



Published in final edited form as:

Arch Sex Behav. 2011 August ; 40(4): 803–816. doi:10.1007/s10508-010-9666-4.

Use and Perceptions of the Internet for Sexual Information and Partners: A Study of Young Men who Have Sex with Men

Katrina Kubicek, PhD^{1,3}, Julie Carpineto, MFA¹, Bryce McDavitt¹, George Weiss¹, and Michele D. Kipke, PhD^{1,2}

¹Community, Health Outcomes, and Intervention Research Program, The Saban Research Institute, Childrens Hospital Los Angeles, Los Angeles, California

²Department of Pediatrics, Keck School of Medicine, University of Southern California, Los Angeles, California

Abstract

The Internet has opened many doors with its accessibility to information, entertainment and web-based communities. For young men who have sex with men (YMSM), the Internet can provide access to information on relevant sexual behavior and health information, stories from other men about relationship issues, and a venue for locating potential sexual and dating partners. Understanding YMSM's motivations for going online for information, advice or sexual relationships, is important as the Internet becomes increasingly used not only as a space to find sexual partners, but also as a venue for HIV and STI interventions. Having an understanding of the risks associated with searching for partners online, and how and why YMSM use the Internet for a variety of purposes, can inform the development of more effective Internet-based risk reduction programs. This manuscript presents qualitative and quantitative data from the Healthy Young Men's Study, a longitudinal study of an ethnically diverse cohort of 526 YMSM. Qualitative interviews (N=24) described not only the prevalence of using the Internet for finding sexual partners and the possible benefits and risks associated with that practice, but also the processes and perceptions of using this mechanism. Our data indicate that YMSM use the Internet to find information related to sex and sexuality, seek friendships, sexual partners as well as "hook-ups" or casual sex. Findings are presented in relation to how YMSM researchers and interventionists can identify how to most effectively reach YMSM through online methods.

Keywords

young men who have sex with men; Internet; gay/homosexual; relationships; sexual education

INTRODUCTION

The Internet has opened many doors with its accessibility to information, entertainment, and web-based communities. The Internet has been described as having a unique appeal for men who have sex with men (MSM), offering them a venue in which they can meet to discuss information, political issues, converse in chat rooms, place and respond to personal ads, and meet for cyber sex in an anonymous non-judgmental fashion (Benotsch, Kalichman, & Cage, 2002). For young men who have sex with men (YMSM), the Internet may be a space to gain exposure to a number of sexuality-related topics or experiences that may not be

³Correspondence and galley proofs: Katrina Kubicek, PhD., Community, Health Outcomes, and Intervention Research Program, The Saban Research Institute, Childrens Hospital Los Angeles, 6430 W, Sunset Blvd. Suite 1500, Los Angeles, CA 90028, (323) 361-8452, Fax: (323) 361-8043, kkubicek@chla.usc.edu.

readily available to them, providing access to gay-related sexual behavior and health information, stories from other men about relationship issues, and a venue for locating potential sexual and dating partners. The Internet can also be a potential source of risk for young men seeking intimate relationships, as prior research has found elevated levels of high risk sexual behavior among MSM with partners found on the Internet (Benotsch et al., 2002; Kim, Kent, McFarland, & Klausner, 2001; McFarlane, Bull, & Rietmeijer, 2000).

Research has shown that the Internet provides an opportunity for MSM to learn about their sexuality and to gain information on topics such as sexual health and relationships (Brown, Maycock, & Burns, 2005). Studies describing YMSM's use of the Internet to seek health-related information are few although about a quarter (26%) of the Healthy Young Men's Study sample reported using the Internet to seek health-related information (M.D. Kipke et al., 2007). In addition, there is some indication that the Internet is often a gateway for young men to be exposed to same-sex sexual education, filling an unmet need for YMSM (Kubicek et al., 2008; Mustanski, Lyons, & Garcia, 2010). Within the general population, young adults and adolescents are increasingly seeking health-related information online (Fox, 2006), particularly with regards to sexual health and substance use, two areas that individuals may not be comfortable talking about with a physician or other provider.

Research related to HIV/AIDS often focuses on "risk" and "risk behaviors" (Grover, 2000). Interestingly, while there are relatively few behaviors that can transmit HIV, there are numerous factors which determine whether and how these behaviors occur (Rhodes, 1997). Identifying and selecting intimate partners is certainly one of these factors, and the Internet has provided new opportunities – and associated risks – in partner selection.

Researchers have begun to study what have been identified as potential risks in creating online relationships. A meta-analytic review of studies including MSM who were recruited offline estimated that 40% had used the Internet as a venue for seeking sex partners (Liau, Millett, & Marks, 2006). Many of these studies have focused on the potential risk for HIV infection and other STIs (Bolding, Davis, Hart, Sherr, & Elford, 2005; Bull & McFarlane, 2000; Bull, McFarlane, & Rietmeijer, 2001; Elford, Bolding, & Sherr, 2001; Kim et al., 2001). Event-based (Chiasson et al., 2007) and daily diary studies (Mustanski, 2007) have indicated that unprotected anal intercourse (UAI) is less likely or equally likely to occur with partners met online as those met offline. Other research has focused on specific populations of MSM, such as "bug chasers" and "bug givers" (Groves & Parsons, 2006; Tewksbury, 2006), and the characteristics of websites that were considered "bareback friendly" and the men who visit them (Carballo-Diequez & Bauermeister, 2004; Carballo-Diequez et al., 2006). Interestingly, most research to date regarding internet use has focused on MSM seeking single encounter or casual sexual relationships, not those seeking a longer term dating relationship.

These prior studies have set the stage for understanding the potential risks associated with seeking sexual partners online. However, these studies have generally focused on an older MSM population, and not on YMSM who represent an important sub-population given their developmental stage and the increasing HIV rates within this population (Centers for Disease Control, 2008). The only study focused exclusively on YMSM's use of the Internet to find sexual partners found that 68% of the sample had gone online in an attempt to meet a sexual partner and that 48% of the sample had found a sexual partner online, and about half of them (53%) used condoms consistently (Garofalo, Herrick, Mustanski, & Donenberg, 2007). In addition, those who had sexual partners from the Internet had a higher number of sexual partners, increased methamphetamine use, and a history of commercial sexual activity when compared to those who had not found sexual partners on the Internet. Most research that has explored the use of the Internet within MSM and YMSM populations has

included primarily White ethnicity samples. The exception to this was Garofolo, Merrick, Mustanski, and Donenberg (2007) who found White YMSM were more likely to use the Internet to meet sexual partners than their African American and Latino counterparts. Research in the general adolescent and young adult population has found that those who found sexual partners online were more likely to have same-sex partners, have more lifetime sexual partners, and more likely to report using a condom during their last vaginal/anal sexual encounter (McFarlane, Bull, & Rietmeijer, 2002).

The motivations and reasons for seeking partners through the Internet remain poorly understood, particularly for YMSM. However, some preliminary research has been conducted, including a study among chat room users in London (Bolding, Davis, Sherr, Hart, & Elford, 2004). This study, with an older (M age, 33) and predominantly White sample, found that men had multiple reasons for using chat rooms, and among the most important were: finding sexual partners, having contact with others, being bored, and finding the online activity entertaining or exciting. Another study found that, among a sample of Latino men, reasons for preferring to meet partners on the Internet included: relative anonymity and safety, excitement, greater ability to experiment sexually, less stressful interactions and inhibitions than in-person meetings, less hassle than bars or clubs, ability to get to know someone better, and ability to “approach” men for those who described themselves as “shy” (Ross, Rosser, McCurdy, & Feldman, 2007). These web-based studies have been somewhat limited methodologically (e.g., convenience samples), including representativeness of respondents and the issues surrounding the use of online recruitment and surveying which does not allow the researcher to interact with the participants and verify that data are collected in a consistent manner.

