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Experiences of Pre-Exposure Prophylaxis (PrEP)–Related Stigma among Black MSM PrEP Users in Los Angeles

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Abstract Black men who have sex with men (BMSM) are disproportionately affected by HIV infection in the USA. Pre-exposure prophylaxis (PrEP) is a proven efficacious biomedical prevention strategy with the potential to alter significantly the course of the epidemic in this population. However, the social stigma attached to PrEP and those who use it may act as a barrier to the uptake and continuation of PrEP among high-risk BMSM. In-depth, semi-structured qualitative interviews were conducted with 26 BMSM PrEP users to explore their experiences of stigma related to their PrEP use. BMSM reported multiple experiences or manifestations of PrEP-related stigma, which included (1) perception that PrEP users engage in elevated sexual risk behaviors; (2) conflicts in relationships attributed to PrEP; (3) experiences of discomfort or judgment from medical providers; (4) assumption that PrEP users are HIV-positive; and (5) gay stigma in families limiting PrEP disclosure. The experiences of stigma typically occur within the context of PrEP disclosure and have significant personal and social consequences for PrEP users. Efforts to address PrEP and other social-stigmas within the Black community may help facilitate PrEP uptake and continuation with BMSM.

Keywords Black · African-American · Men who have sex with men · Pre-exposure prophylaxis · Stigma

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Introduction

Black men who have sex with men (BMSM) remain the population most affected by HIV in the United States (US). Despite making up less than 1% of the US population, recent HIV surveillance data indicated that BMSM accounted for 25% of all new HIV diagnoses, 38% of diagnoses among MSM, and 58% of diagnoses among Black people overall [1, 2]. According to the Centers for Disease Control and Prevention (CDC), one in two BMSM will be diagnosed with HIV in their lifetime, a rate eight times higher than that of White MSM and twice as high as that of Latino MSM [1, 3]. In Los Angeles County (LAC), the site of the present study, the rate of HIV diagnoses among BMSM is 3.2 times higher than Whites and 2.6 times higher than Latinos [4]. BMSM also have the highest estimated HIV prevalence among MSM in LAC at roughly 40.5% [5]. The high HIV incidence and prevalence rates

among BMSM highlight the urgent need to expand HIV prevention efforts with this population [6].

Pre-exposure prophylaxis (PrEP) is a proven efficacious biomedical prevention strategy with the potential to alter significantly the trajectory of the HIV epidemic in the US. PrEP involves the daily use of Truvada® (emtricitabine/tenofovir disoproxil fumarate) to prevent HIV acquisition among high-risk populations [7–9]. In 2018, the CDC issued updated clinical guidelines for administrating PrEP to at-risk individuals [10]. While evidence suggests that PrEP use is increasing [11], disparities persist in uptake with substantial unmet need among BMSM in particular. Although Black individuals accounted for 43.7% of those indicated for PrEP between 2014 and 2016, only 11.2% of total PrEP users during that timeframe were Black [11]. Moreover, PrEP uptake is currently estimated to be six times higher among White compared with Black individuals in the US [12].

Prior research has identified multiple barriers to PrEP uptake among racial/ethnic minority MSM. These barriers include economic and structural factors, such as cost, unstable housing, and lack of insurance [13]; perceptions related to side effects or conspiracy beliefs regarding HIV transmission or HIV medication [14–16]; perceived low HIV risk [17]; and contextual factors such as racism and heterosexism [18, 19]. In addition, evidence suggests that concerns related to potential risk compensation among PrEP users may exacerbate existing implicit or unconscious bias among medical providers toward patients of color, leading to lower willingness to prescribe PrEP to Black patients [20, 21]. Furthermore, the intersections of the social stigma attached to PrEP and those who use it, HIV stigma and gay stigma, may serve as barriers to PrEP uptake [22, 23]. A further exploration of stigma may enhance our understanding of how social and cultural factors influence the use of HIV biomedical prevention strategies such as PrEP among vulnerable populations and how these factors may exacerbate existing HIV racial disparities.

Stigma is defined as "an attribute that is deeply discrediting" that marks a person as socially devalued [24], which can be enacted, anticipated, and/or internalized [25–27]. Enacted stigma refers to the overt experiences of discrimination, unfair treatment, rejection, or violence, whereas anticipated stigma involves the expectation of future judgment or discrimination [25–27]. In contrast to enacted and anticipated stigma, internalized stigma involves an individuals' intrapersonal endorsement of negative beliefs or feelings about themselves [25–27]. The current study focuses on the stigma that BMSM experience regarding their PrEP use.

PrEP-related stigma has the potential to have significant negative consequences for PrEP adopters, including suboptimal adherence, PrEP discontinuation, and a lack of disclosure of PrEP use to peers or the lack of dissemination of PrEP information to other potential BMSM consumers. PrEP stigma can also have social and personal consequences that affect an individual's reputation and their interpersonal relationships with friends, family, sexual partners, and medical providers [14, 16, 28–30]. The research question guiding this qualitative study is, What are the experiences of PrEP-related stigma among BMSM who are using PrEP?

Methods

A purposive sample of BMSM PrEP users who had been using PrEP for a minimum of 1 month was recruited between January and October 2017 to complete an in-depth, semi-structured qualitative interview about their experiences using PrEP. Multiple strategies were used to recruit study participants, including outreach on gay-oriented sexual and social networking apps (e.g., Grindr and Growlr), at community events that specifically targeted MSM of color, and through community agency referrals. Participants were eligible if they were 18 years of age or older, identified as a Black/African-American male, had anal sex with a male partner in the previous 6 months, were currently prescribed and taking Truvada® as PrEP, had been taking PrEP for a minimum of 1 month, and resided in Los Angeles County. The research team met weekly to review interview transcripts and how well they addressed the topics covered in the interview guide, and if we were continuing to gather new information from interviews. Recruitment was terminated once data saturation was reached (i.e., no new information was being gathered from interviews). Two participants who had been scheduled before this decision was made were still allowed to participate in the study.

