Published in final edited form as:

J Adolesc Res. 2011 September 1; 26(5): 645–669. doi:10.1177/0743558411402342.

Achieving Safety: Safer Sex, Communication, and Desire among Young Gay Men

Anna Eisenberg, José Bauermeister, Michelle Marie Johns, Emily Pingel, and Matthew Leslie Santana

Health Behavior and Health Education, School of Public Health, University of Michigan, Ann Arbor, MI 48109-2029, USA

Abstract

Conceptualizations of safer sex practices among young gay men (YGM) are frequently structured around communication between partners and the subsequent utilization or absence of condoms in a sexual encounter. Drawing on a sample of 34 in-depth interviews with YGM, ages 18 to 24, we explore the ways in which conceptualizations and definitions of safer sex are discussed and enacted. Placing attention on their safer sex practices, we analyze the conversations that do and do not occur among YGM and their partners, including the strategies (e.g., negotiated safety, condom communication and negotiation) that are commonly perceived as most useful by YGM. We provide recommendations regarding how to craft safer sex messages for YGM by considering their competing demands.

Keywords

Internet; HIV; Men Who Have Sex with Men; Safer Sex; Communication; Youth; Intention

Emerging adulthood spans ages 18 to 25 and is characterized as a life stage during which youth continue to develop and refine their adult identity (Arnett, 2000). As they transition from adolescence into young adulthood, emerging adults are expected to explore their sexuality through courting, dating, and sexual encounters (Bauermeister, Johns, Sandfort, Eisenberg, Grossman, & D'Augelli, 2010; Diamond & Savin-Williams, in press; Furman, 2003). Having grown up with the Internet in their everyday lives, youth may pursue romantic and sexual partners via face-to-face and online interactions. Sexual minority youth, in particular, may rely on the Internet to explore their sexuality, to accrue social support as they define their sexual identity, and to meet partners (Garofalo, Herrick, Mustanski, & Donenberg, 2007; Harper, Bruce, Serrano, & Jamil, 2009). In their explorations, however, sexual minority youth may increase their exposure to HIV and other sexually transmitted infections (STIs) (Bauermeister, Leslie-Santana, Johns, Pingel & Eisenberg, in press; Chiasson, Hirshfield, Remien, Humberstone, Wong & Wolitski, 2007).

Despite progress in preventing and treating HIV/AIDS, men who have sex with men (MSM) are the only subpopulation in the United States in which incidence continues to increase (CDC, 2009a), accounting for 68% of all men living with HIV/AIDS (CDC, 2009b) and for 53% of new infections in the US (CDC, 2008). Compared to older MSM, young MSM (YMSM; 13 to 24 years old) have had higher HIV incidence rates since 2001 (CDC, 2009c). Furthermore, YMSM account for over half of all new HIV infections among youth ages 13

to 24 years old (CDC, 2009c). Given these trends, there is an urgent need for revitalized and refocused prevention tactics. To strengthen ongoing prevention efforts, we explored YMSM's reasons to use or forego condoms in a sample of emerging adults between the ages of 18 and 24 who reported meeting same-sex partners through dating websites.

Condom Use in Context

Structural shifts regarding YMSM's open expression of sexuality and the development of new partner-seeking venues (e.g., websites, phone applications) have created new opportunities and challenges for HIV/AIDS prevention (Garofalo, Herrick, Mustanski, & Donenberg, 2007), including how YMSM conceptualize their sexual safety and risk. Consequently, the extrapolation of past research findings, based on older cohorts of MSM, may be inadequate for YMSM who have grown up in a post "Gay Liberation" era (Grossman, 2001; Halperin, 2007). While the conventional focus of HIV/AIDS prevention has been the promotion of condom use, abstinence, and monogamy, researchers have noted that MSM have developed grassroots harm reduction strategies, including negotiated safety (i.e., an agreement between partners to engage in unprotected anal intercourse (UAI) in specific circumstances) and serosorting (i.e., selection of sexual partners based on concurrent HIV status), among others (Kippax, Crawford, Davis, Rodden, & Dowsett, 1993; Kippax & Race, 2003). While researchers continue to test the efficacy of these harm reduction strategies vis-à-vis conventional prevention strategies (Cassels, Menza, Goodreau, & Golden, 2009; Jin, Crawford, Prestage, Zablotska, Imrie, Kippax, Kaldor, & Grulich, 2009), the adoption of the former underscores the need to re-examine how YMSM conceptualize HIV infection risk.

Social cognitive models are often used to inform HIV research and programs (Rotheram-Borus, Swendeman, Flannery, Rice, Adamson & Ingram, 2009). These prevention models suggest that individuals will use condoms if they perceive themselves to be at risk of HIV infection, if they have positive attitudes and norms about condom use, and if they have the self-efficacy to use condoms consistently with their partners. Together, these constructs have been posited to predict an individual's intention to use condoms (Albarracin, Johnson, Fishbein, & Muellerleile, 2001). Whereas an individual's intention to use condoms has been identified as a strong correlate of actual use, the strength of this relationship has been found to vary across studies (Albarracin, Gillette, Earl, Glassman, Durantini, & Ho, 2005). This variability has important implications for HIV prevention programs, as a weakened relationship between intention and behavior may attenuate the expected effects of a behavioral intervention. Researchers examining youth's intentions to use condoms have found that competing demands (e.g., expressing intimacy, passion, and/or trust) may be prioritized over condom use (Bauman, Karasz, & Hamilton, 2007), and concluded that a "more developed and nuanced approach to intention is important both for increasing theoretical sophistication as well as designing successful interventions" (Bauman et al., 2007; p. 268). Consistent with this approach, we examined YMSM's experiences using condoms to understand how their intentions and behavior varied across contexts.

Condom use may depend on partner type (Bolding, Davis, Hart, Sherr, & Elford, 2005; Chiasson et al., 2007; Mustanski, Lyons, & Garcia, 2010). Even when aware of the HIV and STI risks associated with sexual exploration, YMSM may forego consistent condom use or perceive it as a barrier to the pursuit of meaningful interpersonal connections (Crawford et al., 2006; Davidovich, de Wit, & Stroebe, 2004; Kubicek, Carpineto, McDavitt, Weiss, Iverson, Au, Kerrone, Martinez, & Kipke, 2008; Mustanski, et al., 2010). Several studies examining the sexual practices of MSM who report engaging in bareback sex (i.e., unprotected sexual contact in potentially high-risk contexts; Carballo-Diéguez et al., 2009) have found that MSM were more likely to report engaging in HIV and STI risk behaviors if

they reported greater romantic motivations (Missildine, Feldstein, Punzalan, & Parsons, 2005; Parsons & Bimbi, 2007). Bauermeister and colleagues (2009), for example, found an association between greater UAI occasions and the belief that foregoing condoms increased the emotional connection and pleasure with a partner. MSM may also forego condom use as a way of conveying trust to partners, providing special meaning to sex in the context of an open or non-exclusive relationship or, conversely, to signify sexual exclusivity, even when HIV serodiscordance is known (Frost, Stirratt, & Ouellette, 2008; Remien, Carballo-Diéguez, & Wagner, 1995). Thus, although condoms are the most effective HIV/STI prevention method in sexual practice, YMSM may forego the protections they afford, particularly if they recognize the emotional gains (e.g., intimacy with or commitment from a partner) that may be acquired through unprotected sex. Consequently, we examined whether these competing demands were present in YMSM's discussions about their HIV risk and condom use, respectively.