This study sought to answer the following research questions (1) What are YMSM’s motivations for using the Internet to find information, advice or sexual relationships?; and (2) What are YMSM’s positive and negative associations of using the Internet to seek intimate partners? Answers to these questions are important as the Internet is increasingly not only as a space to find sexual partners, but also as a venue for HIV and STI interventions. Having an understanding of the risks associated with searching for partners online, and how and why YMSM use the Internet for a variety of purposes, can inform the development of more effective Internet-based risk reduction programs. This study utilized a mixed method approach to describe not only the prevalence of using the Internet for finding sexual partners and the possible benefits and risks associated with that practice, but also the processes and perceptions of using this mechanism as explained by an ethnically diverse cohort of YMSM.

METHODS

Participants

A total of 526 young men were recruited into the Healthy Young Men’s Study (HYM), a two-year longitudinal study of a cohort of ethnically diverse YMSM (ages 18–24) in Los Angeles¹. From the total sample, 35% identified as African American, 30% identified as Latino of Mexican descent, and 35% identified as Caucasian.

Procedure

Young men were recruited from public venues (e.g., bars, clubs, street corners, and special events) using a stratified probability sampling design (MacKellar, Valleroy, Karon, Lemp, &

¹For this manuscript, we used the 6-month follow-up (Wave 2) data which included 499 participants.

Janssen, 1996; Muhib et al., 2001). Additional descriptions of the sampling procedures and methodologies are described elsewhere (Ford et al., 2009; M.D. Kipke et al., 2007).

Young men were eligible to participate if they were: 18- to 24-years old; self-identified as gay, bisexual, or uncertain of their sexual orientation and/or reported having had sex with a man; self-identified as Caucasian, African American, or Latino of Mexican descent; and a resident of Los Angeles County and anticipated living in Los Angeles for at least six months.

HYM participants completed an extensive 1 to 1 ½-hour survey every six months over the course of two years. The surveys were administered in both English and Spanish, using audio computer-assisted self-interviewing (ACASI) technologies and an on-line testing format. ACASI technologies have been found to improve both the quality of the data collected and the validity of subjects' responses, particularly to questions of a sensitive nature, such as drug use and sexual behavior (Kissinger et al., 1999; Ross, Tikkanen, & Mansoon, 2000; Turner et al., 1998).

In addition to the longitudinal quantitative study, a targeted group of 24 participants was chosen from the HYM cohort for semi-structured qualitative interviews, as one of several qualitative sub-studies in the HYM Study. This sub-study was designed to gather greater depth of information related to sexual behavior. Domains explored in this sub-study included: relationship experiences and ideals, sexual preferences and perspectives, and sexual behavior.

Qualitative interviews were completed between October 2006 and January 2007. Individuals were selected based on responses to key items in the Wave 2 survey. Specifically, we identified those who reported inconsistent condom use ($n = 143$) and those who "never" used a condom ($n = 81$) during receptive or insertive anal intercourse in the last three months. We then randomly selected 12 participants (stratified equally across the three ethnic/racial groups) from each group, for a total of $n = 24$ qualitative respondents. These criteria were selected to ensure that all participants had recently engaged in UAI; individual differences in condom use were selected as a criterion to understand how and in what situations YMSM may choose not to use a condom. The sample size for this qualitative study was based on our estimates of when we would reach theoretical saturation. Twenty-four qualitative interviews were conducted, but one was removed from analysis due to inconsistencies in response; therefore, a total of 23 interviews were analyzed for this discussion.

Measures

Demographic and health variables—Participants were asked to report their: age, race/ethnicity, residence, employment status, sexual identity, HIV serostatus, HIV testing history, whether they were diagnosed with an STI since their baseline interview, and whether they had ever engaged in sex exchange.

Use of Internet chat rooms—Participants were asked about the frequency they visited gay Internet chat rooms in the last three months and the names of chat rooms most often visited.

Qualitative interviews—The qualitative interviews were designed to gather contextual data related to sexual behavior such as current and future expectations and desires regarding intimate relationships, information participants received while growing up regarding sex and sexuality, communication with sexual partners, how participants defined high-risk sex, and

detailed information surrounding two separate sexual experiences, one described as “low-risk” and the other as “high-risk” by the respondent (See Appendix A).

For the purposes of this article, responses from several sets of questions related to use of the Internet in seeking intimate partners (e.g., meeting sexual partners, knowledge of sex and STIs, and specific sexual encounters) were selected for analysis. Each interview lasted a 1-½ to 2 hours and was digitally recorded and professionally transcribed. All interviews were conducted in the HYM project offices or at a location convenient to the respondent (e.g., coffee house or park). Participants were provided a \$35 incentive for completing each interview. The research received approval from the Institutional Review Board of Childrens Hospital Los Angeles.

DATA

Qualitative Analysis

The qualitative analysis for this article utilized a “constant comparative” approach, an aspect of grounded theory that entails the simultaneous process of data collection, analysis, and description. (Glaser, 1992; Glaser & Strauss, 1967). As the data were collected, they were immediately analyzed for patterns and themes, with the primary objective of discovering patterns and any theory implicit in the data. Atlas.ti was used for coding and analysis of relationships between and within text segments. More detailed information related to the qualitative analysis can be found elsewhere (Kubicek, Weiss, Iverson, & Kipke, 2010).

Members of the research team reviewed an initial sample of interviews to identify key themes, which formed the basis of the project codebook. Codes focusing on a range of topics were identified and defined based on the key constructs included in the discussion guide. The codebook was modified as needed, and once finalized, four members of the research team were responsible for coding the interviews. Inter-coder reliability was assessed through double coding a sample of approximately 15% of the interviews. Differences in coding were discussed and resolved by the team. Codes related to meeting sexual partners (e.g., differences between meeting partners online compared to more conventional settings such as clubs or bars), partner characteristics as well as how and where participants learned about sex and other health-related information were included in the analysis.

The open coding process included refining the codes based on the data. During this phase, five primary themes emerged as the most salient to the research questions at hand. These themes included: 1) issues surrounding early use of the Internet for sexual education purposes, 2) what initially attracted someone online, 2) differences in meeting people in-person and online, and 4) positive and 5) negative associations with the Internet as a dating venue. Throughout the article, pseudonyms are used to identify participants.

RESULTS

Table 1 presents the demographic data for the full sample of HYM participants (N = 499) who completed the Wave 2 survey as well as those completing the qualitative portion of the study. Qualitative participants did not differ considerably from the rest of the sample. However, a larger proportion (30% of qualitative vs. 12% of total sample) reported having an STI since their last interview. The majority of the HYM sample (77%) identified as gay, with 15% identifying as bisexual. Most (63%) of the participants reported tested for HIV in the past year.