The Institutional Review Board of the University of California Los Angeles approved all study materials and all participants provided informed consent prior to the initiation of any study procedures. Using a semi-structured interview guide (see Appendix), participants

were asked to describe their (1) primary reasons for initiating PrEP; (2) experiences when they disclosed their PrEP use to friends, family members, sex partners, or medical providers; (3) experiences where they did not disclose PrEP use because they thought they might be judged or treated differently; and (4) personal feelings about their PrEP use. Participants were assigned a unique participant identification number to maintain confidentiality. All interviews were audio-recorded and lasted approximately 30–60 min. Two research staff members conducted verbatim transcription and checked the accuracy of all interview audio files. A self-administered Audio Computer-Assisted Self-Interview (ACASI) survey was used to gather quantitative data on participants' demographic characteristics, PrEP adherence and disclosure practices, and sexual and substance use behaviors.

Interview transcripts were iteratively coded, sorted, and analyzed for shared experiences of PrEP-related stigma. A codebook was developed from the interview guide, multiple readings of the transcripts, and interviewer field notes. The research team met weekly to review and discuss all codes and their definitions, refined and deleted codes, and identified exemplar quotes associated with each code before reaching a consensus on the final codebook. Using a subset of selected codes, a test of inter-coder reliability was conducted based on the independent coding of a randomly selected transcript (Cohen's kappa coefficient, $k = 0.92$). Final codes were entered into ATLAS.ti (version 8.0.42) and attached to their associated quotations for all transcripts. The research team reviewed the coded outputs to identify shared experiences of judgment, labeling, rejection, or stereotypes associated with the use of PrEP. From this information, prominent manifestations of stigma that BMSM experienced related to their PrEP use were identified.

Results

A total of 26 BMSM participated in the study. Demographic and PrEP use characteristics of the study sample are included in Table 1. The mean age of participants was 31.5 years (SD = 6.9; median = 31.0; range = 22.0–46.0). The majority identified as gay (96.2%) and reported completing at least some college (84.6%), working full or part time (65.4%), and having an annual household income less than $40,000 (65.4%). Only 11.5% were uninsured. A little more than half of participants were single (53.8%), while the remaining men

Table 1 Demographics, PrEP use characteristics, and sexual and substance use behaviors among Black men who have sex with men PrEP users ($N = 26$).

Characteristic	*N* (%) or M, SD
Demographics	
Age (in years)	M = 31.5, SD = 6.9
Sexual orientation	
Gay/homosexual/queer/same gender loving	25 (96.2)
Bisexual	1 (3.8)
Highest level of education completed	
High school graduate or received GED	4 (15.4)
Some college, AA degree, trade/technical school	9 (34.6)
Bachelor's degree (BA, BS) or higher	13 (50.0)
Employment status	
Working full or part time	17 (65.4)
On permanent disability	1 (3.8)
Unemployed	8 (30.7)
Annual income	
$0–9999	9 (34.6)
$10,000–19,999	2 (7.7)
$20,000–39,999	6 (23.1)
$40,000–59,999	6 (23.1)
$60,000–99,999	3 (11.5)
Health insurance	
Does not have health insurance	3 (11.5)
Private medical insurance or employer-provided insurance	10 (38.5)
Medi-Cal/Medicaid or Medicare	11 (42.3)
Insurance through parent	2 (7.7)
Relationship status	
Single and not dating anyone special	14 (53.8)
Dating someone in an open relationship (have sex with other people)	6 (23.1)
Dating someone in a closed relationship (do not have sex with other people)	3 (11.5)
Partnered or married in an open relationship (have sex with other people)	3 (11.5)
HIV-positive partner ($N = 12$)[1]	
Yes	5 (41.7)
No	7 (58.3)
PrEP use characteristics	
Length of time using PrEP (in months) ($N = 26$)	M = 20.5, SD = 13.7
Number of people told about PrEP use	
A few people	15 (57.7)
A lot of people	11 (42.3)
Disclosed PrEP use to	

Table 1 (continued)

Characteristic	*N* (%) or M, SD
My main partner or spouse	13 (50.0)
One or more other sex partners	23 (88.5)
One or more family members	12 (46.2)
One or more friends	12 (100.0)
Health care providers	19 (73.1)
Other[2]	4 (15.4)
Adherence to PrEP medication past month[3]	
Very poor	2 (7.7)
Poor	2 (7.7)
Fair	3 (11.5)
Good	2 (7.7)
Very good	9 (34.6)
Excellent	8 (30.8)
Sexual and substance use behaviors	
Number of male sex partners past 6 months (*N* = 26)	M = 12, SD = 15
Number of times receptive anal (RA) sex past 6 months (*N* = 20)	M = 7, SD = 13
Condoms used during RA sex past 6 months	
All of the time	6 (30.0)
Most of the time (three out of four times)	4 (20.0)
Occasionally (about half the time)	2 (10.0)
Rarely (about one in four times or less)	1 (5.0)
Never	7 (35.0)
Last RA sex encounter condoms used	
Yes	7 (35.0)
No	13 (65.0)
Number of times insertive anal (IA) sex past 6 months (*N* = 23)	M = 13, SD = 22
Condoms used for IA sex past 6 months	
All of the time	2 (8.7)
Most of the time (about three out of four times)	3 (13.0)
Occasionally (about half the time)	6 (26.1)
Rarely (about one in four times or less)	7 (30.4)
Never	5 (21.7)
Last IA sex encounter condoms used	
Yes	6 (23.1)
No	17 (73.9)
Substances used in past 6 months	
Alcohol	21 (80.8)
Marijuana	18 (69.2)
Tobacco, (e-)cigarettes, hookah	11 (42.3)
Poppers, nitrates, or other inhalants like glue or paint	9 (34.6)
Powder cocaine also known as snow or blow	7 (26.9)
Molly, MDMA, Ecstasy (XTC)	6 (23.1)
Methamphetamine also known as crystal, "Tina," speed	2 (7.7)

[1] Includes only participants who indicated they were in a relationship. [2] Others included "Andrew," "mentor," "people who had questions about it in public," and "social media." [3] PrEP adherence was measured via self-report using a validated Likert-type scale from very poor to excellent [31]

were in a relationship (46.2%). The mean length of time using PrEP was 20.5 months (SD = 13.7; median = 18; range = 1–48.5). All participants had disclosed their PrEP use to at least a few people, and about two-thirds (65.4%) reported their medication adherence as "very good" or "excellent." Most participants did not use a condom during their last receptive anal (65.0%) or insertive anal (73.9%) sex encounter. The most commonly reported substances used included alcohol (80.8%), marijuana (69.2%), tobacco/(e-) cigarettes (42.3%), and poppers (34.6%).