Study Objectives

In this study, we explore YMSM's sexual and romantic experiences in a sample of emerging adults who participated in a qualitative study examining their online dating behaviors. Our first objective was to understand YMSM's definitions of safety and their perceived threat of HIV infection. Based on these findings, our second objective was to examine YMSM's intentions to use or forego condoms, juxtaposing these discussions with the cultural, interpersonal and individual meanings that youth ascribed to their sexual behaviors. Based on our findings, we provide recommendations to revisit and update traditional HIV/STI prevention strategies.

Methods

Sample

Thirty-four YMSM participated in semi-structured qualitative interviews seeking to explore their use of the internet as a dating tool and their sexual behavior. To be eligible for participation, recruits had to be between the ages of 18 and 24 at the time of the interview (i.e., born between 1985 and 1991), self-identify as non-heterosexual (i.e., gay, bisexual, questioning, etc.), and report having used a dating website in the past 3 months. Participants were recruited through advertisements on two social networking sites, participant referrals, and flyers posted at various local venues frequented by YMSM. Promotional materials displayed a synopsis of eligibility criteria, mentioned the \$30 iTunes gift card incentive, and provided a phone number to call if interested. Social network advertisements were visible only to men who listed themselves as interested in other men and who fit our target age range.

The sample's median age was 22 years old ($M = 21.47$; $SD = 1.81$). The racial/ethnic composition of our sample ($n=34$) was as follows: 22 self-identified as White, 4 as African American/Black, 3 as Latino, 3 as Asian/Pacific Islander, and 2 as Mixed Race (White/Latino and White/Native American). Eleven participants reported being in a relationship at the time of interview, and over 80% of the sample (28 cases) reported having had sex with someone met on a dating website in the past 3 months. Three participants reported being HIV positive. All participants self-identified as gay; therefore, we refer to participants as young gay men (YGM) in the Results section. Acknowledging that most of the HIV literature focuses on YMSM as a broader social category, however, we revert back to the YMSM label in our Discussion.

Procedure

Three research assistants trained in qualitative interviewing techniques conducted the interviews over the phone. The interviewers began by reading a detailed consent form to each participant, explaining the purpose of the study (i.e., speaking with YGM about how they use the internet for dating) and their rights as participants. YGM were asked to consent both to the interview process and to the use of an audio recorder. Using a semi-structured interview guide, the research assistants then conducted an in-depth interview covering topic areas such as relationship expectations, experiences using the internet for dating, sexual behavior with partners met online, sexual roles with partners met online, and HIV prevention. Interviews typically lasted sixty to ninety minutes. Study data was protected by a Certificate of Confidentiality. All study procedures were approved by the Institutional Review Board of the University of Michigan, Ann Arbor.

In-depth Interviews

Interviews began with a description of the study's purpose. After participants had an opportunity to ask questions or obtain clarification, we first asked participants to define the terms "date" and "hook-up" and, subsequently, how a person might distinguish one from the other. Participants were then asked to describe their ideal partners and to discuss the characteristics of their last relationship. We then asked participants about their use of the internet for dating. These questions addressed the initial reasons for beginning to use the internet as a dating tool, which websites the participant preferred, how the participant selected a potential partner online, and the advantages and disadvantages of dating online versus meeting men in public venues, such as bars and clubs. Participants then walked the interviewer through a detailed narrative of their last sexual experience with someone they had met online, and outlined their beliefs about sexual roles among MSM. The interview ended with a discussion about beliefs and attitudes surrounding condoms and HIV infection.

Analytic Strategy

We transcribed all audio-recordings into text. We then created a codebook using the interview guide as a rubric of potential themes. The codebook included themes, definitions, and inclusion and exclusion criteria. To begin, each member of the research team coded a single specified transcript and then met as a group to compare results. This triangulation process ensured the reliability of the codebook as an instrument to be consistently utilized in future coding. After this initial session, each subsequent transcript was coded independently by two members of the team who then met to resolve any discrepancies between their codes. In the course of the coding process, questions and concerns which arose in regard to individual codes were addressed by the research team, and the codebook appropriately amended. After coding all 34 transcripts, each finalized version was entered into NVivo, a software program designed to facilitate qualitative data analysis.

Given our interest in understanding how YGM communicate about sex and safety with their sexual partners, we sought to answer two overarching questions:

1. How do YGM conceptualize their perceived risk of HIV infection?
2. When and why do they use or forego condoms?

Consistent with thematic analysis (Boyatzis, 1998), we examined the following codes for our analyses: (a) sexual behavior in last encounter; (b) physical and emotional pleasure; (c) feelings about condoms, condom negotiations, and difficulties using condoms; (d) anal and oral sex narratives; and, (e) perceived normative threat regarding HIV infection, respectively. Finally, we identified modal responses, and omitted recurrent or repetitious text from this manuscript. To illustrate the diversity of voices in the narratives, we have

assigned pseudonyms to the multiple participants and removed any specific characteristics that may identify them otherwise.

Results

How do YGM conceptualize safer sex?

YGM estimated and weighed the risks and benefits associated with their sexual practices while navigating their social and sexual worlds. Participants conceptualized safer sex as a necessary behavior that they, and other YMSM, should engage in to protect against HIV and other STIs. For instance, Hank (White/Native American, 24 years old, HIV-negative, single) narrated how HIV prevention is a salient issue among the men with whom he interacts:

There has been an interesting [...] phenomenon that I've found among gay men and straight men, in that gay men are very keenly aware that HIV is a problem in their community, and they tend to be almost hyper-vigilant in protecting themselves against getting an HIV infection. So, gay men are much more willing to use protection....We realize what a big problem it is.

When asked about their own perceived threat, participants voiced their concern about becoming HIV infected. Ryan (White, 23 years old, HIV-negative, in a relationship) indicated the significance of preventing HIV transmission:

Q: OK. And how important is it for you to avoid infection?

