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# Beliefs and Behaviors Regarding Substance Use and HIV Risk among Men Who have Sex with Men (MSM) in a Mid-Sized U.S. Community

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**ABSTRACT**

This paper explores the beliefs and behaviors surrounding substance use and HIV risk among a convenience sample of 98 MSM in a mid-size community located in the central U.S. Several interesting patterns were identified in the descriptive analyses. Multivariate analysis identified two variables, belief that recreational drug use made sexual experiences better and reports that most MSM friends drank alcohol or took recreational drugs that were significant predictors of engagement in substance using behavior. Models accounted for 24% of the variance in drinking behavior and 15% of the variance in drug using behavior. Suggestions for HIV/AIDS prevention and intervention and implications for future research are suggested.

**KEYWORDS.** MSM; club drugs; alcohol; HIV/AIDS

## INTRODUCTION

HIV/AIDS presents a serious threat to public health and functioning in the United States. Men who have sex with men (MSM) represent the largest proportion of HIV/AIDS diagnoses (Centers for Disease Control and Prevention [CDC], 2006); MSM accounted for approximately 70% of all HIV infections among males in 2004 (CDC, 2005a; CDC, 2006). These estimates represent an increase in HIV diagnoses for MSM compared to the 1980's and 1990's and underscore the necessity for continued research to facilitate HIV/AIDS prevention and intervention efforts with MSM (CDC, 2005a; CDC, 2006).

Gay men have been found to have higher rates of drug and alcohol use, as well as polysubstance use, than comparable groups of heterosexuals (Ostrow et al., 1990; Stall & Wiley, 1988). The relationship between substance use and HIV infection is well established; polysubstance use among MSM has been associated with high-risk sexual behaviors and unknown HIV serostatus or HIV seropositive status (Gorman & Carroll, 2000; Greenwood et al., 2001). Among MSM, patterns of drug use have recently been shifting, with emerging drugs of abuse, such as methamphetamine, Ecstasy, ketamine, poppers, and GHB becoming increasingly prevalent (Clatts, Welle, & Goldsamt, 2001; Freese, Obert, Dickow, Cohen, & Lord, 2000; Gorman, & Halkitis, 2003; Halkitis, Parson & Stirratt, 2001; Klitzman, Greenberg, Pollack, & Dolezal, 2002; Klitzman, Pope, & Hudson, 2000; Kurtz, 1999; Lewis & Ross, 1995; Mattison, Ross, Wolfson, & Franklin, 2001). Club drug use is associated with increased sexual risk-taking as well as drug-related HIV risk (e.g. injection drug use (IDU) and the sharing of injection equipment (Clatts, Welle, & Goldsamt, 2001; Freese, Obert, Dickow, Cohen, & Lord, 2000; Gorman, & Halkitis, 2003; Halkitis, Parson & Stirratt, 2001; Klitzman, Pope, & Hudson, 2000; Kurtz, 1999; Lewis & Ross, 1995; Mattison, Ross, Wolfson, & Franklin, 2001).

The mechanisms by which club drugs specifically, and substance use generally, facilitate greater HIV risk are complex and less well understood (Kurtz, 2005). Research indicates that the relationship between substance use and HIV risk is a function of a complicated interplay among behavioral, emotional, social, and contextual factors (Halkitis, Fischgrund, & Parsons, 2005; McKirnan, Ostrow, & Hope, 1996). Substance use can directly affect sexual behavior by acting as a sexual enhancer via autonomic or central nervous system mechanisms that increase arousal (Crowe & George, 1989; McKirnan, Ostrow, & Hope, 1996). For example, crystal methamphetamine, has been described as particularly sexually arousing while Ecstasy is known as the “love drug” (Henry, 1992; Kurtz, 2005b). Furthermore, club drugs are also associated with behavioral disinhibition (Halkitis, Fischgrund, & Parsons, 2005), enhanced sexual desire and prolonged sexual activity (Kubicek et al., 2007), and increased engagement in high risk activities such as anal sex, fisting, increased number of sexual partners, including casual/anonymous sex partners, unknown HIV serostatus partners and decreased condom use (Gorman & Carroll, 2000). In addition it has been argued that MSM use substances to escape or disengage from the realities of HIV risk, illustrating an overlap between sexual and emotional reasons for club drug use (McKirnan, Ostrow, & Hope, 1996). Finally, social factors as well as the context or setting of sexual behavior may influence the relationship between substance use and HIV risk. Numerous studies have documented the significance of social norms, particularly peer norms (e.g. what an individual’s group of friends may think about safer sex practices such as condom use or discussing safer sex prior to engaging in sexual activity; Fisher, Fisher, Williams, and Malloy, 1994), in relationship to health related behaviors including safer sex behaviors such as condom use (e.g. Albarracin, Johnson, Fishbein, & Muellerleile, 2001).<sup>1</sup>

