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Couple-level Motivations to Test for HIV for Gay Men in Relationships

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Abstract

Previous studies of HIV testing among gay men describe the motivations, facilitators and barriers, behaviors, and demographic characteristics of individuals who test. What little research focuses on HIV testing among gay men in relationships shows that they do not test regularly or, in some cases, at all – their motivations to test have not been investigated. With so little data on HIV testing for this population, and the continued privileging of individually-focused approaches, gay men in relationships fall into a blind spot of research and prevention efforts. This study examined motivations to test for HIV using qualitative data from both partners in 20 gay male couples. Analysis revealed that the partners' motivations were either event-related (e.g., participants testing the beginning of their relationship or HIV-negative participants in an HIV-discordant relationship testing after risky episode with their discordant primary partner) or partner-related (e.g., participants testing in response to a request or suggestion to test from their primary partner or participants testing out of concern for their primary partner's health and wellbeing). These data provide insight into relationship-oriented motivations to test for HIV for gay men in relationships and, in doing so, demonstrates their commitment to their primary partner and relationship. These motivations can be leveraged to increase HIV testing among gay men in relationships, a population that tests less often than single gay men, yet, until recently, has been underserved by prevention efforts.

Keywords

gay couples; MSM; HIV testing; testing motivations

INTRODUCTION

Knowledge of one's serostatus via HIV testing is the fulcrum of many current prevention efforts in the US. At the forefront of those efforts, the 'test and treat' approach involves routinizing HIV testing for at-risk populations, linking to care those who test HIV-positive, and ensuring care for those who are already HIV-positive (Charlebois, Das, Porco, & Havlir,

2011; Fenton, 2007; Knussen, Flowers, & Church, 2004; Sorenson, et al., 2012; The White House Office of National AIDS Policy, 2010). Studies of those who test for HIV have informed these efforts. Previous research has examined motivations to test for HIV among gay men and found that they do so to reassure themselves that their safer sex efforts are effective (Fernández, Perrino, Bowen, Royal, & Varga, 2003; Knussen, et al., 2004; Myers, Orr, Locker, & Jackson, 1993; K. A. Phillips, et al., 1995) and to relieve themselves from the stress and anxiety associated with uncertain or unknown serostatus, risky sexual behavior, multiple casual sexual partners, a former sexual partner seroconverting, or experiencing 'symptoms' (Fernández, et al., 2003; Flowers, Duncan, & Knussen, 2003; Kalichman, et al., 1997; Knussen, et al., 2004; Lorenc, Marrero-Guillamón, Aggelton, et al., 2011; Lorenc, Marrero-Guillamón, Llewellyn, et al., 2011; Parent, Torrey, & Michaels, 2012; K. A. Phillips, et al., 1995; Straub, et al., 2011). Other research on testing behavior has shown that gay men are more likely to test for HIV if they have done so in the past, have positive attitudes towards their health, have a sense of vulnerability to infection, and have a feeling of responsibility towards maintaining their own health and that of their sexual partners (Fenton, 2007; Fernández, et al., 2003; Kalichman, et al., 1997; Knussen, et al., 2004; Lorenc, Marrero-Guillamón, Llewellyn, et al., 2011).

Far less research has examined testing behavior among gay men in relationships and virtually none has examined their motivations. A few studies explored factors associated with testing and found that gay men in relationships test less often than their single counterparts and gay men who are monogamous test less often than those who are not (MacKellar, et al., 2002; Myers, et al., 1993; G. Phillips, et al., 2013). One study investigated testing frequencies for HIV-negative gay men in relationships and found they do not test regularly or, in some cases, at all – even after having anal sex without condoms with primary partners of discordant serostatus or outside partners of discordant or unknown serostatus (Chakravarty, Hoff, Neilands, & Darbes, 2012). Another study found that gay men in relationships test only when they feel 'at risk' and not when they engage in risk behavior (Mitchell & Horvath, 2013; Mitchell & Petroll, 2012b). These studies suggest that gay men in relationships do not test, in part, because they perceive themselves to be at less risk for HIV than single gay men.

