gonna do what they want. They grown.

P10: It’s funny how like, protection and contraceptives, like they supposed to protect you and keep you safe, but they throw daggers in relationships, because it make them trust triggers go off.

(Group agreement)

P10: Like why do we need that if it’s just a me-and-you type of thing?

P11: If y’all can’t trust each other it’s not a real relationship. If nobody don’t trust, I think alarms go off for anything. If I can’t trust you and you can’t trust me, it’s no relationship. It’s a friendship.

P9: So you argue that because, like I said, you never know. You’re never around a person like 24/7. And if you’re gonna lie, you’re gonna lie about anything, especially something like that. (Study One, Milwaukee)

These exchanges highlight a tension evident within the groups about sexual norms and expectations among MSM, which made it difficult for participants to navigate PrEP use within primary relationships. Infidelity, “slip-ups,” and concurrent sexual relationships were seen as normative and expected among many participants, leading some participants to believe they had to protect themselves regardless of whether they were in a primary or monogamous relationship. The perceived inevitability of infidelity that was evident among some participants reflects common stereotypes about MSM as promiscuous and unable to be monogamous. Other participants, however, challenged the notion that partners could not be trusted, stating, “If y’all can’t trust each other, it’s not a real relationship.”

“I got my back when everybody else don’t got it.” PrEP use as necessary, even in primary relationships

In contrast to those who were more apt to question the role of PrEP in primary relationships, some study participants perceived PrEP to be necessary, regardless of relationship status. Most frequently, participants who were strong advocates of PrEP use in primary relationships viewed PrEP as symbolic of self-love and respect. Even among individuals in Study One who had never used PrEP, several expressed positive sentiments about PrEP users. When asked how they would react to learning a potential partner was on PrEP, one non-PrEP user said “It’d turn me on! C’mon! Gonna be safe, girl.” (Study One, Milwaukee).

He went on to explain that knowing that a partner cared about himself and was “keeping himself up” was attractive. While there was evidence of skepticism and stigma surrounding PrEP, the overarching narrative within the groups was that PrEP was an opportunity for individuals to protect themselves against HIV, regardless of relationships status. In another Milwaukee group, PrEP was conceptualized as a personal opportunity to love oneself and protect against HIV, rather than a reflection of one’s trust of or commitment to their partner.

P4: [My friends] mostly say, “What’s PrEP?”, and I explain it and they’re like, “Okay. Why?” I tell them, “Like, just ‘cuz it’s a better protection for me. For me to know that I’m always safe and like that I got my back when everybody else don’t got it.”

P3: And that’s a good way to look at it, “I got my back when nobody else got it.” (Study One, Milwaukee)

As this exchange illustrates, many PrEP users perceived PrEP as a way to have control over their sexual health. This also reflects a broader perspective several participants shared, that they could only trust themselves. This was evident in the way another participant described his PrEP use to his partner:

P1: I ain’t sayin’ I don’t trust you, but right now, I’m gonna love myself a little bit more and pop this blue pill every day. (Study One, Milwaukee).

Individuals who endorsed PrEP use (for themselves or others) also thought highly of their partners who used PrEP. One participant in Minneapolis described his former partner’s PrEP use by saying, “It was sexy just to know [he] cared,” perceiving his primary partner’s use of PrEP as an opportunity for his partner to demonstrate he cared about the health of himself and his partners. Several participants similarly spoke highly of their partners who were using PrEP, with one participant describing PrEP users as “smart.”

P5: I look at it like, “You’re smart. You’re on the pill, you’re smart.” To not be on it is like, ugh, to me. Why not be? If it’s out here for you, why not? (Study Two, Minneapolis)

Perceiving PrEP as an act of self- and partner-love and empowerment contributed to the belief that PrEP use was important, even in primary relationships.

F: How might your relationship status affect your decisions on PrEP use? Like if you’re in a serious relationship, do you think that you would still be taking PrEP?

P2: I do! I think like the last person I caught myself seriously dating was on PrEP as well, and that was like a thumbs up on both our behalves. It opened-up a conversation. So, I can see that if we have become something official or long term, we’d still would have been on PrEP together. That was just like our basket of options—if that’s what you call it—our tools for the toolkit. (Study Two, Detroit)

As this participant in Detroit described, in his last serious relationship, both he and his partner were taking PrEP, which facilitated a discussion around safe sex and was another “tool for the toolkit” in terms of sexual health. For participants like him, PrEP was not seen as stigmatizing or a reflection of one’s lack of commitment to the relationship; rather, PrEP

was a demonstration of love and respect. This was similarly evident in a discussion in Milwaukee:

P2: Why does PrEP equal promiscuity? That's my whole argument. [My partner] just wants to be safe. Let him be safe. I mean, we sleeping together. I trust you, you trust me. I automatically wouldn't jump to that he's stepping out on me because he wants to protect himself. (Study Two, Milwaukee)

Participants like the individual quoted above, who saw a place for PrEP within primary relationships, frequently questioned PrEP stigma and the stereotype that "PrEP equals promiscuity." They conceptualized PrEP as an opportunity for self-care and protection, rather than a reflection of one's sexual behaviors.