When asked about their primary reasons for initiating PrEP, participants described a range of motives, which included a desire to reduce the fear and anxiety associated with having sex (Table 2, Quote 1); a self-awareness of high-risk sexual behaviors (e.g., preferring and engaging in condomless sex, having multiple sex partners) (Quotes 2–3); having had a sexually transmitted infection or a sexual encounter with potential HIV exposure (Quote 4); or being in an HIV serodiscordant relationship (Quote 5). Other participants were motivated to initiate PrEP after receiving information about it from friends/peers or sex partners who were taking PrEP (Quote 3).

In describing their current PrEP use, participants noted positive feelings about using the medication, such as an improved sense of responsibility regarding their sexual health, reduced anxiety or peace of mind when having sex, and greater sexual freedom. However, participants also demonstrated an awareness of the stigma and negative perceptions of PrEP and those who use it that continues to persist within the gay community. In the present study, BMSM described different experiences of stigma related to their PrEP use, which included (1) perception that PrEP users engage in elevated sexual risk behaviors; (2) conflicts in relationships attributed to PrEP; (3) experiences of discomfort or judgment from medical providers; (4) assumption that PrEP

Table 2 Reasons for Initiating PrEP

1. I wanted to have the freedom of having sex without having the fear of HIV. (age 41, 1.5 months on PrEP)
2. So that I could have bareback sex without using condoms. (Black, age 34, 24 months on PrEP)
3. A friend of mine who's positive whose partner is not positive; he talked to me about their whole process. I'm not with anyone, but I have a lot of sexual partners. So based on how he explained their experience with it and the lack of side effects, it was a no-brainer. Why not go on it? (Black, age 43, 12 months on PrEP)
4. It wasn't until I caught an STD for the second time and the clinic that I went to get tested, they said, "You should probably think about getting into PrEP to protect yourself." (Black, age 27, 12 months on PrEP)
5. Because of the fact that I have an HIV-positive partner who's undetectable, I thought that I would do my part and take the medication myself. (Black, age 35, 12 months on PrEP)

users are HIV-positive; and (5) gay stigma in families limiting PrEP disclosure. The sources of PrEP-related stigma included friends/peers, family, sex partners, and medical providers.

Perception That PrEP Users Engage in Elevated Sexual Risk Behaviors

What emerged from the data was a predominant perception that PrEP users engage in risky sexual behaviors, which included assumptions that they have condomless sex or have multiple sex partners (Tables 3, Quotes 1–4). Because of these perceptions, participants were often assigned disparaging labels or identities, such as "promiscuous" or "Truvada whore" (Quote 2). They were also met with apprehension from sex partners because of the assumption that PrEP users engage in condomless sex with multiple partners and therefore place themselves and their partners at a heightened risk for acquiring sexually transmitted infections (STIs) (Quotes 3–4). A less predominant experience was that of internalized stigma, typically expressed as feelings of guilt regarding the risky behaviors they engage in that warrant the use of PrEP (Quote 5).

Conflict in Relationships Attributed to PrEP

Another experience noted was the conflict that PrEP use introduced in relationships, which manifested as anticipated or enacted accusations of promiscuity toward the PrEP user, the partner's trust being questioned, or in the termination of the relationship (Table 4, Quotes 1–2). In anticipation of these reactions, some participants initially avoided disclosing their PrEP use to partners (Quote 1). The negative attitudes surrounding PrEP use in relationships led one participant to voice the following concern: "If I was trying to be in a relationship with somebody, I think they would probably question why I'm taking PrEP if I'm only with them or if I'm supposed to be in a relationship" (age 46, 4 months on PrEP).

Table 3 Perception that PrEP users engage in elevated sexual risk behaviors

Anticipated stigma

1. [One of the things that's really important to me is] not telling my business to every one like "Yeah, I'm having sex with this person and that person and that person," because somebody would take that as you just want to be loose or you just want to have sex with anybody and that's why you are on PrEP. That's where the stigma comes in. (age 26, 22.5 months on PrEP)

Enacted stigma

2. I'm a huge online dater… I do not post on my profile, but I'll say that I'm on PrEP. They're like, "What does that mean? Does it mean you have a lot of partners?" […] Like, "Are you a Truvada whore?" I'm like, "No, I take it because you cannot trust anybody." (age 31, 12 months on PrEP)
3. Some people are a little bit apprehensive because they are like, "Okay, if you are on PrEP, then you are probably barebacking everyone in the city." (age 28, 12 months on PrEP) (PID 2011)
4. Someone that I was having sex with regularly, when I told him that I was about to go on it, he actually said to me, "Don't you think… you are going to be more promiscuous and put yourself at risk for contracting other diseases when you go on it?" And I said, "No, not necessarily." (age 43, 12 months on PrEP)

Internalized stigma

5. I was thinking about the guilt – guilty that I've put myself into situations to where it would have been necessary for it, but not guilty for [the actual usage]. (age 34, 12 months on PrEP)

Table 4 Conflicts in relationships attributed to PrEP

Anticipated stigma
1. When I first started taking it, I don't tell my partner for like six months. I hid it from him and that was just because I did not know how he was going to feel about me taking PrEP. Like, "You don't trust me? You think I'm out here doing this stuff?" I just felt it would be damaging to our relationship for him to know that I was taking PrEP. I felt he would feel like I don't trust him, so I don't tell him for a long time. (age 33, 24 months on PrEP)
Enacted stigma
2. I had a guy break up with me because I was on PrEP… he was like, "I feel like you being on PrEP means you like to sleep around." And I was like, "Well, bitch I might." But that wasn't the case. Actually, I'm very monogamous. But he broke up with me because he did not like the idea of me being on a pill that prevented me from having to use condoms, but I even used a condom when we were together. (age 22, 42 months on PrEP)

Experiences of Discomfort or Judgment from Medical Providers

The experiences of discomfort or judgment from medical providers was another manifestation of PrEP-related stigma that emerged in the study. The data revealed a perceived difference in treatment and quality of care based on the gender and/or sexual orientation of the medical provider (Table 5, Quotes 1–3). When first requesting PrEP or during ongoing medical monitoring, providers would often assert their preference for condoms or suggest that users opt for closed, monogamous relationships (Quote 2). This apparent lack of LGBT competency among medical providers affected participants' willingness to have honest conversations with their providers regarding their sexual behaviors that make them appropriate candidates for PrEP (Quote 3).