The Internet was reported to be the most common place to meet the participants’ most recent sexual partners, 14% reported meeting their most recent primary partner online; 11% their

consistent casual partner, and 13% their last single encounter. A total of 40% of participants reported visiting a gay Internet chat room in the last three months. African American participants (52%) reported visiting gay Internet chat rooms more than the other racial/ethnic groups ($\alpha > .05$). Table 2 presents the names of chat rooms most frequently visited by participants. Gay-specific sites were mentioned most commonly, while some ethnic specific sites were also commonly visited.

The Internet as a Learning Environment

Participants described accessing the Internet for a variety of reasons, most commonly to seek information and advice about gay-related issues. They described a variety of web-based resources for information and advice relating to their sexuality that included chat rooms, pornography, and web-based search engines. Chat rooms, which were interactive in nature and offered more personalized information, were described as the most popular Internet spaces. Many also reported using general interest search engines (e.g., Google, Yahoo) to learn about gay sexuality. Participants often reported that if they currently had a question about sex or STIs, the first place they would go is the Internet.

The kind of advice participants sought varied from general information about sexuality to more intimate advice about gay relationships. Several participants mentioned that they began to go online for advice when they were first “discovering” their own sexuality, as they did not feel they had anywhere else to go for the kind of information they needed. For all of these participants, the Internet was a trustworthy and safe venue to explore and have their questions answered.

Chat rooms on sites such as AOL and Yahoo were mentioned most frequently as the sites young men used when they first began to go online. This was often due to a lack of knowledge about gay specific sites: “It was like AOL, like gay chat rooms. I didn’t know about gay sites or anything like that.” In some cases, the use of these chat rooms was described as the obvious venue for learning about gay sexuality and exploring their own sexual identities. Several young men described using general chat rooms, and then later learning about and moving on to gay specific sites, either through conversations with other men or from advertisements placed on the webpage.

Chat rooms were a popular venue, allowing young men to meet new people, find sexual partners, and to learn about gay sexuality. In most cases, participants described an ongoing and passive learning process by which they listened and learned as conversations in the chat rooms unfolded. Many participants began accessing chat rooms at a young age, where they were exposed to sexual terminology, but did not necessarily acquire detailed information about the specifics, benefits and/or risks associated with those acts. For example, one respondent explained how he first heard the terms “top” and “bottom” in a chat room, but did not fully understand their meaning until he actually engaged in anal intercourse.

People in chat rooms mentioning things. So many things went over my head about, oh, what was it, for the longest time, I thought topping and bottoming meant when you had sex, who was on top and who was on bottom.

In several instances, chat rooms were also described as a place to meet other gay men who could become friends or mentors. One respondent described meeting his “older gay brother” in an online chat room. This person was someone whom he had never met in person, but on whom he relied to provide guidance on questions about gay sex and relationships.

In the absence of more traditional sources of information about sexuality and the mechanics of sex, such as school, friends, and family members, pornography available through the Internet often provided the first glimpse of gay sexuality. Several participants mentioned

that pornography was where they first learned and saw anal intercourse: “I eventually figured out what anal sex was when it came to the Internet.” For the following respondent, pornography on the Internet helped him not only to understand the mechanics of sex, but to identify and understand his same-sex attractions.

I: And were there any other places you remember learning about same sex sexuality?

R: Well, I guess you could say the Internet...like porn sites. And then I looked up, I was curious about what I was in middle school, so I would look it up...I'd look up like man like, men liking men or something like that. Because then that word was sort of a taboo growing up. [Which word?] Homosexual or gay, those words were not used in my middle school or elementary school...So I just, I didn't know what it was so I didn't know what I was. So I looked it up.

Assessing Partners and Risk when Using the Internet as a Venue for Meeting Sexual Partners

While young men typically described their use of the Internet as beginning with a desire to learn more about sex and sexuality, they also shared how this medium provided a readily available venue to meet other young men for possible sexual relationships. Participants met, evaluated and assessed the potential risks and often got to know people they met online using a variety of web-based platforms, including personal profiles in virtual communities, email, and instant messaging. The length of online interactions varied greatly, and could last only a few minutes or involve weeks of regular contact with an individual before an in-person meeting. The length of the interaction typically corresponded with the individual's intentions regarding the relationship. Specifically, those looking for a “hook-up” or casual sexual encounter engaged in a short amount of chatting, while those seeking longer-term relationships or friendships engaged in more extensive chats. One respondent described an online friendship that lasted several years, eventually leading to an in-person meeting.

For many participants, the starting place for online encounters was to view an individual's profile, sometimes by using the website's search tool to search for criteria such as ethnicity, zip code or age. Profiles often included photos and a description of the person's characteristics, such as their interests, body type, age, ethnicity, sexual preferences, and/or HIV status. Interestingly, participants did not initially mention HIV status as something that they noticed in a potential partner's profile. One of the first things most participants looked for was an appealing picture. Participants viewed photos to evaluate overall attractiveness, as well as such characteristics as body type, fitness level, or personal style (e.g., “whether they're a punker or a surfer”). This step was viewed as so natural and taken for granted that one respondent explained that not looking at a picture before meeting the partner would be “weird.”

In spite of the popularity of photos, nearly all of these young men also emphasized that an individual's “personality” was more important to them, typically stating that a person's looks were only a starting place for determining whether they were worth chatting with. Participants could get a sense of an individual's personality by reading their profile to identify common interests, such as shared musical tastes or career goals. Some young men especially liked profiles that conveyed an appealing personality by including such items as poems, humor, or other additions that indicated an individual's unique characteristics.

The first thing that attracts me is the picture...Just if they look nice, then yeah I'll stop at the page. But if the page is bland or doesn't really have anything on it, I'm not gonna say anything. But if it has something catchy on there, like on their profile

that they might say, a lot of personality; maybe they wrote a poem, a really nice poem...Not a poem that they found on the Internet, but a real poem that they wrote.

Starting to chat with a person usually involved sending an instant message or an email to the person they wished to meet. However, a few participants said that they never initiated a chat with anyone, but that they preferred instead to “be hit up” by an individual who was interested in them based on their profile. By engaging in small talk and asking certain basic questions, a respondent could decide whether he felt interested or comfortable enough to continue the chat. For many of these young men, the most important phase of the process was the evaluation of the person that occurred while they were chatting. The key factor for many was whether they and the other person shared certain common interests or had “a lot to talk about.”

Small talk also helped them assess the potential risks associated with a potential sex partner. In fact, young men often spoke of risks related to HIV being associated with how well they knew and trusted a partner. This demonstrated that trust and the importance of that relationship may be more important than the risks associated with HIV transmission. Specifically, when asked to describe sexual experiences they felt were “low-risk,” the common feature attached to each of those scenarios was a sense of “knowing their partner”—regardless of whether they engaged in UAI or not. The length of time needed to “know” their partners varied from a week or two to several years. Interestingly, participants seemed confident in their abilities to reach this level of trust and knowing, as Jamie describes here: “I had known him well enough to know that he wasn’t really high risk. Or at least I assumed that he wasn’t high risk.” Meeting an online partner was perceived as “risky” if there was not some kind of exchange of personal information; for some participants, even the most “minimal exchanges” made them feel safer in a potential meeting.