PrEP use in primary relationships was also frequently seen as an opportunity to have safe, condomless sex, easing the burden of anxiety around HIV. For the majority of PrEP users in these focus groups, PrEP use did not necessarily facilitate condomless sex. That is, for those who were already inconsistently using condoms, lack of condom use continued upon initiating PrEP. Individuals who were consistently using condoms prior to initiating PrEP reported continuing to use condoms, especially with non-primary partners.

P4: Well, for me, I've never liked condoms, and that was just a part of wanting to get on PrEP anyway. But I think because I'm so selective and discerning ... not that you can tell or anything. (Study Two, Kansas City)

For some, like the participant above, dislike of condoms was a motivating factor to initiate PrEP. Importantly, this participant also suggested that his willingness to forego condoms was partly related to his perception of being "selective and discerning," inferring that he only had sex with individuals who are not living with HIV. Several participants in our focus groups described the fears they had around contracting HIV and expressed hesitation around having sexual partners who were living with HIV. The perceived consequences associated with living with an HIV diagnosis weighed heavily on many participants and were an impetus for their own PrEP use.

P1: I'm not gonna go through that because, a lot of the people that have HIV and do have AIDS, and it's like, you know, that's a big, big risk, and it's something you cannot get rid of.

(Group agreement)

P1: And so, it's like, I'm not gonna risk my life, 'cuz I'm wanna be happy, and I watched a couple people lives that have had been. I can tell that they're happy, but deep, deep down it's like, they know they messed up. And it's like that's something.

P2: That's just like if you got a mother that don't accept you, like, that'll tear up someone's heart, like that's something that's gonna go to your grave with you. Like you can be probably kickin' with your friends and probably forget about it, but when you all done kickin,' you gonna think about it and such. (Study One, Milwaukee)

As this conversation reveals, HIV was considered a “big risk,” and one that many participants were not willing to take. Most participants in our focus groups had friends or acquaintances who were living with HIV, and they saw the physical, social, and emotional consequences associated with their diagnosis. For some, the risk of HIV was a strong motivator for using PrEP, even in primary relationships.

This was similarly evident in Detroit. In the following narrative, a participant who had been using PrEP for over a year described the conversation he had with his long-term partner about PrEP.

P1: It was like we had all of this, we got a joint bank account, like, there’s nobody else. We’re on the phone all day long, he works from home, he doesn’t drive... he was like, “Why are you taking it? Because of me? You think I’m gonna do something?” And that was his thought. He’s like, “I’m not doing that. You know I’m not doing it so it must be you, because you’re still taking it.” (Study Two, Detroit)

Despite their commitment and monogamy, his partner viewed PrEP as an indication of either distrust or infidelity. Yet, the participant went on to explain his motivation for PrEP use regardless of their commitment:

P1: I’m still going back to like I said, I got these 10 people [living with HIV] I can look at that are suffering. Not suffering, but going through it, and it’s like a slap in their face. (Study Two, Detroit)

The people who were “suffering” were friends of his living with HIV and these friends were his primary motivation for using PrEP. He viewed not taking advantage of PrEP and risking contracting HIV as a “slap in their face.” Thus, regardless of trust and commitment, PrEP use was an important aspect of his sexual health.

Other participants had “scares” associated with lack of HIV disclosure or experienced infidelity, which influenced the way they thought about PrEP use in primary relationships. For example, in Minneapolis, one PrEP user described how he took a break from PrEP, which coincided with a serious relationship, and that decision ended up contributing to an HIV “scare.”

P1: I feel like [PrEP is] insurance that I’m okay Because like when I first started PrEP, I was dating somebody long distance, and I stopped [taking PrEP] when I was with him. And then I found out they were [HIV] positive. And so that’s when I got right back on PrEP. So now it’s like, even if I was in a relationship, it would literally have to be like months, months of us using condoms. (Study Two, Minneapolis)

After learning his partner was living with HIV, this participant not only started taking PrEP again, but also changed his perspective about using PrEP and condoms in any future relationships, noting that in addition to PrEP, he would use condoms for “months and months” before establishing trust needed to have condomless sex again.