This conclusion is disconcerting given that HIV infection rates continue to climb among gay men – a population already acutely affected by the epidemic – and that primary partners may be the source of one- to two-thirds of those infections (CDC, 2012; Goodreau, et al., 2012; Sullivan, Salazar, Buchbinder, & Sanchez, 2009). The literature on gay couples and HIV offers compelling explanations as to why this may be the case. Nearly two decades of research has firmly established that many gay men in relationships have anal sex without condoms more often than their single counterparts (Davidovich, et al., 2001; Elford, Bolding, Maguire, & Sherr, 1999; Hays, Kegeles, & Coates, 1997; Hoff, et al., 2006; Hoff, et al., 1997; Kippax, et al., 2003; Lattimore, Thornton, Delpech, & Elford, 2010; Moreau-Gruet, Jeannin, Dubois-Arber, & Spencer, 2001; Prestage, et al., 2008; Prestage, et al., 2009; Remien, Carballo-Diequez, & Wagner, 1995; Van der Bij, et al., 2007). This is not only the case for HIV-negative men in concordant HIV-negative relationships, for whom the risk of HIV infection initially comes from outside the relationship; HIV-negative men in HIV-discordant relationships sometimes also have anal sex without condoms (Beougher, et al.,

2012; Prestage, et al., 2008), increasing the risk of HIV transmission inside the relationship (Bouhnik, et al., 2007; Crawford, et al., 2003; Denning & Campsmith, 2005; Lattimore, et al., 2010; Nieto-Andrade, 2010; Ostrow, et al., 2002; Palmer & Bor, 2001; Prestage, et al., 2008; Shernoff, 2006). Several factors influence why they may choose not to use condoms, including decreased condom use over time, disinterest in using condoms, and condoms acting as a barrier to sexual and relationship satisfaction (Davidovich, de Wit, & Stroebe, 2004; Eaton, West, Kenny, & Kalichman, 2009; Moreau-Gruet, et al., 2001; Palmer & Bor, 2001; Prestage, et al., 2008). Relationship dynamics such as trust, intimacy, and commitment have also been found to be associated with decreased condom use (Davidovich, et al., 2004; Eaton, et al., 2009; Hoff, Chakravarty, Beougher, Neilands, & Darbes, 2012; Palmer & Bor, 2001; Remien, et al., 1995).

Interdependence Theory (Kelley & Thibaut, 1978; Rusbult & Van Lange, 2003) may help explain these associations as it concerns itself with the way partners in a relationship interact—how they influence one another and how that influence affects outcomes such as emotions, behaviors, and motivations (Lewis, et al., 2006). The focal point of analysis thus shifts from the individual to the relationship, where partners may influence sexual behavior as well as any subsequent HIV risk or risk-reduction strategies. Many gay men in relationships reduce their HIV risk using negotiated safety agreements, such as being monogamous or always using condoms with outside partners, or seroadaptive behaviors, such as seropositioning, using PrEP, or, for HIV-discordant couples, keeping the HIV-positive partner's viral load suppressed (Beougher, et al., 2012; Brooks, et al., 2012; Jin, et al., 2009; Kippax, et al., 2003; Prestage, et al., 2009; Van de Ven, et al., 2005). It remains unclear how HIV testing may fit into those efforts; however, what is clear is that without it, without accurate knowledge of one's serostatus, the efficacy of those efforts is questionable. Partners may also influence HIV testing behavior. Given the centrality of 'test and treat' to current prevention efforts and the urgency of current prevention needs for gay men in relationships, it is imperative that HIV testing behaviors and motivations be investigated for these men. Failing to do so, research will continue to privilege individual perspectives and recommend individually-focused approaches and gay men in relationships will fall into a blind spot of research and prevention efforts, especially those emphasizing the importance of testing for HIV.

Some research has begun examining testing for gay men in relationships in the form of couples HIV testing and counseling (CHTC). Recent studies of the effect of CHTC on relationship outcomes have demonstrated that testing as a couple and mutual knowledge of serostatus promotes the relationship, solidifies commitment, builds a sense of responsibility to one's primary partner and to the relationship, and supports informed condom decision-making (Beougher, et al., 2013; Campbell, et al., 2014; Lorenc, Marrero-Guillamón, Llewellyn, et al., 2011; Mitchell, 2014; Stephenson, et al., 2011; Wagenaar, et al., 2012). While these studies address the aftereffects of testing for HIV on gay couples, they do not discuss the motivations that lead those couples, or individual partners, to seek the test in the first place. Consequently, they do not shed light on how motivations to test for HIV may differ for men in relationships.

