Published in final edited form as:

Int J Sex Health. 2010 ; 22(3): 167–179.

Sexual Risk Behaviors with Female and Male Partners Met in Different Sexual Venues Among Non-Gay-Identified, Non-Disclosing MSMW

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Abstract

Despite considerable interest in the sexual behavior of non-disclosing men who have sex with men and women (MSMW), little is known about where they meet their male and female partners and whether their sexual risk behavior differs with partners met in different sexual venues (e.g., bars, Internet, parks). These issues were examined among 46 non-gay-identified MSMW who had not disclosed their same-sex behavior to female partners (i.e., men on the “down low”). The prevalence of unprotected vaginal sex was nearly identical with women met in bars/clubs as with women met through friends, work, or the neighborhood. In contrast, the prevalence of unprotected anal sex was higher with male partners met on the Internet, in bars/clubs, and through friends/work/neighborhood as compared with partners met in parks/restrooms or gyms. This is largely due to MSMW avoiding anal sex in parks, restrooms, and gyms, in favor of oral sex. These findings provide important insights into the role of venues on sexual risk and the locations where risk reduction interventions for MSMW may be provided.

Keywords

Sexual Venues; Sexual Risk Behavior; Bisexuality; Disclosure; Vaginal Sex; Anal Sex

INTRODUCTION

The sexual behavior of men who have sex with men and women (MSMW) has received increased attention due to concerns about the potential role they may have in the transmission of HIV (e.g., Hightow et al., 2006; Mimiaga et al., 2009; Operario, Smith, Arnold, & Kegeles, 2009; Prabhu, Owen, Folger, & McFarland, 2004; Siegel, Schrimshaw, Lekas, & Parsons, 2008; Wheeler, Lauby, Liu, Van Sluytman, & Murrill, 2008; Wold et al., 1998; Zule, Bobashev, Wechsberg, Costenbader, & Coomes, 2009). Of particular interest have been those MSMW who do not disclose their same-sex behaviors to female partners (i.e., men on the down low; Agyemang, Wallace, & Liebman, 2008; Martinez & Hosek, 2005; Siegel et al., 2008; Wolitski, Jones, Wasserman, & Smith, 2006) because they are more likely than disclosing MSMW to engage in sexual risk behaviors with their female partners (CDC, 2003; Mimiaga et al., 2009; Stokes, McKirnan, Doll, & Burzette, 1996; Zule et al., 2009). Despite the interest in this population, little research has examined the factors

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An earlier version of this paper was presented at the inaugural conference of the University Consortium for Sexuality Research and Training, Kinsey Institute, Bloomington, IN, April 2007.

that might increase the likelihood of non-disclosing MSMW engaging in sexual risk behaviors with either their female or male partners.

One factor that might contribute to their risk is the social and environmental context in which they meet their male and female sexual partners. It has been widely proposed that the environmental conditions of some sexual venues (e.g., low lighting, loud music, private spaces) may facilitate greater sexual risk behavior (Binson & Woods, 2003; Humphreys, 1970/2007; McKirnan, Ostrow, & Hope, 1996; Richters, 2007; Somlai, Kalichman, & Bagnall, 2001; Weinberg & Williams, 1975), although scant research has addressed this issue. Indeed, some have critiqued sexual risk behavior research for focusing too much on individual motives and cognitions and focusing too little on the influences of venues on sexual behaviors (Flowers, Hart, & Marriott, 1999; Flowers, Marriott, & Hart, 2000). If the venue in which one meets one's partners does influence the kind of practices one engages in with those partners then cross-venue differences in risk behavior should be observable.

Although research has not examined the role of sexual venues on the sexual risk behaviors of MSMW, some studies have, however, demonstrated that these men (although not necessarily non-disclosing MSMW) frequent various settings in their pursuit of same-sex encounters such as cruising parks or public bathrooms (Engler et al., 2005; Goldbaum, Perdue, & Higgins, 1996; Huber & Kleinplatz, 2002; O'Leary, Purcell, Remien, Fisher, & Spikes, 2007; Prestage & Drielsma, 1996), bathhouses and sex clubs (Goldbaum et al., 1996; Huber & Kleinplatz, 2002), both heterosexual and gay bars/clubs (Goldbaum et al., 1996; Hightow et al., 2006; Mercer, Hart, Johnson, & Cassell, 2009; O'Leary et al., 2007; Prestage & Drielsma, 1996) and the Internet (Hightow et al., 1996; Lever, Grov, Royce, & Gillespie, 2008; McFarlane, Bull, & Rietmeijer, 2000; McKirnan, Houston, & Tolou-Shams, 2007). Furthermore, there are data that suggest that the percentages of MSMW who seek out or meet male partners in public cruising areas, bathhouses, bars, or on the Internet are no different than the percentages of MSM who attend/meet partners in these venues (Hightow et al., 2006; Huber & Kleinplatz, 2002; O'Leary et al., 2007). However, MSMW who are intent on concealing their same-sex behavior may differ from more general samples of MSMW in their willingness to attend certain venues (Schrimshaw, Downing, & Siegel, under review). Such a supposition is supported by the fact that research has found that MSM who are less open about their sexuality are more likely to use the Internet to meet sexual partners (McKirnan et al., 2007; Weatherburn, Hickson, & Reid, 2003) and less likely to use gay bars or nightclubs (Wolitski, et al., 2006).

Despite research documenting that MSMW attend various sexual venues, whether the sexual risk behaviors of MSMW differ with the male partners they meet in different kinds of venues has not been investigated. Although research among MSM has documented the prevalence of unsafe sex with partners met in various kinds of sexual venues, much of this work has surveyed samples of MSM about their sexual behavior with partners from one type of venue, thus precluding cross-venue comparisons that would allow inferences about whether some venues may potentiate greater risk behavior with partners met in them. Nevertheless, these studies do document that MSM (though not necessarily MSMW) engage in unprotected anal intercourse (UAI) with male partners met in parks (16% - 28%; Frankis & Flowers, 2006; Hospers, Debets, Ross, & Kok, 1999), public restrooms (10% - 15%; Church, Green, Vearnals, & Keogh, 1993; Downing, under review), bathhouses or sex clubs (10% - 21%; Reidy et al., 2009; Richwald, Morisky, Kyle, Gerber, & Friedland, 1988; Van Beneden et al., 2002; Woods et al., 2007), and on the Internet (15% - 45%; Hospers, Kok, Harterink, & de Zwart, 2005; Reitmeijer, Bull, McFarlane, Patnaik, & Douglas, 2003). Although these findings suggest that the prevalence of UAI may be potentially higher in some venues (e.g., Internet) than others (e.g., public restrooms), these single venue studies do not afford the ability for venue comparisons.