“I’m proud of you, bae:” The influence of partners on PrEP use decisions

Decisions around PrEP use in primary relationships were further complicated by relationship dynamics and partners' perceptions of PrEP. Across the focus groups, there was evidence of both positive and negative influence on PrEP use decisions. For example, one participant in Milwaukee described how his boyfriend frequently had sex with women when he traveled, and he encouraged his partner to initiate PrEP:

P3: I know that he sleeps with women when he's travelling on the road. So, I would tell him, "I'm proud of you, bae [for taking PrEP]. I'm glad that you own it and I'm gonna get out of your way." (Study One, Milwaukee)

This participant and his primary partner both had occasional casual sex partners, which increased their approval and perceived need for PrEP. Other participants similarly described educating and being educated by their partners about PrEP. Misconceptions, mistrust, and low levels of PrEP awareness contributed to PrEP stigma and questioning of intent around PrEP. This was evident in Minneapolis, when one participant described how he supported his partner in getting on PrEP:

P2: In my new relationship, I mean, he didn't know [I was taking PrEP]. He got it out of my drawer one day. He was like, "What are you taking?" I'm like, "Crap. Fuck it. Here we go." I didn't want to be that person, but I'm like, "We're here now." And then I'm like, "Honestly, we should both be tested before we decide to do anything." It's just like, having that conversation. Now he doesn't mind taking a pill. He's taking a pill every day. (Study Two, Minneapolis)

As evident in this excerpt, it was often as simple as having a conversation with PrEP-naïve partners and having the confidence to educate and advocate for one or both partners to be taking PrEP. Partners could also serve as support persons, as was evidenced when one participant noted:

P3: The education, providing support, affirmation, you know? Like, "I'm on PrEP too. I'm taking it, you know, we can do this together. I can remind you of appointments." (Study One, Milwaukee)

Partners in primary relationships were not only able to serve as sources of education, but were able to act as support systems, encouraging adherence and regular engagement in HIV preventive care.

In contrast, however, other individuals described the negative influence of their partners on decisions about PrEP use. One individual in Detroit talked about his intermittent PrEP use over the last few years. When he most recently started PrEP, he described his boyfriend's reaction:

P1: I got back on and then my boyfriend now was like, "No. You need to get off [PrEP] because you're gonna use that as some reason to go slut around." I'm like, "No. It's just in case you piss me off one weekend. I'm good."

(group laughter)

P1: So I had to get off it because of that but ... if I ever become single, I'll be back on it, trust. I'll take that pill so happily. (Study Two, Detroit)

The sexual stigma and assumptions that accompany PrEP made it challenging for some individuals to navigate whether and when to use PrEP. Not only were participants navigating their own beliefs and ideas about PrEP, they were also contending with their partners' perceptions of PrEP. Furthermore, as evidenced above, there were power and relationship dynamics at play. While in some situations, participants' partners didn't understand the need for PrEP, the participant above was explicitly encouraged to stop using PrEP by his partner. In a Milwaukee focus group, another participant had a similar experience:

P1: The only situation I had, [partner] pretty much wanted me to get off of [PrEP]. It wasn't a good decision on myself. I didn't have that self-control over what I wanted to do to protect myself. (Study Two, Milwaukee)

This individual described how his former partner wanted him off PrEP, which led to him to take a temporary break from PrEP. Upon reflection, he expressed regret over this decision and noted that he "didn't have that self-control" over his sexual health and protection.

Not all participants believed their partners' views on PrEP were as influential in PrEP decision-making. In another Milwaukee focus group, participants disagreed about whether a partner's views on PrEP should be taken into consideration:

F: If you were in a serious relationship and that partner wanted you to stop taking PrEP, would you?

P4: What's the reason why he wants you to stop taking PrEP though? PrEP only stop HIV, it doesn't stop STDs, so you'd have to know that he's 100% faithful to you for you to be like, "I want to stop doing this for you." Like, why he want you to be at risk in case he does slip up? I don't get it. I don't know... If he has a problem with me taking a blue pill that would basically like help my life, he's a problem because what's the difference in a PrEP versus a vitamin pill that we took? It has nothing to do with him.

P5: That's a trust issue though.

P4: So, I'm supposed to trust him?

P5: Basically yes, I mean.

P4: Yeah, I felt like the only reason that somebody should want you to stop doing anything is if they felt like it's harming you. So, it's like "I want you to stop smoking because I don't want you to die. I love you." But to tell someone to stop taking a PrEP pill, it's a bit much. I'd be like, "You shouldn't even-don't worry about it. Just don't worry about things that you can't control." (Study Two, Milwaukee)

This exchange again highlights participants' varying expectations of fidelity. For those who believed PrEP was unnecessary in primary relationships built on trust, asking a partner to stop using PrEP was not viewed negatively. In contrast, participant 4 (P4) described the

complexity of trust and autonomy within relationships, noting that for some, autonomy was part of a trusting relationship. He reasoned that one's personal medication use had "nothing to do with" their partner and instead was a reflection of someone taking care of their health. A focus group in Kansas City had a similar discussion and one participant noted: "Nobody who's the one for you asks you to stop making an important medical decision for you. Like, 'Will you stop taking chemo for me?' No."

