Published in final edited form as:

J Drug Issues. 2010 March ; 40(2): 405–432.

GENDER, SEXUALITY, AND ETHNICITY AS FACTORS OF CLUB DRUG USE AMONG ASIAN AMERICANS

A. Fazio^a, K. Joe-Laidler^b, M. Moloney^a, and G. Hunt^a

K. Joe-Laidler: kjoel@hkucc.hku.hk; G. Hunt: huntgisa@ix.netcom.com

^a Institute for Scientific Analysis, 1150 Ballena Blvd, #211, Alameda, CA. 94501., Tel: 510 865 6225

^b Department of Sociology, University of Hong Kong, Pok Fu Lam Road, Hong Kong, Hong Kong, SAR, China

Abstract

This article examines the relationship between substance use and gender, sexuality, ethnicity, and nativity among 250 Asian American youths involved in the dance club/rave scene. We find distinct patterns of drug use differing by country of origin and ethnicity. However, contrary to some literature we do not find significant differences corresponding to immigration status, or number of years in the U.S. The most significant differences between subgroups are related to gender and sexuality: male respondents consume more drugs, more frequently than female respondents, and non-heterosexual respondents consume more than heterosexual respondents, with differing patterns for men's and women's sexual subgroups. There were also significant gender and sexuality differences with respect to the contexts in which respondents consume drugs, with the most significant differences being between heterosexual and non-heterosexual men. As we discuss, these findings illustrate the need for further investigation of drug use patterns of gender and sexuality within Asian American communities.

Introduction

Asian Americans represent one of the fastest growing ethnic groups in the U.S. While in 1960 they represented less than one percent of the total U.S. population (U.S. Census Bureau, 2002), today they account for 15.5 million (or 5.1%) of the nation's population of 304 million people and are expected to grow to 9.2% percent of the population by 2050 (U.S. Census Bureau, 2008). Despite the growing presence of Asian Americans within the U.S., available research on Asian American drug use is relatively limited compared with that of other major ethnic groups (Strada & Donohue, 2006).

One of the primary reasons for the absence of Asian Americans in drug scholarship has been the belief that drug use among Asian Americans does not constitute a major problem. A few national surveys have found for Asian Americans "much lower overall use prevalence rates than most other ethnic/racial groups" (Austin, 1999, p. 208; See also Collins, Ellickson, & Bell, 1999; Neumark-Sztainer, Story, French, & Cassuto, 1996). Yet recent research challenges assumptions about the prevalence and nature of drug use among Asian Americans, and dispels the broader myths of Asian Americans as the "model minority" (Joe Laidler, 2006; Kibria, 1998; Lee, 1996). Instead, studies, especially those drawing from local populations, indicate that substance use is increasing within Asian American communities, particularly among youth (Harachi, Catalano, Kim, & Choi, 2001; Nemoto et

al., 1999; Nemoto, Operario, & Soma, 2002; O'Hare & Tran, 1998; So & Wong, 2006; Zane & Huh-Kim, 1994). Recent efforts have emphasized the need to examine Asian American drug use by different categories of illicit drugs (Austin, 1999; Harachi et al., 2001; Hunt, Evans, Wu, Reyes, 2005; Hunt, Joe, & Waldorf, 1997; Skager & Austin, 1993). For certain substances, including hallucinogens, LSD, and other stimulants, Asian Americans report higher annual rates of use than African Americans and Latinos (Johnston, O'Malley, & Bachman, 2002; SAMHSA, 2007; Wallace et al., 2003; Yacoubian & Urbach, 2004).

Moreover, the emergence of the club drug scene across the United States has created distinctive drug cultures and markets within particular ethnic communities that have extended beyond the conventions of the dance setting, which club drugs were initially associated with (Ompad, Galea, Fuller, Edwards, & Vlahov, 2005). For example, research suggests that the ethnic composition of ecstasy users is changing and geographically specific (Schensul, Convey, & Burkholder, 2005). Boyd, McCaben, and d'Arcy (2003) found Asian Americans to be more likely than whites and African Americans to use ecstasy in the past year. Beyond this, however, few local cross-sectional studies have examined Asian Americans and club drugs (for an exception see Yang & Solis, 2002), and even fewer have focused on the patterns and meanings of drug use within the context of the dance scene, despite evidence of a growing community of Asian American drug-users within the dance scene (Hunt et al., 2005; Moloney, Hunt & Evans, 2008).

