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High Rates of Club Drug Use and Risky Sexual Practices Among Hispanic Men Who Have Sex with Men in Miami, Florida

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This study measured use of club drugs among 262 Hispanic men who have sex with men (MSM) recruited at community venues in Miami-Dade County, Florida in 2001. More than 50% of men used club drugs, and 36% used them in the last 3 months. Lifetime and 3-month rates were: ecstasy (36% and 20%), cocaine (34% and 12%), amyl nitrates (28% and 9%), and crystal methamphetamine (20% and 15%). Thirty-six percent had used two or more drugs (polydrug use) in their lifetime and 20% reported polydrug use in the last 3 months. Club drug users had significantly more sex partners in the last 12 months than nonclub drug users. High rates (35%) of unprotected anal sex in the last 3 months were reported by both groups. Men who reported polydrug use in the last 3 months were significantly more likely than men who used a single club drug to have had sex under the influence of club drugs (83% vs. 57%; $X_2 = 7.4$, $p = 0.006$). At the multivariate level, a significant association between preference for use of English and lifetime club drug use emerged. Effective interventions to reduce club drug use and risky sex for Hispanic MSM are needed.

Keywords Hispanic MSM; club drugs; risky sex

Introduction

Men who have sex with men (MSM) continue to be at increased risk of HIV infection [Centers for Disease Control and Prevention (CDC), 2002]. Unprotected anal sex has long been recognized as an important risk factor in the spread of HIV among MSM. Recently, increased attention is being paid to the connection between use of noninjection drugs, particularly "club" drugs, and high-risk sexual practices as an important contributor to the rising rates of HIV infection in this population (Ostrow, 2000; Shoptaw and Frosch, 2000; Stall and Purcell, 2000; Klitzman, Pope, and Hudson, 2000; Waldo et al., 2000; CDC, 2002; Wolitski et al., 2001; Bialer, 2002; Halkitis and Parsons, 2002; Halkitis, Parsons,

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and Stirratt, 2001; Klitzman et al., 2002; Mattison et al., 2001). In Miami-Dade County, Florida, where both the incidence and prevalence of HIV/AIDS are disproportionately high, Hispanic MSM comprise 67% of all Hispanic adolescent and adult AIDS cases reported through September 2003 (Miami-Dade County Public Health Dept., 2003). Even though Miami-Dade County has one of the highest HIV/AIDS rates in the nation (CDC, 2002) and is a resort/circuit party destination for many gay and bisexual men, data on club drug use among MSM, particularly Hispanic MSM who reside in the county, are limited.

Alarmingly high rates of noninjection drug use, particularly club drugs, among general samples of MSM have been reported (Bialer, 2002; Freese, Miotto, and Reback, 2002; Stall and Purcell, 2000; Stall et al., 2001). For instance, in a probability sample of 2172 MSM drawn from Chicago, Los Angeles, New York, and San Francisco, 19.8% of men used amyl nitrites (poppers), 15.2% used cocaine, 11.7% used ecstasy, 9.5% used speed (methamphetamines or other amphetamines), and 8.8% used barbiturates/sedatives in the last 6 months (Stall et al., 2001). Participants from Chicago reported the highest use of amyl nitrites (26.1%), while respondents from New York and San Francisco reported the highest use of ecstasy (13.4%) and methamphetamines (13.3%), respectively. The highest level of cocaine use (21.3%) was reported by respondents from New York City. In a different New York City sample, Halkitis and Parsons (2002) reported that 16% of the sample had used ecstasy, 10% had used crystal methamphetamine, and 5% had used gamma-hydroxybutyrate (GHB) in the last 3 months. Despite Miami-Dade's high HIV prevalence and thriving gay community, we found only one recent article in which rates of drug use among MSM from Miami were reported (Thiede et al., 2003). In this study, which compared rates of drug use in the last 6 months among young MSM 15 to 22 years of age in seven metropolitan areas, young MSM from Miami reported the highest use of ecstasy, cocaine, and amyl nitrites (Thiede et al., 2003). However, rates of drug use by ethnicity were not reported. Studies that examine use of noninjection drugs, particularly club drugs, among Hispanic MSM residing in Miami-Dade County are needed.