Many participants stated that there were certain basic topics typically addressed during an online chat, particularly if they were considering whether to have sex with someone. These might include finding out the potential partner’s location—particularly for those seeking a one-time hook-up—or asking questions that would help the respondent evaluate how risky sex with that particular partner might be, such as their HIV status and whether they have been tested recently. Some participants reported feeling more comfortable asking such personal questions online rather than in person. Several participants stated that while chatting they also engaged in flirtation, giving compliments, and what one young man described as “sexual foreshadowing,” which for him meant attempting to arouse a potential partner by talking about his body or different sexual activities. Sexual preferences were of particular importance for young men to discuss prior to meeting—regardless of whether he was searching for a single hook-up or a longer term relationship: “You definitely wanna cover those bases because two people of the same orientation, what good would they do... Like two tops or two bottoms or whatever.” Some also mentioned lying about their age to potential sex partners, stating they were older or younger based on what they thought would make them most attractive.

Intent in Using Online Resources

Participants in this sample were split in their ultimate desires related to going into gay chat rooms, with most (18 of the 23) seeking a longer-term relationship of dating or possibly friendship, and a smaller proportion seeking single encounters or other relationships based solely on sex. Many of the participants who were seeking more than just a sexual hook-up expressed frustration that people online were only interested in meeting up for sex. These young men typically disliked partners who brought up the topic of sex too soon or with too little discussion of other things that could help them feel more comfortable, such as career interests, or how the respondent was doing overall:

If a person right off the bat is talkin' about sex or whatever, it's a little less attractive. Whereas if a person wants to know "Are you in school? Do you work? What are your hobbies?" That's a little *bit* more attractive because you find that person is geared toward what you want and what you're looking for.

For many of these young men, an online chat or relationship generally lasted several weeks before an in-person meeting. This time allowed the respondent time to get to know someone better before meeting in person—a meeting that typically occurred in a public such as a coffee shop or club.

Those seeking purely a sexual relationship also tended to dislike individuals who jumped directly to the topic of sex. For example, Sergio described this as a "test" for a partner to demonstrate an interest in something more than a purely sexual interaction. He related an incident where he met another young man at a hotel after chatting with him online one night:

He was like "Let me call you" and I was like "Oh, alright." So we talked and he didn't have a threatening voice, he was very gentle with the way he was talking. And he just kind of talked to me about work. We didn't go into sex at all. I was like "Okay, passing the test..." And then he asked me what I'm into ...I was just like "Well, I'm a bottom." And he said, "Good, I'm a top." I'm like "That's awesome." So he was like "Well, if you have time tonight, do you wanna chill, let me know."

In contrast to the majority of participants, a few young men preferred to engage in a minimum of small talk, such as Emmet, who stated: "you're online, you know what you're there for. You're not there to be meeting poker buddies." These participants were specifically interested in having sex, and sometimes expressed impatience or frustration about people who wanted to have long conversations online. "You make the small talk and then it's just like, okay get to the point. You know what we both want, like stop the bullshit." For young men fitting this description, online interactions were minimal and an in-person meeting typically took place within hours of the initial contact in a private home or hotel. These interactions were typically single encounter relationships; however, Lane described an ongoing but casual relationship with another young man ("Blowjob Betty") with whom he only engaged as a recipient of oral sex. The parameters of the relationship were what seemed to attract him the most, and he reported engaging in very little small talk prior to or throughout their relationship.

Honestly, I like how like clean and defined the relationship is, I usually do try to have a thing, something to do right afterwards because I don't really want to, I don't really want to be building any more of a relationship with him at all. And I don't want it to get messy. And I am fine keeping it as it is now...just like a blow job and that's all.

In general, participants reported that outside of clubs or bars, there are few options for YMSM to find partners and the Internet represents a new and more novel venue. Participants discussed both the positive and negative aspects to finding partners on the Internet. While many of the participants mentioned the Internet as their "favorite" way to meet people, those stating this preference still tended to describe negative aspects of the process as well.

Negatives of Seeking Partners Online

Participants described the negative aspects of finding partners online, such as potential dangers to their physical health and safety as well as the ability for individuals to misrepresent themselves physically. For some participants, these negative aspects of online partners far outweighed the benefits, particularly as they got older and were able to access gay populations in other venues. Among other negative aspects described by young men was the limitation of on-line communication that did not include body language or other

communication cues and the overarching perception that men online were only interested in casual sex.

Potential Dangers for Physical Health and Safety—The potential dangers inherent in meeting a stranger for sex or other type of relationship were mentioned by many of the participants. Those searching for a single encounter or hook-up typically reported chatting with someone for a short period of time online (location was often something that was described as an important factor), and then meeting them in their own or the partner's home for sex. While none of the participants reported any dangerous encounters, most did acknowledge that there was a certain level of risk associated with this practice. “You may run into the serial rapist or the crazed, deranged person. You just really don't wanna take that chance and that's why I tend to gravitate more towards meeting someone in person rather than the Internet.” In contrast, those searching for a longer-term relationship tended to chat for a longer period of time and then seemed to meet in a public location such as a coffee house or club.

While participants expressed a concern that someone may misrepresent himself physically online, something that could not be done in person (“I think in person's always the best method because there's no lies on what you look like”), there seemed to be the general consensus that someone could lie just as easily in person as online about their sexual history or HIV status. Discussing HIV status with sexual partners was something participants generally reported doing, but the conversation was typically short and to the point, and participants rarely reported asking additional information. “I actually asked him [about his HIV status]. But asking him doesn't really do anything. He's like 'No'. But then he asked me-it was basically 'Are you?'” Some participants reported checking the HIV status on men's profiles prior to engaging in additional conversations or hooking up with someone, but admitted that they could easily be lying about their status.

It says [HIV status] on the [profile]... You have to select it. Well, they can write unknown too but no one ever has unknown... a person can be lying but then they could be lying in person too.

However, most participants tended to trust their partners' responses to such questions—either online or in-person – as Sergio exemplified when he reported that a previous partner “didn't seem like he had a motive to lie. 'Cause when I asked him, it wasn't when we were together, it was online.”

Danny related a story about finding a potential partner online whose photo initially attracted him. He said that he “rarely reads their profiles, I just look at the pictures” but in that instance he decided to read the man's profile:

And thank God he was like open about being HIV positive. He was like, “I am positive and I have been since such and such date” and that really scared me...but what if he didn't put that on there. You know, what if he was just sneaky or selfish and I think, here I am thinking he is cute and I was about to start talking to him and you know, that could have easily gone wrong...he could have not said he was HIV positive and then I could have had sex with him or, you know, it's just a risk, a big risk.

Interestingly, many of the young men did not necessarily see using the Internet itself as a method of finding sexual partners as dangerous. Most equated the potential risks—particularly those associated with HIV—with other venues. A smaller proportion seemed much more aware of the potential dangers associated with its use and reported that efforts need to be made to make young men more aware of the potential HIV-risks associated with finding sexual partners online. Jonah, who reported using the Internet a great deal to find

partners when he was younger, described many potential pitfalls related to HIV and finding partners online. He reported being a part of the “Party and Play” (PNP) circuit online, which he described as consisting of gay men wanting to get together to do drugs and have sex. He perceived members of these “circuits” to “not really care” and to lie about their HIV status:

It’s like we’re talking about HIV prevention. You gotta go where—I mean you really wanna go to where it’s a problem and where it’s high risk and really wanna get to these people that are essentially online...because some people actually think they’re in a fantasy world and they think this isn’t a risk because these are nice people cause they like the same site as them, but you know, a lot of them are just liars and all that and I think for those coming into the circuits and the community, they really need to know not to trust everyone off of that and to be very careful.