Another problem contributing to the "invisibility" of drug use among Asian Americans in national studies rests in the tendency to either omit mention of Asian Americans entirely, or lump Asian Americans into a broader and generally unstudied category of "other" (Ja & Aoki, 1993, p. 61; Kibria, 2000; Ono, 2005; Vö & Bonus, 2002). Furthermore, Asian Americans have often been treated as a homogenous grouping, when in fact substantial and significant cultural and social differences exist (Austin, 1999; Harachi et al., 2001; Ja & Aoki, 1993; Jang, 1996). Although much drug research has been unable to make relevant comparisons due to limited sample sizes or to samples that primarily compose one group, it is becoming clear from available data that there are some possible key differences relevant to drug use among ethnic groups of the broader Asian American population, particularly in relation to prevalence, ethnicity/country of origin, immigration status and generation, gender, and sexual orientation.

The prevalence of drug use, according to the National Survey on Drug Use and Health (NSDUH), varies greatly among Asian American subgroups. Reported lifetime use for any illicit drug ranges from 16.5% for South Asian Indians to 43.5% for Japanese (SAMHSA, 2006). Prevalence also varies by age group.

Although Japanese Americans have one of the highest rates of any illicit drug use of all Asian American ethnic groups, 12–17 year-old Japanese Americans have the lowest prevalence when compared with other Asian American adolescent subgroups. Among young adults, Koreans, Vietnamese and Filipinos generally have the highest prevalence rates of drug use and Chinese have one of the lowest (SAMHSA, 2006; see also Price, Risk, Wong, & Klingle, 2002). Local studies also highlight the importance of young Asian American subgroup variations (Austin, 1999; Harachi et al., 2001; Otsuki, 2003; Sasao, 1992; Wong, Klingle, & Price, 2004). Nemoto and colleagues' (1999 & 2000) studies of Asian American drug users in San Francisco found key differences with Filipinos more likely to report heroin or methamphetamine use than Vietnamese and Chinese Americans. Filipinos and Chinese were also more likely to report poly-drug use than Vietnamese. From this literature we are beginning to see significant differences between Asian ethnic groups, however, the reasons for those differences or the meanings and contexts of drug use among Asian American youth remains unclear.

Available studies also indicate the importance of nativity in understanding drug use differences among Asian American subgroups. Asian American immigrants undergo significant acculturative stresses, which may lead to emotional and family problems, loss of supportive networks, mental health disorders, or substance abuse (Amodeo, Robb, Peou, & Tran, 1997; Bhattacharya, 2004 & 2005; D'Avanzo, 1997; O'Hare & Tran, 1998; Takaki, 1989; Yee & Thu, 1987; Ying, Han, & Wong, 2008; Zane & Huh-Kim, 1994). Although it has been acknowledged that acculturation is an important issue to consider when looking at ethnic group differences (Kim, Coletti, Williams, & Hepler, 1995), especially in the case of Asian Americans who have a more recent history of immigration, researchers do not agree on the precise nature of how immigration and acculturation affect drug use. While some researchers suggest that groups who have higher levels of acculturation also have higher prevalence rates of drug use, others claim that the reverse is true (see for example, Austin, 1999 and Price et al., 2002). Most recently, Wong and colleagues (2007) found that U.S. born Cambodians and Laotians were more likely than their immigrant counterparts to use alcohol or drugs. However, foreign-born Vietnamese were more likely than their U.S. born counterparts to consume drugs.