PrEP stigma also influenced conversations participants had with their partners around PrEP. One participant in Kansas City described having to navigate PrEP stigma with a new partner:

P2: I think it just became a conversation for [my relationship], just because of stigma that comes with PrEP. 'Cuz initially, when I told a previous partner that I was on PrEP, it was like, "Why are you on that? Why don't you just use a condom?" I was like, "Well, I still am using condoms. It's just that like Plan B or what not, just in case something happens." So, they associated oh, you must have had like, been doing like risky sex with multiple partners or doing things in regards to that, so. (Study Two, Kansas City)

This was not uncommon; participants in several groups noted that their partners, particularly those who were PrEP-naïve, frequently viewed PrEP as an indication of "risky sex" rather than the act of self-love and protection they saw in PrEP.

DISCUSSION

This study is among the first to qualitatively examine how young Black MSM perceive the role of PrEP in their relationships. Understanding the perceptions of PrEP within relationships is necessary, as estimates suggest that a significant proportion of new HIV infections occur within main sexual partnerships (Sullivan, Salazar, et al., 2009). Our data, triangulated from two similar studies, reveal the complexity and diversity of perspectives on PrEP, and highlight two primary narratives that influence young Black MSM's decision-making around PrEP. While some perceived PrEP as an indication of distrust within primary relationships, others saw PrEP as a personal act of self- and partner-love regardless of relationship status. Additionally, our data revealed the importance of partners in influencing PrEP use decisions.

Some participants did not perceive a need for PrEP within primary relationships. Decreased HIV risk perception, including a change in relationship status, is a commonly cited reason for discontinuing PrEP (Krakower et al., 2019; Lankowski et al., 2019). Some participants in our study saw their primary relationship as a symbol of dedication, monogamy, and commitment, wherein PrEP was not needed. Individuals who did not believe there was a need for PrEP in relationships tended to have low HIV risk perception. Low risk perception can stem from denial, lack of knowledge and awareness of HIV transmission, cultural beliefs and religiosity, and self-esteem (Brown et al., 2000; Theall et al., 2003). Among many participants in this study, low risk perception primarily stemmed from confidence in the monogamy of their relationship. Although they acknowledged the potential benefits of PrEP

more broadly, when in primary relationships, some participants saw PrEP as unnecessary and an indication of distrust or infidelity.

In line with previous research (Hammack et al., 2019; Newman et al., 2018; Quinn, Christenson, et al., 2019) our participants also highlighted the benefits of PrEP within primary relationships, including enhanced physical intimacy and reduced anxiety. PrEP may help partners feel physically closer by increasing pleasure and enhancing physical and psychological intimacy. In this study, some participants viewed PrEP as a symbol of love and a way to safely facilitate the pleasure afforded by condomless sex. PrEP can also provide young Black MSM with agency and control in their sexual health. It is important to note that condomless sex within primary relationships is not inherently risky, so long as both partners know their HIV status and are monogamous. However, modeling studies indicate that approximately one-third of new HIV transmissions occur due to undiagnosed infection (Goodreau et al., 2012). This, combined with low-risk perception of men in monogamous relationships (Stephenson et al., 2015), necessitates a continued focus on HIV testing and prevention within primary relationships.

Because of the stigma centered around PrEP, we must consider the potential influence of partners' and peers' perspectives on PrEP in impacting individual-level PrEP decisions. Researchers have demonstrated the influence of peers and social networks on PrEP use among young Black MSM, highlighting that social networks can increase familiarity with and confidence in PrEP and reduce PrEP stigma (Holt et al., 2018). However, this influence may be weakened by influential peers who are unsupportive of PrEP (Wagner et al., 2016). As evidenced by our study, even among young Black MSM who may be interested in using PrEP, partners' negative perceptions of PrEP may determine whether an individual initiates or discontinues PrEP use. Some participants experienced significant tension attempting to balance individual HIV protection beliefs with conceptualizations and expectations of trust, intimacy, and fidelity. Our results also highlight how power dynamics within a relationship can negatively influence PrEP use decisions. More research is needed to understand how power and control within relationships among Black MSM contribute to decisions about PrEP and other sexual and mental health outcomes.

Aligned with quantitative research among broader samples of MSM, our findings reveal the diversity in how PrEP is perceived to be integrated within relationships. While some men would consider PrEP use jointly with their partner, dyadic PrEP use was relatively infrequent within primary relationships (John et al., 2019). Furthermore, young Black MSM do consider PrEP to be beneficial, but considered use less important within committed relationships. In fact, many young Black MSM in this study perceived as a threat to relationship quality, particularly when only one of two partners was on PrEP, indicating the importance of reconciling individual and dyadic goals in future intervention work.