A: Very. I mean, it's, I understand that the safest person in the world, there's still a minute chance. However, knowing that I'm doing everything in my power to prevent it, I'm a lot less worried about this. So, while I'm not actively – well, I'm not paranoid about it, it's, it's important to me to protect myself against it because I understand that, the health, the greater health risks that it posed to me if I do ever test positive. So, it's important to me to stay healthy.

Leonard (White, 19 years old, HIV-negative, in a relationship) echoed Ryan's comment, saying:

Because it's [HIV] still an issue, and I mean, there's no cure. Like, I don't know, I'm not big on anything that doesn't have a cure. Like, I won't get a tattoo because they're permanent. You know, I don't want something that won't go away. (laughs) And, I mean, it's not even just HIV. I don't want any STDs. I think that's probably one of the reasons why I wanted someone who hadn't been with too many guys.

Freddy (African American, 22 years old, HIV-negative, single) also demonstrated his awareness of and concern about transmission risk, saying:

It [HIV infection] worries me. You know, it worries me a great deal. As a gay person and as an African American male, I know the odds are against me, so I worry about it a lot.

Given the awareness of HIV and STI risk in our sample, we decided to examine YGM's definitions of *safety* in sexual practice, as well as the contexts that motivated the use (or lack thereof) of condoms. The mention of condom use as a prescriptive safer sex practice was present across all narratives, irrespective of whether or not participants had engaged in anal intercourse. Caleb (White, 22 years old, HIV-negative, single), for example, stressed the importance of condom use, comparing it to another form of mandated, heavily touted protection:

They [condoms] should always be used. There's no question about it. It's like wearing a seatbelt.

Leonard, on the other hand, discussed his intent to use condoms when he decides to engage in anal intercourse for the first time in the future:

I mean, I bought condoms. (laughs) I don't know. I know that some people are like, "don't use them." Other people are like, "double up" which is dumb because that's how you break them or whatever. So, definitely, wrap it before you tap it. (laughs) I think, I don't know, I think condoms are very important. There's no reason not to [...].

Although Leonard has never had anal sex, he expressed his intention to use condoms in his ideal, hypothetical sexual encounter, and demonstrated his knowledge regarding adequate condom use. Leonard's indication that there's "no reason not to" use condoms, however, contrasted with the competing demands (e.g., pleasure-seeking, relationship expectations) expressed by other participants who had engaged in anal sex. Among sexually active participants, YGM voiced their desire to take ownership for their safety and positioned themselves as wanting to be compliant with public health recommendations, often attributing the possibility or past occurrence of UAI to their sexual partners. Hank, for example, shared how he has examined partners' intentions to forego condoms:

Actually...it's rather interesting for me. This hasn't always been the case, but I – maybe within the last year and a half to two years - I have stopped bringing up condoms when we're getting ready to have sex. I just sort of let them be the one to bring it up just to sort of see, you know, how far they'd be willing to go without a condom. And to my surprise, I guess it would be to my surprise, they've been willing to go quite far.

Contrasting with his previous assertion regarding the heightened perceived risk of HIV infection among gay men, Hank illustrates how perceived risk may be insufficient to elicit condom use. In discussing his sexual practices, Hank further acknowledges that his partners' sexual behaviors ("to go quite far"; i.e., not use condoms) do not align with his perceptions of community-wide awareness of HIV risk. Brandon (White, 23 years old, HIV-negative, in a relationship) also noted that it seemed most of his partners would prefer to forego condoms:

I feel like with guys, a lot of times guys don't want to use condoms, like even on a one-night thing. And sometimes, if you bring them up, they'll probably say, like, "yeah, we should use that." Like, they know [they] should, but they would be totally up for not using it if the other person hadn't suggested it.

Taken together, these findings suggest that participants largely defined *safety* as using condoms and identified condoms as protective tools that they *intended to* and *should* use, specifically to reduce the threat of infection with HIV/STIs. In their sexual practice, however, participants noted the disconnect between their safety ideals and their actual sexual experiences.

While condom use was commonly used to gauge the safety of a sexual encounter, participants also classified their risks of infection using public health defined categories of high risk behaviors (e.g., injection drug use (IDU), transactional sex). Matthew (White, 22 years old, HIV-negative, in a relationship) acknowledged his consciousness and acceptance of specific risks taken when engaging in transactional sex:

I mean, the only time that I asked someone to use a condom and then I ended up conceding was in a case where they were paying me. So, I felt like it was a risk that I was willing to take.

Participants also assessed their estimated risks based on whether their partners belonged to these groups (e.g., injection drug users, transactional sex workers). While still

acknowledging the effectiveness of condoms, participants took active steps to lower transmission risk by filtering and screening prospective partners. Peter (White, 24 years old, HIV-negative, single), for example, analyzed his estimated risk by examining his own sexual behavior and partner choices:

I mean, since I don't have unprotected sex, like, even with people that I've been in relationships, maybe it's a phobia, I don't know. Since high school, I should say. I know that it's an estimated risk, but it's one that I would feel – I've never really thought about it, actually, but if it came.... When I was a kid, they would say, probably the safest form of that would be to have them not ejaculate in your rectum. But I don't know if I – the use of the condom is pretty darn effective. And the people that I've been with... I've not been with a needle-user, to my knowledge. I've not been with someone who has exchanged money for sex, to my knowledge, or any of these high risk categories. Sometimes with strangers, but like, in the sort of self-report they give me before [...] and I do ask. [...] I know it's an estimate; I know it's an estimated risk.

In summary, participants recognized both broad and specific conceptualizations of perceived risk of HIV infection. On a community level, participants believed HIV/STIs pose serious risks to their health. As a risk reduction strategy, participants calculated estimated risks of transmission and sought to enact safer sex practices, including using condoms with partners and identifying unsafe categorized risk groups (e.g., injection drug users) from which to avoid partner selection. As participants' narratives unfolded, however, they spoke about how their partners would prefer to delay or forego condom use. Given the divergence between hypothetical (i.e., public health recommendations) and actual condom use with partners (i.e., disclosed behaviors in the interview), we deepened our analysis and examined whether YGM noted specific situations in which particular meanings were ascribed to using or foregoing condoms.

When and why do YGM use condoms or forego condom use?

We found that participants' condom use was contextualized by (1) the meanings ascribed to anal sex in the context of shifting relationship dynamics, (2) communication with partners, and (3) pleasure seeking.