Although drug scholarship has demonstrated the importance of gender and sexual identity in drug use, this is an area in which little is known in relation to Asian American groups. A few prevalence studies of student populations have identified gender differences. For example, Wallace and colleagues (2003) found a higher prevalence of alcohol, tobacco, and illicit drug use among Asian American male students than among their female counterparts. Otsuki (2003) reported that Asian American female students' alcohol, tobacco and drug use was related to higher levels of depression and lower levels of self-esteem than their male counterparts. Hahm and colleagues (2008) are among the few who have looked at sexual orientation and drug use, and suggest that this link is not emergent until young adulthood; sexual minority men were found to be more likely than heterosexual men to be users of marijuana and other illicit drugs, and sexual minority women were more likely than heterosexual women to be users of alcohol, tobacco, marijuana, and other illicit drugs (Hahm, Wong, Huang, Ozonoff, & Lee, 2008). However, in general, research on non-heterosexual Asian Americans is limited in its scope, particularly as it relates to lesbian and bisexual women. To date, the focus, albeit limited, has been exclusively on Asian American men (see e.g. Choi, Han, Hudes, & Kegeles, 2002; Choi et al., 2005; Nemoto et al., 2003; Operario et al., 2006).

Given these research gaps, this article reports on and analyzes key differences within subpopulations of Asian Americans. Specifically we examine the drug use patterns of a diverse sample of young Asian American men and women in the dance scene and differences in their use with respect to ethnicity, immigration status/generation, gender, and sexual orientation. Within this heterogeneous group of young people, we find distinct patterns of drug use, differing by country of origin/ethnicity. Contrary to some literature, though, we do not find significant differences corresponding to immigration status, number of years in the U.S., or American-born compared to foreign-born status. The most significant differences are related to gender and sexual orientation with men consuming more drugs, more frequently than women, and with non-heterosexual respondents consuming more than heterosexual respondents, albeit with differing patterns for men's sexual groups compared to women's. As we discuss, these findings illustrate the need for further investigation of drug use patterns of gender and sexual orientation within Asian American communities.

Methods

The data for this analysis are drawn from our study on drug use among Asian American youth in the San Francisco Bay Area electronic music dance scene, in which in-depth face-

to-face interviews were conducted with 250 respondents between April 2005 and August 2007. All potential respondents were screened and included if they had used at least one of the six National Institute on Drug Abuse (NIDA) defined club drugs (ecstasy, LSD, methamphetamine, GHB, ketamine, Rohypnol) or mushrooms and were involved in the electronic music dance scene in the San Francisco Bay Area. Involvement in the scene was defined as attending dance events such as clubs, raves, and warehouse parties. We interviewed people with a wide range of experiences with club drugs, from those who were 'new users,' to those who were frequent users, and to those who had used in the past but were not currently using. Our analysis focuses on patterns of use within subgroups of young Asian American drug users rather than prevalence rates. All instruments and recruitment/screening procedures for this project were approved by our Institutional Review Board.

Initial respondents were recruited using several methods, including advertisements, and through contacts of the project staff. Flyers were placed in local record/music stores as well as handed out at dance events. Announcements were posted on web sites and with local Asian American interest groups, for example college fraternities, sororities and clubs. The flyers explained the structure and length of the interview, emphasized the academic nature of the research as well as the confidentiality of the interview itself, and told the potential participant that he/she would be compensated \$50 for his/her time. It emphasized that we were interviewing young men and women, ages 14–35, of all Asian ethnic backgrounds, and asked that potential respondents have some experience with drugs and the dance scene in the San Francisco Bay Area. Given the paucity of research in this area, our main objective in sampling was to generate a diverse sample of Asian Americans involved in the dance scene with diversity in the types of clubs and venues frequented, the variety of dance and music styles preferred, level of involvement in the scenes, and the degree of experience with club drugs.

