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HIV-negative Male Couples' Attitudes about Pre-exposure Prophylaxis (PrEP), and Using PrEP with a Sexual Agreement

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Abstract

One efficacious strategy to help prevent HIV is oral pre-exposure prophylaxis (PrEP), a daily regimen of antiretroviral treatment taken by HIV-negative individuals. Two of the recommendations of CDC's guidelines for PrEP pertain to being in a relationship (i.e., male couples). Despite the recognition of how primary partners in male couples' relationships shape HIV risk and CDC's PrEP guidelines, there is a paucity of data that examines HIV-negative male couples' attitudes toward PrEP use, and using PrEP with a sexual agreement. A sexual agreement is an explicit agreement made between two individuals about what sex and other related behaviors may occur within and outside of their relationship. In this qualitative study, we examine HIV-negative male couples' attitudes toward PrEP use and whether they thought PrEP could be integrated into a sexual agreement. Data for this study are drawn from couple-level interviews conducted in 2014 with 29 HIV-negative male couples who had a sexual agreement and were from Atlanta or Detroit. Both passive (e.g., flyers) and active (e.g., targeted Facebook advertisements) recruitment methods were used; the sample was stratified by agreement type. Thematic analysis was applied to identify themes regarding HIV-negative male couples' attitudes toward PrEP use: 1) PrEP and condom use; 2) concerns about PrEP (e.g., effectiveness, side effects, and promoting sexually risky behavior); 3) accessibility of PrEP. Some thought PrEP could be a part of couples' agreement because it could help reduce sexual anxiety and sexual risk, and would help keep the couple safe. Others described PrEP use with an agreement as something for "others". Some were also concerned that incorporating PrEP could usurp the need for a sexual agreement in a couples' relationship. These themes highlight the need to improve informational messaging and promotion efforts about PrEP among HIV-negative male couples who may benefit from using it.

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Keywords

Male couples; Pre-exposure prophylaxis; Attitudes; Sexual agreements; Qualitative interviews; Dyadic data

The advent of oral pre-exposure prophylaxis (PrEP) – a regimen of ART taken by those who are HIV-negative to prevent the acquisition of HIV - offers a promising means of prevention. Recent clinical trials have demonstrated the safety of PrEP (Grant et al., 2010; Grohskopf et al., 2013; McCormack & Dunn, 2015; Molina et al., 2015) and significant efficacy for HIV prevention. The CDC has provided guidelines for who may best benefit from PrEP (CDC, 2015). With respect to gay men and other MSM, this includes anyone who: 1) is in an ongoing relationship with an HIV-positive partner (i.e., HIV-discordant male couples); 2) is not in a mutually exclusive monogamous relationship with a partner who recently tested HIV-negative (i.e., HIV negative male couples with an open relationship or perceived to be monogamous but not); 3) has had CAS or been diagnosed with a STI in the past 6 months (CDC, 2015). Central to the CDC PrEP guidelines are male-male relationships, with two of the recommended criteria for PrEP candidacy pertaining to being in a relationship.

Between one- and two-thirds of US MSM acquire HIV from their main relationship partners, driven by greater sexual frequency and higher likelihood of having CAS with the primary partner (Goodreau et al., 2012; Sullivan, Salazar, Buchbinder, & Sanchez, 2009). Dynamics within couples' relationships, such as a sexual agreement (an explicit mutual understanding about which sexual and related behaviors are permitted to occur within and/or outside of the relationship (Hoff & Beougher, 2010; Mitchell, 2014)) also affect their engagement in CAS and other HIV-related risk behaviors (Darbes, Chakravarty, Neilands, Beougher, & Hoff, 2014; Mitchell, Harvey, Champeau, Moskowitz, & Seal, 2012). Men in relationships are also less likely to test regularly for HIV (Mitchell & Horvath, 2013; Mitchell & Petroll, 2012) and more likely to perceive themselves at less risk for HIV infection (Stephenson, White, Darbes, Hoff, & Sullivan, 2015). However, despite recognition of the role of primary partners and male-male relationships in shaping the risk of HIV acquisition among MSM, and CDC guidelines that highlight PrEP candidacy for some male couples, there is limited data that examines couples' attitudes towards PrEP use.