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<sup>1</sup> Norms as used in this context draws heavily on the Theory of Reasoned Action (TRA, Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) and research examining the TRA and HIV prevention/intervention. According to the TRA,

Similarly, within the MSM community bars or clubs often serve as key social settings that exert important influence on both substance using and sexual risk behavior. For example, in a large survey sample of gay men, individual differences in the social use of bars related to overall alcohol use, expectancies that substances enhance sexual experience, and to numbers of sex partners (McKirnan, Ostrow, & Hope, 1996; McKirnan & Peterson, 1989).

However, while there are similarities in HIV risk behaviors among MSM who use club drugs regardless of geography, sexual and drug-risk behaviors vary as a function of the localized contexts and associated culture(s) (Thiede et al., 2003). The central U.S. has been particularly hard hit by the production, distribution and consumption of club drugs. This area (i.e. Kentucky, Indiana, Tennessee, West Virginia, Arkansas, and Missouri) is the primary market and domestic production area for methamphetamine, the most commonly used club drug. In addition, methamphetamine and MDMA have been sited as among the greatest drug threats and most prevalent drugs available within this region of the country (National Drug Intelligence Center, 2002, 2004). While club drug use among MSM has been examined in other areas of the country (e.g. San Francisco and Los Angeles; (Stall et al., 2001), New York (Halkitis & Parsons, 2002; Halkitis, Parsons, & Wilton, 2003; Halkitis, Shrem, & Martin, 2005; Stall et al., 2001), Chicago (Stall et al., 2001), and Miami (Kurtz, 2005a)), the prevalence of club drug use and associated HIV risk behaviors among MSM within the central U.S. remains virtually unexplored. The failure to examine the relationship between MSM, club drug use, and HIV risk outside a handful of major metropolitan areas represents a critical gap in our ability to effectively target the MSM

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norms are a person's perception of what specific categories of "others" (i.e. important groups of people in a person's life such as family, friends, coworkers, etc...) think about a given action – such as condom use – and how motivated the person is to comply with what the "others" think.

populations for HIV/AIDS prevention and intervention efforts. The purpose of this paper is to begin filling this gap by exploring and documenting the beliefs and behaviors surrounding substance use (i.e. club drugs and alcohol) and HIV risk among a convenience sample of MSM recruited in the central United States.

## METHOD

The present study is a secondary analysis of data collected by the Volunteers of America, Kentucky STOP program during program and services evaluation efforts as part of a fellowship held by the first author. The fellowship was supervised by the Centers for Disease Control and Prevention (CDC) as part of a nine-month training program, Institute for HIV Prevention Leadership. Workers in the STOP program, who are themselves MSM, conduct outreach activities with the MSM<sup>2</sup> community within the Louisville, KY area, a moderately sized urban center with an estimated population of 556,429 (Infoplease, 2006). Typical outreach activities are focused on pre & post-test HIV counseling, risk related educational materials, along with condom use education and distribution. As part of the STOP program, outreach workers go to venues frequented by other MSM (e.g. local parks, coffee shops, bars, as well as MSM specific parties). Data for this study were collected between March and September, 2004 during regular outreach activities, as part of an attempt to identify the extent of club drug use and associated risk behaviors among the local MSM community. Outreach workers explained the purpose of the questionnaire to adult men who self-identified as MSM, reported they were “sober”, and invited them to participate. No demographic or otherwise identifiable information was collected in order to stay consistent with regular outreach activities; in addition outreach workers and

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<sup>2</sup> The term “MSM” was used during the course of this research; no other label options were available for participants to select (in terms of self-identifying). This wording/requirement was a function of CDC grant monies and the accompanying mandates that outreach funds must be directed toward “MSM”. The term “MSM” was deemed as appropriate for use by the outreach workers, consultants, and the CDC. The term “MSM” as used in this study describes behavior not sexual orientation.



MSM community consultants suggested that this level of anonymity would likely allow for more candid responses (Leong & Austin, 1996). Use of secondary data for this research was approved by the Institutional Review Board at the University of Louisville.