Patterns of drug use among MSM differ from those reported for non-MSM populations. First, MSM tend to use multiple substances either in sequence or in combination (Stall and Purcell, 2000). High rates of polydrug use have been documented (Stall et al., 2001; Halkitis and Parsons, 2002; Thiede et al., 2003). For instance, more than 50% of MSM in a New York City sample reported using at least two drugs and 33% reported using three or more drugs in the last 3 months (Halkitis and Parsons, 2002). Eighteen percent of men who participated in the Urban Men's study used two or more drugs in the last 6 months (Stall et al., 2001). Second, many MSM use drugs in an episodic manner, for instance on weekends or during special events such as circuit parties, which are multi-day gatherings of gay/bisexual men (Colfax et al., 2001; Mansergh et al., 2001). Studies have found that drug use prevalence was significantly higher during circuit party weekends than during non-circuit party weekends (Colfax et al., 2001). Thus, the level and frequency of drug use among many MSM is not reflective of what is typically classified as "abuse" in the literature (Bialer, 2002; Freese, Miotto, and Reback, 2002; Stall and Purcell, 2000; Stall et al., 2001). Nonetheless, many incidences of drug "overuse" among MSM have been reported (Mansergh et al., 2001). Twenty-five percent of men in one study reported at least one drug overuse incident in the past year (Mansergh et al., 2001). Patterns of episodic and polydrug use among Hispanic MSM have not been adequately examined.

In this paper, we report on a community sample of 262 Hispanic MSM recruited from public venues in Miami-Dade County. The goal of this study is to describe lifetime and recent rates of club drug use (defined as cocaine, ecstasy, GHB, crystal methamphetamine, amyl nitrites, and Viagra) and to begin to explore patterns and combinations of

drugs used by Hispanic MSM living in an AIDS epicenter. This descriptive study can be a first step for developing effective risk reduction interventions for this understudied, at-risk population.

Methods

Participants

From July 2001 to December 2001, we recruited from public venues in South Florida a targeted community sample of 283 men to participate in the intervention development phase of a study designed to promote HIV testing among Hispanic MSM. Participants were 18 years of age or older, self-identified as Hispanic/Latino, and lived in South Florida. In this paper, we report on the 262 men in the sample who had sex with at least one man in the last 12 months.

Sampling

We used time and space sampling procedures (Stueve et al., 2001; Valleroy et al., 2000) to recruit outside four types of public venues frequented by Hispanic MSM. The categories were: bars/clubs, street corners, parks/beaches, and gyms/bathhouses. Time and space sampling is a probability method for enrolling members of a target population at times and places where they congregate rather than where they live. Using standardized observational procedures, we identified 21 venues—six were bars/clubs; five were street corners; four were parks/beaches; and six were gyms/bathhouses. We then generated a list of recruitment periods (systematically selected days and 3-hour blocks of time corresponding to periods of "peak" and "off-peak" activity for that venue). We then randomly selected venues and recruitment periods and developed a monthly calendar of sampling events (days and blocks of time when recruitment and data collection occurred). For each venue, we defined a specific geographic area and systematically approached men who entered the defined area. Men were screened for eligibility and, if eligible, invited to participate. Approximately 85% of eligible men screened agreed to participate. We found no significant differences in eligibility rates, participation rates, participant characteristics, and club drug use across the four types of venues.

Data Collection Procedures

Trained, bilingual staff administered anonymous structured interviews after obtaining verbal informed consent. Responses were recorded on scannable forms created with Teleforms®. Interviews were completed at the time of recruitment and lasted approximately 35 minutes. Respondents were given $35 as compensation. The protocol was approved by the Institutional Review Board at the University of Miami. The following factors were assessed:

Demographics

Participants reported their age, education, income, employment status and country of birth, as well as time living in the United States.