Table 5 Experiences of discomfort or judgment from medical providers

Enacted stigma
1. When I first started [PrEP]? It was easier and I think that was because I had a gay doctor… So now I have a girl who's my PrEP doctor. It's a weird feeling because it's like they don't know what [PrEP] for and they don't know what they are talking about. And it also feels like they judge me for the fact that I'm using it to sleep with other men. (age 22, 42 months on PrEP)
2. I felt her sense like, "What you out here doing? Because when you talk to me and you regularly get HIV tests, you told me you wear condoms. So why do you need PrEP?" […] It's just an assumption of your sexual behavior whenever you talk about PrEP or whenever you try to get on PrEP… It's kind of like, "Well, maybe you should find you a partner that wants to be only with you." (age 33, 24 months on PrEP)
3. I found if I have had a certain amount of partners, I'll reduce it by half to be like, "No, I have not really done anything." And that's every doctor that I had once I started saying like, "Well… this is how many partners I've had." Unless it's a gay provider. (age 33, 24 months on PrEP)

Assumption That PrEP Users Are HIV-Positive

The next type of experience identified was the assumption that PrEP users are HIV-positive because they are taking an HIV medication (Table 6, Quotes 1–4). Some participants chose not to disclose their PrEP use as a strategy to avoid the stigma attached to HIV that continues to persist within the Black community (Quote 1). In addition, the lack of awareness of PrEP within the Black community was cited as a reason why parents or sex partners might have difficulty accepting that an HIV medication is not just for treatment but can be used for prevention (Quotes 2–3). The potential for being misclassified as HIV-positive led some to express feelings of shame or guilt regarding their use of PrEP (Quotes 4).

Table 6 Assumption that PrEP users are HIV-positive

Anticipated stigma
1. If somebody finds it and they know what Truvada means, they are going to be like, "This dude has HIV." And I'm not saying I do not even want to talk about stigma or whatever, but I do not have it so I do not want someone to think that I have it when I do not. It's just that simple. (age 31, 18 months on PrEP)
2. I just would not like my mom or my sister finding the bottle and then Googling it and being like, "He has HIV?!" Like, they'll freak out… because they are just not in our community. They're straight folks and they are very religious and it's just like, "So you are taking HIV medicine, but you are not HIV-positive?" Skepticism abounds. So I'm not even going to go there. (age 31, 18 months on PrEP)
3. Some of [my sex partners] know or understand, but then if you say "I'm on PrEP," it still does not resonate with a lot of the community. So it just may go over their head. And then sometimes I think it may also have the reverse effect. Like, they think that you are taking it because you are positive. (age 36, 18 months on PrEP)
Enacted stigma
4. When I went to pick it up at Target, I just kind of felt like I was being looked at or maybe put into a box that I should not have been put in to. Because the pill just said "Truvada." It did not say "PrEP" at Target; whereas, at the Gay and Lesbian Center, it always said "PrEP." So I think I may have been judged for being guilty of something that I'm not even guilty of. (age 35, 10 months on PrEP)

Gay Stigma in Families Limits PrEP Disclosure

The anticipation or experience of gay stigma related to the disclosure of one's PrEP use also emerged as a manifestation of PrEP-related stigma. In particular, PrEP disclosure was limited by the lack of acceptance of gay identity and same-sex behaviors present within families (Table 7, Quotes 1–3), prompting non-disclosure of sexual orientation altogether (Quote 1). Religion was repeatedly cited as a driving force behind this lack of acceptance and the reason why gay stigma continues to persist within families (Quotes 2–3).

Discussion

In this study, BMSM experienced PrEP-related stigma within the context of PrEP disclosure, which is commonly manifested as disapproving judgment, negative labels and identities assigned to the user, and in discrediting individuals using PrEP. Sources of stigma included friends/peers, family members, sex partners, and medical providers. These findings suggest that PrEP users contend with the assumption that they routinely engage in elevated sexual risk behaviors. This assumption, in turn, provides the basis for the negative social identity often ascribed to those who use PrEP, which includes the attachment of labels such as "promiscuous" and "Truvada whore." Findings from this study are consistent with what has been previously reported in other studies conducted with MSM who were either current or potential PrEP users [14, 16, 28–30]. PrEP-related stigma has also been shown to be a significant barrier to the uptake of PrEP among at-risk MSM [22, 23]. As Race [32] explains, "Pre-Exposure Prophylaxis has so far emerged as a reluctant object in much gay community discourse, primarily because of its putative association with the supposed excesses of unbridled sex" (pg. 6). While there was no indication that the experiences of PrEP-related stigma negatively influenced adherence or continuation of PrEP among our participants, a previous study found this to be the case [22]. Instead, the current study underscores the personal and social consequences that can result from the disclosure of one's PrEP use.

For some BMSM in the present study, the ability to engage in condomless sex and/or have multiple sexual partners was part of their PrEP experience, and was even cited as a primary reason for initiating PrEP. Others, however, found that the negative social identity ascribed to their PrEP use was in direct conflict with their personal identity (i.e., uses condoms, limits number of sexual partners). This negative social identity can affect how disclosure of one's PrEP use is received by others. In the case of casual sex partners, disclosure of PrEP can potentially lead to the termination of the sexual encounter or in the shaming of the user. Moreover, these experiences may influence a user's willingness to disclose their PrEP use, which can hinder the dissemination of PrEP information to other high-risk BMSM who could benefit from PrEP adoption.