Meanings of anal sex and relationship dynamics—Most participants indicated that anal sex offered an opportunity to create a connection, based on trust and intimacy, between YGM and their partners. As a result, YGM commonly expressed that anal sex was reserved for partners that could be candidates for potentially long-term or serious relationships. Freddy discussed the emotional meanings associated with anal sex, and reflected on partner type and anal sex. When asked how he makes the decision to have anal sex with a partner, Freddy explained:

Well, it's the same, trust, you know, or – and I prefer to do it with someone I have a relationship with or at least a possibility of a relationship and someone I feel comfortable with.

Jacob (White, 24 years old, HIV-positive, single) shared similar sentiments, indicating that anal sex is a behavior that reflects advancement in the status of a relationship. When his partner initiated anal sex, he assumed it was a nonverbal marker of his partner's feelings:

...him and I had the conversation that I really don't go for the whole anal aspect unless you're somebody who I want to consider dating or... I don't know...that [anal sex] to me, that's more of a private thing. And he had had the same – he agreed, I guess, would be the best way to put it. That's kind of the same way it is

for him, too. And so, I guess, by him initiating that, it showed that he wanted to have more dates and that kind of thing.

Much like the decision to have anal sex, using or foregoing condoms was also commonly associated with a shift in relationship dynamics between participants and their partners. Safer sex negotiations were described as meaningful social contracts with estimated risks and benefits. In most cases, unprotected sex was a marker that a relationship had transitioned from a casual to a serious relationship. As Derek (White, 21 years old, HIV-negative, single) discussed:

The one guy that I'm seeing – I mean, he enjoys having unprotected sex with people that he's seeing exclusively. And he's asked me if I would do it before, and I told him no, not if we weren't, not unless we were exclusive.

Taking estimated risks together by foregoing condoms created meaning-making opportunities for some participants. Tommy (Asian, 22 years old, HIV-negative, in a relationship) discussed the way in which his boyfriend convinced him to engage in UAI as a strategy to create a pleasurable connection:

One time we tried with a condom on, and he mentioned that doing it without a condom has more, has more physical pleasure on his part. But I was still afraid because I was kind of like, "I'm not sure if I really want to" [...] And I think he wanted to do it that bad. He wanted to do it pretty bad. And this was a time in our relationship where we really felt being supportive for each other [...] He expressed to me what he feels anal sex is to him. So, in a way of just being, like, kind of like sacrificing myself, like through the pain and just for his pleasure, and getting that feeling of bonding between the two, I guess.

Ethan (White, 24 years old, HIV-positive, single) echoed a similar understanding of the meaning of UAI. When asked about how important it was to ejaculate inside the rectum, Ethan described how UAI was not a reckless act but, rather, a way to communicate feelings of trust with his partner:

[Ejaculation in the rectum is] very important actually because there's a risk. Of course, there's a risk. I mean, not just HIV, but there are a lot of other STDs out there. So, it's almost like, it's like a social contract. It's like, "OK, this is my social contract with you, telling you that I trust you. And this is my social contract with you saying that you're telling me the truth."

For other participants, consistent and uncompromising condom use was defined as a contract that reflected commitment to a partner and, ensured both partners continued to protect each other. Frank (White, 19 years old, HIV-negative, in a relationship) indicated the reasoning behind his continued use of condoms with his current partner:

[Condoms] are great because they protect you from STDs. [My boyfriend and I] just both agreed. We didn't want to get any diseases. And although, we are both clean, we just would rather, better be safe than sorry.

Taken together, these findings suggest that participants used social contracts that included both consistent condom use and the omission of condoms during specific sexual encounters and/or with specific partners. These social contracts emerged as relationships – and the roles of certain partners within those relationships – evolved, shifting the dialogue and behavior around anal sex and condom use; for some, this meant continuing to use condoms, while for others, UAI was an expression of the advancement of their relationship and a new social contract with their partner. Anal sex, and the inclusion or absence of condoms in a sexual encounter, was contextualized by the perceived threat of HIV infection, competing demands introduced by partners, and the meanings ascribed to anal sex as relationships progressed.

Communication with partners—While the meanings of condom use and UAI played significant roles in YGM's relationship dynamics, we also sought to understand participants' ability to negotiate condoms with their sexual partners and how their intent to enact their definitions of safety translated into behavior in their sexual practice. Caleb, who had likened the use of condoms to wearing a seatbelt, discussed:

No one has really objected against [using] a condom. I have been with a partner who tried to insert my penis inside him without a condom, and I quickly said, "If that's what you want, you better find a condom." And he did.

Other participants also noted that their partners expected to use condoms. John (Latino, 20 years old, HIV-negative, single), for example, reflected on a conversation regarding condom use that occurred before a recent sexual encounter:

My one partner, kind of recently... we were about to have anal sex and I was just like, "Oh, is this OK?" and I held it up. And he was like, "You mean, a condom?" But he meant in a way, like: "Wait, are you just asking to have sex with me without a condom?" Kind of like: "How dare you!" But I was just asking and as far as a preference between lubricated and unlubricated went. And I feel like he was just really shocked that I was asking him, "Do you want to have sex without a condom?" [...] So, he was like, "yeah, duh, of course we're using it." And then, my other partners... I've never... I'm like, "well, we're going to use a condom, right?" [...] And they're like, "Yeah, of course, are you crazy?" And that includes my two – well, no, actually my first boyfriend, we had unprotected sex, but my second boyfriend and guys who I've met have always just been like, "Yeah, duh, of course we're using a condom." Like, very matter-of-factly.

While both John and his partner may have been operating under the assumption that condom use was anticipated in their sexual encounter, miscommunication still occurred regarding the other details (e.g., lubrication) surrounding its use. Like John, many participants reported that misunderstandings occurred in their condom use negotiations, particularly when the discussion did not include clear details regarding safer sex strategies or the explicit use of the word "condom" to ensure mutual understanding. When condom use was implied and not overt within a conversation, it led to miscommunication regarding negotiated safety and diminished confidence to pursue further negotiation. In the narrative below, for example, James (White, 22 years old, HIV-negative, single) attributed a recent UAI experience to the fact that his partner misinterpreted James' request to get "something" (a condom) and his subsequent ambivalence about explicitly asking once more for a condom:

I assumed that we were going to use a condom, first of all. And I think I said that he initiated it. And he – and I was going to bottom. So, he – I said, "Do you have something?" And he said, "Sure." And then he went away, and he came back. But he – and he put something on. But it was not a condom. It was a cock ring. And so, I was – I should have been a lot more upset and said to stop, but I was just like, "OK, whatever," and went along with it which is not good at all...but that's what happened.

