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## Sex Under the Influence of Drugs or Alcohol: Common for Men in Substance Abuse Treatment and Associated with High Risk Sexual Behavior

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### Abstract

Sex under the influence of drugs or alcohol is associated with high risk sexual behavior. Heterosexual men (n=505) in substance abuse treatment completed a computer administered interview assessing sexual risk behaviors. Most men (73.3%) endorsed sex under the influence in the prior 90 days, and 39.1% endorsed sex under the influence during their most recent sexual event. Sex under the influence at the most recent event was more likely to involve anal intercourse, sex with a casual partner, and less condom use. Patients might benefit from interventions targeting sexual behavior and substance use as mutual triggers.

### Introduction

#### Heterosexual men

Sexual behavior in the context of substance use is a growing area of scientific focus due to its role as a potential risk factor for the transmission of HIV and other sexually transmitted infections (STI).<sup>1-5</sup> Substance users may engage in a wide range of risky behaviors such as trading sex for drugs or money, vaginal and anal intercourse without condoms, or sex with multiple partners.<sup>2-5</sup> Despite the increasing prevalence of HIV and STIs among heterosexual substance users, research typically focuses on men who have sex with men (MSM), and MSM who are injection drug users (IDUs).<sup>6-8</sup> However, 23% of new HIV cases between 1994 and 2000 were heterosexual IDUs.<sup>8</sup> Knowledge of the relationship between sex and drugs, particularly for heterosexual men in treatment, is lacking, and the current study seeks to address this information gap.

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## Methodological approaches

Normative data concerning sex under the influence is limited and its relationship to HIV transmission risk is not well understood. To better understand the link between drug use and sexual behavior, researchers have used approaches such as situational association or event analysis.<sup>9-10</sup> Situational association studies inquire how often high risk sex occurred while under the influence. A correlational temporal link between sex under the influence and high-risk sex is made in these studies, but it does not permit causal inferences. Event analyses offer contextual information by assessing a target “critical” incident in detail, providing for a stronger causal inference. For example, recent studies have found that the link between sex and drugs may depend on the context of the incident and partner type.<sup>9,11-13</sup> However event analyses are limited in that the target event may or may not be characteristic of the individual's typical or most risky sexual behavior. Therefore, methods that combine both situational association and event analyses would provide the most complete picture of sexual behavior in the context of drug use.

## Specific substances and their effects

Specific substances may be linked to different sexual effects, user expectations, and levels of sexual risk.<sup>14-16</sup> Although it is widely accepted that stimulant use can enhance sexual pleasure,<sup>14,15,17,18</sup> and that high levels of alcohol and opioid use suppress male sexual performance,<sup>16,19</sup> little research has examined the differences in perceived feelings, performance, and function between the range of drugs that are commonly used by treatment seeking individuals. Rawson et al.<sup>16</sup> examined differences between drug category and sexual effects while under the influence. They found that cocaine and methamphetamine users were more likely to associate drug use with sexual behavior, and reported more positive sexual effects while under the influence, than alcohol and opiate users. For example, stimulant users were more likely to report that drug use was so strongly associated with sex that it would be difficult for them to separate it from sexual behavior, and that drug use made them preoccupied with sex and/or significantly elevated their sex drive.

## Aims and Hypotheses

Further characterization of patients' experiences with sex under the influence could inform HIV/STI risk reduction interventions for specific drug classes. To this end, this study aimed to use both situational and event analyses to better understand HIV/STI risk, and the degree to which it is influenced by drugs and alcohol. We examined not only sexual risk behaviors, but also patient perceptions of enhancements and impairments associated with sex under the influence. Our initial aim is to identify the prevalence of sex under the influence for a diverse group of men in substance abuse treatment. We hypothesize that sex under the influence will be: 1) associated with sexual risk behaviors (sex with a casual partner, sex without condoms and anal intercourse); 2) associated with sexual enhancements and impairments depending on the type of substance class (more enhancements associated with stimulants, and more impairments associated with opiates and alcohol); 3) associated with temptations to use drugs or alcohol to meet sexual needs and desires.