After establishing a group of initial respondents, or seeds, we employed respondent-driven sampling (RDS) techniques to generate our sample. While chain-referral sampling has long been a component of targeted sampling approaches (Carlson, Wang, Siegal, Falck, & Guo, 1994; Watters & Biernacki, 1989) and can allow access to respondents who may not be accessible via direct recruitment, it has been criticized for its tendency to produce a biased sample. In recent years the approach to this sampling method has become increasingly sophisticated with the development of respondent-driven sampling (RDS) techniques (Heckathorn, 1997, 2002; Ramirez-Valles, Heckathorn, Vázquez, Diaz, & Campbell, 2005; Wang et al., 2005). RDS is a refinement of chain-referral methods, designed to decrease the selection biases inherent in a simple snowball sampling approach. Procedures that facilitate the decrease in this bias include limiting the number of referrals an individual member can provide--to reduce the influence of any one member or of initial seed selection--as well as providing an incentive for referrals to reduce the bias of volunteerism and in order to encourage long chains of referrals which, when reaching sufficient length, can be thought of as somewhat independent of initial seed biases.

The interviews, conducted by the project manager and four trained interviewers, consisted of a semi-structured qualitative interview, a pre-coded socio-demographic data form, and an extensive quantitative drug-use matrix. The drug-use matrix was designed to collect data concerning the respondents' initiation to drug use, rates of and changes in drug use, methods of administration, drug-use contexts and settings, and the people with whom drugs were used. Respondents were asked the same series of questions for each of the drugs that they had used in their lifetimes. Following the quantitative portion of the drug section, respondents were asked to elaborate on their drug-using experiences, particularly their experiences using ecstasy and other club drugs. Although respondents may have difficulty estimating past and present drug-use rates, our interview design and screening policies are

structured to minimize this problem. Given the fact that all respondents completed both the quantitative and qualitative questionnaires, interviewers had an opportunity to identify inconsistencies during the interview.

All interviews were conducted in one of our offices or in the homes of the respondents, whichever was most convenient for the respondent. Interviews typically lasted two-and-a-half to three hours and were conducted in English. Prior to participating in the research, respondents signed a consent form and were informed of the researcher's certificate of confidentiality. Respondents received a US\$50 honorarium for their participation, and received an additional US\$15 honorarium for each friend they referred to the project who successfully completed an interview.

In addition to conducting 250 interviews with Asian American youths involved in the dance scene, we performed extensive mapping of the San Francisco Bay Area dance scene. We identified 126 individual venues at which a total of 475 club events take place. Of those 475 club events, 61 catered specifically to Asian Americans. There were relatively few events which catered to Asian Americans of a particular ethnicity; rather, most Asian club events attracted a diverse, primarily Asian clientele. Among these, we identified a number of events that cater specifically to the Asian American gay and lesbian population, with which many of our gay, lesbian, and bisexual respondents identify.

Since ethnicity, immigration status, gender, and sexual orientation may be particularly relevant to drug use rates among Asian American youths, we conducted chi-square analyses of cross tabulations with these factors against lifetime, past year, and past month use of each of the legal and illicit drugs respondents had used in their lifetimes. Similar analyses were performed to test for significant associations between these factors and experiences of drug use in various social contexts. While respondents were diverse in the frequency of their attendance and level of involvement, all were united by their knowledge of and experiences in some aspect of the dance scene in the San Francisco Bay Area. We make no claims that our sample is representative of Asian-American youth. It is not a random sample. Its value, however, rests in the insight it may provide for larger more representative sample endeavors. The descriptive findings presented here are of a group rarely studied in detail due, in part, to their under-representation in the general population. The sampling frame is by no means representative but emanates from qualitative research--an important tool to acquire insight into behaviors of smaller populations. For this reason, the study reported herein may be regarded as a preliminary examination of drug use among Asian American youth, setting the stage and providing insight for future studies of more representative samples.