Exploring relationship-oriented motivations to test for HIV is an essential component of any HIV prevention strategy emphasizing testing because many gay men are coupled. It is unknown whether motivations to test for HIV are different for these men and, if so, what effect they may have on testing in general and on the viability of programs such as ‘test and treat,’ CHTC, and home testing for HIV. In this analysis, our objective was to shed light on relationship-oriented motivations to test for HIV among gay men in relationships in an effort to better understand why these men test and what impact it may have on their relationships and sexual behavior.

METHOD

This analysis utilized qualitative data collected from semi-structured interviews with partners in 10 concordant HIV-negative and 10 HIV-discordant gay couples ($N_{\text{couples}} = 20$; $N_{\text{individuals}} = 40$) in the San Francisco Bay Area between February and August, 2011. The qualitative data constitute the first phase of a larger, quantitative study of gay couples that examined relationship dynamics and their association with HIV risk. Our recruitment strategy aimed to include robust numbers of men of color and discordant couples, as men of color bear an outsized burden of new HIV infections (CDC, 2012) and discordant couples face unique relationship dynamics that may increase HIV risk for the HIV-negative partner (Bouhnik, et al., 2007; Prestage, et al., 2008). While no specific targets were set for race/ethnicity, the study was designed to include equal numbers of concordant HIV-negative and HIV-discordant couples (i.e., 10 couples each). A sample size of 20 couples was deemed appropriate for this study because its precise objectives built on the study team’s continuing exploration of relationship dynamics in gay couples (Hoff & Beougher, 2010; Hoff, Beougher, Chakravarty, Darbes, & Neilands, 2010; Neilands, Chakravarty, Darbes, Beougher, & Hoff, 2010). Field research staff actively recruited participants from community settings that served or were frequented by gay men, such as bars and cafes, health centers and HIV/AIDS service organizations, and community-based organizations. They also distributed recruitment materials to attendees at community events as well as in shops and restaurants for display. Finally, they recruited participants through advertisements in print media and online.

Interested men called a toll-free hotline for more information. Callers were individually screened for eligibility, which required they: be at least 18 years old, have been in their relationship for at least three months, be in a concordant HIV-negative or HIV-discordant relationship (concordant HIV-positive couples were excluded because the study’s focus is preventing new HIV infections among gay men in relationships), know their own and their partner’s HIV status, have had anal sex with a male partner (primary, outside, or both) in the past 90 days, not have participated in previous couples studies by the same research team, and not be transgender (transgender men were excluded because their relationships present unique dynamics that fall outside the scope of the study and warrant careful study on their own). Couples were eligible to participate only if both partners met all eligibility criteria. A “couple” was defined as two men who were committed to one another, above anyone else, and who were having, or have had, sex together. We screened 70 couples before reaching our recruitment goal of 20. A majority of those screened out were ineligible because they were in concordant HIV-positive relationships (44%), neither partner reported having anal

sex (with anyone) in the past 90 days (10%), or they reported participating in previous studies by the same research team (6%).

Couples were given scheduled appointments for 60–90 minute semi-structured, qualitative interviews. Informed consent was obtained from each partner before the interview. Interviews were conducted by three research assistants who were trained by senior members of the study team in qualitative research methods, interviewing skills, and the ethics of research with human subjects. Partners were interviewed separately to encourage candid discussion of their relationship. Interviews examined the following topics: relationship history, sexual behavior with primary and outside partners, agreements about sex, broken agreements, sexual and relational satisfaction, and HIV and HIV testing. Partners were paid \$40.00 each as incentive.

Interviews were digitally recorded and transcribed verbatim. Data analysis utilized a multi-tiered approach which first began with five research assistants thoroughly checking the transcripts for accuracy (e.g., mistakes, misspellings, or omissions). Then, four senior members of the study team divided all transcripts equally for analysis, identified emergent themes, and distilled those themes into a unique set of codes using a Grounded Theory approach (Denzin & Lincoln, 2003). Code development was augmented by integrating the study team's previous research. Codes were created to exhaustively cover all transcribed material. Next, using Transana version 2.3-MU (Woods & Fassnacht, 2007), three research assistants coded transcripts and achieved reliability by reviewing each other's first two coded transcripts, examining any coding discrepancies in the data, and discussing the meaning and interpretation of codes with a senior member of the study team until consensus was reached. Seven codes that dealt exclusively with the topic of HIV testing were used for this analysis: attitudes towards testing, context of last test, frequency of testing, influences on testing habits, results of last test, a risky episode (i.e., sexual behavior that has the potential to transmit HIV from one partner to another) that led the participant to test, and testing together with primary or outside partners. After this, all data coded using these seven codes were reviewed and re-coded by the first and second authors for further analysis to hone the themes presented here and ensure they were arrived at independently. Finally, the first author selected quotations based on their ability to illustrate and support those themes.