Interested men completed a one-page questionnaire. Invited participants were offered standard outreach services (e.g. HIV testing, risk related educational materials, along with condom use education and distribution) regardless of whether they completed the questionnaire or not. Approach – consent data were not formally collected as this was a program evaluation effort, however outreach workers reported that approximately 82% of all men approached completed the questionnaire.

### *Measures*

The questionnaire contained a total of 11 variables.<sup>3</sup> Variables were created through collaboration with CDC personnel, trained MSM outreach workers, and MSM community consultants. Prior to administering the questionnaire, all items were reviewed by CDC and program personnel serving HIV affected clients for clarity; when necessary, question wording was revised. Questionnaire items assessed the respondent's own drug and alcohol use behaviors as well as the respondent's beliefs about their sexual and substance using behaviors, their partner's behaviors, and their MSM peer behaviors.<sup>4</sup> Specifically, participants were asked to rate their agreement to the following questions: my HIV risk increases when I drink alcohol (alcohol); my HIV risk increases when I use recreational drugs (drugs); most of my sexual

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<sup>3</sup> The questionnaire originally contained 12 variables. Initial examination of the data indicated that two of the variables, number of days in the week a respondent reports going to a bar and number of days in the week a respondent reports drinking, were highly correlated (.749;  $p \geq .001$ ). Moreover, the pattern and magnitude of correlations between these two variable and the remaining indicators was identical. Based on this, a single variable reflecting the mean number of days per week a respondent reported going to a bar and the mean number of days per week the respondent reporting drinking alcohol was created.

<sup>4</sup> While this research specifically sought to examine club drug use and HIV risk among MSM, the term "recreational drug use" was used within the questionnaire in lieu of "club drugs". This terminology was recommended by CDC in order to indicate the possibility of the use of these particular drugs (i.e. methamphetamine, Ecstasy, ketamine, poppers, and GHB) *beyond time spent in bars*.

partners drink alcohol (partners drink alcohol); most of my sexual partners takes recreational drugs (partners take drugs); being drunk or high on recreational drugs makes my sexual experiences better (sex better); I always engage in safe sex when I'm drunk or high (safe sex); I am concerned about becoming HIV-infected (HIV concern); most of my MSM friends drink alcohol or take recreational drugs (friends drink/drugs); there is an alcohol or recreational drug problem in the MSM community (alcohol/drug problem). Response options were measured on a 5 point scale (1, "Strongly Disagree"; 5 "Strongly Agree"). The final two questions asked the respondents to report the number of days per week (0-7) they went to bars and/or, drank alcohol (bars/drank alcohol) and used recreational drugs (used drugs), respectively.

### *Data Analysis*

The overall goal of this research was to explore and document beliefs and behaviors surrounding substance use and HIV risk among a convenience sample of MSM recruited in the central U.S. Reflecting this, the data analyses were exploratory and progressed in a step-wise manner. First, descriptive statistics and bivariate relationships among the study variables were examined. Based on these findings, a series of multivariate analyses (ordinary least squares regression) were conducted to better understand the relationship among the beliefs of MSM and reported risk behaviors.

## **RESULTS**

A total of 98 self-identified MSM participated in this study. Means, standard deviations, and ranges are reported in Table 1. Generally, respondents agreed with statements that their HIV risk increased with drinking and drug use, that they always engaged in safe sex when they were high or drunk, that they were concerned about becoming HIV infected, that most of their MSM friends drank or did recreational drugs, and that there is a recreational drug problem within the

MSM community. Respondents were more neutral, neither agreeing nor disagreeing, with statements that most of their sexual partners take recreational drugs and that being high on recreational drugs makes their sexual experiences better. Approximately 50 percent of the sample reported going to bars/drinking alcohol one time or less per week, while approximately 25 percent of the sample reported going to bars/drinking alcohol two and a half days or more per week. Finally, the majority of the sample reported no use of recreational drugs (57%), however, approximately 24 percent reported using recreational drugs one day per week, and slightly more than 19 percent reported using two or more days per week (only six percent of the sample reported using five or more days per week).