Other research with MSM has examined whether there are differences in the sexual risk behaviors of MSM who attend or do not attend different sexual venues. Although this research provides the opportunity to compare the sexual practices of men who attend or do not attend certain types of venues, it is limited because it is unclear where non-attenders actually meet their male partners. Indeed, in some of this work, venue non-attenders were comprised of both individuals who met partners in other venues, as well as MSM who did not have any sexual partners. This research is also limited in that it has typically examined whether these men's attendance at various sexual venues was associated with *overall* sexual risk behavior with all of their male partners regardless of where those partners were met. As such, this research does not provide information about the prevalence of sexual risk behavior with partners met in different types of venues. Rather, these studies answer the question as to whether the type of MSM who attend certain venues are more likely than men who don't to engage in sexual risk behaviors in general. They have found that MSM who attend parks (Diaz, Morales, Bein, Dilán, & Rodríguez, 1999; Horvath, Bowen, & Williams, 2006), bathhouses (Horvath et al., 2006; Parsons & Halkitis, 2002), bars (Flores, Mansergh, Marks, Guzman, & Colfax, 2009; Grov, Parsons, & Bimbi, 2007; Hart & Williamson, 2005), and the Internet (Benotsch, Kalichman, & Cage, 2002; Grov et al., 2007; Horvath et al., 2006; Liao, Millett, & Marks, 2006; McKirnan et al., 2007; Mimiaga et al., 2009) are more likely than men who do not attend these types of venues to engage in sexual risk behavior with their male partners in general. Nevertheless, because in some of these studies the venue attenders are compared with men who not only attended multiple other venues, but also with men who did not have any male partners, the interpretation of these findings are suspect. Clearly MSM who attended any venue were more risky than men who did not have sexual partners.

In contrast, a small number of studies have compared the sexual risk behavior MSM engage in with partners that they have met in a specific kind of venue with their risk behavior with partners met in other venues. These studies provide greater insight into the potential role of the sexual venue in facilitating sexual risk behaviors. Some of these studies have been largely descriptive, providing data on the frequency of sexual risk with partners met in each of several venues (i.e., bathrooms, cruising parks, bars/clubs, and bathhouses) without making any statistical comparisons between venues. These studies suggest a similar percentage of MSM engage in UAI regardless of the venue in which the partners were met (i.e. 1.9% - 2.2% of MSM across venues, Keogh, Weatherburn, & Hickson, 2000; and 3.8% - 7.0% of MSM, de Wit, de Vroome, Sandfordt, & van Griensven, 1997). Others have statistically compared the risk behaviors of MSM with partners met in a one kind of venue (e.g., the Internet) to the risk behaviors engaged in by the same MSM with partners met in any other types of venues combined (e.g., non-Internet partners). With respect to the Internet, two such studies found no differences in the prevalence of UAI reported with Internet and non-Internet partners (Bolding, Davis, Hart, Sherr, & Elford, 2005; Chiasson, et al., 2007). However, two others found a higher prevalence of UAI with partners from the Internet relative to non-Internet partners (Rosser, et al., 2009; Wilson, Cook, McGaskey, Rowe, & Dennis, 2008). Likewise, Wilson et al. (2008) also found that sexual encounters that took place in bathhouses or sex clubs were more likely to result in UAI than encounters with partners that took place elsewhere. While these studies are a significant improvement over much past work due to the venue-specific rather than global assessments of risk behavior, they still are limited in that they compare behaviors with partners from one venue to behaviors with partners from all other venues combined (as has also been recently pointed out with respect to research on the sexual risks of the Internet; Rietmeijer & McFarlane, 2009).

Only two studies were identified that compared sexual behaviors with partners met in a single type of venue with behaviors with partners met in a different single type of venue.

Specifically, Binson and colleagues (2001) examined potential differences in the risk behaviors in a probability sample of MSM from four U.S. cities whose partners were met in bathhouses and those whose partners were met in public cruising areas. They found that the percentage of MSM who engaged in UAI was significantly lower among those MSM who only had sex with men met in public cruising areas (20%) relative to MSM who only met partners in bathhouses (34%); both groups of MSM were significantly less likely to report UAI than men who engaged in sex with partners from both types of venues (50%). Similarly, Berry et al. (2008) compared the sexual risk behaviors of MSM from San Francisco who met partners on the Internet with the same men's behaviors with partners met in bars/clubs. They found that HIV-negative MSM were 50% more likely to engage in risk behaviors with partners from the Internet as compared to with partners met in bars/clubs.

Despite critical concerns regarding the sexual risk behavior of MSMW, particularly non-disclosing MSMW, fundamental questions remain unanswered regarding where non-disclosing MSMW meet their male and female partners and more importantly, whether there is an association between the type of sexual venue men meet their sexual partners in and the risk behavior they engage in with those partners. The current study attempts to address these gaps and examines where non-disclosing MSMW meet their male and female partners, and compares the sexual risk behaviors that these men engage in with the partners met in specific kinds of sexual venues.

METHOD

Participants

The data are from a study of an ethnically diverse sample of 46 non-gay identified MSMW who had not disclosed their same-sex behavior to their female partners. To be eligible, men had to: (1) be 18 years of age or older; (2) not identify as gay; (3) report having anal or oral sex with a man in the past year; (4) report having vaginal, anal, or oral sex in the past year with a woman to whom they were married or had an ongoing relationship lasting 3 months or longer; (5) have not told any of their female sexual partners in the past year about their same-sex behavior; (6) speak fluent English; and (7) currently reside in the New York City area (including surrounding areas of Long Island, New Jersey, and Connecticut). The sample characteristics are presented in Table 1.