RESULTS

Of the 20 couples, five were White, two were Latino, and one was Asian; the remaining 12 couples were interracial, with Latino/White (five couples) and Asian/White (three couples) the most frequent racial/ethnic interracial compositions. Of the 40 participants, half identified as White, ten as Latino, six as Asian, and one as Black; the remaining three participants identified as mixed race/ethnicity. By design, half of couples were concordant HIV-negative, half were HIV-discordant; therefore 30 participants were HIV-negative and 10 were HIV-positive. All participants identified as gay. The mean age was 35 years (range: 21–53 years); mean age difference between partners was five years (range: 0–21 years), with 55% of age differences between primary partners being less than five years; and mean relationship length was seven years (range: three months to 17 years).

Analysis revealed several distinct relationship-oriented motivations that were either event-related or partner-related. The quotations presented below illustrate the men's motivations to test for HIV and are organized as either event-related or partner-related. All names used are pseudonyms; the additional text in parentheses denotes the participant's race/ethnicity, age, and HIV status.

Event-Related Motivations

Event-related motivations were associated with specific periods or points in the relationship. Three distinct motivations emerged from the data that were event-related: participants testing at the beginning of their relationship, participants testing to inform their decision to stop using condoms with their primary partner, and HIV-negative participants in an HIV-discordant relationship testing after a risky episode with an HIV-discordant primary partner. Most partners reported testing for HIV at the beginning of their relationships, which helped lay the foundation for the relationship. As one participant asserted, "I feel like it's a rite of passage for this new millennium: you get a blood test when you get married and you get an HIV test when you start dating" (Phil; White, 36, HIV-). Other participants echoed this sentiment. One, who explained that he wanted to establish his HIV-negative status for his primary partner said, "He makes me want to be tested. When we first met I wanted to be perfect for him" (Ethan; Asian, 24, HIV-). Establishing HIV-negative status at the start also helped build trust within the relationship. Another participant related his experience, saying:

I'd only known him for a short while ... and just because I say I'm clean, I don't expect him to trust me... So, I wanted to reassure him – and I needed to reassure myself... I mean, he could have something he didn't know about. So, I think we owed it to each other to confirm it. (Jay; White, 31, HIV-)

Testing to inform the decision to stop using condoms was common among partners in concordant HIV-negative relationships and also occurred at the beginning of the relationship.

When I entered into the relationship ... when we were talking about having unprotected sex and being monogamous, we wanted a clean slate. We had already been together several months monogamously and just wanted to get a litmus test of where we were as we moved into the next phase of our relationship. (Fulgencio; Latino, 38, HIV-)

The next phase of his relationship involved stopping condom use. His partner Andy said:

We had talked about [it]. I told him I wasn't having sex with anybody else and he wasn't having sex with anybody else. We both had been tested and it just felt like, 'Let's just do it!' It feels more pleasurable that way ... more intimate with [Fulgencio] that way. Using a condom is a physical barrier and it is just something I don't want to have to do with him. (Latino, 40, HIV-)

Others felt similarly. One said this about his experience testing at the beginning of his relationship: "[We tested] because we wanted to have anal sex and be comfortable not using condoms if we were both HIV-negative" (Luke; Asian, 24, HIV-). And another, "We used

condoms in the beginning, but not anymore. We talked about it and got tested [and] decided that we could start having sex without condoms” (Manny; Mixed Race/Ethnicity, 22, HIV–).