HIV Serostatus

Participants were asked whether or not they had been tested for HIV. Those who had been tested reported their most recent HIV test results.

Sexual Behavior

Participants reported the number of male and/or female sex partners they had during the past 12 months. Participants reported the number of times they had anal and/or vaginal sex during the past 3 months and the number of times a condom had been used for each type of sex act. From these data, we calculated whether or not respondents had engaged in unprotected sex.

History of Sexually Transmitted Infection (STI)

Participants were asked if they had ever been diagnosed with an STI by a medical provider.

Drug Use

Participants reported whether they had ever used alcohol, marijuana, cocaine, crystal methamphetamines, GHB, amyl nitrites, or Viagra. For each affirmative response, participants stated whether or not they had used the substance during the past 3 months and if they had had sex while under its influence during the same time period. We defined club drugs to be: cocaine, ecstasy, GHB, crystal methamphetamine, amyl nitrites, and Viagra.

Language Preference

As a proxy measure of acculturation, we used the Marin et al. (1987) language use scale consisting of four items. A participant's score is the sum of the items they endorsed. Higher scores denote preference for English and lower scores denote a preference for Spanish. Internal consistency reliability analysis yielded an alpha of 0.85 in this sample.

Perceived Risk of HIV

Participants who were HIV seronegative or did not know their HIV status were asked to report how likely they believed they were at risk of becoming infected with HIV. Using a four-point scale (1 = "very likely" to 4 = "very unlikely"), respondents state how likely it is that: 1) they would become infected with HIV in their lifetime; 2) their most recent partner would get HIV; and 3) they are infected with HIV now. A participant's score is the sum of the items they endorsed. Higher scores denote less perceived HIV risk. Internal consistency reliability analysis yielded an alpha of 0.73.

Analysis Plan

First, we calculated whether or not participants had ever used club drugs (cocaine, crystal, GHB, ecstasy, amyl nitrates, or Viagra). Using the above definition, 50.3% of respondents were classified as having used club drugs. Next, we used chi-square, t-test, and Mann-Whitney U test (for number of partners) to compare the characteristics of club drug users with those who had not used club drugs in their lifetime. Third, for each individual drug assessed (including alcohol and marijuana), we calculated the proportion of the participants who used each drug in their lifetime and in the last 3 months. Fourth, for individuals who reported club drug use in the last 3 months, we computed whether or not they were polydrug users, whether or not they had sex under the influence of club drugs, and the most frequent combination of drugs used. Last, we conducted a multivariate logistic regression to examine the association among demographic variables (age, education, income, and language preference) and lifetime use of club drugs.

Table 1
Comparison of Hispanic MSM who had ever used club drugs with those who had not

Variables	Yes (N = 132)	No (N = 130)	Total (N = 262)	
Demographic				
Age				
Mean	31.03	31.70	31.36	
SD	6.40	6.33	6.36	
Range	18–52	20–50	18–52	
Education				
BA/BS+	66 (50.0%)	67 (51.5%)	133 (50.8%)	
AS/AA	36 (27.3%)	34 (26.2%)	70 (26.7%)	
≤High school	30 (22.7%)	29 (22.3%)	59 (22.5%)	
Income				
$40,001+	25 (18.9%)	22 (16.9%)	47 (17.9%)	
$30,001–$40,000	26 (19.7%)	19 (14.6%)	45 (17.2%)	
$20,001–$30,000	37 (28.0%)	41 (31.5%)	78 (29.8%)	
$10,001–$20,000	28 (21.2%)	24 (18.5%)	52 (19.8%)	
≤$10,000	16 (12.1%)	24 (18.5%)	40 (15.3%)	
Language preference scale[c]				
Mean	11.21	9.10	10.16	
SD	4.29	3.94	4.25	
Range	4–20	4–19	4–20	0.00
Employed				
Yes	108 (81.8%)	106 (81.5%)	214 (81.7%)	
No	24 (18.2%)	24 (18.5%)	48 (18.3%)	
Foreign born[a]				
Yes	99 (75.0%)	112 (86.2%)	211 (80.5%)	
No	33 (25.0%)	18 (13.8%)	51 (19.5%)	0.02
HIV Serostatus (Self-Report)				
Positive	16 (12.1%)	8 (6.2%)	24 (9.2%)	
Negative/unknown	116 (87.9%)	122 (93.8%)	238 (90.8%)	
Sexual risk				
Unprotected sex in last 3 months				
Yes	42 (31.8%)	49 (37.7%)	91 (34.7%)	
No	90 (68.2%)	81 (62.3%)	171 (65.3%)	
Ever diagnosed with an sexually transmitted infection				
Yes	32 (24.2%)	24 (18.5%)	56 (21.4%)	
No	100 (75.8%)	106 (81.5%)	206 (78.6%)	
Number of partners in last 12 months				
4+	55 (41.7%)	39 (30.0%)	94 (32.1%)	
2–3	38 (28.8%)	46 (35.4%)	84 (32.1%)	
1	39 (29.5%)	45 (34.6%)	84 (35.9%)	
Mean[b]	9.30	6.39	7.86	
SD	22.71	22.28	22.54	
Range	1–200	1–203	1–203	0.03