## Methods

### Participants

Participants were 505 men enrolled in an HIV risk reduction study that was conducted in seven methadone maintenance (n = 242) and seven outpatient, non-medication assisted psychosocial outpatient (n = 263) treatment programs in the United States. These treatment programs were diverse in terms of region, population density, and HIV prevalence. Sites were urban (e.g. Philadelphia, PA), suburban (e.g., Norwalk, CT) and rural (e.g.,

Huntington, WV), and were located in the Northeast, South, Midwest, Southwest, and West. HIV prevalence data at each site was not collected as part of this study, but some sites (e.g. Staten Island, NY, San Francisco, CA) were in cities known to have higher rates of HIV than others (e.g., Santa Fe, NM, High Point, NC). Specific sites are listed elsewhere.<sup>20</sup> The parent study compared a 5-session HIV risk reduction intervention developed specifically for men, Real Men Are Safe (REMAS), to a standard 1-session HIV/AIDS education group intervention (HIV-Ed).<sup>20</sup>

Participants were men aged 18 and above who were in substance abuse treatment, reported engaging in unprotected vaginal or anal intercourse during the prior 6 months, were willing to be randomly assigned to one of two interventions and complete study assessments, and were able to speak and understand English. Participants were recruited between May, 2004 and October, 2005, and were self-referred in response to recruitment posters displayed in clinics, announcements at group therapy meetings, and clinic “open houses” designed to introduce the study to clinic patients. Participants were also referred to the study by clinic counselors and/or staff. Exclusion criteria included: showing observable, gross mental status impairment – including severe distractibility, incoherence or retardation-- as measured by the Mini Mental Status Exam<sup>21</sup> or by primary clinician report, having a primary sexual partner who was intending to become pregnant while the participant was enrolled in the trial, or being in methadone maintenance treatment for less than 30 days. The HIV status of participants was unknown.

The analyses reported here focused on a subsample of men from the main trial who reported engaging in sex only with women in the prior 90 days. Of the 590 men eligible for randomization in the main trial, 43 reported sex with men, 41 reported no sexual activity in the prior 90 days, and one did not answer questions regarding sex under the influence of drugs or alcohol. Participants were not queried about lifetime sexual patterns, thus men who had had sex with men in the past, but not in the prior 90 days, may have been included in the sample.

### Assessment and Case Identification Procedures

The Sexual Behavior Interview (SBI) was administered as part of the baseline assessment battery, prior to randomization to intervention condition. The baseline assessments were administered preferably within 7—but not longer than 30--days after screening for the parent trial. There were no expectations placed on participants to change their drug related behavior while they were waiting to begin the study intervention. The SBI items were selected or adapted from the SADAR (Sex and Drug Abuse Relationship Interview,<sup>22</sup> and the SERBAS (Sexual Risk Behavior Assessment Schedule.<sup>23-24</sup> Behaviors assessed included: 1) frequency of unprotected vaginal, anal, and oral sex by partner type (main vs. casual); 2) number, gender, and perceived HIV status of partners; 3) percentage of times sex occurred under the influence of drugs or alcohol over the prior 90 days, and 4) a detailed query of the most recent sexual event that had occurred prior to the assessment day that included: how many days ago was the event, was the participant and/or partner under the influence, if so which drug(s), what sex acts took place, were condoms used, was there sexual enhancement or sexual dysfunction, degree of sexual satisfaction/pleasure (0= not at all pleasurable, 5= a pleasurable, enjoyable experience, but nothing special, 10= extremely pleasurable), and how typical the experience was (0=much less enjoyable than usual, 5=similar to your usual sexual experience, 10=much more enjoyable than usual). In addition, participants were asked if they had been tempted to use drugs in the past 90 days to “enhance your sexual experience” or “increase the likelihood of a sexual encounter occurring” and if so, which drugs they were tempted to use. SBI items were administered using the audio computer assisted structured interview (ACASI) method as it elicits more information about high-risk behaviors than face-to-face interviews.<sup>25-26</sup>

For each drug/drug class (heroin, cocaine, methamphetamine, cannabis, benzodiazepines, alcohol) participants were asked to “Please estimate the percent of times in the past 3 months that you were under the influence of [drug of abuse] when engaging in sex acts.” Responses of greater than 0 for any drug were coded as “sex under the influence, prior 90 days.” For analyses of the most recent event analyses, participants were classified as under the influence (yes or no), and as having a partner under the influence (yes or no). Participants were not provided a definition for “under the influence.” Participants were free to assess for themselves whether they were “under the influence.” Since all of the participants were in substance abuse treatment the investigators felt it likely that any use by these individuals would most likely lead to an intoxicated state. However, some participants may have consumed substances of abuse at less than intoxication levels and still considered themselves under the influence. To be included in the most recent event analyses, the event had to have occurred in the past 90 days. For some analyses, cases were classified as under the influence if the participant or his partner were under the influence. Participants were also grouped according to the drug of abuse to which they reported being under the influence. Cocaine and methamphetamine were grouped into a stimulant category due to a low prevalence of methamphetamine use.