Procedure

Efforts were made to recruit men from a variety of venues, including gay bars/clubs, straight/mixed-sexuality bars/clubs, cruising parks, bathhouses, Internet sites, community-based HIV organizations, and newspaper advertisements. Recruitment took place using both gay and non-gay identified venues, Internet sites, and newspapers. Both venue-based and Internet-based recruitment used a targeted sampling approach (Watters & Biernacki, 1989) in which specific venues/websites were randomly selected as recruitment sites from a larger sampling frame. A full description of the sampling strategies has been provided in a separate paper (Siegel et al., 2008).

Recruitment efforts took place in July and August 2006. All recruitment materials (i.e. information cards, advertisements) stated that we were interested in interviewing men who had sex with both women and men and whose female partners didn't know about their sex with men. However, recruitment materials did not provide all of the eligibility criteria so as to avoid having men lie about their characteristics in order to be eligible for the study. Materials stated the university affiliation of the researchers and that participants would receive a \$75 honorarium. The confidentiality of all information provided was also emphasized. When possible, recruitment materials requested interested participants to

telephone the researchers to learn more about the study and to be screened for eligibility. Because certain websites do not allow the posting of telephone numbers, participants seeing notices about the study on these sites were asked to email the researchers upon which a telephone number was provided.

When potentially eligible men called the study telephone line, a male interviewer answered and requested permission to ask the caller a series of questions to determine their eligibility (see Siegel et al., 2008 for a complete description of the screening questionnaire and process). As part of the telephone screening process, all potential participants were asked where they got the telephone number for the study. Interviewers selected the response option that best fit the men's responses including from a bar/club, a park or other outdoor venue, a bathhouse or other commercial sex environment, a newspaper ad, a website, an AIDS service organization, a friend, and other venues reported by participants

Those determined to be eligible were invited to participate in a one-time meeting with an interviewer at the researchers' offices. On average, the meeting lasted three hours. After providing written informed consent, men completed an interviewer-administered questionnaire regarding basic sociodemographic characteristics and questions that allowed for the confirmation of their eligibility (e.g., race/ethnicity, HIV status, sexual identity, and sexual behavior in past year). Next, participants were asked to complete a set of quantitative measures administered via audio computer assisted self interviewing (ACASI). Following this, men participated in a semi-structured interview lasting approximately two hours.

Measures

Venues Where Men Met their Male Sexual Partners in the Past Year—As part of the semi-structured interview, men were asked, "In the past year, have you actually met any of your male sexual partners in any of the following places...?". A list of possible venues was then provided, including, parks or other public places (e.g., public restroom), bars or clubs, the Internet, bathhouses, gyms or health clubs, or any other venues (which they were asked to identify). For those who indicated they had met a partner in a specific type of venue, the number of different male partners they had met in that venue in the past year was obtained.

Sexual Behavior with Male and Female Partners from Specific Venues the Past 3 Months—As part of the ACASI-administered measures, men completed the Sexual Partners Questionnaire (SPQ; Schrimshaw, Siegel, & Lekas, 2006). Using a three-month recall period, the SPQ includes items about the number of male and female sexual partners a respondent had, and the number of times the participant engaged in various sexual behaviors (in total and with condoms) with (up to) their three most recent female sexual partners and (up to) their three most recent male sexual partners. As part of this partner-specific assessment of sexual behavior, men were asked where they had first met each sexual partner (both males and females), with a list of possible places provided as response options including bar/club, the Internet, a personals ad (not on Internet), the gym, at work or school, from the neighborhood, through friends, parks, public restrooms, or bathhouses. Because each participant could report multiple male and female partners from multiple venues, each participant could contribute multiple male and female partners and multiple venues to the analysis. As such, the prevalence of men meeting one or more a male partners or female partner in each type of venue, the number of male and female partners met in each venue, and the prevalence of unprotected anal sex with one or more each male partners or unprotected vaginal sex with female partner met in each type of venue in the past three months was computed.

RESULTS

Most of these non-disclosing MSMW were recruited from newspaper advertisements (33%), Internet postings (24%), and non-participant friend referrals (22%). Fewer men were recruited from bars/clubs (4%), cruising parks/restrooms (7%), and AIDS service organizations (11%). Despite efforts to recruit men from bathhouses, no men were identified from this venue. Although relatively few men enrolled were identified through recruitment activities at bars and clubs (4%) and from cruising parks/restrooms (7%), a number of participants reported that within the past year they had met a male sexual partner in a bar/club (39%) or in a cruising park/restroom (26%). However, consistent with our failure to identify MSMW from bathhouses, none of the men interviewed reported meeting a male partner in a bathhouse.

Although the eligibility criteria required the men in the study to have had sex with at least one male and one female partner in the past year, in fact, most men reported multiple male and female partners. Indeed, men reported an average of 6.7 male partners ($SD = 9.9$) and 3.2 female partners ($SD = 4.0$) in the past year, Wilcoxon $z = -2.63$, $p < .01$. Indeed, 59% of participants reported more than one male partner, and 61% reported more than one female partner in the past year. There were approximately equal numbers of male ($M = 3.5$, $SD = 5.7$) and female ($M = 2.1$, $SD = 1.9$) partners in the past 3 months, Wilcoxon $z = -0.62$, $p = .5$. Additional information about gender differences in the number of partners, types of relationships, sexual behavior, and frequency of behavior have been presented in earlier reports (Siegel et al., 2008).