(Continued on next page)

Table 1
Comparison of Hispanic MSM who had ever used club drugs with those who had not *(Continued)*

Variables	Yes (N = 132)	No (N = 130)	Total (N = 262)
HIV risk perception (HIV-/Unknown serostatus only)	(N = 116)	(N = 122)	(n = 238)
Mean	10.81	10.93	10.88
SD	2.69	2.88	2.79
Range	3–15	3–15	3–15

[a] $p \leq 0.05$.
[b] $p \leq 0.05$. (Mann-Whitney Test for nonparametric distributions).
[c] $p \leq 0.00$.
Note: Language Preference Scale: Higher scores denote preference for English and lower scores denote a preference for Spanish.
HIV Risk Perception: Higher scores denote less perceived HIV risk.

Results

Sample Characteristics and Comparison of Club Drug Users and Nonclub Drug Users

Overall, the mean age of the combined sample was 31 years of age. Approximately half of all participants were high school graduates; 81.7% were employed; and 80.5% were foreign-born. More than one-third of participants (34.7%) reported unprotected sex in the past 3 months; 7.3% of the sample reported having had sex in the past 12 months with both males and females (data not shown). The mean number of partners in the last 12 months was 7.86. Twenty-one percent of the sample had a lifetime history of STI diagnosis and 9.2% of men were HIV positive.

As can be seen in Table 1, respondents who had ever used club drugs were significantly more likely to have been born in the U.S., to have a higher mean number of sex partners, and to prefer the use of English than those who had never used drugs. No other significant differences emerged between the two groups.

Rates of Club Drug and Other Noninjection Drug Use

As can be seen in Table 2, lifetime and 3-month rates of drug use are relatively high. Lifetime rates of cocaine, ecstasy, amyl nitrites, and crystal methamphetamine are 34%, 35.5%, 27.9%, and 19.5% respectively. Three-month rates are 19.5% for ecstasy, 14.5% for crystal methamphetamine, 12.2% for cocaine, and 9.2% for amyl nitrites. Lifetime use of alcohol and marijuana were 96.6% and 51.9%, respectively; while 3-month use of alcohol was 82.6% and marijuana use was 21.7%. Sex under the influence of drugs was also high. Specifically, 83.3% of men who used amyl nitrites, 66.7% of men who used GHB, 63.2% of men who used crystal methamphetamine, and 58.8% of men who used ecstasy reported having sex while under the influence of the drugs in the last 3 months.