Ability to Misrepresent—One of the most common negatives associated with finding sexual partners online was the lack of certainty regarding with whom one was chatting with. Some participants reported worrying that the man on the other end of the computer was older (“I get upset when they [older men] send me messages because I think that’s just so not OK.”) or just not who or how he represented himself. As one respondent reported, “There’s been many cases where I’ve met someone on the Internet and they say that they look like Will Smith and then, in person, they look like Chaka Khan.” To minimize this potential problem, some young men reported needing to see multiple pictures of someone before meeting them. Viewing photos of an individual in different contexts and lighting seemed to be a common strategy to verify that the potential partner was not misrepresenting his appearance.

Nevertheless, participants still reported having men show up at their home looking not at all like their photos. In those cases, the young men differed in their responses; some, particularly those looking for something longer term, would terminate the “relationship” at that point. For those seeking only a hook-up for the night, they would most often continue the liaison, but be wary of future online hook-ups.

That was some guy I had seen back and forth online. He was very cute in this picture. Doesn’t look a thing like that now. That’s why I hate those things. But I mean what are you gonna do when someone comes to the door... At that point, I was just like “Okay, well, you know.” I didn’t put a lot into it. I just thought I might as well get off and get it over with.

Inability to Discern Non-written Communication—Similarly, the lack of in-person contact was seen as a limiting factor in assessing a potential partner. Seeing someone’s photo online was often not enough, particularly if a young man was looking for something more than a one-night stand. “You can never tell anything about a person like in terms of their kissing ability from just a photograph.” Some young men, like Jamie, reported that they were very good at reading body language and the lack of face-to-face contact inhibited their ability to fully evaluate a potential partner.

Interestingly, some participants reported that this lack of personal contact could be partially ameliorated through a phone conversation. Several, like Tai who described chatting with someone online as “creepy,” reported that they could tell a great deal about someone from their voice and could often determine whether they would want to continue pursuing a relationship.

Perception that People Who are Online only Want Sex—While some young men in the sample sought only single encounters or hook-ups through the Internet, a larger proportion often seemed to be searching for longer term dating relationships. For these

young men, the Internet was not necessarily an ideal place, as many of the potential partners they found seemed interested in sex only, “People online are more into hooking up. They don’t want a relationship.” Lane reported that there were two questions “you will always get” online. “What are you looking for?...the guys who ask that, that usually means they’re trying to hook up” and “What are you into?” For Lane, this seemed like too much of a “typical thing to do” and, for him, he was more likely to meet someone if those questions were not asked because “it is on the path to a hookup, which is not necessarily what I’m looking for all the time.” Similarly, Cory reported there was generally a lack of intimacy when finding men online. These encounters were almost always a “hookup” and for him this was “empty without the kissing. It just feels like you’re here so they can have sex with you and then you’re going to go.”

For some participants, this perception was so strong that they felt there was a stigma attached to this method, and they did not necessarily feel it was possible to meet a serious partner online. One respondent reported that he preferred to meet partners through friends or in person and that he was not sure if perhaps he was “doing it to [him]self because I know I met them online, but it doesn’t seem to go much further [than sex] when I meet them online.” Another respondent reported that when he met a potential partner online he could not help but think “Oh, this wasn’t how I wanted to meet you” because he knew would prefer to meet someone in person.

Positives of Seeking Partners Online

For Shy Young Men and Those Fearful of Rejection—Several participants described themselves as “shy” and unable to approach another man in a bar or club. For these young men, the Internet was a liberating place where they did not feel anxious or fearful of approaching another man, such as Liam:

I’m a shy person so I don’t like to go to the club and meet ‘em cause I’m like “Nah, I ain’t gonna go talk to ‘em or not.” But when you’re online, you can say whatever you want to cause they don’t know you and you don’t know them.

Other young men, like Danny, reported that they would not ordinarily “hit someone up” in a bar; rather, they would wait to be approached by someone. However, the Internet removed the initial fears and anxiety attached to approaching another man and possibly being rejected. The fear of rejection often came from the idea that YMSM were limited to the more traditional venues of clubs and bars to meet other men. Young men seemed to feel that approaching other men in areas not specifically defined as gay could be risky. David, a self-described “sexual icon,” related a story of how another young man stared at him at school, “burning a hole through my chest,” and that only after the young man left him a note asking him to dinner did he realize that he was being stared at in a sexual way. He reported that this was “an edgy area of talking to somebody in public” compared to a bar or online. Even he, who said he was not shy in the slightest, felt uneasy about just approaching another guy in public:

In the straight world, I can be sitting here at the Starbucks and there could be a girl across the way and I can go over and introduce myself to her and just get to know her and that can snowball into a relationship...versus it’s still kind of shy and standoffish for me to go up to another guy...and make a sexual advance or any kind of advance to try and get a number or keep communication without it seeming possibly weird.

Similarly, young men reported that the Internet allowed for perhaps more open communication than an in-person meeting—although others reported that the ability to lie online perhaps was easier due to an absence of body language. The relative anonymity

afforded by meeting someone online led some young men to report being able to talk about anything with a potential partner without fear of judgment or embarrassment: “When you’re online, you can say whatever you want to cause they don’t know you and you don’t know them.”

Young Men with Limited Access to Other Gay Venues—Many of the young men reported using the Internet to find sexual partners and to access information about sex when they were much younger—before they were able to legally enter gay bars and clubs. In some cases, in-person contact was never made. Danny described his experience as a 14-year-old entering gay chat rooms for the first time to “figure out stuff and talk to people,” but he was “too afraid” to meet up with someone in-person. While gay men may have limited types of locations to meet intimate partners, gay adolescents or young adults face even greater limitations, as most clubs do not allow individuals under the age of 18 and many extend that age restriction to 21.

I really don’t do Internet hookups since I was in my teens. I mean I have, but there’s no point. When I was younger, when I couldn’t get into a bar, of course, there was the Internet cause it was my only outlet at the time...Cause I came out at 17 before I could get into a bar.

In addition to being a convenient venue for those too young to enter bars and clubs, the Internet also provided access to online gay communities for those who may live in areas without an active gay community. Cory, for example, reported that, before he moved to Los Angeles, he went online frequently to find sexual partners as he did not know of any other venue in his hometown. His first sexual encounter was with another young man he met online, the sex was unprotected, a one-night stand, and was “not what I wanted a first time to be”. While living in Oregon, he was not open about his sexuality and tended to hook-up with other men who were not openly gay. “I used to meet people on the Internet because that was more when I wasn’t very open and there was no other way for me to kind of meet them.”

Convenience and Accessibility—Several participants reported that the Internet may not be the “best” way to meet potential partners, but it was certainly the most convenient. People in clubs were described as cliquish, typically standing around in groups and talking together and that breaking into one of those groups would be challenging, a “one in a million that someone would get in there.” In addition, the ability to have a private conversation with someone in a club was described as potentially awkward, compared to chatting with someone online where participants felt they could have a more in-depth conversation without someone “right there listening to your conversation.” For some, the time required to get dressed and drive to a club, where you may or may not meet a potential partner, was described as troublesome.

All you have to do is walk into the bedroom or the living room and get on the computer. Whereas you have to drive and go through the whole motion of going to the club. So it’s a lot more convenient on the Internet, but it’s not always the safest or the smartest way.