### Data analyses

Analyses compared the various drug use groups while under the influence or not under the influence in the last 90 days, and during the most recent event, on the following domains: demographics, specific sexual acts, condom use, and temptation to combine sex and drugs in the future. For continuous measures *t*-tests were used. For dichotomous variables contingency table analysis utilizing the  $\chi^2$  statistic was employed. For analyses that compared being “under the influence of any drug” or “partner being under the influence of any drug” with “not being under the influence,” the *p* value was set at 0.05. Analyses of “under the influence of specific drugs/drug classes” involved examining five drug categories separately, and were conducted using Bonferroni adjusted alpha levels of .01 per test (.05/5). To determine which drugs the men were more tempted to use to meet sexual needs, pairwise comparisons of differences between dependent proportions were calculated.<sup>27</sup>

## Results

### Prevalence of sex under the influence

Most men (73.3%) reported engaging in sex under the influence of drugs or alcohol *during the prior 90 days*, however the percent reporting sex under the influence *at the most recent event* dropped to 39.1% (See Table 1). Most men (72.6%) reporting sex under the influence at the most recent event reported their partners were also under the influence. An additional 5.2% of men reported that their partners were under the influence when the men themselves were not. Alcohol, cocaine, heroin and cannabis were the most frequently used drugs. Men who were not married, in methadone treatment, and who had been employed for fewer days were more likely to report sex under the influence in the past 90 days (See Table 2). Similarly, men reporting that they or their partner were under the influence during the most recent event were more likely to be older, not married, in methadone treatment, employed for fewer days, and report there had been more days since their most recent sexual event.

### Hypothesis 1: sexual risk behaviors

Regarding specific risky sexual behaviors, men endorsing sex under the influence at the most recent event were more likely to engage in anal intercourse, have a casual (versus main) partner for that event, and if having vaginal or anal sex with a casual partner, be less likely to use a condom than men denying sex under the influence (Table 3). Similarly, men who reported their partner was under the influence during the most recent event were more

likely to engage in anal intercourse, receive fellatio, have a casual partner, and if having vaginal or anal sex with a casual partner, be less likely to use a condom than men reporting their partners were not under the influence. Since being under the influence at the most recent sexual event was associated with being with a casual partner, the sexual behavior data was re-analyzed for regular partners only. This was done to determine if casual partner status may have explained the differences in specific sexual behavior. The results were unchanged regardless of partner status. Those under the influence were more likely to engage in anal sex when either the participant or his partner was under the influence, and fellatio was performed more often when the partner was under the influence (results not shown).

When these analyses were repeated for being under the influence of specific drugs, each drug was associated with a greater likelihood of having a casual sexual partner during the most recent event (analyses not shown, all  $p$  values  $\leq .01$ ). However different drugs were not associated with different sex acts.

### **Hypothesis 2: sexual enhancements and impairments**

Men who reported not being under the influence during the most recent sexual event rated that encounter as more pleasurable ( $M=8.04$ ,  $SD=2.35$ ) than men who were under the influence ( $M=6.91$ ,  $SD=2.61$ ,  $t=4.95$ ,  $p < .001$ ). Similarly, men not under the influence reported that the most recent event was more enjoyable than usual ( $M=6.86$ ,  $SD=2.55$ ) compared to men who combined sex and drugs ( $M=5.73$ ,  $SD=2.79$ ,  $t=4.51$ ,  $p < .001$ ).

Listed in Table 4 are the sexual responses of participants who reported being under the influence during their most recent event. In this analysis, more enhancements than impairments were reported, with over 65% of these respondents reporting increased sexual desire, delayed orgasm and decreased sexual inhibition. However, sexual impairments were also very common with over 40% reporting erectile dysfunction and/or difficulty reaching orgasm. Similarly, of participants who had partners under the influence, the following participant perceptions of partner enhancements were attributed to 65% or more of their partners: increased desire, increased lubrication, increased sexual sensation, and decreased inhibition (see Table 5). Interestingly, participants reported less sexual impairment for their women partners, in that difficulty reaching orgasm was the only impairment reported by more than 25% of the sample.