Fifty percent of the sample had used one or more club drugs in their lifetime and 35.9% had used them in the last 3 months. Although only 25.6% (67/262) of the total sample

Table 2
Rates of club drugs and other noninjection drugs used among Hispanic MSM

Variables	Lifetime (N = 262) % Yes (95% CI)	Last 3 months (N = 262) % Yes (95% CI)	Sex under the influence of (Men using drugs in last 3 months only) % Yes (95% CI)
Cocaine	34.0% (28.3%–39.7%)	12.2% (8.2%–16.2%)	56.3% (39.1%–73.5%)
Crystal meth	19.5% (14.7%–24.3%)	14.5% (10.2%–18.8%)	63.2% (47.9%–78.5%)
GHB	18.3% (13.6%–23.0%)	9.2% (5.7%–12.7%)	66.7%(47.8%–85.6%)
Ecstasy	35.5% (29.7%–41.3%)	19.5% (14.7%– 24.3%)	58.8% (45.3%–72.3%)
Amyl nitrite	27.9% (22.5%–33.3%)	9.2% (5.7%–12.7%)	83.3% (68.4%–98.2%)
Viagra	10.7% (7.0%–14.4%)	6.1% (3.2%–9.0%)	100.0%(–)
Overall club drugs	50.4% (44.3%–56.5%)	35.9% (30.1%–41.7%)	25.6% (15.1%–36.1%)
Polyclub drug use (2 or more club drugs)	35.9% (30.1%–41.7%)	19.8%(15.0%–24.6%)	—
Polyclub drug use (3 or more club drugs)	26.7% (21.3%–32.1%)	9.9%(6.3%–13.5%)	—

Table 3
Multivariable model of lifetime club drug use by demographic factors

Variables	Odds	95% C.I.	P-Level
Yearly income			
$40,001 +	0.97	0.37–2.52	0.953
$30,001–$40,000	1.26	0.49–3.22	0.620
$20,001–$30,000	0.86	0.37–1.98	0.722
$10,001–$20,000	1.19	0.49–2.88	0.703
≤$10,000 (Reference)	1.00		
Education			
BA/BS+	0.97	0.50–1.90	0.976
AS/AA	0.99	0.47–2.06	0.992
Less/equal to HS	1.00		
Age	0.99	0.95–1.04	0.800
Language preference	1.13	1.06–1.21	0.000

reported having sex while under the influence of at least one club drug in the last 3 months, 71.3% (67/94) of men who had used club drugs in the last 3 months had sex while under their influence. Polyclub drug use was also high. Almost 20% of men in the total sample reported using at least two club drugs in the last 3 months and almost 10% had used three or more club drugs. However, among men who used drugs in the last 3 months ($n = 94$), 55.3% had used two or more drugs and 27.7% used three or more drugs in the same time period.

The number of drugs used in the last 3 months ranged from one to five, with 44.7% of the sample using one drug, 27.7% using two drugs, 17% using three drugs, 7.4% using four drugs, and 3.2% using five drugs (data not shown). The two most popular combinations of drugs used in the last 3 months were: crystal methamphetamine and ecstasy (17.3%), and GHB and ecstasy (17.3%) (data not shown). Participants who used two or more drugs during the last 3 months were significantly more likely to have had sex under the influence of drugs ($X^2 = 7.4$, $p = 0.006$) than were men who used only one drug (83% vs. 57%).

At the multivariate level (Table 3), lifetime use of club drugs was significantly associated with higher scores (more preference for the English language) on the language preference scale. For every one-point increase in language preference score, the odds that a participant with a higher score on language preference had used club drugs increased 13% (OR = 1.13) when compared to that of a participant with a lower score.