Results

The demographics of our sample are described in Table 1. The sample consists of 250 Asian American young persons between the ages of 14 and 35. The mean age of the sample is 23.1, and the median age is 23 years old for male and female respondents. Men outnumbered women, with 135 males in the sample (54%), and 115 females (46%). Respondents identified with 12 distinct ethnic groups, and some self-identified as predominantly of mixed Asian ethnicity. Nearly 20% of respondents reported a secondary ethnicity but identified more with one ethnicity than the other, whereas 15% of respondents identified themselves as predominantly mixed. However, the majority of respondents (66%) identified with only one ethnicity. The largest single ethnic group was Chinese (22%), followed by Filipino (16%), Vietnamese (11%) and Cambodian (10%). In the statistical analysis of ethnicity that follows, respondents' self-identified ethnicities were consolidated into six different subgroups, with respondents from ethnicities with too small of a sample size (e.g. Indonesian, Fijian) and multi-ethnic respondents with multiple Asian backgrounds

excluded from these comparisons. However, these respondents were included in the immigration/nativity, gender, and sexual orientation comparisons.

The majority of respondents were born in the U.S. (172 or 69%) and more than half (51%) were native to California. Of the 78 respondents who were not American-born, all but 5 (6%) were born in an Asian country. Most of the foreign-born respondents (59%) immigrated to the U.S. at age 5 or younger. The majority (90%) of respondents had at least one parent who was born in Asia, and more than three-quarters (77%) came from families where both parents were Asian immigrants. Very few respondents (2%) came from families where one or both of the parents had been living in the U.S. for less than ten years. Korean respondents were the only ethnic group in which the majority of individuals (63%) were born outside the U.S. Respondents of all ethnicities varied in their cultural and ethnic attachments. For example, some respondents spoke no English at home with their families, socialized with Asians exclusively, and expressed a desire to learn more about their culture of origin, whereas other respondents spoke English exclusively at home, had no Asian friends, and would prefer to identify their ethnicity as American because it is the country in which they currently live.

In general, the young people we interviewed were highly educated. Of those respondents who were not currently enrolled in school, 59% had completed a bachelors-level degree or higher. Of those respondents who were enrolled in school, 14% had completed a bachelors-level degree or higher and in the process of pursuing further education. Additionally, nearly half (48%) of all respondents came from a family where at least one parent has a bachelors-level degree or higher. Roughly one-third (34%) of all respondents worked full-time, while an additional 37% were employed part-time. Of those respondents who were not currently working, 51% of them did so by choice, of whom 84% were students. Those respondents who were employed at the time of the interview worked a median of 33 hours per week and received, on average, \$1350 per month from their job. Employment was listed as the primary source of income for 58.4% of all respondents, followed by support from family (15%), scholarships and financial aid (5%), and drug sales (4%). Some respondents (12%) reported earning at least a portion of their income from an illegal source, including drug sales, shoplifting (or the resale of shoplifted goods, often referred to as boosting), and robbery.

Our sample of respondents was sexually diverse. Of the male respondents in the sample, 10% identify as gay, and 7% identify as bisexual. Of the female respondents, 10% identify as lesbian, 10% as bisexual, and 3% "other," which in this particular instance included "bicurious" and undecided. Of the homosexual male respondents, more than half (57%) are Filipino; there are no homosexual Korean, Cambodian, Laotian, or Taiwanese males in the sample. More than one-third (36%) of homosexual women in the sample are Filipino, and more than a quarter (27%) identify as being of mixed ethnicity. Only 12% of respondents were married or living with a partner at the time of the interview, however, more than half (51%) are currently in a relationship. Seven respondents had a child or children (five male respondents, and two female respondents), two women were pregnant, and two were unsure if they were pregnant.

Drug Use Rates

All but three respondents in the sample had used at least one club drug. Those few respondents who had no experience with club drugs were included in the sample because they had either used other illicit drugs extensively, or had extensive knowledge of the dance scene. All respondents had used at least one type of alcohol, and most (98%) had used marijuana. Of those respondents who had used clubs drugs, the median number of club drugs used was two, and roughly two-thirds (66%) of respondents had used club drugs in the

12 months prior to completing the interview. About one-third (36%) of respondents reported club drug use in the month prior to the interview. The most commonly used club drug was ecstasy, which was used by 94% of all respondents, followed by mushrooms (64%), methamphetamine (42%), and LSD/Acid (37%). Prescription opiates/pain killers, were the only other drugs that were used by more than half of the sample (55%); other common drugs were cocaine (50%), nitrous oxide (32%), prescription amphetamines (23%) and prescription tranquilizers (21%). Additionally, 55% of all respondents reported having used three or more different drugs in the previous year, and 19% reported having used three or more drugs in the previous month.