Participants reported meeting their recent female and male partners in a variety of venues (see Table 2). The largest percentage of men reported meeting recent (i.e., past 3 months) female partners (79%) and male partners (38%) through friends, at work, or in their neighborhood.¹ Comparisons using a McNemar test demonstrated that a greater percentage of the participants reported meeting one or more female partner(s) through this outlet than one or more male partner(s) ($p < .001$). In contrast, the percentage of participants who reported finding one or more female partner(s) (28%) in a bar or club and the percentage who met one or more male partner(s) (28%) in a bar or club did not differ ($p = 1.0$). Likewise a similarly small percentage of participants met a female partner (5%) or a male partner (8%) through in-print personal advertisements. However, some venues -- gyms, cruising parks and bathrooms, video booth/adult theaters, and on the Internet -- were used by participants only to meet male partners. While no participants met a female partner in these venues during the past three months, a number of men did report meeting recent male partners in gyms (13%), cruising parks/bathrooms (21%), and on the Internet (28%). Few reported meeting their recent male partners in video booth stores and adult movie theaters (3%); and none of the men reported meeting a recent male partner in a bathhouse (0%).

With the exception of bathhouses (in which no participants reported meeting partners) and video booth stores/adult movie theaters (in which only 2 participants reported meeting partners), participants who reported using each type of venue reported meeting an average of more than 1 partner in each venue during the past 3 months (Table 3).² Among those who

¹Sexual partners met through friends, work, or from the neighborhood were assessed separately, but because there were insufficient numbers of men who met male partners in each to be examined separately, these three sources were combined for analysis. Furthermore, these three were not "venues" where men went to meet their partners, but rather were places where men happened upon sexual partners in the course of their normal routine activities.

²Prior to analysis, the distribution of the number of partners met in each venue was examined for potential normality issues. All skewness statistics were under 2.0, and with the exception of the number of male and female partners met through friends, work, or the neighborhood, the skewness statistics were within 2 standard errors of the skewness statistic suggesting that any skewness was due to the error from the small sample rather than actual deviations from normality (Tabachnick & Fidell, 2007; Weinberg & Abromowitz, 2002).

met partners through friends/work/neighborhood, there were no significant differences in the number of recent female partners ($M = 1.36$; $SD = 0.70$, Range = 1-3 partners) and recent male partners ($M = 1.27$; $SD = 0.59$, Range = 1-3) met on average through this source. Similarly, participants reported meeting on average almost an equal number of recent female ($M = 1.42$; $SD = 0.67$, Range = 1-3) and male ($M = 1.36$; $SD = 0.50$, Range = 1-2) partners in a bar/club. Finally, although these men did not meet any female partners in parks, gyms, or the Internet, they reported meeting multiple male partners in cruising parks ($M = 1.63$; $SD = 0.92$, Range = 1-3), gyms ($M = 1.20$; $SD = 0.45$, Range = 1-2), and on the Internet ($M = 1.55$; $SD = 0.82$, Range = 1-3).

Sexual Risk with Female and Male Partners from each Venue

A similar proportion of participants reported engaging in unprotected sexual behavior with male and female partners from similar venues (see Table 3). For example, the percentage of men who reported unsafe sex with at least one male or female partner met through friends, work, or their neighborhood -- the most common outlet for meeting both types of partners [females 79%; males 38%] -- was comparable. Specifically, of the participants who met women through friends/work/neighborhood, 44% had unprotected vaginal intercourse (UVI) with at least one of these women. Similarly, 47% of participants who met a man through friends/work/neighborhood engaged in unprotected anal intercourse (UAI) with at least one of the men met through this source. Another commonly reported venue for meeting both female and male partners was a bar/club [Female (28%); Male (28%)]. Similar to behaviors with partners met through friends/work/neighborhood, reports of unsafe sex with at least one male or female partner met at bars/clubs were of comparable frequency. Indeed, of those men who met partners at a bar/club, 42% engaged in UVI with at least one female partner, whereas 55% of men who met their male partners through bars/clubs engaged in UAI with at least one male partner.

In contrast, there were notable differences in the prevalence of UAI with male partners from different venues. However, statistical comparisons between behavior with partners met in one venue versus another venue can only be made among those participants who had attended both venues (otherwise they had missing data for the second venue). Likewise, such analyses would restrict the findings to only multi-venue users, potentially biasing the findings. Because most men did not attend all (or even most) of the venues examined, there were too few men who had partners from the same two venues to allow for adequate statistical comparisons. However, visual comparisons of the raw prevalence revealed that participants appeared more likely to report UAI with at least 1 male partner met on the Internet (55%), in bars/clubs (55%), and through friends/work/neighborhood (47%), than with male partners met in gyms/health clubs (20%) or cruising parks or restrooms (13%).

Participants reported having anal sex (i.e. protected or unprotected) more frequently with at least one male partner met from the Internet (82%), through friends/work/neighborhood (79%), and in bars/clubs (60%), than with men they met at a gym (33%) or cruising area/park (23%). In contrast, the sexual activity engaged in with men from these last two venues was primarily oral sex.

DISCUSSION

Despite considerable interest in the sexual behaviors of non-disclosing MSMW, very little is currently known about where these men meet their male and female partners or whether they engage in different sexual risk behaviors with partners met in different types of sexual venues. Although limited by a small convenience sample, the current study is the first to examine potential differences in the risk behaviors MSMW engage in with partners met in different sexual venues.

Our finding that the majority of these MSMW met their male sexual partners on the Internet, in bars, and through friends/work/neighborhood is consistent with some recent research that also found that non-disclosing MSM are more likely to use the Internet to meet sexual partners than MSM who are more open about their sexuality (McKirnan et al., 2007; Weatherburn, et al., 2003). Furthermore, the venues used to meet male partners in this sample do not appear to be a function of recruitment source. Although 2 men were recruited from bars, 18 reported meeting a male partner in a bar in the past year. A similar pattern was made for cruising parks, with 3 men recruited from parks but 11 reporting a male partner met in the park. Our lack of success in recruiting MSMW from bars and parks is consistent with earlier work that suggested MSMW were less likely than MSM to be recruited for research from public sex environments and gay bars/clubs (Fisher, Purcell, Hoff, Parsons, & O'Leary, 2006) and more likely to be recruited from print advertisements and friend referrals (Fisher et al., 2006; Stokes, Vanable, & McKirnan, 1997).