Also reported in Tables 4 and 5 are the sexual enhancements and impairments associated with specific drugs. For sexual enhancements, only alcohol (increased sexual desire, both self and partner) and benzodiazepines (decreased social inhibition, both self and partner) were associated with more enhancements. Only decreased desire-self (heroin) and premature ejaculation (drugs other than benzodiazepines) were differentially associated with being under the influence.

### **Hypothesis 4: using drugs to meet sexual needs**

That the prospect of enhancing sex or enhancing sexual opportunities might serve as a relapse trigger is evident in Table 6. Not surprisingly, men who reported engaging in sex under the influence during the past 90 days or during the most recent sexual encounter were more likely to report having been tempted to use drugs either to enhance their experience and/or increase the likelihood that a sexual event would occur. Even for men denying sex under the influence during the past 90 days, nearly 25% reported they had been tempted to use drugs to meet sexual needs. Men were significantly more likely to report being tempted to use cocaine compared to all other substances (except alcohol) to meet these needs.

Similarly, men were significantly more likely to report being tempted to use alcohol compared to all other substances except cocaine and heroin to meet these needs.

## Discussion

Heterosexual men in substance abuse treatment commonly reported having sex under the influence of drugs. Situational association analyses showed that the majority (73%) reported engaging in sex under the influence in the past 90 days, while event analyses showed that 39% (and nearly three-quarters of their partners) reported combining sex and drugs at their most recent sexual event. Being under the influence at the most recent event was characterized by increased prevalence of anal sex, casual partner sex, and less condom use as compared to not being under the influence.

These findings are consistent with the literature linking sex under the influence and high risk sexual behaviors among men who have sex with men<sup>6</sup> and injection substance users.<sup>28</sup> Prior work often focused on specific populations such as men who have sex with men, injection drug users, urban residents, or meth users. The present study expanded the scope of earlier work as it provided results from a sample of in-treatment heterosexual men in urban and rural, and methadone maintenance and outpatient psychosocial programs.

Establishing a connection between high-risk behavior and the use of substances is a central issue for both prevention and treatment. A major difficulty is that self-reports are often not entirely accurate, particularly in high risk populations who engage in higher rates of casual sex.<sup>29</sup> In the present study, two self-report methods were used to investigate the frequency of sex under the influence. In the first, participants were asked to report the percentage of times sex occurred under the influence of drugs or alcohol over the prior 90 days. In the second, participants were asked to provide a detailed assessment of their most recent sexual event, including the substances used, sexual acts performed, enhancement or impairment secondary to drug use, and use of condoms. Since some individuals may have had sex under the influence in the recent past, but not at their most recent event, it is likely that the discrepancy between the two methods points to an underestimate when most recent event analysis is utilized.

Regardless of whether rates are accurate or an underestimate, the frequency of sex under the influence over the past 90 days highlights the association between sex and drug use, and the varying effects of specific substances on sexual experience and performance. For treatment purposes, highlighting a connection between the two behaviors is worth clinical focus as it might be a step toward change. Although event analysis may underestimate the rate of sex under the influence, it encourages the recall of contextual features related to sexual activities. Including similar questions about the relationship between sexual behavior and drug use in clinical practice may strengthen the ability to draw causal inferences that could lead to reductions in risky behavior, for example by pointing out discrepancies between wishes and actual behaviors in motivational interviewing approaches.<sup>30,31</sup>

Our results showed that men in treatment reported many sexual enhancements associated with combining sex and drugs. Studies often cite stimulants as having the strongest association with sexual enhancements.<sup>14,16</sup> Consistent with those studies, men in this study identified cocaine as the substance they were most tempted to use to enhance a sexual experience. Beyond simply stimulants, however, analyses of the most recent event show a sex-drug connection occurring across multiple substance categories. In this sample, at least 50% of treatment-seeking men reported sexual benefits for themselves and their partners at their most recent encounter, regardless of the substance used at the time. Although 71% of men reported that stimulants increased their sexual desire, alcohol was endorsed



significantly more often (77%) than any other drug. The current study only viewed substance use related sexual enhancements in reference to the most recent sexual event and not to the participants' primary drug of abuse as was done in the Rawson et al.<sup>16</sup> study. It is likely that men who had a history of negative experiences of sex under the influence of their primary drug of abuse would be less likely to have been under the influence of that substance at the most recent sexual event. Nor did the assessment ask men to compare sexual enhancements across drugs. Thus a participant could have reported sexual enhancement associated with one substance at the most recent sexual event, but if asked to compare which was most enhancing, might have ranked another substance higher.