In addition, initiating a discussion about condom use was faulted for altering the course of a proceeding sexual encounter, as well as commended for allowing participants to have a break to reevaluate what was unfolding and gain clarity on their own desires. James went on to say:

Then you have to, like, verbalize your intent, first of all, and you also, you know – I guess you do kind of lose the moment. And sometimes I'll say, "Go get a condom." And by the time the person comes back or by the time, I'm like, "Maybe we really shouldn't do this"...Which is probably good. It's good to have that pause.

Other participants discussed the ways in which their communication about and use of condoms has changed over time, noting their own silence around condom use in previous sexual encounters. Matthew described his own shifting condom use, saying:

I guess, as of late, I've been pretty good about condom use, so lately that hasn't been an issue. But in times that I haven't been as good, it's because it never came up. It's not that I brought it up, and the conversation didn't go well, and I went ahead with it anyway.

Although verbal communication was a significant factor in negotiating the terms of certain sexual experiences, some participants also described nonverbal methods of screening potential partners. These participants utilized visual markers of health (e.g., pigments or marks in their body) as an additional technique to assess the sexual health of their partners. Hank discussed a past experience in which nonverbal health cues impeded a sexual encounter:

...I have found on one person, like, I had, we'd been doing like the whole mutual masturbation thing, and I had found on him, he had a couple red marks on his penis, and I was very hesitant to go forward with him. And, in fact, did not.

Alongside visual markers, Ethan also identified nonverbal health cues such as smell and taste, which he considered prior to engaging in oral sex:

If someone had like, sore or their dick was turned in the wrong direction or miscolored or something like that. I just couldn't do it [oral sex]. Or if they smoke. I can't. I can't. For some reason, when someone smokes, I can taste if on their dick and I just can't do it. That makes me gag.

While participants acknowledged the limitations of screening partners' health in this manner (e.g., lying, illnesses that do not present visual symptoms), they also relied on these practices to confirm their partners' sexual health in the absence of other cues. As Tim (White, 22 years old, HIV-negative, single) told us:

No, I will [have anal sex with a partner] if they don't look diseased, because obviously, people can lie. And, clearly, it can still be technically be diseased and I just can't see it, but I just trust my instincts and if that's what they're into then, of course, I'm game.

Participants acknowledged that their communication, negotiation, and silence around safer sex varied. These variations often depended on how well both partners understood the type of sex being sought out (e.g., oral, anal). As a result, their ability to engage in safer sex with their partners was based on their self-efficacy to carry out three condom-related conversations: initiate a dialogue around safer sex, explicitly broach the topic of condom use during the sexual act, and renegotiate if necessary when miscommunication about condom use intentions occurred.

Pleasure—YGM who reported occasions in which they did not negotiate condom use with partners alluded to loss of pleasure when wearing a condom as the primary reason for their decision. Even when aware of the protections that wearing a condom could provide, insertive partners would avoid negotiating condoms to avoid decreasing their pleasure. Aiden (White, 23 years old, HIV-positive, in a relationship) described how condoms affect his pleasure, in addition to his performance and sexual experiences more broadly, when having sex:

A lot of the times, I can't stay hard. I lose, there's a lack of sensitivity in them. And sometimes, you know, they'll break, and that can just cause issues in the middle of the sexual encounter....I lose a lot of sensitivity when wearing a condom...I mean,

I would wear one, but it usually affects my sensitivity and how long I can and can't go for.

Similarly, YGM who were receptive partners empathized with their partners or felt guilty for making partners wear condoms since they had lost sensation or pleasure when using a condom as the insertive partner in their own experiences. Matthew, for example, noted how his own perceptions of pleasure influenced his decision to negotiate condoms with partners:

When someone's topping me, I think of how when I wear a condom, when I'm topping, it's like I can't feel anything. It's like I'm not doing anything. And so, I feel sort of bad for them, like I shouldn't make them do this. I don't like them [condoms], but on the other hand, I mean, I can't really see a scenario where I would trust someone not to use one without feeling bad about it.

For participants who had previous sexual experiences with diminished pleasure as the result of wearing condoms, both insertive and receptive partners felt hesitant or preferred not to use condoms.

Summary of findings—YGM in our sample had high perceived threat of HIV infection and conceptualized safer sex as including condom use in sexual practice. Nevertheless, competing demands of pleasure and relationship development factored heavily into their decision-making and sexual behaviors. YGM's experiences were also affected by their self-efficacy to use condoms and their skills to communicate intention in specific sexual encounters. Consequently, although participants' sought to comply with condom use recommendations, competing demands (e.g., pleasure, relationship dynamics) shifted the salience of condom use with partners. In the next section, we discuss the implications of these findings and propose recommendations for ongoing HIV prevention efforts for this population.

Discussion & Conclusion

A considerable proportion of new HIV infections among MSM occur during emerging adulthood, a period characterized by the exploration of sexuality through interpersonal relationships (Arnett, 2000; CDC, 2009a). Safer sex messages targeting YMSM often highlight the risks of UAI and the importance of condom use, framing HIV and STI prevention as an individual and social responsibility (Kippax & Race, 2003; Prestage et al., 2005). These ubiquitous cultural messages regarding HIV/AIDS prevention have led to prescriptive notions regarding YMSM's sexuality; that is, YMSM should use condoms *unfailingly* in order to prevent HIV/AIDS. Few studies, however, have contextualized these messages alongside YMSM's desire to explore their sexuality through the pursuit of sexual and romantic relationships (Mustanski et al., 2010). This omission is particularly worrisome as competing goals (e.g., pursuing a relationship) may diminish youth's intentions to use condoms (Bauman et al., 2007). To advance our understanding of condom use among YMSM, we examined their perceived threat of HIV infection, including what constitutes "risk" and "safety", and their condom use intentions and experiences with partners.

Contrary to past findings suggesting that YGM engage in UAI with partners because they perceive themselves invulnerable to HIV or consider HIV/AIDS to be a chronic disease (CDC, 2009a; Kalichman et al., 2007; Sullivan, Drake, & Sanchez, 2007), participants were aware of their susceptibility to HIV infection. Often articulating cultural understandings of what behaviors are deemed "risky" (i.e., socially unacceptable, *should not* be done) and "safe" (i.e., socially acceptable, what behaviors *should* be engaged in), YGM also voiced that the cultural scripts regarding HIV risk and prevention did not adequately reflect their sexual and romantic experiences. These findings underscore the need to re-examine ongoing

HIV prevention efforts, as HIV prevention programs based on these messages may be overly simplistic and fail to account for the social meanings embedded within sexual behavior (Garofalo et al., 2007; Kippax & Race, 2003).