Many of the participants in HIV-discordant relationships also did not use condoms. While they described alternative methods to protect against HIV transmission from one partner to the other, such as seropositioning and withdrawal, sometimes the uncertainty accompanying having anal sex without condoms – that is, a risky episode – prompted the HIV-negative partner to seek an HIV test. In one situation, a participant reported having anal sex with his HIV-positive primary partner and, afterwards, feeling concerned about being uncertain of his primary partner’s viral load. “I fucked [him]. And knowing he was positive, but not his viral load, I thought, ‘Well, if he had a high viral load...’” (Longines; Black, 48, HIV–). His partner shed some light on Longines’ concern, saying of past experiences together:

A couple of times when either I fucked him, or came in his mouth, or he topped me, he had all of a sudden come down with a fever or felt ill. All of sudden. [We] got very scared, thinking he could be undergoing seroconversion illness. [He] got the shit scared out of him and ran to [the hospital]. (Booker; White, 43, HIV+)

In a similar situation, but from the HIV-positive partner’s point of view, one participant from a different couple described discussing a time they had anal sex without condoms with his HIV-negative primary partner.

I brought it up a couple of days later and said, ‘I wanted to ask you about this. So, how do you feel?’ I told him how I felt and he talked about it from a more scientific approach. He said, ‘Yeah, I know. I’ve been thinking about it, but you’re undetectable and I know what chances are like. It doesn’t mean I’m not going to get tested...’ He wasn’t worried. (Charlie; White, 45, HIV+)

Most participants in this situation, however, expressed some degree of anxiety. One, who allowed his HIV-positive primary partner to play the insertive role during anal sex, said:

It was probably the first time I bottomed for him. In the moment, you’re enjoying it, you’re enjoying each other, you’re enjoying the feeling. But after everything is done my mind snowballs. I start to think, ‘Is that the smartest thing I could have done? Should I get tested? When? Should I wait?’ (Javier; Latino, 31, HIV–)

Seeking an HIV test, another participant described the anxiety he feels because he and his HIV-positive partner, Andre, do not use condoms.

Phil: I had, in the back of my head, a little bit of worry. I was going home for Christmas and I just wanted to know before I went home [in case] I needed to use my mom for support, counseling; a shoulder to cry on.

Interviewer: Why did you have a little bit of worry in the back of your head?

Phil: Because [Andre] is positive and we’re not safe. (White, 36, HIV–)

Andre recounted a different time when, early in their relationship, he and Phil had not used condoms and Phil played the insertive role during anal sex. “I was being the top without a condom. I would cum inside [him] all the time. We were having unprotected sex for sure ...

He took some tests and he's still negative. It's always good to have his checkups" (Latino, 28, HIV+). Regular HIV testing was part of how some HIV-negative partners in HIV-discordant relationships perceived that they maintained their health. From another participant: "Because [my primary partner] is positive, and because I'm really conscious, I do it every year" (Merle; White, 48, HIV-).

Partner-Related Motivations

Partner-related motivations were associated with how primary partners interacted with one another. Participants reported two separate motivations that were partner-motivated: participants testing in response to a request or suggestion to test from their primary partner or participants testing out of concern for their primary partner's health and wellbeing. The influence of primary partners surfaced throughout the interviews. One participant said of his partner, "I have a lot of influence because I tell him to get tested. He's younger than me – just by a year and a half – but I'm cautious about these kinds of things and he appreciates that" (Ethan; Asian, 24, HIV-). Another participant, Dylan, also articulated the effect his partner's influence saying, "He does [influence me]. I definitely want to get tested more often" (Dylan; White, 26, HIV-). He continued and described how his partner once suggested he get tested for HIV:

The first time I got tested after I broke up with my ex was with [my current primary partner]. He was like, 'Maybe you should go get tested.' I hadn't messed around with anybody ... or [done] anything that I had to be worried about. He was like, 'You should go get tested just to find out if you're negative, because it's been a while for you.' So he definitely pushed me into it.

Dylan's partner, Donnie, explained his reasoning behind asking Dylan to test, saying:

To me, it's a good way to – especially in the beginning of a relationship. Whenever I dated somebody and knew we were gonna try to go more monogamous, I wanted us to get tested in the beginning. So, that was something that made me push forward, because if we were gonna take the stepping stone, let's see where each other's at.

(White, 26, HIV+)

For some, the influence of primary partners took the form of reminding to schedule future appointments. One participant stated:

He probably has more [influence] on my [decision to test for HIV]. He's very much a stickler with making his calendar and setting up appointments and being organized. So, he's the one who's always reminding me. (Jay; White, 31, HIV-)

From a different couple, one partner reported mutual influence to test for HIV. "If one of us realizes, 'Oh, it's been a few months since we got tested,' I might say, 'We should probably get tested soon because we haven't been tested since...' Or, he might say the same to me" (Cameron; White, 32, HIV-).

