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## Surfing New Territory: Club-Drug Use and Risky Sex Among Hispanic Men Who Have Sex with Men Recruited on the Internet

M. Isabel Fernández, Tatiana Perrino, Jose B. Collazo, Leah M. Varga, David Marsh, Nilda Hernandez, Alfredo Rehbein, and G. Stephen Bowen

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**ABSTRACT** *The Internet presents unique and growing opportunities for conducting HIV/STD research. This article reports on the first 171 participants enrolled in an ongoing study examining use of the Internet to recruit Hispanic men who have sex with men (HMSM) living in an AIDS epicenter to participate in community-based studies. First, it describes initial success with chatroom recruitment. Second, it compares the demographic, psychosocial, and sexual risk practices among HMSM recruited through the Internet who had used club drugs in the last 6 months and those who had not. In 2 months, 211 hours were spent recruiting in chatrooms; 735 chatroom users were engaged. Researchers used a scripted dialogue to describe the study and to invite chatroom users to visit the study's community sites for screening and enrollment. One hundred and seventy-six men came to the community sites; 172 (98%) were eligible and completed an audio-computer assisted self-interview. In the last 6 months, 48.5% of the sample had used club drugs [defined as cocaine, crystal methamphetamines (crystal), amyl nitrites (poppers), Ecstasy, gamma-hydroxybutyrate (GHB), ketamine (Special K), and Viagra]. The proportion of men reporting use of each drug was: cocaine (15.8%), crystal (11.7%), poppers (31.6%), Ecstasy (14%), GHB (3.5%), Special K (3.5%), and Viagra (19.3%). In multivariate analyses, having higher number of sex partners, having higher social isolation scores, and having engaged in unprotected receptive anal intercourse were significantly associated with club-drug use. These initial findings suggest that high-risk HMSM can be successfully recruited through chatroom dialogues to participate in community-based HIV studies. The alarmingly high rates of club-drug use and risky sexual practices among HMSM underscore the need for effective HIV preventive interventions for this population.*

**KEYWORDS** *Club drugs, Hispanic MSM, Internet, Sexual risk behavior.*

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### INTRODUCTION

For many men who have sex with men (MSM), the Internet has become the “new erotic oasis”<sup>1</sup> through which they screen potential sex partners and set up sexual encounters. There is growing evidence that seeking sex partners through the Internet is increasing men’s risk for acquiring sexually transmitted infections (STI) including HIV, particularly

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Dr. Fernández, Dr. Perrino, Mr. Collazo, Ms. Varga, Mr. Marsh, Ms. Hernandez, Mr. Rehbein, and Dr. Bowen are with the Department of Epidemiology and Public Health, University of Miami School of Medicine, Miami, Florida.

Correspondence: M. Isabel Fernández, PhD, Associate Professor and Director, Behavioral Health Promotion Program (D-93), Department of Epidemiology and Public Health, University of Miami School of Medicine, PO Box 016069, Miami, FL 33101. (E-mail: isa@miami.edu)

in areas with high HIV prevalence such as South Florida. Significant associations between Internet sex seeking and high-risk sex have been reported.<sup>2-8</sup> There is direct evidence linking a syphilis outbreak,<sup>9</sup> and two cases of acute HIV infection<sup>10</sup> to sex partners identified through the Internet. Despite the dramatic increase in use of club drugs (drugs such as Ecstasy and crystal methamphetamine called that because of their association with the club scene) among MSM that have been reported in the last few years and the connection between club-drug use and risky sexual practices,<sup>11-17</sup> few researchers have examined use of club drugs and risky sex among Hispanic MSM (HMSM) who use the Internet and live in the AIDS epicenter of Miami-Dade County, Florida.

The Internet has unique potential and growing opportunities for HIV-prevention research.<sup>18-20</sup> Increasingly, researchers are examining its use as a medium for data collection and intervention delivery.<sup>1,19,21,22</sup> The Internet can also be a powerful recruitment tool for prevention studies. Its potential for reaching a large volume of users from diverse ethnic backgrounds makes it an ideal vehicle for describing a study, generating interest, and even screening a large number of potential participants efficiently and cost-effectively. More importantly, the Internet can also facilitate recruitment of understudied, at-risk groups, such as HMSM who use club drugs and have risky sex. The relative anonymity and protection from disclosure offered by the Internet are features that may make it easier to recruit participants who would otherwise be hard to reach or reluctant to respond to traditional recruitment strategies (i.e., face-to-face).