Instead of abiding by these cultural scripts, YGM commonly referred to taking *estimated risks*. These estimates provided a balance between cultural norms regarding safer sex and their sexual desires (i.e., what they *should* and *would* be doing vs. what they *want* to be doing), and offered a flexible heuristic that created opportunities to engage in a greater number of sexual practices (e.g., negotiated safety) instead of strictly engaging with conventional prevention strategies (e.g., abstinence, consistent condom use). These findings are consistent with Prestage and colleagues' (2005) argument that gay men may seek strategies to reduce their likelihood of becoming infected with HIV without foregoing sex or sacrificing their sexual pleasure. On the other hand, even though YGM perceived these risk estimates as useful heuristics, they also professed lapses in following their own rules. Parallel to findings suggesting that competing demands (e.g., pleasure, pursuit of a relationship) may decrease condom use among heterosexual youth (Bauman & Berman, 2005; Bauman et al., 2007), we found that relationship expectations commonly shaped YGM's risk estimates and sexual behaviors. YGM in our sample often discussed how anal sex facilitated the pursuit of intimacy with, and communicated trust to, partners or potential long-term partners. In this context, YGM calculated the potential gains (e.g., intimacy, pleasure) against the losses (e.g., mistrust, putting oneself at risk of infection) of foregoing condoms during a sexual encounter. Although these findings provide some support to research suggesting that unprotected sex may facilitate an emotional connection with a partner (Bauermeister et al., 2009), we found that not all participants expressed this idea. While certain participants eschewed condom use as exclusive or potentially serious relationships developed, others maintained that consistent condom use was an integral part of their serious relationship. Given this variability, however, our findings suggest that condom use intentionality should be examined as both an individual-level construct and a dyadic process. Taken together, these findings suggest that YGM's intentions to use condoms may be multifaceted and require the inclusion of relationship expectations as an additional competing demand in its conceptualization and measurement. Future research is needed to examine whether particular relationship components (e.g., relationship exclusivity, duration, trust, passion) place YMSM and their partners in different condom use trajectories.

Conversations about communication and pleasure were also embedded within YGM's condom use narratives. For some participants, the divergence between their intentions and actual behaviors occurred due to unclear communication. Often exacerbated by interpersonal factors, including avoiding emotional discomfort and/or confrontation, and conveying trust to or feelings of intimacy with a partner, YGM often attributed these miscommunications to their decreased self-efficacy to negotiate and, at times, *renegotiate* condom use with partners. In other instances, silence or lack of explicit negotiation facilitated condom use or lack thereof, and provided nonverbal, implicit, and/or mutually understood agreements between partners. In the absence of verbal communication about condom use intentions, behaviors and specific cues were used to advance sexual encounters and to infer communication (i.e., sexual exclusivity) as YGM navigated their sexual and romantic experiences. This is particularly noteworthy as nonverbal communication in this context may distinctly shape perceptions of normative sexual behavior, HIV susceptibility, and intention to use condoms (Noar, Carlyle, & Cole, 2006). Furthermore, consistent with previous findings (Adams & Neville, 2009; Crosby, Yarber, Sanders & Graham, 2005), YGM explained that the potential loss of pleasure was an additional component in their intentions to use condoms. Interestingly, we found YGM's intentions to maximize pleasure to be an interpersonal issue. Participants reported that the intentions to maximize pleasure

were not exclusive to insertive partners wearing condoms; rather, receptive partners also expressed apprehension and guilt when making their partners use condoms due to expectations of decreased sexual pleasure. Taken together, these findings further suggest that, similar to condom use intentionality, competing demands should be examined as dyadic processes. Future research examining how YGM communicate with partners across sexual and romantic relationships, including how to incorporate condom use into their competing demands (e.g., maximizing pleasure), is warranted.

Our study has several limitations that should be acknowledged. First, participants were aware that researchers were exploring issues related to HIV prevention, which might have resulted in social desirability bias and encouraged participants to emphasize the importance of condoms in their sexual experiences and/or understate their engagement in behaviors that may have further complicated their use of condoms (e.g., alcohol and/or drug use). While plausible, our interview protocol ascertained less sensitive topics before the sexual behavior section, which allowed interviewers to develop rapport with participants prior to discussing sensitive topics. Furthermore, the use of telephone interviews allowed us to sample individuals from multiple locations across the United States, and capture explicit and sensitive data that might have been more difficult to acquire in face-to-face interviews. Second, our sample was comprised of youth who identified as gay, and therefore may not be generalizable to MSM with differing sexual identities (e.g., heterosexual, bisexual, queer). While our findings are consistent with other studies, including samples of heterosexual youth (Bauman et al., 2007), future research should examine whether non-gay identified MSM have comparable experiences to the ones reported in this study. Finally, participants had to report having used the Internet to date in the past 3 months. Given the salience of the Internet as a communication modality for this age group, we did not believe that this selection criterion would decrease the generalizability of our findings; however, youth who decide to avoid using the Internet to date may possess qualitatively different beliefs and experiences than those reported by our participants. Future research examining how participation in online dating experiences influence YGM's sexual decision-making is warranted.

Conclusion

Based on our participants' narratives, we may conclude that sexual safety is a fluid and constantly shifting concept. Consequently, a blanket "one size fits all" approach may not provide the tools for effective HIV prevention among YMSM; rather, our findings suggest the need for the development and use of individually tailored programs (Streicher, 2007) for YMSM. Safer sex messages, as they are disseminated into the community, may be considered irrelevant by youth, and have resulted in constantly shifting sexual negotiations and the utilization of varied safer sex strategies (Kippax & Race, 2003; Noar, Benac, & Harris, 2007; Noar & Edgar, 2008). Innovative safer sex messages that help YMSM increase the accuracy of the estimated risks that they are taking and pay close attention to competing demands are necessary. Through providing clear, concise, current, and relevant messages that emphasize not only the benefits of condom use but a diverse array of information regarding relationship dynamics and communication, YMSM can be better equipped to navigate their sexual and romantic experiences. Consequently, a relationship-oriented perspective may provide insight into YMSM's intentions regarding safer sex practices, and subsequently inform the development of innovative strategies for HIV and STI prevention. Given the variability and unpredictable nature of these sexual and romantic experiences, interventions seeking to improve the health of YMSM would benefit from building negotiation and communication skills *in diverse contexts* and through *individual tailoring* (Chesney et al., 2003; Kellerman, Drake, Lansky, & Kleven, 2006). Given that these interventions for YMSM will need to be frequently updated and adapted, and that youth

report high adoption and use of online media, tailored web-based HIV prevention programs may be most suitable for this population (Mikolajczaj, Kok, & Hospers, 2008; Pequegnat, Simon Rosser, Bowen, Bull, DiClemente, Bockting et al., 2007; Ybarra & Bull, 2007). To date, researchers have found promising results for web-based HIV intervention programs (Kok, Harterink, Vriens, de Zwart, & Hospers, 2006). Further research is necessary to establish the parameters of message content and format, specifically created for and informed by YMSM.