Finding an individual of a particular age, ethnicity, sexual preference, and/or geographic area has been made quite easy in many of the chat rooms visited by participants. Young men described chat rooms specific to men ages 18–25 in Los Angeles, others that were searchable by zip code as well as sites designed for specific ethnic/racial groups, and specific subgroups of gay men (e.g., bears, leather). These types of websites allowed YMSM to locate a potential partner and send a message or email without having to approach multiple people in a club or bar who matched specific criteria.

DISCUSSION

Data from the qualitative interviews presented here indicate that the Internet was an important venue for YMSM seeking not only sexual partners, but also information about sexual behavior and health. With limited access to other educational resources, the Internet has filled a void in providing information to YMSM, giving them the opportunity to learn about health-related information as well as a venue for meeting other men like themselves to share information and stories. Researchers and providers hoping to initiate online intervention programs should be aware of how young men are accessing the Internet and for what purposes in order to most effectively reach their target populations.

Contrary to other studies, (Benotsch et al., 2002; Bolding et al., 2005; Bull & McFarlane, 2000), which have often focused exclusively on sub-populations of MSM (e.g., “bug chasers, barebackers”) (Carballo-Dieguez & Bauermeister, 2004; Grov & Parsons, 2006; Tewksbury, 2006), our data indicate that the YMSM in this sample did not utilize the Internet solely for purposes of “hook-ups” or casual sex. In fact, many of the young men reported disappointment and frustration when discovering that the man they were chatting with online seemed interested only in sex. This is important as the participants in this study were not recruited online and may have different preferences than those in the online studies. Among the positive associations described in this sample were that the Internet provided opportunities for young men, particularly those with limited access to other gay venues or who experienced social anxiety in approaching other men. Additionally, the search options and organization of some sites allowed young men to easily filter and select other men based on specific criteria and preferences.

Data presented here also indicated that there may be some differences in how YMSM of different ethnic groups utilize the Internet. Prior research (Garofalo et al., 2007) found that White YMSM utilized the Internet more frequently than other ethnicities to find sexual partners. An explanation for this finding was that accessibility to the Internet may be greater for White YMSM and youth in general than other ethnic/racial groups. Our data indicated that African American YMSM visit gay chat rooms more frequently than other groups. The more frequent use of gay chat rooms by African American young men in our study may be related to their comfort level in other gay venues which have been perceived of as less welcoming of African American MSM (Kipke, Wong, & Weiss, 2007; Kraft, Beeker, Stokes, & Peterson, 2000).

Again, somewhat inconsistent with other studies (Bolding et al., 2005), young men in this sample tended to take some time to “get to know” someone online prior to meeting them. For those seeking a one-time hook-up, this usually included basic information such as sexual preferences and location, but young men also wanted to get an idea of a hook-up’s personality either through small talk or an online profile. While the Internet was often mentioned as the easiest way to meet another man, it often changed the trajectory of the relationship—in particular for those seeking longer term dating relationships. Beginning a relationship with a partner whom a respondent met in a bar or club was reportedly easier, as participants typically reported taking several weeks before meeting an online partner in person. In contrast, most reported commencing a dating relationship shortly after meeting partners in a club or other in-person venue. Given that none of the participants in this sample had described any potentially dangerous situations with online partners, this screening process of taking time to get to know someone, either online or by telephone, may be beneficial.

The participants’ narratives indicated that using the Internet as a tool for finding sexual partners was not always perceived as a risk. In fact, for many it was seen as the most

convenient and common way to meet other young men. Given that none of the participants described a situation where they felt they were physically in danger with a partner they met online, it is not too surprising that certain kinds of risks did not always seem to be a reality, and therefore were not mentioned. Many of these young men reported using the Internet from a very early age as a tool to learn about sex and sexuality. This indicated that going online may have become what can be described as a “habitual” behavior within this population. Following the tenets of risk theory within the social action paradigm (Rhodes, 1997), this habitual use of the internet may have therefore become perceived as a safe and low-risk activity. However, it should be noted the young men in this study described a variable length of time they took to get to know their potential partner—a behavior that could be seen as a risk reduction method. The perception that use of the Internet in this manner may be low risk should be considered when designing HIV prevention interventions. For example, HIV prevention interventions should present possible dangers of meeting sexual partners online and offer advice and strategies to navigate this venue safely.

Attempts at generalizability cannot be made with these data given the small sample size and the fact that the study participants may have had a limited range of experiences and perspectives. In particular, because only participants who had participated in unprotected sex were selected, the findings cannot be generalized to YMSM who do not engage in sex without condoms. In addition, our data did not allow us to calculate consistently the frequency in which participants engaged in UAI or other risk behaviors with Internet partners compared to partners met in other venues. Likewise, the survey questions were designed to obtain information on recent behavior related to Internet use, and therefore lifetime estimates of participants using the Internet to seek sexual partners was not available. Because this study’s recruitment efforts were conducted at gay-identified venues, this study’s sample may have a greater-than-average connection to gay communities. Most research conducted with YMSM has recruited participants from venues such as bars and clubs, and little is known about those who do not have access to and/or choose not to attend gay-identified venues. Therefore, research focusing on YMSM who do not frequent these venues may reveal different perceptions or behaviors.

In spite of these limitations, the data presented here provide a starting point for YMSM researchers and interventionists to understand how to reach most effectively YMSM through online methods. Interviews with these young men revealed that some YMSM have limited access to gay venues such as social service agencies and clubs. Designing interventions that are accessible for these young men may require innovative techniques with electronic and online resources. Similarly, YMSM may have limited access to credible and relevant sexual health information. Many reported relying on pornographic websites or chat rooms for their sexual educational materials. Providers wanting to disseminate knowledge about sexual risks should consider placing links to health-related sites on the most commonly used gay-related websites that young men would consider trustworthy and relevant to them. Websites such as those listed here. Currently, YMSM are using the Internet for information and advice much more frequently than seeking community providers; this should be acknowledged and providers should consider going to the target population, in this case online, rather than expecting the target population to come to them. This is important as HIV transmission continues to adversely affect this population.

Our data provide an opportunity to see how YMSM use a variety of different media within the Internet. Understanding what is attractive to young men (e.g., photos, insightful profiles) can be useful when considering web-based interventions such as Sexpulse, which is “erotized” to appeal to the target population and includes “pictures of nude men, cartoon and cheeky icons” (Marcotty, 2008; Rosser et al., 2008). Understanding what is attractive to YMSM can certainly inform the development of new and innovative web-based

interventions, which are becoming increasingly important given their potential to reach a larger audience and have greater impact. More interactive web-based spaces should also be considered, such as chat rooms and virtual environments where YMSM can learn from their own and others' ideas (Bull, McFarlane, & King, 2001; Read et al., 2006).

Finally, given that young men reported using gay-related chat rooms for multiple reasons, including developing friendships, obtaining guidance on familial and romantic relationships, meeting potential sexual partners, and learning about sexual health and behavior, interventionists may want to consider developing relationships with these sites' directors. One of the participants in this study suggested placing moderators or advisors in these chat rooms to provide additional opportunities for interventions. For example, moderators could welcome new members to the chat rooms, provide some basic information on the potential risks associated with certain behaviors such as PNP, as well as sexual health issues, HIV risk, and safer sex behaviors.