Discussion

In this paper, we report on a community sample of Hispanic MSM, 80% of whom were born outside the United States, residing in the AIDS epicenter of Miami-Dade County. Even though our sample was recruited from outside public venues during noncircuit party weekends, rates of club drug use were alarmingly high. More than 50% of men had used club drugs in their lifetime and almost 36% had used them in the last 3 months. For many of the specific club drugs, the rates of use by Hispanic MSM in our sample appear to be higher than those reported by other researchers (Stall et al., 2001; Halkitis and Parsons, 2002). For instance, 19.5% of respondents in our study had used ecstasy in the last 3 months and 14.5% had used crystal methamphetamine. These rates are somewhat higher than the

3-month rates of ecstasy (16%) and crystal methamphetamine (10%) reported by Halkitis and Parsons (2002) and the 6-month prevalence rates reported by Stall et al. (2001). This is similar to the results of the Young Men's Survey (Thiede et al., 2003) in which young MSM from Miami (ethnicity not stated) had the highest 6-month use rates for cocaine (35.3%), ecstasy (26.8%), and amyl nitrites (19.9%) among young MSM from seven metropolitan areas. Nonetheless, caution must be used when comparing rates of club drug use across the growing number of studies for the following reasons.

First, there is a lack of consistency in the types of drugs categorized as "club" drugs. Some researchers (Romanelli, Smith, and Pomeroy, 2003) used a very stringent definition and only included ecstasy, GHB, and ketamine. Others (Mattison et al., 2001; Mansergh et al., 2001) took a broader approach and defined club drugs to include alcohol, marijuana, ecstasy, GHB, ketamine, crystal methamphetamine, amyl nitrites, and Viagra. To derive our definition, we started with NIDA's classification of club drugs, and reviewed the MSM literature to identify the most frequently used club drugs. We then cross-checked this list with key informant reports of the most popular club drugs used by MSM in Miami. For instance, although alcohol and marijuana are frequently used in the club scene, their use is not specifically associated with MSM as is the case with amyl nitrates and, more recently, crystal methamphetamine and Viagra. Similarly, we included cocaine in our definition because it is one of the most frequently used club drugs among MSM in New York (Halkitis and Parsons, 2002; Parsons, Halkitis, and Bimbi, in press); its high frequency of use in Miami was reported by Thiede et al. (2003) and confirmed by our key informants. On the other hand, while some studies have included LSD among club drugs (Scholey et al., 2004), we did not because of its low frequency of use in our area. Perhaps one way to address this definitional issue is for researchers to agree on a "core set" of club drugs that should be included in all studies of MSM and supplement this core set, as needed, to address regional variations. This strategy would permit comparisons of use of the core drugs across different geographic areas and MSM subgroups, as well as more tailored analyses of regional patterns of club drug use.

Second, the measurement periods for drug use varied across the studies. To measure rates of drug use, some researchers used a 6-month time frame (Stall et al., 2001; Klitzman et al., 2002), while others used a 3-month period (Purcell et al., 2001; Halkitis and Parsons, 2002). Because of the relatively few studies that focused exclusively on club drug use among Hispanic MSM, we included a measure of lifetime club drug use for descriptive purposes. We used a 3-month time period for retrospective recall of drug use because research has demonstrated that this period yields valid estimates, since it is long enough to detect low-frequency events but not so long as to be hard to accurately recall events (Kauth, St. Lawrence, and Kelly, 1991). To advance the field, methodological studies comparing 6-month with 3-month time frames for reporting club drug use are needed.

Last, the context (i.e., circuit parties) and calendar year during which the data were collected must also be considered, since both frequency and type of drug used varies with context, and the popularity of different substances changes over time. For instance, Mansergh et al. (2001) reported that 3-day rates of cocaine, methamphetamine and ecstasy use during circuit party weekends were higher than those reported over the previous 6 months, a period that was 60 times longer. Thus, measurement of club drug use during circuit party weekends may be higher than at other times and not reflective of "typical" use (Ross, Mattison, and Franklin, Jr., 2003; Colfax et al., 2001; Mattison et al., 2001). Despite these caveats, rates of drug use among Hispanic MSM in our sample are high. It is concerning that a high percentage of men who used drugs in the last 3 months reported using ecstasy (54.3%) and/or crystal methamphetamine (40.4%), two of the more dangerous club drugs.