This article reports on the first 171 participants enrolled in an ongoing study examining use of the Internet to recruit at-risk HMSM living in Miami-Dade County, Florida. First, it describes initial success with chatroom recruitment. Second, it compares the demographic, psychosocial, and sexual-risk practices among HMSM who have used club drugs in the last 6 months with those who have not. Miami-Dade, where 56% of the population is Hispanic, has consistently been ranked among the top four US metropolitan areas in the number of AIDS cases reported and first in the State of Florida in both AIDS and HIV cases reported through June 2004.<sup>23</sup> MSM comprise the majority of AIDS or HIV cases among Hispanics in the county.<sup>24</sup>

## **METHODS**

### **Participants**

From October 15 to December 19, 2003, 171 Hispanic men who met the following eligibility criteria were recruited from select Internet chatrooms (1) self-identified as being Hispanic or Latino, (2) had sex with a man in the last 5 years, (3) were 18 years of age or older, (4) resided in South Florida, (5) were directly approached by staff on the Internet, and (6) visited one of two community-assessment sites for screening and enrollment. These men were recruited during the first "Internet cycle" of an ongoing study that compares the effectiveness and cost of Internet versus face-to-face strategies for recruiting HMSM who use drugs and have risky sex to participate in research studies. Recruitment approaches are being implemented sequentially in 4-month cycles, alternating between methods. Each cycle consists of 2 months of "active" recruitment (when recruitment is conducted) followed by 2 months of "passive" recruitment (when no recruitment is done). This article reports data from the first Internet cycle.

### **Sampling and Recruitment**

Time and space sampling procedures<sup>25,26</sup> were adapted for use in Internet chatrooms.<sup>27</sup> Internet venues were randomly selected from a list of potential Internet

venues that cater to HMSM developed in consultation with community representatives. For each venue, “peak” and “off-peak” periods were specified by logging the number of chatroom users at selected venues during different times of the day/night and days of the week. Sampling events (days and blocks of time when recruitment occurred) were randomly selected from these periods monthly. Following this monthly schedule of sampling events, experienced male researchers entered the selected Internet venue by using Institutional Review Board–approved screen names, profiles, and three-dimensional nonhuman images. Using systematic sampling methods, staff approached every fifth screen name posted and initiated a dialogue following a script consisting of five steps: (1) introduction; (2) preliminary screen; (3) consent to proceed; (4) study description; and (5) procedures for enrollment.<sup>27</sup> Interested chatroom users were referred to the project website and invited to visit either of two community sites for screening and enrollment. For each chatroom user engaged in an active dialogue, researchers recorded the screen name; time of interaction; chatroom; screen name used by researcher; who initiated the approach (investigator or chatroom user); whether the chatroom user visited the project website while chatting; and general comments (e.g., “not Hispanic,” or “not interested”). As a protocol adherence and quality assurance check, every 20th chat was copied as a Microsoft® Word document, stored in a locked, password protected electronic folder, and reviewed by the project director.

### **Procedures**

Chatroom users who subsequently presented themselves at the community sites were screened for eligibility and, if eligible, they were invited to participate after a full explanation of the study procedures. After providing informed consent, participants completed an audio computer-assisted self-interview (ACASI) which lasted between 60 minutes and 90 minutes. Men were given \$50 as compensation. The protocol was approved by the IRB at the University of Miami on July 24, 2003.

### **Assessments**

Social isolation, homophobia, racial/ethnic discrimination, and sexual behavior were assessed with instruments developed specifically for HMSM by Diaz et al.<sup>28</sup> The gay identification and alcohol- and drug-use scales were adapted from those used by Stall et al.<sup>29</sup> The following factors were assessed:

*Demographic Factors* Participants reported their age, education level, monthly income, place of birth, and how long they had resided in the United States.

*HIV Status* Participants stated whether or not they had been tested for HIV. Those who had been tested were asked to report their test results.

*Child Sexual Abuse* Participants were asked whether or not they had been forced to have unwanted sexual activity before the age of 16.