Our results have additional implications for interventions seeking to increase PrEP uptake and persistence among young Black MSM. Dyadic interventions are needed that reduce the stigma surrounding PrEP use in primary relationships and reframe PrEP from an individual-level intervention only needed for individuals with multiple sexual partners, to one of self- and partner-love. Additionally, framing PrEP as an opportunity to protect and ease anxiety

for the couple may reduce anxieties about fidelity and distrust. As argued by Golub (2018), PrEP should be framed as an opportunity for people who want to reduce their anxiety about HIV and take responsibility for their sexual health (Golub, 2018). As evidenced within our study, some men already perceive PrEP in this light. These individuals have conceptualized PrEP as a socially desirable behavior, calling it “smart” and “sexy.” Although not examined here, viewing PrEP in this way may also facilitate more positive mental health and self-perception. Additionally, dyadic interventions that target dialogue and communication skills within primary relationships may help young Black MSM negotiate safe sex and make dyadic-level decisions about PrEP. Future research is needed to understand how various partnership characteristics including duration, communication, trust, and sexual agreements influence PrEP acceptability and use within relationships. Interventions must also be attuned to variations in perspectives on PrEP in primary relationships, offering diverse messages for MSM in relationships. For example, PrEP use has been considered more appealing for MSM in partnerships when framed as a couple’s activity (Biello et al., 2017), and framing PrEP in this way may help reduce PrEP stigma and overcome assumptions about infidelity.

There are limitations to this study. Data for this study come from two larger studies examining PrEP among young Black MSM. The use of PrEP in primary relationships was not the central focus of either study and thus, both studies only briefly addressed this issue. Importantly, however, many of the conversations highlighted herein emerged organically, demonstrating their importance in the consideration of PrEP decision-making. Additionally, given that the focus of these studies was not on relationships, future research should take a dyadic approach, seeking to understand the dynamic nature of PrEP decision-making within primary partnerships. There are also nuances in relationships not consistently captured in our data that may play an important role in PrEP decision-making. For example, long-term primary relationships with clear expectations of monogamy among two partners likely view PrEP very differently than newer primary partnerships or relationships without clear partnership agreements. Additional qualitative research is needed to tease apart these factors and understand how various partnership dynamics and characteristics influence PrEP decision-making. Triangulating data from two studies with similar demographic characteristics is a strength of this study. However, differing eligibility criteria (e.g. requirement of current or former PrEP use in Study Two), is a distinguishing difference between the study samples. Future research should more closely examine how PrEP use history influences the perception of PrEP use within relationships. Although we did not identify any differences in this regard within our samples, this should be an area of continued research.

As our study demonstrates, young Black MSM are making decisions about whether to use PrEP based on their relationship status, relationship characteristics, and their partner’s views on PrEP. There is considerable variation in how young Black MSM view PrEP within primary relationships and additional information is needed to qualitatively understand the relationship dynamics involved in PrEP decision-making. The dynamics between two or more individuals can shape an individual’s conceptualizations of and decisions around PrEP use, and these may be key drivers of racial disparities in HIV and PrEP use.

ACKNOWLEDGEMENTS

Funding support was provided by the National Institute of Mental Health (K01-MH112412; PI: Quinn; R01-MH115764; PI: Walsh; P30-MH052776, PI: Jeffrey A. Kelly). The Authors would like to acknowledge the support and collaboration of our community partner agencies in Milwaukee, Minneapolis, Kansas City, and Detroit. This work would not be possible without the collaboration and support from community members, leaders, and organizations. Special Thanks to all of the staff at the Center for AIDS Intervention Research (CAIR) who were instrumental in this research, especially Kevin Brown, Julia Dickson-Gomez, and Broderick Pearson. We are grateful for the individuals who participated in this research and so graciously and honestly shared their stories with us. Their participation in HIV prevention research is essential to moving the field forward.