Furthermore, the two most frequent combination of drugs used included ecstasy in the pairing—one with crystal methamphetamine and the other with GHB. Ecstasy is known for its neurotoxicity (McCann et al., 1998), and there is evidence of resulting cognitive impairment, particularly impaired memory (Krystal et al., 1992; Parrott and Lasky, 1998), and attention deficits (McCann et al., 1998). Ecstasy may also cause psychiatric symptoms, including depression, anxiety (McGuire, Cope, and Fahy, 1994) and paranoia (McCann and Ricaurte, 1991), even after abstinence from the drug (Green, Cross, and Goodwin, 1995). There is evidence that crystal methamphetamine may damage the central nervous system and the cardiovascular system (National Institute on Drug Abuse, 1996), and it has been linked to induced psychosis characterized by paranoid ideation, delusions of persecution, social withdrawal, flattening of affect, and auditory/tactile/olfactory/visual hallucinations (Ellenhorn et al., 1997; Halkitis, Parsons, and Stirratt, 2001; Halkitis and Parsons, 2002). Given the high potential for abuse (Klitzman et al., 2002; Halkitis, Parsons, and Stirratt, 2001), future studies should examine factors associated with ecstasy and crystal meth use among Hispanic MSM. The high rates of polydrug use among men in our sample are also troubling. Polydrug users were significantly more likely than nonpolydrug users to have sex while under the influence of drugs. Polydrug use, particularly polyclub drug use, has been associated with high risk sexual practices (Mattison et al., 2001; Romanelli, Smith, and Pomeroy, 2003; Halkitis and Parsons, 2002; Colfax et al., 2001). A direct dose-response relationship between number of drugs used in the last 12 months and unsafe sex during circuit parties has been reported (Mattison et al., 2001). Simultaneous use of club drugs can be dangerous to both HIV positive and negative MSM. It is possible that polydrug users may be less likely than single users to predict or control drug interactions. It is also likely that as the number of drugs used simultaneously increases, so does disinhibition and amnesia and the potential for unsafe sex (Mattison et al., 2001; Halkitis and Parsons, 2002). Additionally, use of club drugs among HIV positive individuals may have detrimental outcomes on disease progression by either influencing adherence or potentially compounding immune suppression (Romanelli, Smith, Pomeroy, 2003). Our study would have been strengthened had we been able to explain why men used drugs singly or in combination and the individual, social, and contextual factors associated with drug use in this population. Studies that explore the connection between club drug use and risky sex among Hispanic MSM are needed.

Because club drugs are often used in certain contexts, it would have been interesting to examine differences in club drug use among participants recruited across the different venue types and to explore whether use of club drugs was more prevalent in certain types of venues. For instance, Fendrich et al. (2003) reported that 48% of participants had last used club drugs at either a friend's or their own home. Unfortunately, the sampling plan for this study entailed recruitment outside the venues, thus limiting our ability to explore this question. Future research should address these issues.

In our multivariate model we found a significant association between having a high score on the language preference scale and lifetime club drug use. Higher scores on this scale represent preference for the English language and lower scores denote preference for Spanish. As others have done, we used this score as a proxy measure for acculturation. However, this association must be interpreted with caution because this sample was recruited as part of the intervention development phase of a study designed to promote HIV testing. Consequently, we have a limited number of independent variables that we could include in the multivariate analyses.

Also of concern are the high rates of unprotected anal sex and number of sex partners reported by the men in our sample. The mean number of sex partners was higher among club drug users than among those who did not use club drugs. Even more concerning is

that a significant proportion of men in both groups reported four or more partners in the last 12 months. Although no statistically significant differences in rates of unprotected anal sex emerged between men who used club drugs and those who did not, almost 35% of the sample had unprotected anal sex in the last 3 months and 21.4% had been diagnosed with a sexually transmitted infection. These findings suggest the need to develop tailored interventions to reduce sexual risk behaviors among both club drug using and nonclub drug using Hispanic MSM.