Hoff and colleagues (2015) recently assessed HIV-negative male couples' attitudes about PrEP and reported that many considered PrEP a good prevention strategy for themselves and their partner. Further, Brooks and colleagues (2012) noted partnered men in same-sex relationships had high acceptability of PrEP such that being able to have anal sex without condoms, being protected from HIV infection, and perceiving to have less anxiety when having sex with an HIV-positive partner were related to their willingness to adopt PrEP. In contrast, Saberi and colleagues (2012) reported male couples' ambiguity and ambivalence about PrEP uptake were related to their concerns about risk compensation, financial coverage, adverse side effects, and drug resistance. To further expand our understanding about HIV-negative male couples' attitudes toward PrEP, additional studies are needed to help advance HIV prevention efforts with this population. In this study, we present preliminary qualitative data examining the attitudes of self-reported HIV-negative male

couples towards PrEP use and whether they thought PrEP could be integrated into a sexual agreement.

Method

Recruitment and Eligibility

Data for this study are drawn from interviews conducted with 29 HIV-negative male couples from Atlanta and Detroit in 2014. The University of Michigan and the University of Miami Institutional Review Boards approved all study procedures. Participants were recruited via passive recruitment methods and targeted advertisements placed on Facebook. Interested men either clicked on the Facebook ad or called the number listed on the recruitment materials, and then were directed to a confidential online screener. Eligible men (aged >18, resident in Atlanta or Detroit, self-reported as being HIV-negative; have been practicing CAS in their relationship for > 6 months; have reported no recent history (< 1 year) of intimate partner violence or coercion; have formed and kept their sexual agreement for > 6 months) were then directed to an electronic version of the informed consent document. Once consented, participants were prompted to electronically input their own and partners' contact information so their partner could be screened for eligibility and provide consent to participate. Both members of the male couple had to meet all inclusion criteria to enroll.

Study sample

In total, 29 male couples participated: 15 from Detroit and 14 from Atlanta. Fifteen couples had an open sexual agreement whereas 14 had a closed agreement. The mean age of the participants was 33 years (range: 19 – 65) and the average age difference between partners was 6.1 years (range: 0 – 38). Fourteen percent of couples (N=4) had been in their relationship between 6 and 12 months, 34% (N=10) between 1 and 2 years, 17% (N=5) between 2 and 5 years, 24% (N=7) between 5 and 10 years, and 10% (N=3) had been in their relationship for over 10 years. Most men identified as Non-Hispanic and/or white; 28% of the couples were mixed race (N=8).

Procedures

Once both men of the couple were eligible and enrolled, they were invited to schedule and participate in an in-depth, semi-structured interview together. At the interview appointment, both partners, separately, were asked to provide consent again. The interview focused on the couples' general attitudes about PrEP and their willingness to use PrEP within the context of their sexual agreement and current relationship. Couples were asked, "Do you think couples should be aware of PrEP, why or why not?" followed by, "Could PrEP be a part of couples' sexual agreements? How come?" Follow-up prompts were used to encourage couples to elaborate for further discussion. All interviews were digitally recorded, transcribed verbatim, checked for accuracy, and de-identified.

Analytic plan

Thematic analysis (Braun & Clarke, 2006) was conducted to identify patterns (themes) about male couples' attitudes about PrEP, and whether PrEP could be integrated with a sexual agreement. Using a step-by-step iterative process (Frost, McClelland, Clark, &

Boylan, 2014), three members of the research team read all transcripts, took notes, and manually identified any overarching themes with a color-coded highlighting scheme. These three members then met to compare and discuss their color-coding for these themes and made adjustments as needed before creating the codebook, which provided a description of the themes for coding along with their corresponding definitions. Each team member then used the codebook to color-code the transcripts once again. This process was applied for all transcripts; each team member reviewed one another's coding of the transcripts to ensure consistency for the themes identified.

Results

Couples' attitudes about PrEP

A number of themes were identified about HIV-negative male couples' general attitudes towards PrEP: 1) PrEP and condom use; 2) concerns about PrEP including its effectiveness, side effects, and promoting sexually risky behavior; 3) accessibility of PrEP. The majority of this sample thought that other male couples should be made aware of PrEP, particularly under the pretense for extra precaution and prevention from HIV. However, while many thought PrEP was a good additional prevention option, several men stated that PrEP should not take the place of using condoms for anal sex. For example, one participant shared, *"What I am trying to say there is a lot of nasty stuff out there, so I don't think it should be used instead of condoms"* (27, White / Non-Hispanic, open agreement). Others noted that realistically some men did not or will not use condoms for anal sex and expressed that PrEP may be a good alternative for condoms wholly. One participant described,

Well, I was going to say yes because if it's just as effective as condoms, some people don't use condoms because they think they're uncomfortable or they don't like to wear them. So if this eliminates this, then it's good for that reason because it gives people an alternative other than condoms. And I like that they have to be re-tested every three months, because the best prevention is knowing your status (19, White / Non-Hispanic, closed agreement).