REFERENCES

- Biello KB, Oldenburg CE, Mitty JA, Closson EF, Mayer KH, Safren SA, & Mimiaga MJ (2017). The “Safe Sex” Conundrum: Anticipated Stigma From Sexual Partners as a Barrier to PrEP Use Among Substance Using MSM Engaging in Transactional Sex. *AIDS and Behavior*, 21(1), 300–306. [PubMed: 27351194]
- Boeije H (2002). A purposeful approach to the constant comparative method in the analysis of qualitative interviews. *Quality and Quantity*, 36, 391–409.
- Braun V, & Clarke V (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Brooks RA, Kaplan RL, Lieber E, Landovitz RJ, Lee SJ, & Leibowitz AA (2011). Motivators, concerns, and barriers to adoption of preexposure prophylaxis for HIV prevention among gay and bisexual men in HIV-serodiscordant male relationships. *AIDS Care - Psychological and Socio-Medical Aspects of AIDS/HIV*, 23(9), 1136–1145.
- Brooks RA, Landovitz RJ, Kaplan RL, Lieber E, Lee S-J, & Barkley TW (2012). Sexual Risk Behaviors and Acceptability of HIV Pre-Exposure Prophylaxis Among HIV-Negative Gay and Bisexual Men in Serodiscordant Relationships: A Mixed Methods Study. *AIDS Patient Care and STDs*, 26(2), 87–94. [PubMed: 22149764]
- Brown EJ, Outlaw FH, & Simpson EM (2000). Theoretical Antecedents to HIV Risk Perception. *Journal of the American Psychiatric Nurses Association*, 6(6), 177–182.
- Bush S, Magnuson D, Rawlings MK, Hawkins T, McCallister S, & Mera Giler R (2016). Racial Characteristics of FTC/TDF for Pre-exposure Prophylaxis (PrEP) Users in the US. American Society for Microbiology Annual Meeting, Oral presentation #2651. http://www.natap.org/2016/HIV/062216_02.htm
- Carlo Hojilla J, Koester KA, Cohen SE, Buchbinder S, Ladzekpo D, Matheson T, & Liu AY (2016). Sexual Behavior, Risk Compensation, and HIV Prevention Strategies Among Participants in the San Francisco PrEP Demonstration Project: A Qualitative Analysis of Counseling Notes. *AIDS and Behavior*, 20(7), 1461–1469. [PubMed: 25835463]
- Corbin J, & Strauss A (2015). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (4th ed.). Sage.
- Díaz RM, & Ayala G (1999). Love, passion and rebellion: Ideologies of hiv risk among latino gay men in the USA. *Culture, Health and Sexuality*, 1(3), 277–293.
- Finlayson T, Cha S, Xia M, Trujillo L, Denson D, Prejean J, Kanny D, Wejnert C, Abrego M, Al-Tayyib A, Anderson B, Barak N, Bayang L, Beckford JM, Benbow N, Bolden B, Brady KA, Brandt M-G, Braunstein S, ... Zarwell MC (2019). Changes in HIV Preexposure Prophylaxis Awareness and Use Among Men Who Have Sex with Men — 20 Urban Areas, 2014 and 2017. *MMWR. Morbidity and Mortality Weekly Report*, 68(27), 597–603. [PubMed: 31298662]
- Gamarel KE, & Golub SA (2014). Intimacy motivations and pre-exposure prophylaxis (PrEP) adoption intentions among HIV-negative men who have sex with men (MSM) in romantic relationships. *Annals of Behavioral Medicine*, 49(2), 177–186.
- Gamarel KE, & Golub SA (2019). Closeness Discrepancies and Intimacy Interference: Motivations for HIV Prevention Behavior in Primary Romantic Relationships. *Personality and Social Psychology Bulletin*, 45(2), 270–283. [PubMed: 29984632]