Our findings regarding the extent to which MSMW reported UAI with men met in different sexual venues are novel. Because of the partner-specific assessments, we could observe that MSMW were more likely to engage in UAI with men met in bars, the Internet, and through friends/work/neighborhood, than they were with men met through parks, restrooms, and gyms. It should be noted that the three venues where participants were most likely to meet male partners with whom they had UAI (i.e., Internet, bars/clubs, and through friends/work/neighborhood) are all typically sex-offsite venues where men meet and go elsewhere to have sexual activity. In contrast, the venues where UAI was less commonly reported (i.e., parks, restrooms, gyms) were both typically sex-onsite venues. As such, it appears that offsite sex is more likely to include UAI than onsite sex. One reason for this appears to be that the sexual behaviors of sex-onsite venues were found to be largely restricted to oral sex, with far fewer men reporting anal sex within these venues. Because these men rarely engaged in anal intercourse with any of their partners from the gym or the park, there were far fewer opportunities for UAI to occur with men from these venues. Thus, these venue differences in the prevalence of anal sex with male partners met there likely account for the earlier noted venue differences in UAI. This finding that sex within parks and restrooms is largely comprised of only oral sex is consistent with past research with MSM (e.g., Church et al., 1993; Flowers et al., 2000; Frankis & Flowers, 2007; Goldbaum et al., 1996; Humphreys, 1970; Reece & Dodge, 2003).

Although we did not systematically assess why they engaged in different practices with onsite and offsite sexual partners, a number of explanations for the differences in oral versus anal sex in onsite versus offsite venues seem reasonable to propose for this population. One is that the sex that occurs in sex-onsite venues (parks, restrooms, and gyms) has a much greater potential to be witnessed by others who were not looking for sex (i.e., "legitimate" venue users; Humphreys, 1970/2007; Somlai, Kalichman, & Bagnall, 2001) as compared to the sex that occurs with partners met in offsite venues, which usually ends up taking place in someone's residence. Indeed, the public perception that there are legitimate "non-sexual" uses for sex-onsite venues (e.g., parks, public restrooms) may serve to provide cover for sexual activity in such places (Humphreys, 1970/2007; Somlai et al., 2001; Schrimshaw, Downing, & Siegel, under review). However, many men, especially non-disclosing MSMW who are concerned about preserving their heterosexual social identity may view the time and effort involved in engaging in anal sex (e.g., lubrication, condoms) as potentially increasing their risk of discovery relative to oral sex which can be more quickly completed (Schrimshaw et al., under review). Moreover, the comfort, privacy, and unhurried context that having sex in someone else's home affords (after meeting in a sex-offsite venue) may facilitate greater engagement in anal sex relative to sex-offsite venues. Additionally, the lack of private rooms or beds in these onsite venues necessitate that MSMW engage in sex while standing, which also may limit the feasibility of anal sex (Flowers et al., 2000). Finally,

lighting may also increase this fear of discovery. Bathrooms and gyms, as well as parks during daylight hours, do not offer dimly lit spaces that allow for privacy which might facilitate engaging in anal intercourse (Weinberg & Williams, 1975; Richters, 2007).

This finding that sex-onsite venues differed from sex-offsite venues in terms of risk behavior has implications for interventions that seek to distribute condoms, provide safer-sex education, or otherwise promote safer sex practices in venues where men meet their male partners (e.g., French, Power, & Mitchell, 2000). While our findings did document that men engaged in UAI in parks, restrooms, and gyms, they also highlighted the urgent need for intervention efforts to target MSMW attending bars/clubs or meeting partners on the Internet given more men reported engaging in UAI with partners from these venues. However, because our MSMW did not attend bathhouses, our data cannot speak to whether condom distribution and harm reduction efforts may be needed for MSMW in this type of venue.

The current study also provides important information regarding the venues where MSMW meet their female sexual partners and their sexual risk behaviors with the female partners they meet in those venues. Our MSMW met female partners primarily through two sources - bars/clubs and friends/work/neighborhood. Interestingly, these were also the two sources most commonly used to find male partners, although these men were far more likely to meet a female partner(s) through friends/work/neighborhood than to meet a male partner(s). Although the bars where MSMW meet their male and female partners were likely quite different (i.e., gay versus straight bars, respectively), this finding does suggest that MSMW use some similar venues for meeting their male and female partners (e.g., friend's parties, walking around the neighborhood, and at the office). There were no differences in the sexual risk behaviors reported to have been engaged in with women from these two sources. Similarly, there were no differences between the risks engaged in with male partners from bars and male partners met through friends/work/neighborhood. Thus, these two venues are no different in their facilitation or inhibition of sexual risk – regardless of the gender of the partner.

Nevertheless, these findings must be interpreted within the context of the study's limitations. First, this was a small study of a convenience sample and thus these findings may not generalize to the population of non-disclosing MSMW. This small sample also precluded the examination of venue use by many potential subgroups (e.g., between HIV+ and HIV-men, between ethnic/racial groups). Furthermore, the current study focused on non-gay identified, non-disclosing MSMW who were from various ethnic/racial backgrounds; as such these findings may not generalize to openly bisexual men or other subgroups of MSMW (e.g., exclusively Black MSMW). Although the partner-specific assessment employed here allows for reporting of "venue-specific" sexual behaviors, it precludes statistical comparisons between the sexual risk behaviors that occur in two different venues. As such, the current report relied almost entirely on descriptive data the all comparisons made between venues were unable to be statistically tested. Nevertheless, we believe that the data presented and compared here provide important information on where MSMW meet their male and female partners and the risk behaviors that occur with male and female partners from these different venues.

REFERENCES

- Agyemang S, Wallace BC, Liebman RE. An exploratory Internet study of Black men on the down low: Potential factors related to non-disclosure to female partners and inconsistent condom use for Black men who have sex with men and women (MSMW). *The Journal of Equity in Health*. 2008; 1:79–97.