The participants' concern for the health and wellbeing of their primary partners emerged as an important motivator from participant narratives. For example, participants did not want to

transmit HIV within the relationship should they seroconvert. One participant tested so that he could detect the virus in its early stages, seek treatment, and avoid infecting his partner.

I know that, if you are HIV positive, you're going to have a better quality of life the sooner you can get treatment for it. And, I also wouldn't want to pass it on to someone else, especially not my current [primary] partner. (Cameron; White, 32, HIV-)

His primary partner made similar comments. "I think he might influence me to get tested because I don't want him to get infected with the virus if I get infected" (Mitchell; Asian, 21, HIV-). Concern for the primary partner's health and wellbeing motivated participants; one said, "I take my safety and my [primary] partner's safety very seriously. In terms of a broader perspective, I don't want to go around infecting people with things. I don't feel like that's a responsible way to be" (Glen; White, 35, HIV-). Another example comes from a participant who allowed an outside partner to play the insertive role during anal sex and who did not use condoms. He said of the experience, "I had unprotected sex as a bottom... Both times he orgasmed outside of me, but I knew that with precome and everything else there's always that chance. So I thought that was serious enough to warrant a test" (Frank; White, 43, HIV-). Worried that he could have been infected, and what it could mean for his partner, he sought an HIV test. He continued:

I was less concerned about HIV, although I knew there was a small chance that I might be positive. ... It was really the fear of what it would be to [my primary partner] and to our relationship if I were positive.

Beyond the partner, the health and wellbeing of relationship itself also motivated some participants to seek an HIV test. Speaking to his relationship's effect on him, one participant said, "I value the relationship and I want both of us to be safe. I consider that an influence on me wanting to be tested regularly" (Robbie; Asian, 23, HIV-). And one participant related how testing for HIV and STDs together with his primary partner – after his primary partner disclosed a risky episode with an outside partner – brought them closer together.

We both got tested ... right then and there. There was a level of intimacy, like, 'Wow, this person actually cares enough to tell me, go with me, and make sure that all this gets done.' So, in that respect and regard, it was very pleasing. (Guillermo; Latino, 26, HIV-)

DISCUSSION

The participants described relationship-oriented motivations to test for HIV that were either event-related or partner-related. In terms of event-related motivations, testing for HIV was an important part of relationship formation as it signified commitment to one's partner and to being a couple. Testing at the beginning of the relationship informed many couples' safer sex efforts, such as their decision to stop using condoms, which also speaks to relationship dynamics such as trust in, and the value of, the relationship. For the HIV-negative partners in HIV-discordant relationships, testing was one method they used to maintain their physical and mental health by monitoring their serostatus and reducing feelings of anxiety caused by the potentially risky sexual behaviors in which they engaged. In terms of partner-related

motivations, partners influenced one another to test for HIV by reminding one another when it was time to test or by directly requesting testing. Finally, participants tested out of concern for their primary partners. Specifically, participants reported wanting to avoid unknowingly transmitting HIV and STDs to their primary partners and begin treatment for HIV as soon as possible after an HIV-positive diagnosis.

Importantly, many of the reasons why these partners reported seeking an HIV test provide evidence of a transformation of motivation, one component of Interdependence Theory (Kelley & Thibaut, 1978; Lewis, et al., 2006; Rusbult & Van Lange, 2003). The partners tested not only for their own health and wellbeing, but also for the health and wellbeing of their primary partners. This shift, from an 'I' to a 'we' orientation was also noted in another study of gay couples, where higher levels of positive relationship dynamics such as commitment were related to lower levels of partners having sex without condoms with outside partners (Darbes, Chakravarty, Neilands, Beougher, & Hoff, 2014). Whether it be increasing the frequency of HIV testing or reducing the occurrence of anal sex without condoms, leveraging relationship-oriented motivations has the potential to positively affect health outcomes for gay couples and may be a useful conduit for future prevention efforts with this population.