*History of Suicide Attempts* Participants were asked whether or not they had ever attempted to take their own life.

*Identification and Attachment to Gay Community* Identification and attachment to gay community was assessed with a three-item scale ( $\alpha = .77$ ). Using a five-point

scale ranging from “do not agree at all” to “strongly agree,” participants rated how strongly they agreed with the following statements: (1) it is important to have some of my friends be gay or bisexual; (2) being gay makes one feel part of a community; and (3) being attracted to men is important to one’s sense of self.

*Social Isolation* Social isolation was assessed by a four-item scale ( $\alpha = .91$ ). Using a five-point scale ranging from “never” to “always,” participants reported how often they had no one to turn to, lacked companionship, felt alone, or felt left out.

*Homophobia* Homophobia was measured by an 11-item scale ( $\alpha = .79$ ) that used four points (“never” to “many times”) to assess how often a respondent had been the subject of discrimination based on his sexual orientation. For instance, participants reported the number of times they have been made fun of, beaten up, called names, or had to move away because of their homosexuality.

*Racial/Ethnic Discrimination* Racial/ethnic discrimination was measured by a 10-item scale ( $\alpha = .77$ ) that used four points (“never” to “always”) to assess how often a respondent had been the subject of racial discrimination. For example, the participant was asked whether or not he had ever been made fun of, beaten up, called names, or harassed by the police because of his race/ethnicity.

*Sexual Behavior in the Last 6 Months* Participants reported their number of male sex partners, whether or not they engaged in insertive anal sex and/or receptive anal sex, and the frequency with which they had used a condom for each type of sex act.

*Alcohol and Drug Use in the Last 6 Months* Participants reported their use of alcohol and the frequency of such use. They were asked whether or not they had used each of the following drugs and the frequency of use: marijuana, cocaine, crystal methamphetamines (crystal), amphetamines, amyl nitrites (poppers), Ecstasy, gamma-hydroxybutyrate (GHB), ketamine (Special K), and Viagra.

*Recruitment Variables* The number of hours spent in chatrooms and the number of chatroom users engaged in dialogue were calculated from the research logs. Screening logs were used to enumerate the number of eligible men who enrolled in the study and completed the ACASI.

*Dependent Variable* The dependent variable was club-drug use in the last 6 months. To reflect local patterns of use,<sup>27,30</sup> we included the following drugs in the operational definition of club drugs: cocaine, Ecstasy, crystal, poppers, GHB, Special K, and Viagra. Eighty-three men (48.5%) had used club drugs in the last 6 months.

*Analyses Plan* Descriptive statistics were used to tabulate the sample demographics. Univariate logistic regression was used to examine the relationship between each theoretically relevant variable and the dependent variable. Following the recommendations of Hosmer and Lemeshow<sup>31</sup> and others,<sup>32</sup> variables with *P* values of .25 or lower in the univariate analyses were included as candidate predictors in the multivariate analysis because use of more traditional significance values (i.e., .05) might fail to identify important relationships.

## RESULTS

### Recruitment Variables

In the first Internet cycle, staff spent 211 hours in chatroom dialogue with 735 chatroom users. One hundred and seventy-six chatroom users later presented themselves at the community sites; 172 (98%) were eligible and enrolled in the study. One participant did not follow the ACASI instructions and his data were lost; therefore, information below is based on a sample of 171.

### Sample Characteristics

The average age of participants was 32.1 years ( $SD=6.5$ , range 19–46). Eighty-nine percent were born outside the United States, and 50% of the foreign born had been in the United States less than 5 years. Approximately 42% had at least a college degree, and 53% were employed full-time. Nearly half of the sample (47.4%) earned \$1,500 or less per month. Nineteen percent reported having been sexually abused as a child, and 16.4% had attempted to commit suicide at some point in their life. The majority (88.3%) of men had been tested for HIV, and 22.5% of those tested stated they were HIV seropositive. The mean score for gay identification was 11.04 ( $SD=3.60$ , range 3–15); for social isolation it was 9.54 ( $SD=3.82$ , range 4–20); for homophobia it was 21.8 ( $SD=5.7$ , range 11–41); and for racial/ethnic discrimination it was 13.1 ( $SD=3.61$ , range 10–33). Higher scores reflect more gay identification, more social isolation, more homophobia, and more racial/ethnic discrimination.