While the majority reported enhancements, less than 50% of the sample reported any sexual impairment for themselves or their partners across drug categories. Only one impairment, dysorgasmia, was endorsed by nearly half the sample. Although many of the substances of abuse are associated with sexual impairment, the less frequent report of impairment during the most recent sexual event may be because participants who used a particular substance at the most recent event are the least likely to have experienced these impairments in the past. They may therefore be a biased group who is less prone to impairments with that particular drug while under the influence, or they may be less aware of any negative connection between their substance and sexual performance and thus less likely to have endorsed it on the SBI.

Although substance abuse counselors may be reluctant to discuss sexual issues with their clients,<sup>32</sup> these data show that relapse prevention discussions might benefit from acknowledging how sex and drugs are inter-related, as well as encourage individuals to take responsibility for safe sex rather than blame the substance.<sup>10</sup> The findings on sexual enhancements and impairments may function as a tool for treatment providers to address this issue. Consistent with the decisional balance model often utilized in motivational interviewing, patients could be asked to weigh the pros (enhancements) and cons (impairments) associated with sex under the influence. A focus on the cons of being under the influence as well as alternative ways to obtain some of the enhancements without substances could be explored. In addition, counselors can point to the sexual satisfaction data from the current study showing that men who did not engage in sex under the influence at the most recent event reported the experience to be more pleasurable than men who did.

## Summary

The majority of men in substance abuse treatment had combined sex and drugs over the past 90 days, and nearly 40% had been under the influence at their most recent event, believing the substances improved the sexual experience. Combining sex and drugs was associated with increased risk for sexual behaviors likely to spread HIV/STI. Nearly three-quarters of men were tempted in the prior 90 days to use drugs to enhance the sexual experience or increase the likelihood of sex. It appears, therefore, that sex is a strong relapse trigger for a variety of substances, not simply for stimulants. Patients might therefore benefit from interventions that focus on the interplay between sexual behavior and substance use. Future research endeavors might focus on the development and evaluation of such interventions.

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**Table 1**

Percent of men reporting, for themselves or their women partners, sex under the influence of drugs or alcohol in the last 90 days and during their last sexual encounter.

Reported drug of abuse	Male study participants		Female partners
	Last 90 days ( <i>n</i> = 505)	Most recent event ( <i>n</i> = 504)	Most recent event ( <i>n</i> = 503)
	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
Any drug	370 (73.3)	197 (39.1) <sup>a</sup>	170 (33.8) <sup>b</sup>
One drug		104 (52.8)	64 (37.6)
Two drugs		66 (33.5)	76 (44.7)
≥Three drugs		27 (13.7)	30 (17.6)
	Sex under the influence of specific drugs		
	Last 90 days ( <i>n</i> = 370)	Most recent event ( <i>n</i> = 197)	Most recent event ( <i>n</i> = 170)
	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
Specific drug <sup>c</sup>			
Heroin	124 (24.6)	52 (26.3)	43 (25.1)
Cocaine	174 (34.4)	80 (40.4)	86 (50.3)
Methamphetamine	33 (6.5)	9 (4.5)	16 (9.4)
Benzodiazepines	80 (15.8)	35 (17.7)	23 (13.5)
Cannabis	142 (28.1)	43 (21.7)	48 (28.1)
Hallucinogens	10 (2.0)	2 (1.0)	1 (0.6)
Alcohol	221 (43.8)	89 (44.9)	97 (56.7)

<sup>a</sup>Of these, 54 (27.4%) report partner was not under the influence.

<sup>b</sup>Of these, 27 (15.9%) report they were not under the influence.

<sup>c</sup>More than one drug can be endorsed.