- Benotsch EG, Kalichman S, Cage M. Men who have met sex partners via the internet: Prevalence, predictors, and implications for HIV prevention. *Archives of Sexual Behavior*. 2002; 31:177–183. [PubMed: 11974643]
- Berry M, Raymond HF, Kellogg T, McFarland W. The Internet, HIV serosorting and transmission risk among men who have sex with men, San Francisco. *AIDS*. 2008; 22:787–789. [PubMed: 18356611]
- Binson D, Woods WJ. A theoretical approach to bathhouse environments. *Journal of Homosexuality*. 2003; 44:23–31. [PubMed: 12962176]
- Binson D, Woods WJ, Pollack L, Paul J, Stall R, Catania JA. Differential HIV risk in bathhouses and public cruising areas. *American Journal of Public Health*. 2001; 91:1482–1486. [PubMed: 11527785]
- 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]
- Centers for Disease Control and Prevention. HIV/STD risks in young men who have sex with men who do not disclose their sexual orientation – Six U.S. cities, 1994–2000. *Morbidity and Mortality Weekly Report*. 2003; 52:81–86. [PubMed: 12588004]
- Chiasson 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; 44:235–243.
- Church J, Green J, Vearnals S, Keogh P. Investigation of motivational and behavioural factors influencing men who have sex with other men in public toilets (cottaging). *AIDS Care*. 1993; 5:337–346. [PubMed: 8218468]
- de Wit JBF, de Vroome EMM, Sandfort TGM, van Griensven GJP. Homosexual encounters in different venues. *International Journal of STD & AIDS*. 1997; 8:130–134. [PubMed: 9061413]
- Diaz RM, Morales ES, Bein E, Dilán E, Rodríguez RA. Predictors of sexual risk in Latino gay/bisexual men: The role of demographic, developmental, social cognitive, and behavioral variables. *Hispanic Journal of Behavioral Sciences*. 1999; 21:480–501.
- Downing, MJ, Jr.. Private spaces, low lighting, and sexual risk: An ecological approach to studying HIV risk behaviors among MSM in commercial and public sex environments. Under review
- Engler K, Otis J, Alary M, Mâsse B, Remis RS, Girard M, et al. An exploration of sexual behaviour and self-definition in a cohort of men who have sex with men. *The Canadian Journal of Human Sexuality*. 2005; 14:87–104.
- Fisher HH, Purcell DW, Hoff CC, Parsons JT, O'early A. Recruitment source and behavioral risk patterns of HIV-positive men who have sex with men. *AIDS and Behavior*. 2006; 10:553–561. [PubMed: 16761116]
- Flores SA, Mansergh G, Marks G, Guzman R, Colfax G. Gay-identity-related factors and sexual risk among men who have sex with men in San Francisco. *AIDS Education and Prevention*. 2009; 21:91–103. [PubMed: 19397432]
- Flowers P, Hart G, Marriott C. Constructing sexual health: Gay men and 'risk' in the context of public sex environment. *Journal of Health Psychology*. 1999; 4:483–495. [PubMed: 22021641]
- Flowers P, Marriott C, Hart G. 'The bars, the bogs, and the bushes': The impact of locale on sexual cultures. *Culture, Health, & Sexuality*. 2000; 2:69–86.
- Frankis JS, Flowers P. Cruising for sex: Sexual risk behaviours and HIV testing of men who cruise, inside and outwith public sex environments. *AIDS Care*. 2006; 18:54–59. [PubMed: 16282077]
- Frankis JS, Flowers P. Examining the sexual health experiences of men who cruise public sex environments: Sexually transmitted infections (STIs), hepatitis vaccination, and STI clinic use. *International Journal of Sexual Health*. 2007; 19:45–55.
- French R, Power R, Mitchell S. An evaluation of a peer-led STD/HIV prevention work in a public sex environment. *AIDS Care*. 2000; 12:225–234. [PubMed: 10827864]
- Goldbaum G, Perdue T, Higgins D. Non-gay-identifying men who have sex with men: Formative research results from Seattle, Washington. *Public Health Reports*. 1996; 111:36–40. [PubMed: 8862155]

- Grov C, Parsons JT, Bimbi DS. Sexual risk behavior and venues for meeting sex partners: An intercept survey of gay and bisexual men in LA and NYC. *AIDS and Behavior*. 2007; 11:915–926. [PubMed: 17206536]
- Hart GJ, Williamson LM. Increase in HIV sexual risk behaviour in homosexual men in Scotland, 1996–2002: Prevention failure? *Sexually Transmitted Infections*. 2005; 81:367–372. [PubMed: 16199733]
- Hightow LB, Leone PA, MacDonald PDM, McCoy S.I, Sampson LA, Kaplan AH. Men who have sex with men and women: A unique risk group for HIV transmission on North Carolina college campuses. *Sexually Transmitted Diseases*. 2006; 33:585–593. [PubMed: 16641826]
- Horvath KJ, Bowen AM, Williams ML. Virtual and physical venues as contexts for HIV risk among rural men who have sex with men. *Health Psychology*. 2006; 25:237–242. [PubMed: 16569116]
- Hospers HJ, Debets W, Ross MW, Kok G. Evaluation of an HIV prevention intervention for men who have sex with men at cruising areas in the Netherlands. *AIDS and Behavior*. 1999; 3:359–366.
- Hospers HJ, Kok G, Harterink P, de Zwart O. A new meeting place: Chatting on the Internet, e-dating and sexual risk behaviour among Dutch men who have sex with men. *AIDS*. 2005; 19:1097–1101. [PubMed: 15958842]
- Huber JD, Kleinplatz PJ. Sexual orientation identification of men who have sex with men in public settings in Canada. *Journal of Homosexuality*. 2002; 42:1–20. [PubMed: 12066985]
- Humphreys, L. *Tearoom trade: Impersonal sex in public places*. Aldine Transaction; Rutgers, NJ: 1970/2007.
- Keogh PG, Weatherburn P, Hickson F. Anonymous sex among homosexually active men: Implications for HIV prevention. *Venereology*. 2000; 13:143–148.
- Lever J, Grov C, Royce T, Gillespie BJ. Searching for love in all the “write” places: Exploring Internet personals use by sexual orientation, gender, and age. *International Journal of Sexual Health*. 2008; 20:233–246. [PubMed: 20502618]
- Liau A, Millett G, Marks G. Meta-analytic examination of online sex-seeking and sexual risk behavior among men who have sex with men. *Sexually Transmitted Diseases*. 2006; 33:576–584. [PubMed: 16540884]
- Martinez J, Hosek SG. An exploration of the down-low identity: Nongay-identified young African American men who have sex with men. *Journal of the National Medical Association*. 2005; 97:1103–1112. [PubMed: 16173325]
- Mimiaga MJ, Reisner SL, Cranston K, Isenberg D, Bright D, Daffin G, et al. Sexual mixing patterns and partner characteristics of Black MSM in Massachusetts at increased risk for HIV infection and transmission. *Journal of Urban Health*. 2009; 86:602–623. [PubMed: 19466554]
- McFarlane M, Bull SS, Rietmeijer CA. The internet as a newly emerging risk environment for sexually transmitted diseases. *Journal of the American Medical Association*. 2000; 284:443–446. [PubMed: 10904506]
- McKirnan D, Houston E, Tolou-Shams M. Is the web the culprit? Cognitive escape and internet sexual risk among gay and bisexual men. *AIDS and Behavior*. 2007; 11:151–160. [PubMed: 16779660]
- McKirnan DJ, Ostrow DG, Hope B. Sex, drugs and escape: A psychological model of HIV-risk sexual behaviours. *AIDS Care*. 1996; 8:655–669. [PubMed: 8993716]
- Mercer CH, Hart GJ, Johnson AM, Cassell JA. Behaviourally bisexual men as a bridge population for HIV and sexually transmitted infections? Evidence from a national probability survey. *International Journal of STD & AIDS*. 2009; 20:87–94. [PubMed: 19182053]
- O’Leary A, Purcell DW, Remien RH, Fisher HE, Spikes PS. Characteristics of bisexually active men in the seropositive urban mens’ study (SUMS). *AIDS Care*. 2007; 19:940–946. [PubMed: 17712700]
- Operario D, Smith CD, Arnold E, Kegeles S. Sexual risk and substance use behaviors among African American men who have sex with men and women. *AIDS and Behavior*. 2009
- Parsons JT, Halkitis PN. Sexual and drug-using practices of HIV-positive men who frequent public and commercial sex environments. *AIDS Care*. 2002; 14:815–826. [PubMed: 12511214]
- Prabhu R, Owen CL, Folger K, McFarland W. The bisexual bridge revisited: sexual risk behavior among men who have sex with men and women, San Francisco, 1998–2003. *AIDS*. 2004; 18:1604–1606. [PubMed: 15238783]