Regarding condoms and PrEP, far more couples thought PrEP could replace condoms (N=18) than not. Interestingly, over half of the couples who shared this opinion had a closed sexual agreement in their relationship.

Furthermore, several men had negative perceptions about PrEP and were skeptical of its effectiveness. These men commonly highlighted that PrEP is not proven to be 100% effective and that safe sex (i.e., using condoms) is always the best option. One participant shared, *"I would still wear a condom every time. I mean... has it been scientifically proven? If you have sex with 100 guys you've – 16 of them can give you HIV. So I would still wear a condom. But also I would still say safe sex is the best sex"* (37, White / Non-Hispanic, open agreement). Additionally, some paralleled PrEP to other prophylaxis treatments and their side effects. For example, *"Are there side effects with this stuff? I mean, it seems like the male analogy of birth control, which has side effects"* (24, White / Non-Hispanic, open agreement).

A few men shared that couples should not be aware of the option of PrEP because it may promote sexually risky behavior, explaining that taking PrEP undermines the importance of practicing safer sex. For example, *“If you’re just going to pop pills and then go do whatever you want, that just seems really risking... but it seems a lot easier to get away with things because you feel like you’re invincible”* (29, White / Non-Hispanic, closed agreement).

Negative perceptions and skepticism about PrEP were equally expressed among male couples regardless of their type of sexual agreement or location of residence.

A number of men were also concerned about the accessibility of PrEP, particularly the cost of PrEP and the need for that information to be available beforehand. One participant expressed: *“And be up-front about the cons – like the cost, because you don’t – want someone interested to then have their bubble burst when they realize it’s, you know, however much.”* (29, White / Non-Hispanic, open agreement). This concern did not differ by agreement type as evidenced by a participant with a closed agreement: *“Yes, it’s ridiculously expensive. So that needs to be out there too”* (32, White / Non-Hispanic, closed agreement).

PrEP as a part of couples’ sexual agreement

Some men reported that PrEP could be a part of couples’ agreements because it can reduce sexual anxiety and sexual risk, and thus strengthen the relationship. For example, *“Well... it’s mitigating whatever consequences you might be worried about in an open relationship... like I’m completely comfortable but I’m super afraid of HIV, like, well what if I do PrEP, well oh, okay, that could change it”* (29, Black / Non-Hispanic, closed agreement). Moreover, only those with a closed agreement resonated with this perception.

A few men also shared that incorporating PrEP into a sexual agreement is a responsible action to take because it keeps the couple safe, especially if they have outside partners or if they fail to adhere to their agreement. One participant expressed, *“Like, if someone did break the pact, the agreement... if they did stray from their agreement then, I mean, that part of their responsibility of keeping their partner healthy is to start on then, be honest...”* (30, White / Non-Hispanic, closed agreement). Similarly, another participant shared,

And I think if you’re talking about in terms of a relationship agreement, if you have a situation where there’s one partner, who’s like, look I mean, I love but I’m not going to stop, you know, going around all the time bare backing with everybody – I mean, that would at least be a way to prevent that issue... (31, White / Non-Hispanic, open agreement).

Interestingly, the majority of men shared their opinions about the incorporation of PrEP in a sexual agreement as an outside or “other” couple, almost as if they would have a very small chance of encountering PrEP themselves. For example, *“Or people that are in a closed relationship that, you know, has one positive partner then yeah, absolutely”* (30, White / Hispanic, closed agreement). Several men also emphasized that PrEP could be a beneficial part of a couples’ sexual agreement, but not necessarily their own. These men generally underscored the additional preventive tool that PrEP could provide for “other” couples. Alternatively, some were concerned that incorporating PrEP within a couple could usurp the need for a sexual agreement at all. For example,

I think it'll limit the scope of the agreement... you know, 'Oh well, I'm on this prophylactic, I'm on this preventative. I'm not gonna get HIV. I can do and do what I want and not worry about getting my partner infected'" (29, White / Non-Hispanic, open agreement).

With the exception of the first PrEP and sexual agreements theme, all other themes were equally expressed among male couples regardless of their type of sexual agreement or location of residence.