Another consequence of using PrEP identified in this study was the conflict it introduced in relationships, which often centered on questions or concerns regarding trust, potential infidelity, and monogamy. In general, PrEP is considered a necessary and acceptable form of HIV prevention for persons in HIV serodiscordant relationships [33]. It is primarily within the context of HIV-negative seroconcordant relationships that conflicts arise, wherein the use of PrEP by one partner is perceived as an indication of their infidelity or lack of trust in the relationship. For BMSM who are in HIV-negative seroconcordant relationship, more open lines of communication and mutual decision-making will be needed

Table 7 Gay stigma in families limits PrEP disclosure

Anticipated stigma
1. Well, only a few of [my family members] know that I'm gay. The others I have not told because of the fact that they are obviously religious extremists… [My parents] would give all this, "All gays are going to go to hell." (age 35, 12 months on PrEP)
2. Put it this way: in telling [my grandmother], I would have to admit what they have been bugging me for years about. Like I said, I'm transparent; however, they are highly religious. And one of my cousins that passed away from AIDS, I literally threw up in finding out that she and a member of her church and her husband tried to exorcize the homosexual demons out of his body… I would hope that she would look at the positive and say, "Okay, you are being responsible." But she would totally look at the biblical/sexual portion of that, "Hey, you are laying down with another man." (age 35, 10 months on PrEP)
Enacted stigma
3. Kind of a poor response on that side. My family's very religious. So anything remotely considered a contraceptive is bad. And also the fact that I'm gay is not accepted. So it did not roll over very well when I told my mom, but, I mean, I want to say she's happy that I'm protecting myself. But my family's very backwoods. Imagine if Fox News sat down in the bible belt and raised a family. That's my family. (age 22, 42 months on PrEP)

when one or both partners is deciding to initiate or discontinue their PrEP use. However, BMSM must consider the potential consequences of not initiating or discontinuing PrEP (e.g., potential HIV exposure and seroconversion), as research has found that 68% of new HIV infections occur among MSM within the context of seemingly "monogamous" relationships [34].

Participants also noted experiences of judgment and discomfort during interactions with medical providers who do not share their same gender and/or sexual orientation. The encounters noted suggest that providers would prefer users change their sexual behaviors that put them at increased risk for HIV infection rather than initiate or continue using PrEP. Additionally, the documented existing mistrust toward medical institutions, as well as experiences of stigma related to their race and/or sexual orientation from providers reported by BMSM [35], may make it particularly difficult for these men to be open and honest with medical providers about their sexual behaviors that may make them appropriate candidates for PrEP [19, 36, 37]. Therefore, to increase uptake among BMSM, there must be a balance between allowing patients to have agency and autonomy in the decision to initiate PrEP, trusting that the patient can make decisions about what is best for their sexual health, and the provider's decision to prescribe PrEP based on a patient's reported sexual behaviors and existing CDC clinical indicators for PrEP.

The experiences of participants in this study reveal a pressing need for increasing LGBT competency and representation among medical providers, while also improving the education of health care providers around PrEP. The experiences also highlight the need for training medical providers on effective communication strategies with patients of sexual and/or racial minority groups that are affirming of their multiple identities and free of judgment and stigmatization. For example, medical providers and institutions can promote a broader recognition of PrEP users as individuals who are proactive in maintaining their sexual and physical health through their use of proven HIV-prevention methods [38]. In addition, the National LGBT Health Education Center also provides training modules that may be useful in helping medical providers develop their capacity in delivering PrEP and working with LGBTQ patients [39].

This study also highlights the intersectional experiences of PrEP, HIV, and gay stigma that can occur when BMSM PrEP users disclose their PrEP use, particularly with family. The fear participants expressed of being misclassified as HIV-positive, and the gay stigma they expect to occur should they disclose their PrEP use to family, is likely a reaction to the negative attitudes toward HIV and homosexuality that continue to persist within Black communities. Previous studies have found that HIV stigma and homophobia work to reinforce one another and typically manifest within the Black community as a belief that HIV is a punishment for homosexual behavior, in damaging gossip being spread about the individual, or in the potential rejection and loss of social support from family and community members [40–42]. In addition, gay stigma experienced within families has been found to create an environment that hinders the open discussion of sexual behaviors and gay identity [43], making it especially difficult for young BMSM to approach conversations about their PrEP use. In this study, BMSM often linked their family's inability to accept their gay identity to the family member's religiosity, which supports previous findings that demonstrate the role that religion and churches play in reproducing negative messages about HIV and homosexuality within the Black community [40, 41, 43]. It will be important for BMSM to consider the potential for experiencing HIV and gay stigma should they choose to disclose their PrEP use to family members.

Those facilitating PrEP adoption with BMSM must consider how the intersection of multiple social stigmas (i.e., PrEP, gay, HIV) may act as a barrier to PrEP initiation and continuation. To address PrEP stigma, other authors have suggested that key stakeholders and health program planners may benefit from creating public health campaigns focused on normalizing PrEP, providing targeted education to communities that are heavily affected by HIV infection, and using local opinion leaders or celebrities to promote PrEP [21, 28, 38]. One example of a successful public health campaign to raise PrEP awareness and to challenge common misperceptions about PrEP use is the widely dissmeniated PrEP promotional video Kiki n' Brunch [44], which was created by Altamed Health Services in Los Angeles to highlight real-world discussions about PrEP and HIV prevention among young adult men of color. To address HIV and gay stigma within the Black community to facilitate PrEP use among BMSM, efforts should also focus on working in collaboration with respected

community-based organizations and advocacy groups that have gained the trust of the Black community. In addition, participants in the present study, whom we refer to as "PrEP Champions," were proactive about disclosing their PrEP use and challenged existing stigmas. These BMSM PrEP Champions have the potential to create a more positive social view of PrEP users and to disseminate PrEP information to other BMSM within their social networks.