Acknowledgments

The project described was supported by Grant Number R01DA015638 from the National Institute on Drug Abuse. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute on Drug Abuse or the National Institutes of Health. The authors would like to acknowledge the contributions of the many staff members and project interns who contributed to collection, management, analysis, and review of this data: Cesar Arauz-Cuadra, Marianne Burns, Judith Grout, Donna Lopez, Miles McNeeley, Marcia Reyes, Katherine Riberall, Talia Rubin, Conor Schaye, Maral Shahanian, Meghan Treese, Carolyn F. Wong, and Joseph Zhou. The authors would also like to acknowledge the insightful and practical commentary of the members of The Community Advisory Board: Asian Pacific AIDS Intervention Team (Noel Alunit), LA County Dept of Health Services (Chi-Wai Au), Los Angeles Black Pride (Ivan Daniels III), AIDS Project Los Angeles (Ray Fernandez), Youth/Trent Jackson Media Group (Trent Jackson), LA Gay and Lesbian Center (Dustin Kerrone), Division of Adolescent Medicine, CHLA (Miguel Martinez), West Coast Ballroom Scene (Ariel Prodigy), West Coast Ballroom Scene (Brion Ramses), City of LA AIDS Coordinator's Office (Ricki Rosales), Minority AIDS Project (Haquami Sharpe), Bienestar (Pedro Garcia), St. Mary's Medical Center Long Beach (Carlos Ruiz), IN Magazine (Ramy Eletreby), Minority AIDS Project (Kevin Williams), Minority AIDS Project (Rev. Charles E. Bowen), UCLA Integrated Substance Abuse Programs (Tom Freese).

APPENDIX A

Selected Questions from the HYM Sexual Behavior Sub-Study

As part of the larger HYM study, we are speaking with some respondents on specific topics so that we can learn more about your experiences. As you know, the ultimate goal of the HYM study is learn more about the lives of young men who have sex with men. For this particular interview, we want to ask you some specific questions about your experiences and thoughts about sexual behavior. The questions we are asking are of a personal nature - so please remember that anything you tell me will remain confidential. Be as candid as you want – nothing embarrasses me.

Information and Attitudes about Sex and Sexuality

Now, I want to know about where you first learned about sex and sexuality and what kinds of things you learned when you were growing up.

- Where/from whom did you receive your information on sex when you were growing up? (probe for school, friends) What kinds of things did you learn? (probe: for STDs, birth control, safer sex, anal intercourse). What kinds of things do you think should be taught in sex education in schools? (Be sure to ask about whether gay sex was covered)

- Who and where do you go to NOW for information on sex (e.g., STDs, safer sex, different kinds of sex)? What kinds of things do you learn from this person/place? Why do you choose this person or place for information?
- Are there issues relating to sex or sexuality that you want to learn more about but are not sure where to go to find out?

Sexual Partners

Now, I want to ask you some questions on how you choose your sexual partners. First of all, where do you meet sexual or romantic partners? (probes: bars/clubs, friends, work, internet)? Currently, how do you meet partners most often? What is your favorite way to try to meet a sexual or romantic partner? What makes this the best way for you to meet a partner? [If meet on internet, probe for information on what they “chat” about before meeting in person; what attracts them to someone online; are there any differences with the sexual partners you meet online vs. in other places e.g., bars, clubs, parties, friends, etc]. What kinds of things do you look for in a sexual partner? Thinking about your last partners, what kinds of things initially attracted you to them?

Sexual Experiences

- I want to ask you some questions about your sexual experiences. Can you tell me about a time in the last six months when you had a sexual encounter that you felt was low-risk? I want to hear about the situation like who the person was, where you were, your feelings or emotions about the person/situation.
- OK, I want talk a little more about your sexual experiences.. Can you tell me about a time in the last six months where you had a sexual experience that you felt was high risk? Tell me about the situation and walk me through day/night - like who the person was, where you were, your feelings or emotions about the person/situation.

REFERENCES

- Benotsch EG, Kalichman SC, Cage M. Men who have met sex partners via the internet: Prevalence, predictors, and implications for HIV prevention. *Archives of Sexual Behavior*. 2002; 32:177–183. [PubMed: 11974643]
- Bolding G, Davis MC, 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]
- Bolding G, Davis MC, Sherr L, Hart G, Elford J. Use of gay Internet sites and views about online health promotion among men who have sex with men. *AIDS Care*. 2004; 16:993–1001. [PubMed: 15511731]
- Brown G, Maycock B, Burns S. Your picture is your bait: Use and meaning of cyberspace among gay men. *Journal of Sex Research*. 2005; 42:63–73. [PubMed: 15795806]
- Bull SS, McFarlane M. Soliciting sex on the internet: What are the risks for sexually transmitted diseases and HIV? *Sexually Transmitted Diseases*. 2000; 27:545–550. [PubMed: 11034529]
- Bull SS, McFarlane M, King D. Barriers to STD/HIV prevention on the Internet. *Health Education Research*. 2001; 16:661–670. [PubMed: 11780706]
- Bull SS, McFarlane M, Rietmeijer C. HIV and sexually transmitted infection risk behaviors among men seeking sex with men online. *American Journal of Public Health*. 2001; 91:988–989. [PubMed: 11392947]
- Carballo-Dieguez A, Bauermeister J. "Barebacking": Intentional condomless anal sex in HIV-risk contexts. Reasons for and against it. *Journal of Homosexuality*. 2004; 47:1–16. [PubMed: 15189783]

- Carballo-Dieiguez A, Dowsett G, Ventuneac A, Remien R, Balan I, Dolezal C, et al. Cybercartography of popular internet sites used by New York City men who have sex with men interested in bareback sex. *AIDS Education and Prevention*. 2006; 18:475–489. [PubMed: 17166075]
- Centers for Disease Control. Trends in HIV/AIDS diagnoses among men who have sex with men-33 states, 2001–2006. *Morbidity and Mortality Weekly Report*. 2008 [Retrieved August 25, 2008]. from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5725a2.htm>
- Chiasson M, 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. *Journal of Acquired Immune Deficiency Syndromes*. 2007; 44:235–243. [PubMed: 17179769]
- Elford J, Bolding G, Sherr L. Seeking sex on the Internet and sexual risk behaviour among gay men using London gyms. *AIDS*. 2001; 15:1409–1415. [PubMed: 11504962]
- Ford W, Weiss G, Kipke MD, Ritt-Olson A, Iverson E, Lopez D. The Healthy Young Men's Study: Sampling methods for enrolling a cohort of young men who have sex with men. *Journal of Gay and Lesbian Social Services*. 2009; 21:357–373. [PubMed: 20823947]
- Fox, S. Online health search 2006. Washington, D.C: Pew Internet & American Life Project; 2006.
- 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; 97:1–6.
- Glaser, BG. Basics of grounded theory analysis: Emergence vs forcing. Mill Valley, CA: Sociology Press; 1992.
- Glaser, BG.; Strauss, AL. The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine Publishing Company; 1967.
- Grov C, Parsons JT. Bug chasing and gift giving: The potential for HIV transmission among barebackers on the Internet. *AIDS Education and Prevention*. 2006; 18:490–503. [PubMed: 17166076]
- Grover, JZ. AIDS: Keywords. In: Crimp, D., editor. *AIDS: Cultural analysis, cultural activism*. Cambridge, MA: MIT Press; 2000. p. 17-30.
- Kim AA, Kent C, McFarland W, Klausner JD. Cruising on the internet highway. *Journal of Acquired Immune Deficiency Syndromes*. 2001; 28:89–93. [PubMed: 11579282]
- Kipke MD, Kubicek K, Weiss G, Wong C, Lopez D, Iverson E, et al. The health and health behaviors of young men who have sex with men. *Journal of Adolescent Health*. 2007; 40:342–350. [PubMed: 17367727]
- Kipke, MD.; Wong, C.; Weiss, G. Broadening the study of risk & protective factors for depression, drug use, and HIV risk among YMSM. Paper presented at the American Public Health Association; Washington, DC. 2007.
- Kissinger P, Rice J, Farley T, Trim S, Jewitt K, Margavio V, et al. Application of computer-assisted interviews to sexual behavior research. *American Journal of Epidemiology*. 1999; 149:950–954. [PubMed: 10342804]
- Kraft JM, Beeker C, Stokes JP, Peterson JL. Finding the "community" in community-level HIV/AIDS interventions: Formative research with young African American men who have sex with men. *Health Education & Behavior*. 2000; 27:430–441. [PubMed: 10929751]
- Kubicek K, Carpineto J, McDavitt B, Weiss G, Au CW, Kerrone D, et al. Integrating professional and folk models of HIV risk: YMSM's perceptions of high-risk sex. *AIDS Education and Prevention*. 2008; 20:220–238. [PubMed: 18558819]
- Kubicek K, Weiss G, Iverson E, Kipke MD. Deconstructing the complexity of substance use among YMSM: Increasing the role of qualitative strategies to make the most of mixed methods research. *Substance Use & Misuse*. 2010; 45:755–776.
- Liau A, Millett G, Marks G. Meta-analytic examination of online sex-seeking and sexual risk behaviour among men who have sex with men. *Sexually Transmitted Diseases*. 2006; 33:576–584. [PubMed: 16540884]
- MacKellar DA, Valleroy LA, Karon JM, Lemp GF, Janssen RS. The Young Men's Survey: Methods for estimating HIV seroprevalence and risk factors among young men who have sex with men. *Public Health Reports*. 1996; 111 Supplement 1:138–144. [PubMed: 8862170]
- Marcotty J. Web may hold key to fighting new HIV wave. *Minneapolis Star Tribune*. 2008 July 5. 2008.