- Goedel WC, King MRF, Lurie MN, Nunn AS, Chan PA, & Marshall BDL (2018). Effect of racial inequities in pre-exposure prophylaxis use on racial disparities in HIV incidence among men who have sex with men: A modeling study. *Journal of Acquired Immune Deficiency Syndromes*, 79(3), 323–329. [PubMed: 30044303]
- Golub SA (2018). PrEP Stigma: Implicit and Explicit Drivers of Disparity. *Current HIV/AIDS Reports*, 15, 190–197. [PubMed: 29460223]
- Golub SA, Gamarel KE, Rendina HJ, Surace A, & Lelutiu-Weinberger CL (2013). From efficacy to effectiveness: facilitators and barriers to PrEP acceptability and motivations for adherence among MSM and transgender women in New York City. *AIDS Patient Care and STDs*, 27(4), 248–254. [PubMed: 23565928]
- Goodreau SM, Carnegie NB, Vittinghoff E, Lama JR, Sanchez J, Grinsztejn B, Koblin BA, Mayer KH, & Buchbinder SP (2012). What Drives the US and Peruvian HIV Epidemics in Men Who Have Sex with Men (MSM)? *PLoS ONE*, 7(11).
- Hammack PL, Toolis EE, Wilson BDM, Clark RC, & Frost DM (2019). Making Meaning of the Impact of Pre-Exposure Prophylaxis (PrEP) on Public Health and Sexual Culture: Narratives of Three Generations of Gay and Bisexual Men. *Archives of Sexual Behavior*, 48(4), 1041–1058. [PubMed: 30874978]
- Holt M, Lea T, Bear B, Halliday D, Ellard J, Murphy D, Kolstee J, & de Wit J (2018). Trends in attitudes to and the use of HIV pre-exposure prophylaxis by Australian gay and bisexual men, 2011–2017: Implications for further implementation from a diffusion of innovations perspective. *AIDS and Behavior*, 23(7), 1939–1950.
- Jeness SM, Maloney KM, Smith DK, Hoover KW, Goodreau SM, Rosenberg ES, Weiss KM, Liu AY, Rao D, & Sullivan PS (2018). The PrEP Care Continuum and Racial Disparities in HIV Incidence among Men Who Have Sex with Men. *BioRxiv*, 1–18.
- John SA, Robles G, Starks TJ, & Rendina HJ (2019). Differences Between Groups of Pre-exposure Prophylaxis (PrEP) Using Couples in HIV-Negative/Unknown Relationships. *Journal of Acquired Immune Deficiency Syndromes* (1999), 81(4), 419–428. [PubMed: 30985555]
- Kanny D, Jeffries W, Chapin-Bardales J, Denning P, Cha S, Finlayson T, Wejnert C, & National HIV Behavioral Surveillance Study Group. (2019). Racial/Ethnic Disparities in HIV Preexposure Prophylaxis Among Men Who Have Sex with Men - 23 Urban Areas, 2017. *MMWR Morb Mortal Wkly Rep*, 68, 801–806. https://www.cdc.gov/mmwr/volumes/68/wr/mm6837a2.htm?s_cid=mm6837a2_e&deliveryName=USCDC_921-DM9093&deliveryName=USCDC_1046-DM10139
- Krakower D, Maloney KM, Powell VE, Levine K, Grasso C, Melbourne K, Marcus JL, & Mayer KH (2019). Patterns and clinical consequences of discontinuing HIV preexposure prophylaxis during primary care. *Journal of the International AIDS Society*, 22(2).
- Lankowski AJ, Bien-Gund CH, Patel VV, Felsen UR, Silvera R, & Blackstock OJ (2019). PrEP in the Real World: Predictors of 6-Month Retention in a Diverse Urban Cohort. *AIDS and Behavior*. 10.1007/s10461-018-2296-x
- Mabire X, Puppo C, Morel S, Mora M, Rojas Castro D, Chas J, Cua E, Pintado C, Suzan-Monti M, Spire B, Molina JM, & Préau M (2019). Pleasure and PrEP: Pleasure-Seeking Plays a Role in Prevention Choices and Could Lead to PrEP Initiation. *American Journal of Men's Health*, 13 10.1177/1557988319827396
- Maulsby C, Millett G, Lindsey K, Kelley R, Johnson K, Montoya D, & Holtgrave D (2014). HIV among black men who have sex with men (MSM) in the United States: a review of the literature. *AIDS and Behavior*, 18(1), 10–25. [PubMed: 23620241]
- McCree DH, Williams AM, Chesson HW, Beer L, Jeffries WL, Lemons A, Prather C, Sutton MY, & McCray E (2019). Changes in Disparities in Estimated HIV Incidence Rates Among Black, Hispanic/Latino, and White Men Who Have Sex With Men (MSM) in the United States, 2010–2015. *Journal of Acquired Immune Deficiency Syndromes* (1999), 81(1), 57–62. [PubMed: 30964805]
- Newcomb ME, & Mustanski B (2013). Racial differences in same-race partnering and the effects of sexual partnership characteristics on HIV risk in MSM: A prospective sexual diary study. *Journal of Acquired Immune Deficiency Syndromes*, 62(3), 329–333. [PubMed: 23187943]