Findings from this study can benefit prevention efforts that emphasize the importance of testing for HIV. While previous research indicates that single men test more often (MacKellar, et al., 2011; Myers, et al., 1993), it may be that low testing frequencies among men in relationships are attributable to public health messaging rather than the desire not to test. For example, many prevention messages, public service announcements, and media campaigns – testing and otherwise – are directed at individual gay men, regardless of their relationships status. That is, the messages, announcements, and campaigns do not differentiate between single and coupled gay men. As a result, they may not resonate with men in relationships; but they could if they are attuned to the issues that are current and important to them, such as testing at the beginning of the relationship to inform the decision to use condoms with their primary partner. New research shows that sexual negotiations begin early in the relationship, before couples discuss their agreements about whether to allow sex with outside partners and that having an agreement is associated with testing (Mitchell, in press; Mitchell & Petroll, 2012a). Messages, announcements, and campaigns that emphasize testing could encourage men to do so when forming their sexual agreements (i.e., whether to allow sex with outside partners) early in their relationships as this may be a time when HIV risk is elevated and they are motivated (Davidovich, et al., 2004; Purcell, et al., 2014; Rendina, et al., 2014). These efforts need not end where relationships begin, as there are opportunities to emphasize HIV testing for partners in couples throughout the course of the relationship. For example, HIV-negative men in HIV-discordant relationships could be encouraged to test for HIV whenever – and at the same time – their HIV-positive primary partners have their viral load checked. Additionally, couples that allow sex with outside partners could be encouraged to integrate regular HIV testing into their sexual agreement. Both efforts may help sustain regular HIV testing throughout the relationship. Further study to evaluate whether messages revised this way are effective may prove helpful to ongoing prevention efforts such as 'test and treat.' CHTC and home testing for HIV could also benefit from messages that specifically target gay men in relationships. Studies have

shown that men in relationships endorse CHTC and that CHTC supports the relationship (Stephenson, et al., 2011; Wagenaar, et al., 2012). Gay men's testing during relationship formation to establish trust and commitment could dovetail with efforts that promote HIV testing for gay men in relationships (Purcell, et al., 2014). Home testing for HIV has been shown to be popular among and empowering to gay men and to increase HIV testing (Carballo-Diéguez, Frasca, Balan, Ibitoye, & Dolezal, 2012; Carballo-Diéguez, Frasca, Dolezal, & Balan, 2012; MacKellar, et al., 2011). Home testing for HIV could help increase testing by gay men in relationships by encouraging them to do it in the privacy of their own homes as they begin their relationships or re-test after a disclosed broken agreement. Finally, an important component of 'test and treat,' linkage to care, could see a rise in uptake given many of the participants' stated motivation to begin treatment immediately after an HIV-positive diagnosis.

Findings from this study can also benefit interventions with gay couples that emphasize HIV testing. One example could involve a hybrid of CHTC, where partners receive one-time HIV testing and counseling together as a couple (Purcell, et al., 2014), and negotiated safety, where partners test for HIV, wait, and re-test before stopping condom use (Jin, et al., 2009; Kippax, et al., 2003). Many of the participants in concordant HIV-negative couples in this study were motivated to test at the beginning of their relationships to inform the decision to stop using condoms. Given the centrality of that decision to those couples' agreements about sex (Beougher, et al., 2012) and that testing for HIV is an important opportunity for couples to clarify their sexual agreements (Mitchell, 2014; Mitchell & Horvath, 2013; Purcell, et al., 2014; Sullivan, et al., 2014), a point of intervention could be to enroll couples in a two-part – as opposed to one – HIV testing and counseling program. Although HIV testing would occur in both sessions, the first would focus on risk-reduction while the second would focus on negotiating agreements about sex, with testing staff leading couples through those discussions. Testing staff could initiate discussion of the couples agreements about sex (whether new or existing) during the first session and then ask couples, by the time they return, to be ready to negotiate their sexual agreements during the second session. Or, testing staff could limit discussion of risk-reduction to the first session and negotiation of agreements about sex to the second session, effectively keeping them separate. Partners would then exit this two-part testing and counseling intervention with firmly established, shared knowledge of their serostatuses and their agreements about sex. For HIV-discordant couples, the testing component of each session would involve viral load, rather than antibody, testing for the HIV-positive partner, with the focus on discussing risk reduction and negotiating agreements about sex remaining largely the same. Designing programs that can switch antibody for viral load testing would help ensure CHTC remains open to and accessible for both concordant HIV-negative and HIV-discordant couples. Testing staff who are specially trained to work with couples, facilities that are designed with couples in mind, counseling that is tailored to couples, and HIV tests with short window periods would facilitate this model.