Even though our study is cross-sectional and descriptive, several recommendations for future studies emerged. First, there is a pressing need for the standardization of measurement tools and operational definition of club drugs used by researchers. This would not only facilitate comparisons across the different studies, but, it would also provide a more uniform approach for observing and tracking patterns of use across different populations and metropolitan areas. It would also assist with development of preventive interventions and treatment options. Second, quantitative and qualitative studies that more comprehensively examine the connection between drug use and risky sex among Hispanic MSM and the contextual factors associated with these behaviors are needed. Last, culturally sensitive interventions to assist Hispanic MSM to reduce their drug use and risky sexual practices need to be developed and tested.

To summarize, in this paper we report on a community sample of Hispanic MSM who live in an AIDS epicenter. Frequency of club drug use, having sex under the influence of club drugs, rates of unprotected anal sex, and the number of multiple sexual partnerships in the sample are alarmingly high. By describing these behaviors, our study is a first step towards understanding the connection between drug use and risky sexual practices within this understudied population.

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RÉSUMÉ

Cette étude a mesuré l'utilisation des drogues de club parmi 262 hommes hispaniques qui ont le sexe avec les hommes recrutés sur les lieus communautaire dans le comté de Miami-Dade, Floride en 2001. Plus de 50% des hommes a utilisé des drogues de club, et 36% les a utilisées dans les trois derniers mois. Les taux de durée de vie et de 3 mois étaient : extase (36% et 20%), cocaïne (34% et 12%), nitrates amyliques (28% et 9%) et methamphetamine en cristal (20% et 15%). Trente-six pourcent avaient utilisé 2 drogues ou plus (utilisation de pole-drogue) dans leur vie et 20% ont rapporté l'utilisation de pole-drogue dans les 3 derniers mois. Les utilisateurs de drogue de club ont eu significativement plus de partenaires de sexe dans les 12 derniers mois que des utilisateurs de drogues de non-club. Les taux élevés (35%) de sexe anal non protégé dans les 3 derniers mois ont été rapportés par les deux groupes. Le pourcentage d'hommes qui ont reporté avoir fait le sexe sur l'influence de drogues était plus élevé parmi les hommes qui utilisent pole-drogue dans les trois derniers mois que les hommes qui ont utilisé une simple drogue de club (83% Vs. 57%; X^2 7.4, p = 006). En analyse multivariable, une association significative entre la préférence pour l'utilisation de l'anglais et l'usage de drogue de club dans une durée de vie a émergé. Les interventions efficaces sont nécessaires pour réduire l'utilisation de

drogue de club et le sexe risqué pour les hommes hispaniques qui ont le sexe avec des hommes.

RESUMEN

Este estudio examinó el uso de drogas de clubes entre 262 hombres hispanos que tienen sexo con otros hombres (hsh), que reclutamos en lugares frecuentados publicos en el condado de Miami-Dade, Florida en el 2001. Mas del 50% de los hombres usaron drogas de clubes, y el 36% las usó en los últimos tres meses. El índice de uso de drogas durante la vida y durante los últimos tres meses son los siguientes : ecstasy (36 y 20%), cocaína (34 y 12%) ; nitratos de amil (28 y 9%) y metanfetamina crystal (20 y 15%). Treinta y seis por ciento habían usado 2 o más drogas (uso de poli-drogas) a lo largo de sus vidas y 20% reportaron usar 2 o más drogas en los últimos 3 meses. Los hombres que usaban drogas de clubes tuvieron más parejas sexuales en los últimos 12 meses que los que no usaban drogas de clubes. Ambos grupos reportaron altos índices (35%) de sexo anal sin protección en los últimos 3 meses. El porcentaje de hombres que reportaron tener sexo bajo la influencia de drogas fue mas alto entre los hombres que usaron poli-drogas en los últimos 3 meses que entre los hombres que usaron solamente una droga de clubes (83% vs 57%; $X^2 = 7.4$, $p = .006$). En analices multivariable, hallamos una asociación significativa entre la preferencia del inglés y el haber usado drogas clubes durante la vida. Se necesitan intervenciones efectivas para reducir el uso de drogas de clubes y de sexo con riesgo para los hombres hispanos que tienen sexo con otros hombres.

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