Table 2

## Sample demographics

	Sex under the influence			
	Last 90 days		Most recent sexual encounter <sup>a</sup>	
	No (n=135, 26.7%)	Yes (n=370, 73.3%)	No (n=282, 55.7%)	Yes (n=224, 44.3%)
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Age	39.9 (9.9)	38.5 (10.6)	37.7 (10.4)	40.3 (10.2)**
Education	12.4 (1.8)	12.0 (1.9)	12.1 (2.0)	12.2 (1.7)
Days employed in prior 30	10.6 (11.2)	5.6 (8.6)***	8.2 (10.5)	5.4 (8.3)***
Days since most recent sexual event			8.3 (14.8)	15.8 (19.5)***
	<i>n (%)</i>	<i>n (%)</i>	<i>n (%)</i>	<i>n (%)</i>
Race				
White	80 (27.7)	209 (72.3)	158 (54.7)	131 (45.3)
Af-Am	32 (22.2)	112 (77.8)	80 (55.2)	65 (44.8)
Hispanic	19 (32.2)	40 (67.8)	36 (61.0)	23 (39.0)
Native Am/Asian/Other	3 (50)/0 (0)/1 (25)	3 (50) / 3 (100) / 3 (75)	6 (100)/1 (33.3)/1 (25)	0 (0)/2 (66.7)/3 (75)
Marital Status				
Married	36 (34.3)	69 (65.7)	77 (72.6)	29 (27.4)
Previously	52 (32.1)	110 (67.9)	77 (47.5)	85 (52.5)
Never	47 (19.8)	190 (80.2)**, <i>b</i>	127 (53.6)	110 (46.4)***, <i>c</i>
Tx Modality				
Methadone	44 (18.2)	198 (81.8)	114 (47.1)	128 (52.9)
Psychosocial	91 (34.6)	172 (65.4)***	168 (63.6)	96 (34.4)***

\*\*  
 $p < .01$ ,

\*\*\*  
 $p \leq .001$

<sup>a</sup>Either participant or partner was under the influence.

<sup>b</sup>Married and Previously married < Never married

<sup>c</sup>Married < Previously married and Never married

**Table 3**  
Sexual acts, condom use and partner type during the most recent sexual encounter as a function of being under the influence

	Under the influence						$\chi^2$
	Participant any drug			Partner any drug			
	Yes (n = 190, 39.3%) n (%)	No (n = 294, 60.7%) n (%)	$\chi^2$	Yes (n = 170, 33.9%) n (%)	No (n = 331, 66.1%) n (%)		
Sexual acts							
Vaginal inter.	180 (90.5)	267 (94.2)	NS	153 (93.9)	294 (91.0)	NS	
Anal inter.	38 (19.5)	35 (11.6)	6.0*	34 (20.2)	39 (11.8)	6.3*	
Fellatio	157 (72.6)	220 (79.7)	NS	139 (81.8)	238 (72.1)	5.6*	
Cunnilingus	131 (66.8)	182 (60.3)	NS	111 (65.7)	202 (61.4)	NS	
Used condom	33 (17.4)	57 (19.4)	NS	29 (17.8)	61 (19.0)	NS	
Casual partner	73 (37.1)	46 (15.1)	31.7***	75 (44.1)	44 (13.3)	58.9***	
Used condom w/ casual partner (n=116)	15 (21.1)	19 (42.2)	5.9*	16 (22.2)	18 (40.9)	4.6*	

\*  $p < .05$ ,

\*\*\*  $p < .001$

NS=not significant

**Table 4**

Sexual enhancements and impairments endorsed by participants during their most recent sexual encounter

	Any Drug (n = 196)	Heroin (n = 52)	Stimulants (n = 86)	Cannabis (n = 43)	Benzos (n = 35)	Alcohol (n = 87)
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
<b>Enhancements</b>						
<b>Increased</b>						
Desire	128 (65.3)	33 (63.5)	61 (70.9)	28 (65.1)	23 (65.7)	67 (77.0)***
Potency	94 (48.0)	26 (50.0)	46 (53.5)	22 (51.2)	18 (51.4)	49 (52.1)
Sensation	113 (57.7)	31 (59.6)	57 (66.3)	24 (55.8)	21 (60.0)	59 (67.8)
Delayed orgasm	132 (67.3)	38 (73.1)	56 (65.1)	33 (76.7)	29 (82.9)	59 (67.8)
<b>Decreased</b>						
Social inhibition	94 (48.0)	28 (53.8)	36(41.9)	21 (48.8)	28 (80.0)***	46 (52.9)
Sexual inhibition	130 (66.3)	36 (69.2)	58 (67.4)	23 (53.5)	28 (80.0)	58 (66.7)
<b>Impairments</b>						
<b>Decreased</b>						
Desire	57 (29.1)	17 (32.7)	26 (30.2)	10 (23.3)	16 (45.7)	18 (20.7)
Sensation	64 (32.7)	19 (36.5)	32 (37.2)	10 (23.3)	14 (40.0)	25 (28.7)
Erectile dysfunction	85 (43.4)	25 (48.1)	38 (44.2)	15 (34.9)	14 (40.0)	35 (40.2)
Dysorgasmic	97 (49.5)	26 (50.0)	43 (50.0)	19 (44.2)	19 (54.3)	39 (44.8)
Premature ejaculation	31 (15.8)	5 (9.6)	16 (18.6)	4 (9.3)	0 (0.0)***	13 (14.9)

\*\*\* p ≤ .008, vs. all other substance categories.