These findings should be interpreted within the context of our study limitations. Our sample consisted of BMSM PrEP users who were recruited from Los Angeles and who, on average, had been using PrEP for more than a year. These results may not be generalizable to BMSM in other large urban settings or those who have only begun using PrEP. Overtime, the BMSM in the present study may have acclimated to the stigma attached to PrEP users. Future research should focus on evaluating the experiences of BMSM PrEP adopters during the initial period of PrEP use to assess if experiences of multiple stigmas affect adherence, disclosure, and continuation of PrEP.

Conclusion

BMSM who choose to adopt PrEP, in the hope of preventing HIV infection, may experience stigma related to their PrEP use. PrEP-related stigma may be compounded by other forms of stigma experienced by BMSM both within and outside of their community (e.g., racial stigma, gay stigma). To help optimize PrEP uptake among BMSM, efforts are needed to address the existing negative perceptions of PrEP users that may limit interest and adoption of this highly effective HIV prevention strategy among BMSM. Future research in this area should seek to explore interventions that can present PrEP in a more positive light using a community-based participatory research approach. This will include re-framing PrEP as a strategy only needed by high-risk individuals to an option for all individuals who are seeking to have a more fulfilling and healthy sex life.

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Compliance with Ethical Standards All study procedures involving human participants were performed in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all human participants prior to the initiation of study procedures.

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

Appendix. Interview guide

BMSM PrEP users

(Interviewer opening prompt to qualitative questions)

I will be asking you questions about how you came to use PrEP for HIV prevention and who you have talked to about your PrEP use and how they have reacted when you told them that you are using PrEP. Do you have any questions before we begin?

(Interviewer responds to any questions and then begins interview)

1. Question No. 1: Opening question: Since you are currently using PrEP, how is it being covered or paid for? (e.g., private insurance, through your medical doctor, through a demonstration project or research study)

Probes:

- Where are you getting PrEP from?
- How did you first learn about PrEP?
- What were your main sources for PrEP information?
- Were there any persons you talked to about PrEP before deciding to use it?
- What was the main reason you decided to use PrEP?
- When did you first start taking PrEP, the approximate date of when you started?
- What were some of the challenges you faced in accessing PrEP?

2. Question No. 2: Next, what are some of the comments you have heard in the gay community about PrEP?

Probes:

- What are some of the positive comments you have heard or read about PrEP?
  (Ask if the comment was heard or read)
- What is the source of these positive comments?

– Friends/peers, service providers, social media (ask type: Facebooks, Instagram, Twitter), blogs, gay media either online or print

- What are some of the negative comments you have heard or read about PrEP?
  (Ask if the comment was heard or read)
- What is the source of these negative comments?

– Friends/peers, service providers, social media (ask type: Facebooks, Instagram, Twitter), blogs, gay media either online or print

- What are some of the labels you have heard attached to people who use PrEP?
- Have any of these labels ever been applied to you? If so, which labels and by whom?

3. Question No. 3: For this next question, I am going to ask you to describe the experiences you have had with friends, family, and sex partners because you are using PrEP.

Probes:

- Describe the experiences you have had with friends when they found out you were using PrEP
- Describe the experiences you have had with family when they found out you were using PrEP.
- Describe the experiences you have had with sexual partners when they found out you were using PrEP.

4. Question No. 4: We've talked about the experiences you have had, now let us talk about any situations you have not discussed where you think you might be judged or treated differently because of your PrEP use.

Probes:

- Do you think you would be judged or treated differently if you disclosed to your close friends that you are using PrEP? If so, how?
- Do you think you would be judged or treated differently if you disclosed to your family that you are using PrEP? If so, how?
- Do you think you would be judged or treated differently if you disclosed to your sex partner(s) that you are using PrEP? How might this be different if it was someone who was just a casual sex partner versus a regular sex partner?

5. Question No. 5: In the beginning of the interview, we talked about some of your reasons for starting PrEP. Now I want to focus on how you feel about PrEP. So what are some of your personal feelings about PrEP?

Probes:

- For example, have you ever felt embarrassed because of your PrEP use? If yes, please describe why you felt embarrassed.
- Have you ever felt proud that you are using PrEP? If yes, please describe why you felt proud.
- Have you ever felt guilty because of your PrEP use? If yes, please describe why you felt guilty.
- Have you felt more responsible for your PrEP use? If yes, please describe why you felt more responsible.
- Does using PrEP make you feel less anxious? If yes, please describe why you feel less anxious?
- Does using PrEP ever make you feel like you are doing something wrong? If yes, please describe why you feel like you are doing something wrong.

6. Question No. 6: In order to get a prescription for PrEP, that meant that you first had to go through a medical doctor. As such, I want you to tell me about your experiences with the medical provider that prescribed you PrEP. What was that experience like?

Probes:

- Did you have a positive experience getting PrEP from your doctor? If yes, please describe what made it positive for you.

- Was it a difficult experience? If yes, please describe what made it difficult.
- Was it an embarrassing experience? If yes, please describe what it embarrassing.
- How did your doctor respond to your request for PrEP?
- How comfortable were you discussing with your doctor that you have sex with men in order to get PrEP?
- What have you discussed with your doctor (e.g., the kind of sex you have [bottom or topping], if you have sex with a condom or not, the number of partners you have)?
- Have your experiences with your doctor changed? If so, how?

7. Question No. 7: Have you ever done anything to hide your use of PrEP?

Probes:

- Do you ever hide your medications?
- Do you avoid taking your meds in front of people?
- Do you avoid talking about your meds with friends and family?
- Do you avoid telling sex partners?