Acknowledgments

This research was supported by an award from the University of Michigan's Office of the Vice-President for Research (UM-OVPR 5996) and a NIH Career Development Award (K01-MH087242) to Dr. Bauermeister.

References

- Adams J, Neville S. Men Who Have Sex with Men Account for Nonuse of Condoms. *Qualitative Health Research*. 2009; 19(12):1669–1677. [PubMed: 19949217]
- Albarracín D, Gillette JC, Earl AN, Glasman LR, Durantini MR, Moon-Ho H. A test of major assumptions about behavior change: A comprehensive look at the effects of passive and active HIV-prevention interventions since the beginning of the epidemic. *Psychological Bulletin*. 2005; 131(6): 856–897. [PubMed: 16351327]
- Albarracín D, Johnson BT, Fishbein M, Muellerleile PA. Theories of reasoned action and planned behavior as models of condom use: A meta-analysis. *Psychological Bulletin*. 2001; 127(1):142–161. [PubMed: 11271752]
- Arnett JJ. Emerging Adulthood: A Theory of Development from the Late Teens Through the Twenties. *American Psychologist*. 2000; 55(5):469–480. [PubMed: 10842426]
- Bauermeister JA, Carballo-Diéguez A, Ventuneac A, Dolezal C. Assessing Motivations to Engage in Intentional Condomless Anal Intercourse in HIV Risk Contexts (“Bareback Sex”) Among Men Who Have Sex with Men. *AIDS Education and Prevention*. 2009; 21(2):156–168. [PubMed: 19397437]
- Bauermeister JA, Johns MM, Sandfort T, Eisenberg A, Grossman A, D'Augelli A. Relationship trajectories and psychological well-being among sexual minority youth. *Journal of Youth & Adolescence*. 2010; 39(10):1148–1163. [PubMed: 20535536]
- Bauermeister JA, Leslie-Santana M, Johns MM, Pingel E, Eisenberg A. Mr. Right and Mr. Right Now: Romantic and casual partner-seeking online among young men who have sex with men. *AIDS and Behavior*. (in press).
- Bauman LJ, Berman R. Adolescent relationships and condom use: Trust, love and commitment. *AIDS and Behavior*. 2005; 9(2):211–222. [PubMed: 15933840]
- Bauman LJ, Karasz A, Hamilton A. Understanding failure of condom use intention among adolescents: Completing an intensive preventive intervention. *Journal of Adolescent Research*. 2007; 22(3):248–274.
- Bolding G, Davis M, Hart G, Sherr L, Elford J. Gay men who look for sex on the Internet: is there more HIV/STI risk with online partners? *AIDS*. 2005; 19:961–968. [PubMed: 15905678]
- Boyatzis, RE. *Transforming Qualitative Information: Thematic Analysis and Code Development*. Thousand Oaks, CA: SAGE Publications, Inc.; 1998.
- Carballo-Diéguez A, Ventuneac A, Bauermeister JA, Dowsett GW, Dolezal C, Remien RH, Rowe MS. Is 'bareback' a useful construct in primary HIV- prevention? Definitions, identity and research. *Culture, Sexuality, and Health*. 2009; 1:51–65.
- Cassels S, Menza TW, Goodreau SM, Golden MR. HIV serosorting as a harm reduction strategy: evidence from Seattle, Washington. *AIDS*. 2009; 23(18):2497–2506. [PubMed: 19834319]
- Centers for Disease Control and Prevention (CDC). Questions and Answers on Subpopulation Estimates from the HIV Incidence Surveillance System – United States, 2006, published in the September 12, 2008 issue of the MMWR. 2008. Retrieved from <http://www.cdc.gov/hiv/topics/surveillance/resources/qa/subpopulation.htm>

- Centers for Disease Control and Prevention (CDC). HIV and AIDS Among Gay and Bisexual Men. 2009a. Retrieved from <http://www.cdc.gov/nchhstp/newsroom/docs/FastFacts-MSM-FINAL508COMP.pdf>
- Centers for Disease Control and Prevention (CDC). HIV/AIDS and Men Who Have Sex with Men (MSM). 2009b. Retrieved from <http://www.cdc.gov/hiv/topics/msm/index.htm>
- Centers for Disease Control and Prevention (CDC). NHBS: HIV Risk and Testing Behaviors Among Young MSM. 2009c. Retrieved from <http://www.cdc.gov/hiv/topics/msm/ymsm.htm>
- Chiaasson MA, Hirshfield S, Remien RH, Humberstone M, Wong T, Wolitski RJ. A Comparison of On-Line and Off-Line Sexual Risk in Men Who Have Sex With Men: An Event-Based On-Line Survey. *Journal of Acquired Immune Deficiency Syndrome*. 2007; 44(2):235–243.
- Crawford JM, Kippax SC, Mao L, Van de Ven PG, Prestage GP, Grulich AE, Kaldor J. Number of Risk Acts by Relationship Status and Partner Serostatus: Findings from a HIM Cohort of Homosexually Active Men in Sydney, Australia. *AIDS and Behavior*. 2006; 10(3):325–331. [PubMed: 16496088]
- Crosby R, Yarber WL, Sanders SA, Graham CA. Condom Discomfort and Associated Problems With Their Use Among University Students. *Journal of American College Health*. 2005; 54(3):143–147. [PubMed: 16335313]
- Davidovich U, de Wit DBF, Stroebe W. Behavioral and Cognitive Barriers to Safer Sex Between Men in Steady Relationships: Implications for Prevention Strategies. *AIDS Education and Prevention*. 2004; 16(4):304–314. [PubMed: 15342333]
- Diamond, LM.; Savin-Williams, RC. Same-sex activity in adolescence: Multiple meanings and implications. In: Morrow, S.; Fassinger, R., editors. *Sex in the margins: erotic lives of lesbian, gay, and bisexual people*. Washington, D.C.: American Psychological Association; (in press).
- Frost DM, Stirratt MJ, Ouellette SC. Understanding why gay men seek HIV- seroconcordant partners: Intimacy and risk reduction motivations. *Culture Health & Sexuality*. 2008; 10(5):513–527.
- Furman, W.; Shaffer, L. The role of romantic relationships in adolescent development. In: Florsheim, P., editor. *Adolescent romantic relations and sexual behavior: theory, research, and practical implications*. Mahwah, NJ: Erlbaum; 2003. p. 3-22.
- Garofalo R, Herrick A, Mustanski BS, Donenberg GR. Tip of the iceberg: Young men who have sex with men, the Internet, and HIV risk. *American Journal of Public Health*. 2007; 97(6):1113–1117. [PubMed: 17463378]
- Grossman, AH. Avoiding HIV/AIDS and the challenge of growing up gay, lesbian and bisexual. In: D'Augelli, AR.; Patterson, CJ., editors. *Lesbian, gay, and bisexual identities and youth: Psychological perspectives*. Oxford: Oxford University Press; 2001. p. 155-180.
- Halperin, D. *What do gay men want? An essay on sex, risk, and subjectivity*. Ann Arbor: University of Michigan Press; 2007.
- Harper, GW.; Bruce, D.; Serrano, P.; Jamil, OB. The role of the Internet in the sexual identity development of gay and bisexual male adolescents. In: Hammack, PL.; Cohler, BJ., editors. *The story of sexual identity: Narrative perspectives on the gay and lesbian life course*. Oxford: Oxford University Press; 2009. p. 297-396.
- Jin F, Crawford J, Prestage JP, Zablotska I, Imrie JC, Kippax SC, Kaldor JH, Grulich AE. Unprotected anal intercourse, risk reduction behaviours, and subsequent HIV infection in a cohort of homosexual men. *AIDS*. 2009; 23:243–252. [PubMed: 19098494]
- Kalichman SC, Eaton L, White D, Cherry C, Pope H, Cain D, Kalichman MO. Beliefs About Treatments for HIV/AIDS and Sexual Risk Behaviors Among Men Who have Sex with Men, 1997–2006. *Journal of Behavioral Medicine*. 2007; 30(6):497–503. [PubMed: 17690973]
- Kellerman SE, Drake A, Lansky A, Kleven RM. Use of and exposure to HIV prevention programs and services by persons at high risk for HIV. *AIDS Patient Care and STDs*. 2006; 20(6):391–398. [PubMed: 16789852]
- Kippax S, Crawford J, Davis M, Rodden P, Dowsett G. Sustaining safe sex: A longitudinal sample of a study of homosexual men. *AIDS*. 1993; 7:257–263. [PubMed: 8466689]
- Kippax S, Race K. Sustaining safe sex practice: twenty years on. *Social Science and Medicine*. 2003; 57:1–12. [PubMed: 12753812]