Sexual enhancements and impairments participants endorse about their female partners during their most recent sexual encounter

**Table 5**

	Any Drug (n = 168)	Heroin (n = 43)	Stimulants (n = 95)	Cannabis (n = 48)	Benzos (n = 23)	Alcohol (n = 96)
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
<b>Enhancements</b>						
<b>Increased</b>						
Desire	125 (74.0)	27 (67.9)	72 (75.8)	39 (81.3)	15 (65.2)	79 (82.3)***
Lubrication	106 (65.4)	25 (62.5)	62 (68.1)	32 (68.1)	17 (77.3)	63 (70.0)
Sensation	114 (67.5)	25 (58.1)	64 (67.4)	31 (64.6)	15 (65.2)	66 (68.8)
<b>Decreased</b>						
Social inhibition	87 (51.5)	26 (60.5)	45 (47.4)	25 (52.1)	20 (87.0)***	44 (45.8)
Sexual inhibition	115 (68.0)	31 (72.1)	63 (66.3)	33 (68.8)	21 (91.3)	67 (69.8)
Delayed orgasm	65 (38.5)	20 (46.5)	34 (35.8)	18 (28.4)	11 (47.8)	34 (35.4)
Sex more tolerable	114 (67.9)	31 (72.1)	68 (72.3)	28 (58.3)	20 (87.0)	65 (67.7)
<b>Impairments</b>						
<b>Decreased</b>						
Desire	32 (18.9)	14 (32.6)***	20 (21.1)	6 (12.5)	4 (17.4)	17 (17.7)
Lubrication	30 (18.5)	11 (27.5)	20 (22.0)	5 (10.6)	1 (4.5)	14 (15.6)
Sensation	34 (20.1)	14 (32.6)	20 (21.1)	7 (14.6)	5 (21.7)	16 (16.7)
Dysorgasmic	44 (26.0)	15 (34.9)	24 (25.3)	13 (27.1)	6 (26.1)	22 (22.9)
Painful intercourse	17 (10.5)	7 (17.5)	12 (13.29)	3 (6.4)	0 (0.0)	9 (10.0)

\*\*\*  
p ≤ .008, vs. all other substance categories.



**Table 6**

Men in treatment reporting temptation to use drugs to meet sexual needs in prior 90 days.

	Sex under the influence			
	Last 90 days		Most recent sexual encounter	
	<i>n</i> (%)		<i>n</i> (%)	
	No	Yes	No	Yes
In prior 90 days tempted to use any drug to	135 (26.9)	366 (73.1)	278 (55.5)	233 (44.5)
Enhance sex	29 (21.5)	158 (43.1)	67 (21.1)	120 (53.8)
		$\chi^2=19.8^{***}$		$\chi^2=46.7^{***}$
Increase likelihood of sex	18 (13.3)	112 (30.6)	42 (15.1)	88 (39.5)
		$\chi^2=15.3^{***}$		$\chi^2=38.2^{***}$
Either temptation	33 (24.4)	184 (50.3)	78 (35.9)	139 (64.10)
		$\chi^2=26.8^{***}$		$\chi^2=59.2^{***}$
Drugs men were tempted to use <sup>†</sup>	<i>n</i> (%)			
Heroin	76 (35.0) <sup>a</sup>			
Cocaine	114 (52.5) <sup>b</sup>			
Methamphetamine	40 (18.4) <sup>c</sup>			
Benzodiazepine	27 (12.4)			
Cannabis	65 (30.0) <sup>d</sup>			
Alcohol	96 (44.2) <sup>e</sup>			

\*\*\*  
p < .001

<sup>†</sup> Pairwise comparisons p < .001

<sup>a</sup> vs. methamphetamine, benzodiazepine

<sup>b</sup> vs. heroin, methamphetamine, benzodiazepine, cannabis

<sup>c</sup> vs. benzodiazepine

<sup>d</sup> vs. benzodiazepine

<sup>e</sup> vs. methamphetamine, benzodiazepine, cannabis