References

1. Centers for Disease Control and Prevention. Diagnoses of HIV infection in the United States and dependent areas, 2016. *HIV Surveill Rep*. 2017;28. https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2016-vol-28.pdf. Accessed 11 Dec 2018.
2. Centers for Disease Control and Prevention. HIV and African American gay and bisexual men. https://www.cdc.gov/hiv/group/msm/bmsm.html. Published 2018. Accessed 11 Dec 2018.
3. Centers for Disease Control and Prevention. HIV among gay and bisexual men factsheet. https://www.cdc.gov/nchhstp/newsroom/docs/factsheets/cdc-msm-508.pdf. Published 2017. Accessed 11 Dec 2018.
4. Los Angeles County Department of Public Health Division of HIV and STD Programs. 2016 Annual HIV Surveillance Report. 2018. http://publichealth.lacounty.?gov/dhsp/Reports/HIV/AnnualHIVSur?veillanceReport2016.pdf. Accessed 11 Dec 2018.
5. Husted CE. Los Angeles County Comprehensive HIV Plan (2017–2021). 2018:1–165. http://publichealth.lacounty.gov/dhsp/Reports/Publications/LAC-Comprehensive-HIV-Plan2017-2021.pdf. Accessed 11 Dec 2018.
6. Matthews DD, Herrick AL, Coulter RWS, et al. Running backwards: consequences of current HIV incidence rates for the next generation of Black MSM in the United States. *AIDS Behav*. 2016;20(1):7–16. https://doi.org/10.1007/s10461-015-1158-z.
7. Baeten JM, Donnell D, Ndase P, Mugo NR, Campbell JD, Wangisi J, et al. Antiretroviral prophylaxis for HIV prevention in heterosexual men and women. *N Engl J Med*. 2012;367(5):399–410. https://doi.org/10.1056/NEJMoa1108524.
8. Grant RM, Lama JR, Anderson PL, McMahan V, Liu AY, Vargas L, et al. Preexposure chemoprophylaxis for HIV prevention in men who have sex with men. *N Engl J Med*. 2010;363(27):2587–99. https://doi.org/10.1056/NEJMoa1011205.
9. Thigpen MC, Kebaabetswe PM, Paxton LA, Smith DK, Rose CE, Segolodi TM, et al. Antiretroviral preexposure prophylaxis for heterosexual HIV transmission in Botswana. *N Engl J Med*. 2012;367(5):423–34. https://doi.org/10.1056/NEJMoa1110711.
10. Centers for Disease Control and Prevention. Preexposure prophylaxis for the prevention of HIV infection in the United States - 2017 update. 2018. https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2017.pdf. Accessed 11 Dec 2018.
11. Huang YA, Zhu W, Smith DK, Harris N, Hoover KW. HIV preexposure prophylaxis, by race and ethnicity — United States, 2014–2016. *Morb Mortal Wkly Rep*. 2018;67(41):1147–50. https://doi.org/10.15585/mmwr.mm6741a3.
12. Smith DK, Van Handel M, Grey J. Estimates of adults with indications for HIV pre-exposure prophylaxis by jurisdiction, transmission risk group, and race/ethnicity, United States, 2015. *Ann Epidemiol*. May 2018;28:850–857.e9. https://doi.org/10.1016/j.annepidem.2018.05.003.
13. Okafor CN, Gorbach PM, Ragsdale A, Quinn B, Shoptaw S. Correlates of preexposure prophylaxis (PrEP) use among men who have sex with men (MSM) in Los Angeles, California. *J Urban Health*. 2017;94(5):710–5. https://doi.org/10.1007/s11524-017-0172-z.
14. Brooks RA, Allen VC, Regan R, Mutchler MG, Cervantes-Tadeo R, Lee S-J. HIV/AIDS conspiracy beliefs and intention to adopt preexposure prophylaxis among black men who have sex with men in Los Angeles. *Int J STD AIDS*. 2018;29(4):375–81. https://doi.org/10.1177/0956462417727691.
15. Brooks RA, Landovitz RJ, Regan R, Lee S-J, Allen VC. Perceptions of and intentions to adopt HIV pre-exposure prophylaxis among black men who have sex with men in Los Angeles. *Int J STD AIDS*. 2015;26(14):1040–8. https://doi.org/10.1177/0956462415570159.
16. Eaton LA, Kalichman SC, Price D, Finneran S, Allen A, Maksut J. Stigma and conspiracy beliefs related to pre-exposure prophylaxis (PrEP) and interest in using PrEP among black and white men and transgender women who have sex with men. *AIDS Behav*. 2017;21(5):1236–46. https://doi.org/10.1007/s10461-017-1690-0.
17. Ojikutu BO, Bogart LM, Higgins-Biddle M, Dale SK, Allen W, Dominique T, et al. Facilitators and barriers to pre-exposure prophylaxis (PrEP) use among black individuals

in the United States: results from the National Survey on HIV in the Black Community (NSHBC). *AIDS Behav.* 2018;22(11):3576–87. https://doi.org/10.1007/s10461-018-2067-8.