- Kok G, Harterink P, Vriens P, de Zwart O, Hospers HJ. The Gay Cruise: Developing a Theory- and Evidence-Based Internet HIV-Prevention Intervention. *Sexuality Research & Social Policy*. 2006; 3(2):52–67.
- Kubicek K, Carpineto J, McDavitt B, Weiss G, Iverson EF, Au C-W, Kerrone D, Martinez M, Kipke MD. Integrating professional and folk models of HIV risk: YMSM's perceptions of high-risk sex. *AIDS Education and Prevention*. 2008; 20(3):220–238. [PubMed: 18558819]
- Mikolajczak J, Kok G, Hospers HJ. Queermasters: Developing a Theory- and Evidence-Based Internet HIV-Prevention Intervention to Promote HIV-Testing among Men who have Sex with Men (MSM). *Applied Psychology*. 2008; 57(4):681–697.
- Missildine W, Feldstein G, Punzalan JC, Parsons JT. S/he loves me, s/he loves me not: Questioning heterosexist assumptions of gender and romantic attraction. *Sexual Addiction and Compulsivity*. 2005; 12:1–11.
- Mustanski B, Lyons T, Garcia SC. Internet Use and Sexual Health of Young Men Who Have Sex with Men: A Mixed-Methods Study. *Archives of Sexual Behavior*. 2010 E-Published Ahead of Print: <http://www.springerlink.com/content/n702r12711015wj0/>.
- Noar SM, Benac CN, Harris MS. Does Tailoring Matter? Meta-Analytic Review of Tailored Print Health Behavior Change Interventions. *Psychological Bulletin*. 2007; 133(4):673–693. [PubMed: 17592961]
- Noar SM, Carlyle K, Cole C. Why communication is crucial: Meta-analysis of the relationship between safer sex communication and condom use. *Journal of Health Communication*. 2006; 11:365–390. [PubMed: 16720536]
- Noar, SM.; Edgar, T. The Role of Partner Communication in Safer Sexual Behavior: A Theoretical and Empirical Review. In: Edgar, T.; Noar, SM.; Freimuth, VS., editors. *Communication Perspectives on HIV/AIDS for the 21st Century*. New York, NY: Lawrence Erlbaum Associates; 2008. p. 3-28.
- Parsons JT, Bimbi DS. Intentional Unprotected Anal Intercourse among Sex Who have Sex with Men: Barebacking - from Behavior to Identity. *AIDS Behavior*. 2007; 11:277–287.
- Pequegnat W, Simon Rosser BR, Bowen AM, Bull SM, DiClemente RJ, Bockting WO, Elford J, Fishbein M, Gurak L, Horvath K, Konstan J, Noar SM, Ross MW, Sherr L, Spiegel D, Zimmerman R. Conducting Internet-Based HIV/STD Prevention Survey Research: Considerations in Design and Evaluation. *AIDS and Behavior*. 2007; 11(4):505–521. [PubMed: 17053853]
- Prestage G, Mao L, Fogarty A, Van de Ven P, Kippax S, Crawford J, Grulich A. How has the sexual behavior of gay men changed since the onset of AIDS: 1986–2003. *Australian and New Zealand Journal of Public Health*. 2005; 29(6):530–535. [PubMed: 16370050]
- Remien RH, Carballo-Diéguez A, Wagner GJ. Intimacy and sexual risk behaviour in serodiscordant male couples. *AIDS Care*. 1995; 7(4):429–438. [PubMed: 8547358]
- Rotheram-Borus MJ, Swendeman D, Flannery D, Rice E, Adamson DM, Ingram B. Common Factors in Effective HIV Prevention Programs. *AIDS and Behavior*. 2009; 13:399–408. [PubMed: 18830813]
- Sullivan PS, Drake AJ, Sanchez TH. Prevalence of Treatment Optimism-Related Risk Behavior and Associated Factors among Men Who Have Sex with Men in 11 States, 2000–2001. *AIDS Behavior*. 2007; 11:123–129.
- Streicher V. Internet Methods for Delivering Behavioral and Health-Related Interventions (eHealth). *Annual Review of Clinical Psychology*. 2007; 3:53–76.
- Ybarra ML, Bull SS. Current Trends in Internet- and Cell Phone-based HIV Prevention and Intervention Programs. *Current HIV/AIDS Reports*. 2007; 4:201–207. [PubMed: 18366952]