Participants had a mean of 13.3 ( $SD=29.2$ , range 1–300) sex partners and a median of five partners in the last 6 months; 45.6% had six or more sex partners in the same period. Seventy-nine percent (135/171) reported having had insertive anal sex in the past 6 months. Among those who reported insertive anal sex, 56.3% (76/135) always used condoms, and 43.7% (59/135) never used condoms or used them inconsistently. Sixty-eight percent (117/171) reported having had receptive anal sex in the last 6 months. Among those who reported receptive anal sex, 54.7% (64/117) always used condoms, and 45.3% (53/117) never used condoms or used them inconsistently. Fifty-nine percent of the sample had used alcohol, and 40.4% had used marijuana in the last 6 months. Forty-nine percent (84/171) reported using at least one club drug. Among club-drug users, 51.1% (43/84) used two or more club drugs, and 25.3% (21/84) used three or more club drugs in combinations. The proportion of men reporting use of each drug was: cocaine (15.8%), crystal (11.7%), poppers (31.6%), Ecstasy (14%), Viagra (19.3%), Special K (5.3%), GHB (3.5%), and other amphetamines (3.5%).

### Univariate Analyses

Table 1 summarizes the univariate analyses comparing participants who had used at least one club drug in the last 6 months with those who had not. Club-drug use was positively associated with residing for more years in the United States, higher social isolation scores, having attempted suicide, being HIV positive, having unprotected receptive anal sex in the last 6 months, and having more sex partners in the last 6 months.

### Multivariate Analyses

Table 2 summarizes the multivariate analyses comparing respondents who had used at least one club drug in the last 6 months with those who had not. Higher-social-isolation scores, more male sex partners, and engaging in unprotected receptive anal

**TABLE 1. Univariate comparisons of club drug use by demographic, psychosocial, and sexual behavior**

Variable	Odds ratio	95% CI	<i>P</i>
Age	0.99	0.95–1.04	.736
Education			
College degree or more	1.30	0.60–2.83	.508
Some college/vocational	0.95	0.42–2.14	.898
High school or less (reference)			
Monthly income			
\$1,500+	1.50	0.82–2.75	.157
≤\$1,500 (reference)	1.50	0.82–2.75	.157
Years in the United States			
Psychosocial			
Gay identification	0.98	0.90–1.07	.642
Social isolation	1.16	1.07–1.26	.001
Homophobia	1.05	0.99–1.11	.092
Racial discrimination	1.06	0.97–1.16	.169
History of suicide attempts (Yes)	2.61	1.10–6.15	.029
History of child sexual abuse (Yes)	1.57	0.73–3.38	.250
Sexual risk			
HIV status (positive)	3.17	1.40–7.14	.005
Insertive anal intercourse			
Unprotected	2.10	0.91–4.88	.084
Protected	0.82	0.37–1.82	.618
No sex (reference)			
Receptive anal intercourse			
Unprotected	5.03	2.21–11.43	.000
Protected	2.23	1.04–4.78	.039
No sex (reference)			
Number of male sexual partners	1.07	1.03–1.10	.000

intercourse in the last 6 months were positively associated with club-drug use. Higher-social-isolation scores and more sex partners translated into increasingly higher odds of having used club drugs in the last 6 months. For every one point increase in the social isolation score, the odds that a participant with a higher score used at least one club drug increased by 12% (OR=1.12) when compared to a participant with a lower score. With every additional partner, the odds that a participant with more partners used club drugs increased 5% (OR=1.05) when compared to a participant with less partners. Participants who engaged in unprotected receptive anal intercourse were 2.73 times more likely to have used club drugs compared to participants who had not engaged in any receptive anal intercourse in the last 6 months.