18. Calabrese SK, Earnshaw VA, Krakower DS, Underhill K, Vincent W, Magnus M, et al. A closer look at racism and heterosexism in medical students' clinical decision-making related to HIV pre-exposure prophylaxis (PrEP): implications for PrEP education. *AIDS Behav.* 2018;22(4):1122–38. https://doi.org/10.1007/s10461-017-1979-z.
19. Lelutiu-Weinberger C, Golub SA. Enhancing PrEP access for Black and Latino men who have sex with men. *J Acquir Immune Defic Syndr.* 2016;73(5):547–55. https://doi.org/10.1097/QAI.0000000000001140.
20. Calabrese SK, Earnshaw VA, Underhill K, Hansen NB, Dovidio JF. The impact of patient race on clinical decisions related to prescribing HIV pre-exposure prophylaxis (PrEP): assumptions about sexual risk compensation and implications for access. *AIDS Behav.* 2014;18(2):226–40. https://doi.org/10.1007/s10461-013-0675-x.
21. Calabrese SK, Krakower DS, Mayer KH. Integrating HIV preexposure prophylaxis (PrEP) into routine preventive health care to avoid exacerbating disparities. *Am J Public Health.* 2017;107(12):1883–9. https://doi.org/10.2105/AJPH.2017.304061.
22. Haire BG. Preexposure prophylaxis-related stigma: strategies to improve uptake and adherence – a narrative review. *HIV AIDS (Auckl).* 2015;7:241–9. https://doi.org/10.2147/HIV.S72419.
23. Schnarrs PW, Gordon D, Martin-Valenzuela R, Sunil T, Delgado AJ, Glidden D, et al. Perceived social norms about oral PrEP use: differences between African–American, Latino and White gay, bisexual and other men who have sex with men in Texas. *AIDS Behav.* 2018;22(11):3588–602. https://doi.org/10.1007/s10461-018-2076-7.
24. Goffman E. *Stigma: Notes on the Management of Spoiled Identity.* New York, NY: Simon and Schuster; 2009.
25. Earnshaw VA, Chaudoir SR. From conceptualizing to measuring HIV stigma: a review of HIV stigma mechanism measures. *AIDS Behav.* 2009;13(6):1160–77. https://doi.org/10.1007/s10461-009-9593-3.
26. Earnshaw VA, Smith LR, Chaudoir SR, Amico KR, Copenhaver MM. HIV stigma mechanisms and well-being among PLWH: a test of the HIV stigma framework. *AIDS Behav.* 2013;17(5):1785–95. https://doi.org/10.1007/s10461-013-0437-9.
27. Molina Y, Ramirez-Valles J. HIV/AIDS stigma: measurement and relationships to psycho-behavioral factors in Latino gay/bisexual men and transgender women. *AIDS Care.* 2013;25(12):1559–68. https://doi.org/10.1080/09540121.2013.793268.
28. Dubov A, Galbo P, Altice FL, Fraenkel L. Stigma and shame experiences by MSM who take PrEP for HIV prevention: a qualitative study. *Am J Mens Health.* 2018;12(6):1843–54. https://doi.org/10.1177/1557988318797437.
29. Collins SP, McMahan VM, Stekler JD. The impact of HIV pre-exposure prophylaxis (PrEP) use on the sexual health of men who have sex with men: a qualitative study in Seattle, WA. *Int J Sex Health.* 2017;29(1):55–68. https://doi.org/10.1080/19317611.2016.1206051.
30. Mimiaga MJ, Closson EF, Kothary V, Mitty JA. Sexual partnerships and considerations for HIV antiretroviral pre-exposure prophylaxis utilization among high-risk substance using men who have sex with men. *Arch Sex Behav.* 2014;43(1):99–106. https://doi.org/10.1007/s10508-013-0208-8.
31. Feldman BJ, Fredericksen RJ, Crane PK, Safren SA, Mugavero MJ, Willig JH, et al. Evaluation of the single-item self-rating adherence scale for use in routine clinical care of people living with HIV. *AIDS Behav.* 2013;17(1):307–18. https://doi.org/10.1007/s10461-012-0326-7.
32. Race K. Reluctant objects: sexual pleasure as a problem for HIV biomedical prevention. *GLQ J Lesbian Gay Stud.* 2016;22(1):1–31. https://doi.org/10.1215/10642684-3315217.
33. Brooks RA, Nieto O, Landrian A, Donohoe TJ. Persistent stigmatizing and negative perceptions of pre-exposure prophylaxis (PrEP) users: implications for PrEP adoption among Latino men who have sex with men. *AIDS Care.* 2018;31:1–9. https://doi.org/10.1080/09540121.2018.1499864.
34. Sullivan PS, Salazar L, Buchbinder S, Sanchez TH. Estimating the proportion of HIV transmissions from main sex partners among men who have sex with men in five US cities. *AIDS.* 2009;23(9):1153–62. https://doi.org/10.1097/QAD.0b013e32832baa34.
35. Eaton LA, Driffin DD, Kegler C, Smith H, Conway-Washington C, White D, et al. The role of stigma and medical mistrust in the routine health care engagement of black men who have sex with men. *Am J Public Health.* 2014;105(2):e75–82. https://doi.org/10.2105/AJPH.2014.302322.
36. Bernstein KT, Liu K-L, Begier EM, Koblin B, Karpati A, Murrill C. Same-sex attraction disclosure to health care providers among new York City men who have sex with men: implications for HIV testing approaches. *Arch Intern Med.* 2008;168(13):1458–64. https://doi.org/10.1001/archinte.168.13.1458.
37. Petroll AE, Mosack KE. Physician awareness of sexual orientation and preventive health recommendations to men who have sex with men. *Sex Transm Dis.* 2011;38(1):63–7. https://doi.org/10.1097/OLQ.0b013e3181ebd50f.
38. Golub SA. PrEP stigma: implicit and explicit drivers of disparity. *Curr HIV/AIDS Rep.* 2018;15(2):190–7. https://doi.org/10.1007/s11904-018-0385-0.
39. Learning Modules. National LGBT Health Education Center. https://www.lgbthealtheducation.org/lgbt-education/learning-modules/. Accessed 24 Apr 2019.
40. Arnold EA, Rebchook GM, Kegeles SM. 'Triply cursed': racism, homophobia and HIV-related stigma are barriers to regular HIV testing, treatment adherence and disclosure among young black gay men. *Cult Health Sex.* 2014;16(6):710–22. https://doi.org/10.1080/13691058.2014.905706.
41. Balaji AB, Oster AM, Viall AH, Heffelfinger JD, Mena LA, Toledo CA. Role flexing: how community, religion, and family shape the experiences of young black men who have sex with men. *AIDS Patient Care STDs.* 2012;26(12):730–7. https://doi.org/10.1089/apc.2012.0177.
42. Bird JDP, Voisin DR. "You're an open target to be abused": a qualitative study of stigma and HIV self-disclosure among

black men who have sex with men. *Am J Public Health*. 2013;103(12):2193–9. https://doi.org/10.2105/AJPH.2013.301437.

43. Voisin DR, Bird JDP, Shiu C-S, Krieger C. "It's crazy being a black, gay youth." getting information about HIV prevention: a pilot study. *J Adolesc*. 2013;36(1):111–9. https://doi.org/10.1016/j.adolescence.2012.09.009.

44. AltaMed. Kiki n' Brunch - PrEP Awareness. https://www.youtube.com/watch?v=SXYpDE-tG1I. Accessed 24 Apr 2019.