- Prestage G, Drielsma P. Indicators of male bisexual activity in semimetropolitan New South Wales: Implications for HIV prevention strategies. *Australian and New Zealand Journal of Public Health*. 1996; 20:386–392. [PubMed: 8908762]
- Reece M, Dodge B. Exploring the physical, mental, and social well-being of gay and bisexual men who cruise for sex on a college campus. *Journal of Homosexuality*. 2003; 46:111–136. [PubMed: 15086221]
- Reidy WJ, Spielberg F, Wood R, Binson D, Woods WJ, Goldbaum GM. HIV risk associated with gay bathhouses and sex clubs: Findings from 2 Seattle surveys of factors related to HIV and sexually transmitted infections. *American Journal of Public Health*. 2009; 99(S1):1–8.
- Richters J. Through a hole in the wall: Setting a interaction in sex-on-premises venues. *Sexualities*. 2007; 10:275–297.
- Richwald GA, Morisky DE, Kyle GR, Kristal AR, Gerber MM, Friedland JM. Sexual activities in bathhouses in Los Angeles County: Implications for AIDS prevention education. *Journal of Sex Research*. 1988; 25:169–180.
- Rietmeijer CA, Bull SS, McFarlane M, Patnaik JL, Douglas JM. Risks and benefits of the Internet for populations at risk for sexually transmitted infections (STIs): Results of an STI clinic sample. *Sexually Transmitted Diseases*. 2003; 30:15–19. [PubMed: 12514436]
- Rietmeijer CA, McFarlane M. Web 2.0 and beyond: Risks for sexually transmitted infection and opportunities for prevention. *Current Opinion in Infectious Diseases*. 2009; 22:67–71. [PubMed: 19532082]
- Rosser BRS, Oakes JM, Horvath KJ, Konstan JA, Danilenko GP, Peterson JL. HIV sexual risk behavior by men who use the internet to seek sex with men: Results of the men's INternet sex study-II (MINTS-II). *AIDS and Behavior*. 2009;13.
- Schrimshaw EW, Siegel K, Lekas H. Sexual partners questionnaire. 2006 Unpublished measure.
- Schrimshaw, EW.; Downing, MJ., Jr.; Siegel, K. Sexual venue selection and strategies for concealment of same-sex behavior among non-disclosing men who have sex with men and women. Under review
- Siegel K, Schrimshaw EW, Lekas H, Parsons JT. Sexual behaviors of non-gay identified non-disclosing men who have sex with men and women. *Archives of Sexual Behavior*. 2008; 37:720–735. [PubMed: 18506616]
- Somlai AM, Kalichman SC, Bagnall A. HIV risk behaviour among men who have sex with men in public sex environments: An ecological evaluation. *AIDS Care*. 2001; 13:503–514. [PubMed: 11454271]
- Stokes JP, McKirnan DJ, Doll L, Burzette RG. Female partners of bisexual men: What they don't know might hurt them. *Psychology of Women Quarterly*. 1996; 20:267–284.
- Stokes JP, Vanable P, McKirnan DJ. Comparing gay and bisexual men on sexual behavior, condom use, and psychosocial variables related to HIV/AIDS. *Archives of Sexual Behavior*. 1997; 26:383–397. [PubMed: 9251836]
- Tabachnick, BG.; Fidell, LS. Using multivariate statistics. 5th ed.. Allyn & Bacon; Boston, MA: 2007.
- Van Beneden CA, O'Brien K, Modesitt S, Ysem S, Rose A, Fleming D. Sexual behaviors in an urban bathhouse 15 years into the HIV epidemic. *Journal of Acquired Immune Deficiency Syndromes*. 2002; 30:522–526. [PubMed: 12154343]
- Watters JK, Biernacki P. Targeted sampling: Options for the study of hidden populations. *Social Problems*. 1989; 36:416–430.
- Weatherburn, P.; Hickson, F.; Reid, D. Net benefits: Gay men's use of the internet and other settings where HIV prevention occurs. Sigma Research; London: 2003. Retrieved May 20, 2009, from <http://www.sigmaresearch.org.uk/go.php/reports/report2003b/>
- Weinberg MS, Williams CJ. Gay baths and the social organization of impersonal sex. *Social Problems*. 1975; 23:124–136.
- Weinberg, SL.; Abromowitz, SK. Data analysis for the behavioral sciences using SPSS. Cambridge University Press; New York: 2002.
- Wheeler DP, Lauby JL, Liu K, Van Sluytman LG, Murrill C. A comparative analysis of sexual risk characteristics of black men who have sex with men or with men and women. *Archives of Sexual Behavior*. 2008; 37:697–707. [PubMed: 18509753]