Discussion

Our findings revealed that most couples in this sample were supportive of PrEP and its purpose for helping other male couples' reduce their risk for HIV. However, many raised important concerns that research and health programs should seek to address to help inform male couples about the effectiveness of PrEP.

Those who were supportive of PrEP were divided into two groups: those who thought PrEP should not replace condoms for anal sex and those who thought PrEP could replace condoms. The notion that PrEP could replace condoms is consistent with previous research by Gamarel and Golub (2015), who found that MSM in romantic relationships would take PrEP to replace condoms, highly motivated by the intimacy that comes with engaging in CAS. The most common concern for couples was the skepticism about its effectiveness, which was shown through this duality of whether PrEP should or should not replace condoms for anal sex, consistent with findings from Saberi and colleagues (2012). These attitudes indicate a dire need to correctly inform male couples about the effectiveness of PrEP, which has also been reported among samples of MSM. For example, Young and colleagues (2014) concluded that appropriate communication methods must be implemented and operable within the context of diverse HIV literacy to better inform and help bolster the adoption of PrEP among at-risk MSM. Furthermore, previous studies have found that MSM and male couples' awareness and use of PrEP are fairly low, yet may be increasing with time (e.g., Brooks et al., 2012; Mimiaga, Case, Johnson, Safren, & Mayer, 2009; Mitchell & Stephenson, 2014). However, one study reported no increase in awareness and uptake of PrEP among Black MSM (Eaton, Driffin, Bauermeister, Smith, & Conway-Washington, 2015). It is clear that the potential utility and effectiveness that PrEP can offer in HIV prevention is masked by incorrect information. Targeted messages and access to accurate information about PrEP are critically needed to help inform male couples about PrEP, which may then help couples in deciding whether PrEP could be a strategy for managing their risk for HIV and other STIs. Healthcare providers should also assist with this obstacle of misinformation by informing their clients (e.g., single and partnered MSM) about PrEP and whether PrEP might be a good HIV preventive option for them to use.

In addition, couples thought sexual agreements should not be replaced by PrEP, but instead, could be incorporated into a sexual agreement. This finding shows promise and implications for helping to avert new HIV infections among male couples because sexual agreements are fairly common in this population. The establishment and adherence to a sexual agreement enables male couples to create clear expectations about sex and related-behaviors, manage

their risk for HIV/STIs, and enhance other dynamics of their relationship (e.g., communication, trust). Previous studies have shown that establishment and adherence to a sexual agreement helps couples reduce their risk for HIV (Darbes et al., 2014; Mitchell et al., 2012). Future work should assist male couples with deciding whether PrEP is a good option for them, and if so, how best to incorporate PrEP into their sexual agreement. Research and programmatic efforts are also needed to help male couples without an agreement, form one, as well as to assist them in deciding on whether they would like to consider incorporating PrEP when they form their agreement (or at a later stage).

Limitations

A non-generalized, convenience sample of HIV-negative male couples was obtained from the Detroit and Atlanta metro areas. Future studies should obtain data from other couples that live elsewhere in the U.S. to allow examination of whether attitudes and knowledge about PrEP differ by couples' region of residence. Because both partners of the couple were interviewed together, some participants may have felt uncomfortable voicing their honest opinions in front of their partners. Though this aspect of the study design may have influenced our findings, some variation in couples' attitudes towards PrEP was noted. Moreover, the interview guide did not emphasize whether the couples, themselves, would use PrEP, thereby limiting our understanding of this sample's potential acceptability and uptake of PrEP. Future PrEP studies with male couples should collect qualitative dyadic data by interviewing both partners of the couple separately and simultaneously. Despite these limitations, we obtained critically important information about HIV-negative male couples' attitudes about PrEP and whether PrEP could be integrated into a sexual agreement. Our sample was diverse in terms of agreement type, relationship duration, and age.

Conclusions

Our findings highlight that HIV-negative male couples thought PrEP is an important HIV prevention option for other male couples to know, but illustrated the need to bolster education and promotion efforts about PrEP given their concerns of its effectiveness and varying opinions about condom use. Couples also thought PrEP should not replace sexual agreements, but rather have it incorporated into an agreement. Better community-wide efforts are needed to help distribute accurate yet targeted information about PrEP to male couples and to assist couples with deciding whether PrEP is good prevention option for them. To help accomplish these goals, further research is needed to understand how best to appropriately distribute information and increase PrEP awareness given the different sexual health needs and agreement types that male couples form in their relationships.

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