Several concerns about ongoing HIV risk for these couples are worth noting. First, some men may not test for HIV because of the dynamics present in their relationships. At the beginning of the relationship, for example, feelings of commitment may inadvertently suppress HIV testing later on, as some men may feel disinclined to test with their primary

partners for fear of appearing unfaithful or distrusting. Further into a relationship, feelings of trust may trump an agreement to re-test after a break (e.g., having anal sex without condoms with an outside partner when the agreement was to use them), with couples choosing not to test even after exposure to HIV and STIs. Also, there may be some men who are not empowered to ask their partners to test for HIV as a result of social marginalization or experiences of intimate partner violence (Kubicek, McNeeley, & Collins, in press; Nanín, et al., 2009; Parent, et al., 2012). These situations may present opportunities for HIV transmission from one partner to the other and more information on whether and how relationship dynamics, and in particular relationship power, affect motivations to test for HIV is needed. Second, partners in HIV-discordant relationships may habituate to the potential risk present in their relationships (Crawford, et al., 2003; Ostrow, et al., 2002; Palmer & Bor, 2001), letting condom use and HIV testing fall aside as partners grow closer and the relationship matures over time. For the many HIV-discordant couples who choose not to use condoms (Beougher, et al., 2012; Prestage, et al., 2008), future prevention efforts could instead emphasize seroadaptive behaviors such as seropositioning or helping the HIV-positive partner maintain an undetectable viral load and encouraging him to test regularly to measure it. Third, repeated HIV-negative test results for men who test regularly may reinforce potentially risky sexual behavior by suggesting that their safer sex strategies are sufficient when, in fact, they may not be. Findings recently published show that some men test for HIV only when they feel “at risk” (Mitchell & Horvath, 2013; Mitchell & Petroll, 2012b). For example, an HIV-negative man in an HIV-discordant relationship who allows his HIV-positive primary partner to play the insertive role during anal sex and who does not use condoms may, through repeated HIV-negative test results, be lulled into believing that his primary partner’s verbal confirmation of undetectable viral load is accurate when, in fact, it may not be and there remains some risk of HIV transmission (Guzman, et al., 2006; Stolte, de Wit, van Eeden, Coutinho, & Dukers, 2004; Van de Ven, et al., 2005). Therefore, it is important for ‘test and treat’ approaches to remain mindful of how an HIV-negative test result could be interpreted by those who seek validation of their sexual behavior or relief of anxiety through repeated HIV testing. Fourth, the window period remains a concern for partners who test for HIV at the beginning of their relationships and use the results to inform their decision to stop using condoms. Depending on the type of test, the window period can be as short as 10 days to as long as six months. This may confuse many couples if primary partners do not take the same HIV test at the same time. Therefore, ‘test and treat’ approaches would do well to recommend that regions choose a single HIV test as they roll out regular testing or that the window periods for multiple test options be more fully explicated. The window period also remains a concern if frequency of HIV testing increases, as some couples may accidentally re-test within the window of the previous test (Helms, et al., 2009).

There are limitations to this study. First, while this analysis examined motivations to test for HIV for gay men in relationships, it did not investigate these men’s intentions to test or quantitatively measure testing frequency. Additional research that speaks directly to these issues is warranted. Second, social desirability bias may have resulted in some participants reporting what they believed to be more acceptable motivations over those believed to be less acceptable or unacceptable. Third, the sample was a convenience sample and all

participants were residents of the San Francisco Bay Area. Therefore, the data reported here may not reflect the experiences of couples in different communities and in other geographical areas. Fourth, the HIV status of participants was self-reported; no actual testing occurred. We forwent testing because we are interested in how perceived serostatus guides sexual behavior.

Relationship-oriented motivations to test for HIV for gay men in relationships are different from other previously-reported, individually-focused motivations. Commitment to the health and wellbeing of the partner guided these men's thoughts and behaviors. These motivations could be leveraged by future prevention efforts that emphasize testing for HIV for gay men in relationships, a population known to test less often than single gay men, yet, until recently, has been underserved by prevention efforts.

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