Several results warranted further consideration. Inspection of the frequency distributions indicated that a minority of respondents disagreed with statements that their HIV risk increased when they went to a bar/drank alcohol (20%) and/or used recreational drugs (15%). Given the clear epidemiological evidence linking both alcohol consumption and drug use to increased HIV risk, further analyses were conducted to better understand this finding. Specifically, chi-square analysis was used to determine whether the men who disagreed with statements that their HIV risk increased when they went to a bar/drank (alcohol) and/or used recreational drugs (drugs) were more likely to also report that they that they always engaged in safe sex when they were high or drunk (safe sex). Response options for the chi-square analyses were partitioned into three categories: agree; neither agree nor disagree; and disagree. Results indicated no statistically significant relationship between any of these variables. Thus, men who disagreed with statements that their HIV risk increased as a result of substance using behavior were no more likely to report that they always engaged in safe sex when they were high or drunk than

men who agreed with the HIV risk statements ( $X^2$  alcohol/safe sex (4, N=98) = 1.80 p= NS;  $X^2$  drugs/safe sex (4, N=98) = 1.81 p= NS).

Another issue that warranted further investigation was the finding that over half the sample (57.1%) indicated that they were concerned with becoming infected with HIV (HIV concern). To further understand this finding, a chi-square analysis was used to assess the relationship between HIV concern and whether respondents always engaged in safe sex when they were high or drunk (safe sex). As in the prior chi-square analyses, there was no statistically significant relationship ( $X^2$  HIV concern/safe sex (4, N=98) = 3.05 p= NS), indicating that the level of HIV concern was unrelated to respondent reports of safe sex practices when high or drunk.

Next we examined the pattern of bivariate correlations among all 11 of the variables. Results of the bivariate correlation strongly suggest that two questions, (a) beliefs that HIV risk increased with drinking alcohol and (b) beliefs that HIV risk increased with recreational drug use, measured the same belief or underlying construct (e.g. Pearson's correlation coefficient .860). Both these variables were significantly related to concerns about becoming HIV infected and beliefs that alcohol or recreational drug use is a problem within the MSM community. In addition, the alcohol variable was also significantly related to beliefs that most of a respondent's MSM friends drank alcohol or took recreational drugs. Two additional patterns of significant relationships involving the items assessing the number of days per week the respondents went to bars and/or drank alcohol and used recreational drugs, respectively, also emerged from the correlational analysis. Mean days going to bars/drinking alcohol per week was significantly related to reports that sexual partners drank alcohol and used recreational drugs, that recreational drugs made better sexual experiences, that most MSM friends drink or take recreational drugs,

and positively related to the number of days per week respondents reported using recreational drugs. Similarly, the number of days per week a respondent reported using recreational drugs was significantly related to reports that sexual partners used recreational drugs, beliefs that recreational drug use made sexual experiences better, and positively related to the mean number of days per week drinking alcohol/going to a bar.

Examination of these patterns of bivariate relationships suggested that reported risk within the respondent's intimate and peer network (i.e. reports that one's sexual partner/MSM friends drank alcohol and/or took recreational drugs) were important correlates of the number of days per week a respondent reported engaging in substance using behavior. In order to further explore this issue, we conducted a series of multivariate analyses. The number of days a respondent reported going to bars/drinking alcohol and/or taking recreational drugs, respectively, were treated as the dependent variables. Variables identified in the bivariate analysis which had demonstrated a significant relationship with the dependent variable were entered into the model via stepwise, forward regression as predictors.

The regression model predicting the number of days a respondent reported going to bars/drinking alcohol retained two predictors (sex better ( $\beta = .322$ ,  $t(95) = 3.532$ ,  $p < .001$ ); friends drink/drugs ( $\beta = .314$ ,  $t(95) = 3.444$ ,  $p < .001$ )) and accounted for approximately 24% of the variance in the dependent variable ( $F(2, 95) = 15.08$ ,  $p \leq .0001$ ). In comparison, the final model predicting the number of days a respondent reported using recreational drugs retained only one predictor, respondent's reports that recreational drugs made better sexual experience ( $\beta = .387$ ,  $t(96) = 4.111$ ,  $p < .001$ ); this single variable accounted for 15% of the variance in the dependent variable ( $F(1, 96) = 16.90$ ,  $p \leq .0001$ ).

## DISCUSSION

The purpose of this paper was to begin filling this gap by exploring and documenting the beliefs and behaviors surrounding substance use (i.e. club drugs and alcohol) and HIV risk among a convenience sample of MSM recruited in the central United States. As such, these findings represent an important contribution toward better understanding club drug use, HIV risk, and other risk behavior among MSM outside major metropolitan areas.