- Wilson PA, Cook S, McGaskey J, Rowe M, Dennis N. Situational predictors of sexual risk episodes among men with HIV who have sex with men. *Sexually Transmitted Infections*. 2008; 84:506–508. [PubMed: 19028956]
- Wold C, Seage GR, Lenderking WR, Mayber KH, Cai B, Heeren T, et al. Unsafe sex in men who have sex with both men and women. *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology*. 1998; 17:361–367. [PubMed: 9525438]
- Wolitski RJ, Jones KT, Wasserman JL, Smith JC. Self-identification as “down low” among men who have sex with men (MSM) from 12 US cities. *AIDS and Behavior*. 2006; 10:519–529. [PubMed: 16691462]
- Woods WJ, Binson D, Blair J, Han L, Spielberg F, Pollack LM. Probability sample estimates of bathhouse sexual risk behavior. *Journal of Acquired Immune Deficiency Syndrome*. 2007; 45:231–238.
- Zule WA, Bobashev GV, Wechsberg WM, Costenbader EC, Coomes CM. Behaviorally bisexual men and their risk behaviors with men and women. *Journal of Urban Health*. 2009; 86(Suppl 1):S48–S62.

Table 1

Sample Demographic Characteristics (N = 46).

	%	N	M	SD
Age (in years)			39.6	11.0
20 – 29	24%	11		
30 – 39	20%	9		
40 – 49	41%	19		
50 – 60	15%	7		
Race/Ethnicity				
African American/Black	41%	19		
Hispanic/Latino	28%	16		
Non-Hispanic White	22%	10		
Asian	2%	1		
Education				
Less than High School	15%	7		
High School or GED	33%	15		
Some College	22%	10		
College graduate or more	31%	14		
Personal Income (yearly)				
Under \$20,000	37%	17		
\$20,000 - \$39,000	43%	20		
\$40,000 or more	20%	9		
Relationship Status				
Married or Common Law Marriage	22%	10		
Current Steady Girlfriend	59%	27		
Steady Girlfriend in Past Year	20%	9		
Regular Male Sex Partner/Buddy	57%	26		
Sexual Identity				
Heterosexual or Straight	22%	10		
Bisexual	63%	29		
Something else ^a	15%	7		
HIV Status				
HIV Negative	74%	34		
HIV Positive	20%	9		
Never tested	7%	3		

^aOther non-gay identities included “heteroflexible”, “curious”, “sexually free”, “exploring”, and refusing to label oneself.

Table 2

Frequencies of Venue Recruitment and Venues Where MSMW Met Male and Female Partners.

Venues	Where Recruited (N = 46)	Where Met a Male Sex Partner in Past Year (N = 46)	Where Met a Male Sex Partner in Past 3 Months (N = 39)	Where Met a Female Sex Partner in Past 3 Months (N = 43)
	% (n)	% (n)	% (n)	% (n)
Bar or club	4% (2)	39% (18)	28% (11)	28% (12)
Cruising park/public restroom	7% (3)	24% (11)	21% (8)	na
Internet	24% (11)	33% (15)	28% (11)	0% (0)
Bathhouse	0% (0)	0% (0)	0% (0)	na
Gym	nr	13% (6)	13% (5)	0% (0)
Video booth/adult movie theater	nr	4% (2)	3% (1)	na
Personals Ad (in print)	nr	na	8% (3)	5% (2)
Friends, work, or neighborhood	nr	na	38% (15)	79% (34)
Other	65% (30) ^a	24% (11) ^b	8% (3) ^c	19% (8) ^d

Notes: Female partners were only assessed for the past three months.

na = not assessed; this source of meeting partners was not assessed.

nr = not recruited; this venue was not used as a recruitment source.

^a Other (recruitment venues): newspaper advertisements (33%), non-participating friend referrals (22%), and AIDS service organizations (11%).^b Other (additional venues for meeting male partners in past year provided by the participants): through friends, at work, in the neighborhood, bus terminal, subway, parade, telephone chat line, street party, airport, pool, and sex party.^c Other (additional venues for meeting male partners in past 3 months provided by the participants): subway, parade, on the street^d Other (additional venues for meeting female partners provided by the participants): subway, store, on the street, building lobby, health clinic, drug treatment meeting

Table 3

Sexual Risk Behaviors with Male and Female Partners Met in Each Sexual Venue In the Past Three Months.

Venues	Number of Male Partners Met in Each Venue	Prevalence of UAI with 1 or more Male Partners Met in Each Venue	Number of Female Partners Met in Each Venue	Prevalence of UVI with 1 or more Female Partners Met in Each Venue
	M (SD)	% (n)	M (SD)	% (n)
Bar or club	1.36 (0.50)	55% (6)	1.42 (0.67)	42% (5)
Cruising park	1.63 (0.92)	13% (1)	na	na
Internet	1.55 (0.82)	55% (6)	na	na
Friends, work, or neighborhood	1.27 (0.59)	47% (7)	1.36 (0.70)	44% (15)
Gyms	1.20 (0.45)	20% (1)	na	na

Note: na = not assessed; this venue was not assessed as a source of female partners.

UAI = unprotected anal intercourse; UVI = unprotected vaginal intercourse