- McFarlane M, Bull SS, Rietmeijer C. The Internet as a newly emerging risk environment for sexually transmitted diseases. *JAMA*. 2000; 284:443–446. [PubMed: 10904506]
- McFarlane M, Bull SS, Rietmeijer C. Young adults on the Internet: Risk behaviors for sexually transmitted diseases and HIV. *Journal of Adolescent Health*. 2002; 31:11–16. [PubMed: 12090960]
- Muhib F, Lin L, Steuve A, Miller R, Ford W, Johnson W, et al. The Community Intervention Trial for Youth (CITY) Study team: A venue-based method for sampling hard to reach populations. *Public Health Reports*. 2001; 116:216–222. [PubMed: 11889287]
- Mustanski BS. Are sexual partners met online associated with HIV/STI risk behaviours? Retrospective and daily diary data in conflict. *AIDS Care*. 2007; 19:822–827. [PubMed: 17573604]
- Mustanski BS, 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
- Read SJ, Miller LC, Appleby PR, Nwosu ME, Reynaldo S, Lauren A, et al. Socially optimized learning in a virtual environment: Reducing risky sexual behavior among men who have sex with men. *Human Communication Research*. 2006; 32:1–34.
- Rhodes T. Risk theory in epidemic times: Sex, drugs and the social organization of "risk behaviour". *Sociology of Health & Illness*. 1997; 19:208–227.
- Ross MW, Rosser SBR, McCurdy SA, Feldman J. The advantages and limitations of seeking sex online: A comparison of reasons given for online and offline sexual liaisons by men who have sex with men. *Journal of Sex Research*. 2007; 44:59–71. [PubMed: 17599265]
- Ross MW, Tikkanen R, Mansoon SA. Differences between Internet and samples and conventional samples of men who have sex with men. *Social Science and Medicine*. 2000; 51:749–758. [PubMed: 10975234]
- Rosser, BRS.; Danilenko, G.; Kilian, G.; Utsumiya, M.; Horvath, K.; Konstan, JA. Challenges in implementing an online HIV prevention program for men who use the internet to seek sex with other men: Lessons learned from Men's Internet Study II (MINTS II). Paper presented at the American Public Health Association; San Diego. 2008.
- Tewksbury R. "Click here for HIV": An analysis of Internet-based bug chasers and bug givers. *Deviant Behavior*. 2006; 27:379–395.
- Turner C, Ku L, Rogers S, Lindberg L, Pleck J, Sonenstein F. Adolescent sexual behavior, drug use, and violence: Increased reporting with computer survey technology. *Science*. 1998; 280:867–873. [PubMed: 9572724]

Table 1

Description of the Study Sample from Wave 2 Survey (N=499)

Variables	Categories	Total Sample n (%)	Qualitative Participants n (%)
Age	18 – 19 yrs	143 (29)	7 (30)
	20 – 21 yrs	186 (37)	10 (44)
	22+ yrs	170 (34)	6 (26)
Race/ethnicity	African American	115 (23)	8 (35)
	Caucasian	188 (38)	8 (35)
	Mexican descent	196 (39)	7 (30)
Residence	Family	255 (51)	11 (48)
	Own place/apartment	199 (40)	8 (35)
	With friends/partner	35 (7)	4 (17)
	No regular place/other	10 (2)	--
Employment	In school	78 (16)	5 (22)
	In school, employed	146 (29)	9 (39)
	Employed, not in school	227 (46)	7 (30)
	Not employed, not in school	48 (10)	2 (9)
Sexual identity	Gay	384 (77)	18 (78)
	Other same-sex identity	27 (5)	3 (13)
	Bisexual	76 (15)	2 (9)
	Straight	5 (1)	--
	DK/RF	7 (1)	--
Sexual attraction	Males only	363 (73)	16 (70)
	Males and females	126 (25)	7 (30)
	Females only	4 (1)	--
	Neither/don't know	6 (1)	--
HIV Serostatus	Positive	17 (3)	2 (9)
	Negative	412 (83)	18 (78)
	Don't know	69 (14)	3 (13)
STI (since last interview)	Yes	58 (12)	7 (30)
	No	441 (88)	16 (70)
HIV Testing Status ^a	Never tested	83 (18)	4 (19)
	Tested ≥ 1 year ago	92 (20)	3 (13)
	Tested 6 mos – 1 year ago	109 (23)	3 (13)
	Tested ≤ 6 months ago	188 (40)	11 (52)
Sex exchange (ever)		70 (14)	5 (22)

^aOnly those reporting any lifetime sexual activity are included in this analysis. Other missing participants include those who could not remember the date of their last HIV test.

Table 2

Past Three Month Internet Behavior (N=499)

Visited a gay Internet chatroom in last 3 months	n (%)
Several times a week or everyday	66 (13)
About once a week	27 (5)
Several times a month	52 (10)
Once a month or less	62 (12)
Never	292 (59)
Chatrooms visited	
General Chat Rooms	
AOL	26 (12.7)
Yahoo	26 (12.7)
Myspace	44 (21.5)
Other	20 (9.8)
Gay-oriented	
Gay.com	80 (39.0)
Blackgaychat (racial/ethnic)	34 (16.6)
Adam4adam	42 (20.5)
Downelink (youth-oriented)	17 (8.3)
Bilatinmen (racial/ethnic)	10 (4.9)
Other	35 (17.1)