- Newman PA, Guta A, Lacombe-Duncan A, & Tepjan S (2018). Clinical exigencies, psychosocial realities: negotiating HIV pre-exposure prophylaxis beyond the cascade among gay, bisexual and other men who have sex with men in Canada. *Journal of the International AIDS Society*, 21(11).
- Patton MQ (2002). *Qualitative Research and Evaluation Methods (Third)*. Sage Publications.
- Quinn K, Bowleg L, & Dickson-Gomez J (2019). “The fear of being Black plus the fear of being gay”: The effects of intersectional stigma on PrEP use among young Black gay, bisexual, and other men who have sex with men. *Social Science and Medicine*, Jul (232), 86–93.
- Quinn K, & Dickson-Gomez J (2016). Homonegativity, Religiosity, and the Intersecting Identities of Young Black Men Who Have Sex with Men. *AIDS and Behavior*, 22(1), 51–64.
- Quinn KG, Christenson E, Sawkin MT, Hacker E, & Walsh JL (2019). The unanticipated benefits of PrEP for young Black gay, bisexual, and other men who have sex with men. *AIDS and Behavior* 10.1007/s10461-019-02747-7
- Quinn KG, Dickson-Gomez J, Zarwell M, Pearson B, & Lewis M (2019). “A gay man and a doctor are just like, a recipe for destruction”: How racism and homonegativity in healthcare settings influence PrEP uptake among young Black MSM. *AIDS and Behavior*, 23(7), 1951–1963. 10.1007/s10461-018-2375-z [PubMed: 30565092]
- Rhodes T, & Cusick L (2000). Love and intimacy in relationship risk management: HIV positive people and their sexual partners. *Sociology of Health and Illness*, 22(1), 1–26.
- Saldana J (2016). *The Coding Manual for Qualitative Researcher* SAGE Publications Ltd Thousand Oaks, CA.
- Starks TJ, Doyle KM, Shalhav O, John SA, & Parsons JT (2019). An Examination of Gay Couples’ Motivations to Use (or Forego) Pre-exposure Prophylaxis Expressed During Couples HIV Testing and Counseling (CHTC) Sessions. *Prevention Science*, 20(15), 157–167. [PubMed: 29651646]
- Starks TJ, Payton G, Golub SA, Weinberger CL, & Parsons JT (2014). Contextualizing condom use: Intimacy Interference, stigma, and unprotected sex. *Journal of Health Psychology*, 19(6), 711–720. [PubMed: 23520349]
- Stephenson R, White D, Darbes L, Hoff C, & Sullivan P (2015). HIV Testing Behaviors and Perceptions of Risk of HIV Infection Among MSM with Main Partners. *AIDS and Behavior*, 19(3), 553–560. [PubMed: 25081599]
- Sullivan PS, Hamouda O, Delpech V, Geduld JE, Prejean J, Semaille C, Kaldor J, Folch C, Op de Coul E, Marcus U, Hughes G, Archibald CP, Cazein F, McDonald A, Casabona J, van Sighem A, & Fenton KA (2009). Reemergence of the HIV Epidemic Among Men Who Have Sex With Men in North America, Western Europe, and Australia, 1996–2005. *Annals of Epidemiology*, 19(6), 423–431. [PubMed: 19460672]
- Sullivan PS, Peterson J, Rosenberg ES, Kelley CF, Cooper H, Vaughan A, Salazar LF, Frew P, Wingood G, & DiClemente R (2014). Understanding racial HIV/STI disparities in black and white men who have sex with men: a multilevel approach. *PLoS One*, 9(3), e90514. [PubMed: 24608176]
- Sullivan PS, Salazar L, Buchbinder S, & Sanchez TH (2009). Estimating the proportion of HIV transmissions from main sex partners among men who have sex with men in five US cities. *AIDS*, 23(9), 1153–1162. 10.1097/QAD.0b013e32832baa34 [PubMed: 19417579]
- Theall KP, Elifson KW, Sterk CE, & Klein H (2003). Perceived Susceptibility to HIV among Women. *Research on Aging*, 25(4), 405–432.
- Wagner GJ, Bogart LM, Klein DJ, Green HD, Mutchler MG, McDavitt B, & Hilliard C (2016). Association of Internalized and Social Network Level HIV Stigma With High-Risk Condomless Sex Among HIV-Positive African American Men. *Archives of Sexual Behavior*, 45(6), 1347–1355. [PubMed: 26718361]
- Ware NC, Wyatt MA, Haberer JE, Baeten JM, Kintu A, Psaros C, Safren S, Tumwesigye E, Celum CL, & Bangsberg DR (2012). What’s love got to do with it? Explaining adherence to oral antiretroviral pre-exposure prophylaxis for hiv-serodiscordant couples. *Journal of Acquired Immune Deficiency Syndromes*, 59(5), 463–468. [PubMed: 22267018]
- Whitfield THF, John SA, Rendina HJ, Grov C, & Parsons JT (2018). Why I Quit Pre-Exposure Prophylaxis (PrEP)? A Mixed-Method Study Exploring Reasons for PrEP Discontinuation and

Potential Re-initiation Among Gay and Bisexual Men. *AIDS and Behavior*, 22(11), 3566–3575. [PubMed: 29404756]

Zarwell M, & Robinson WT (2019). Network properties among gay, bisexual, and other men who have sex with men vary by race. *AIDS and Behavior*, 23(5), 1315–1325. [PubMed: 30725398]

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 1:

Participant characteristics

Sample Characteristics	Study One, <i>n</i> (%)	Study Two, <i>n</i> (%)	Total Sample, <i>n</i> (%) [*]
Total participants	44	36	80
Age (mean, SD)	22.3 (2.3)	25.9 (3.6)	23.9 (3.5)
Sexual Identity			
Gay	33 (75%)	25 (69%)	58 (73%)
Bisexual	8 (18%)	5 (14%)	13 (16%)
Other	3 (7%)	6 (17%)	9 (11%)
Relationship Status			
Single; occasional sex partners	23 (52%)	21 (58%)	44 (55%)
Casually dating	4 (9%)	6 (17%)	10 (13%)
Married or committed partnership	16 (36%)	9 (25%)	25 (31%)
PrEP Use			
Currently taking PrEP	8 (18%)	27 (75%)	35 (44%)
Formerly used PrEP	2 (5%)	9 (25%)	11 (14%)
Never used PrEP	34 (77%)		34 (43%)
Employment			
Full time	24 (55%)	23 (64%)	47 (59%)
Regular part-time	8 (18%)	5 (14%)	13 (16%)
Education			
High school or GED	20 (45%)	8 (22%)	28 (35%)
Some college	14 (32%)	11 (31%)	25 (31%)
College	4 (9%)	16 (44%)	20 (25%)
Income			
<\$10,000	22 (50%)	7 (19%)	29 (36%)
\$10–20,000	6 (14%)	5 (14%)	11 (14%)
\$20–40,000	13 (30%)	15 (42%)	28 (35%)
>\$40,000	1 (2%)	7 (19%)	8 (10%)

* Totals may not equal 100 due to rounding or non-response by some participants