Although the majority of respondents were either generally in agreement with or neutral in response to the survey questions, noteworthy patterns were identified in the frequency distributions. Some respondents disagreed with statements that their HIV increased when they went to a bar/drank alcohol and/or used recreational drugs. Further analysis of this finding indicated that level of agreement with this item was unrelated to safe sex when drunk or high. These findings are particularly concerning given the clear epidemiological evidence linking both alcohol consumption and club drug use to increased HIV risk (CDC, 2005b, 2006). This suggests that more targeted and intensive educational efforts need to be implemented within the MSM community generally and among those MSM that frequent gay bars specifically to better inform the population about the connection between increased HIV risk and drinking/drug use.

Furthermore, the men in this sample reported that the majority of their friends and sexual partners went to bars/drank alcohol, used recreational drugs, *and* that drugs and alcohol were a problem within the MSM community. This finding is supported by research that shows that gay men have high rates of substance abuse problems (McKirnan & Peterson, 1989). The literature estimated that between 20% and 35% of lesbian, gay, bisexual, and transgender (LGBT) people have alcohol and other drug problems (Finnegan & McNally, 2002).

These findings have several implications for research and prevention efforts. Firstly, targeting substance use (drinking and drug use) in addition to promoting safer sex practices (i.e.

consistent condom use) is clearly an important area for HIV prevention and intervention within the MSM community. MSM need to be provided information so that they better understand the synergistic effect of alcohol and drug use on HIV risk. Similarly, these results suggest that the social contexts in which drinking and drug use occur (e.g. bars) are important venues in which to conduct community based/community level prevention and intervention efforts for this population. Taken together, these findings strongly indicate the need for continued, and perhaps intensified, outreach efforts.

Likewise, while over half the sample reported being concerned with becoming HIV infected, our analysis found no relationship between this concern and reports that respondents always engaged in safe sex when drunk and/or high. Both theoretical and empirical research suggest that concern with contracting HIV, as well as increased knowledge of the connection between substance use and HIV risk, are insufficient to create enduring behavioral change (i.e. Bandura, 1986, 1994, 2000). For example, people must also develop the necessary self-regulatory skills to engage in self-protective behaviors (i.e. condom use when drunk or high). These include the ability to set realistic behavioral goals, to effectively evaluate one's progress toward these goals, and to attend to the thoughts (i.e. intention to and attitude toward condom use when drunk or high) and actions (i.e. substance use) that contribute to self-protective behaviors. Given this, further research is urgently needed to collect etiological data that provides a greater depth and breadth of information on the risk and protective factors associated with both club drug use and safer sex practices among this population of MSM. In particular, ethnographic methods have been used successfully in this area of inquiry to "uncover the HIV vulnerabilities of a local sexual culture (p.304; Trussler, Perchal, & Barker, 2000)." In fact, Trussler, Perchal, & Parker's (2000) results indicated that ethnomethodological research allowed prevention outreach

workers to better identify, understand, and communicate with their target population about risk factors specific to the localized context.

Finally, while a number of relationship patterns emerged in the bivariate analysis, only two variables (being drunk or high on recreational drugs makes my sexual experiences better; most of my MSM friends drink alcohol or take recreational drugs) emerged as significant predictors of substance using behavior. Both variables were significantly related to going to the bar/drinking, while only the variable reflecting a belief that being drunk or high on recreational drugs makes sexual experiences better was predictive of recreational drug use. These findings are also supported by the literature. In particular, the type and composition of peer or social support networks has been shown to either promote or reduce HIV risk behavior (Miller & Neaigus, 2001; Neagus, Friedman, Neaigus, Friedman, & Curtis, 1994). Specifically, having a high-risk network, for example friends that engage in substance use, serves to increase the prevalence and incidence of HIV. Likewise ethnographic research support the notion that MSM who engage in sexual interactions under the influence of club drugs find that they are unable to match the pleasure of these experiences when not high (Guss, 2000). Full expression of one's sexuality then gets confounded with the use of drugs and being high during sexual interactions. It is therefore critical to conduct further research that more broadly examines drug-involved MSM within a multidimensional, multisystemic context and that more fully accounts for the individual and social environments in which MSM live.