## DISCUSSION

One of the most important aspects of this study is that, although participants were recruited over the Internet, data were actually collected elsewhere. Unlike other studies that recruited chatroom users to complete surveys online,<sup>1,22,33</sup> the participants in this study had to make the effort of presenting themselves for screening,

**TABLE 2. Multivariate model of club drug use by demographic, psychosocial, and sexual behavior**

Variable	Odds ratio	95% CI	P
<b>Demographic</b>			
Monthly income			
\$1,501+	1.54	0.75–3.17	.237
≤\$1,500 (reference)			
Years in the United States	1.03	0.99–1.07	.148
<b>Psychosocial</b>			
Social isolation	1.12	1.00–1.25	.045
Homophobia	0.97	0.89–1.05	.483
Racial discrimination	1.00	0.89–1.14	.962
History of suicide attempts (Yes)	1.32	0.46–3.76	.607
History of child sexual abuse (Yes)	1.06	0.41–2.75	.909
<b>Sexual risk</b>			
HIV status (positive)	2.28	0.90–5.74	.082
<b>Insertive anal intercourse</b>			
Unprotected	1.48	0.53–4.13	.450
Protected	0.98	0.39–2.42	.959
No sex (reference)			
<b>Receptive anal intercourse</b>			
Unprotected	2.73	1.04–7.18	.042
Protected	2.14	.88–5.19	.092
No sex (reference)			
Number of male sexual partners	1.05	1.01–1.09	.014
<b>Model summary statistics</b>			
Chi-square		45.47	
Degrees of freedom		13	
Percentage classified correctly		67.8	

enrollment, and data collection at the community sites. Not only did a large number of men (n = 176) come to the community sites, but the majority who did (98%) met the eligibility criteria. These findings suggest that chatroom dialogues have high potential as effective forums for describing research studies and generating interest in participating among chatroom users. They were also found to be an efficient means for initial screening of potential participants.

Given the high prevalence of HIV infection among HMSM in South Florida,<sup>24</sup> the rates of club-drug use and risky sexual behavior reported in this sample are alarmingly high. Almost 49% of the participants had used club drugs in the last 6 months. Furthermore, the proportion of participants reporting use of poppers (31.6%), cocaine (25.8%), crystal (11.7%), Ecstasy (14%), and Viagra (19.3%) correspond to those reported in the Urban Men’s Health Study.<sup>29</sup> The majority of men reported multiple sex partners; 45.6% had 6 or more sex partners in the last 6 months. In addition, a high proportion of men had engaged in unprotected insertive anal sex and/or unprotected receptive anal sex in the same time period. These figures are even more concerning given the high proportion of participants (44%) who were recent immigrants to the United States, especially since studies of other populations indicate that risk behaviors increase as the number of years residing in

this country increases.<sup>34</sup> These findings underscore the need for targeted prevention interventions for this population.

In multivariate analyses, higher-social-isolation scores, more sex partners, and having had unprotected receptive anal sex were significantly associated with club-drug use. The model supports the association between club-drug use and risky sexual practices that has been previously reported among general samples of MSM.<sup>4,13,14</sup> Social isolation was the only psychological factor that remained significant in the multivariate model. Although a significant association between social isolation and sexual risk behaviors among HMSM has been previously reported,<sup>35</sup> few studies have examined club-drug use and its association with sexual risk and social isolation in this population. Although the cross-sectional nature of these data limits further interpretation, it could be that HMSM use club drugs as a way of self-medicating or coping with the negative feelings of social isolation. Similarly, these men may have multiple sexual relationships in a search for social connectedness and companionship, but such sexual encounters often fail to fulfill emotional needs. Furthermore, there is evidence suggesting that heavy use of the Internet may weaken social connections which in turn could lead to increased feelings of social isolation and depression.<sup>36,37</sup> These men may be seeking sexual partners and using club drugs to help alleviate these feelings.

The lack of association between club-drug use, homophobia and racial discrimination merits discussion. Given that this study is based on participants from the first Internet cycle, it may be that power was not sufficient to detect associations among the other factors. Alternatively, it could be attributed to the unique experience of living in Miami-Dade County, Florida where more than 56% of the population is Hispanic,<sup>38</sup> and there is a large gay community. Furthermore, Hispanics hold leadership positions in business, government and other sectors. As suggested by the low scores on racial/ethnic discrimination in the sample, the context of Miami Dade itself could have helped to attenuate perceptions of discrimination and homophobia.

These findings suggest that the Internet has the potential to be an effective tool for recruiting HMSM for research studies. The alarmingly high rates of club-drug use and risky sexual practices and the multivariate association between risky sexual behavior and club-drug use among HMSM in this study underscore the need for effective HIV-preventive interventions for this understudied population.

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