In addition, these results also have important implications for intervention and prevention efforts; these findings highlight the potential importance of drug and/or alcohol expectancy in the promotion of safer sex behaviors (or conversely engagement in unsafe behavior). Developing interventions that contain components that target drug and/or alcohol attitudes and norms at the



individual, peer, and/or community levels may be effective in reducing HIV risk behaviors. Examination of interventions that have been found to be effective in reducing HIV risk behaviors among similar populations, such as the Mpowerment Project and d-up: Defend Yourself!, include such components and may be adapted to different subpopulations and venues.<sup>5</sup>

There are several limitations of the present research. These data are based on a convenience sample of MSM recruited during outreach activities. Thus it can not be assumed that these findings are generalizable to the population of MSM within the specific city from which they were recruited or Kentucky and surrounding states. Although a sizeable number of men participated in this study, the research is limited by the failure to collect demographic data. Similarly, data were collected in outreach venues (e.g. local parks, coffee shops, bars, as well as MSM specific parties) among men who may have had the opportunity to use alcohol and/or drugs to intoxication; although only men who self-reported being sober were allowed to answer the questionnaire, this may still be considered a study limitation. Future research should collect both demographic data as well as measures reflecting other important constructs associated with HIV risk and club drug use among MSM.

In conclusion, the failure to examine the relationship between MSM, club drug use, and HIV risk behaviors outside a handful of major metropolitan areas represents a critical gap in our ability to effectively target the MSM populations for HIV/AIDS prevention and intervention efforts. The present paper has begun the process of filling this gap in our understanding.

Additional research in this area is needed in order to better inform and guide prevention efforts among MSM outside major metropolitan areas.

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<sup>5</sup> Both these interventions, the Mpowerment Project and d-up: Defend Yourself! are available through the Diffusion of Effective Behavioral Interventions project (DEBI). The DEBI project is a national-level strategy to provide high quality training and on-going technical assistance on selected evidence-based HIV/STD/ Viral Hepatitis prevention interventions to state and community HIV/STD program staff. More information can be found at the following web address: <http://www.effectiveinterventions.org/>.



Table 1. Means, standard deviations, ranges, and selected correlations.

Variables	Mean	SD	Range	Selected Correlations <sup>a</sup>	
				Bars/Drank Alcohol	Used Drugs
<b>My HIV risk increases when I drink alcohol</b> Strongly Disagree /Disagree 20.4% Neither Agree nor Disagree 17.3% Strongly Agree/Agree 62.2%	2.28	1.29	1-5	.054	-.144
<b>My HIV risk increases when I use recreational drugs</b> Strongly Disagree /Disagree 15.3% Neither Agree nor Disagree 21.4% Strongly Agree/Agree 63.3%	2.20	1.27	1-5	-.044	-.109
<b>Most of my sexual partners drink alcohol</b> Strongly Disagree /Disagree 28.6% Neither Agree nor Disagree 10.2% Strongly Agree/Agree 61.2%	2.52	1.30	1-5	.356**	.121
<b>Most of my sexual partners takes recreational drugs</b> Strongly Disagree /Disagree 49% Strongly Agree/Agree 5.3% Neither Agree nor Disagree 35.7%	3.23	1.34	1-5	.401**	.324**
<b>Being drunk or high on recreational drugs makes my sexual experiences better</b> Strongly Disagree /Disagree 34.7% Neither Agree nor Disagree 34.7% Strongly Agree/Agree 30.6%	3.03	1.25	1-5	.382**	.387**
<b>I always engage in safe sex when I'm drunk or high</b> Strongly Disagree /Disagree 26.5% Neither Agree nor Disagree 31.6% Strongly Agree/Agree 41.8%	2.72	1.11	1-5	-.021	-.045
<b>I am concerned about becoming HIV-infected</b> Strongly Disagree /Disagree 19.4% Neither Agree nor Disagree 23.5% Strongly Agree/Agree 57.1%	2.38	1.20	1-5	-.065	-.051
<b>Most of my MSM friends drink alcohol or take</b>	2.59	1.17	1-5	.376**	.125

<b>recreational drugs</b> Strongly Disagree /Disagree Neither Agree nor Disagree Strongly Agree/Agree	22.5% 22.4% 55.1%					
<b>There is an alcohol or recreational drug problem in the MSM community</b> Strongly Disagree /Disagree Neither Agree nor Disagree Strongly Agree/Agree	2.47 15.3% 33.7% 51%	1.05	1-5		.102	-.124
<b>Went to Bars/Drank Alcohol</b> (number of days per week)  25 <sup>th</sup> Percentile 50 <sup>th</sup> Percentile 75 <sup>th</sup> Percentile	1.64 .50 1.50 2.50	1.44	0-5		1	.298**
<b>Used Drugs</b> (number of days per week) 25 <sup>th</sup> Percentile 50 <sup>th</sup> Percentile 75 <sup>th</sup> Percentile	.90 .00 .00 1.00	1.48	0-7			1

<sup>a</sup> The full correlation matrix can be requested from the first author; \*\* $p \leq .01$ .

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