In general, the sample had used a wide variety of drugs, but most respondents had never been, or were no longer heavy users of illicit drugs. The majority (61%) of respondents had tried five or more drugs in their lifetimes; however, relatively few were currently using those drugs on a regular basis. For example, marijuana, which was the drug that had been used by the largest percentage of our respondents, was also used most frequently, with 36% of marijuana-using respondents using the drug roughly once per week or more in the previous year. However, among respondents who had tried methamphetamine, 9% of them used the drug on average once per week or more, and nearly two-thirds of them (66%) had not used methamphetamine at all in the year prior to the interview. Our data show similar trends for cocaine, which was used on average more than once per week in the previous year by only 3% of all lifetime cocaine users and was not used at all in the previous year by 37% of respondents who had tried the drug at some point in their lives.

Respondents consumed club drugs and other illicit drugs in a diverse variety of settings. While the majority of ecstasy using respondents (78%) reported using most often in these public dance settings, respondents nevertheless reported also using ecstasy at private parties (59%), friends' homes (60%), their own homes (34%), outdoors (28%), and at school or work (9%), which demonstrates the extent to which club drugs are being used in environments far beyond clubs. After ecstasy, LSD/acid was the club drug most frequently associated with raves, and was cited having been used at raves by 40% of LSD/acid users. Additionally, while club drugs are by definition frequently associated with dance music venues such as clubs, raves, and private parties, nearly one-quarter (23%) of all club drug users did not list a dance music venue as the most frequent context of any of their club drug use. Finally despite the commonly-held belief by many of our respondents that alcohol use is incompatible with the rave scene and with club drugs, 42% of all respondents say that they have used some type of alcohol in the context of a rave.

Comparisons: Drug use patterns

Ethnicity—Our descriptive findings are summarized in Tables 2, 3, 4, and 5. Significant differences in drug use were found in relation to ethnicity as well as gender/sexual orientation. The types of drugs used varied significantly across ethnic groups (see Table 2), but not across groups on the basis of nativity (see Table 3). Southeast Asians were the least likely of all Asian ethnic groups to have used wine, LSD/acid, mushrooms, prescription tranquilizers and salvia in the previous year. Japanese respondents reported the highest rates of LSD and mushroom use in the previous year (20% and 60% respectively), and the highest rates of lifetime LSD and mushroom use (60% and 93% respectively). Japanese respondents also reported the highest rates of lifetime prescription amphetamine and tranquilizer use. Filipino respondents reported the highest rate of lifetime methamphetamine use out of any Asian ethnic group (66%), whereas South Asian and Southeast Asian respondents reported the lowest rates of lifetime methamphetamine use (27% and 33% respectively). South Asian respondents had the highest rate of lifetime cocaine use (69%), which was almost double the rate of use among Southeast Asians (35%), who had used the drug less frequently than

individuals of any other group (See Table 2). Southeast Asian respondents also tried fewer types of drugs than individuals of other ethnic groups. For example, Japanese respondents reported having tried on average nine drugs (besides alcohol) whereas Southeast Asian respondents had tried, on average, only four drugs. While 47% of Japanese respondents and 40% of Filipino respondents had used ten or more drugs in their lifetime, only 4% of all Southeast Asian respondents had done so. Nonetheless, it is interesting to note that Southeast Asian respondents report significantly higher rates of club drug use in the previous month, with more than half (54%) of Southeast Asian respondents having used a club drug in the previous month, versus less than a quarter of South Asian and Korean respondents (23% and 24% respectively). These findings indicate that there are significant differences among various Asian American subgroups with respect to drug use and reflect the diversity rather than homogeneity of the broad category captured within Asian American.

Gender and Sexual Orientation—Perhaps the most significant differences between different subsets of our sample of young Asian Americans are related to gender (see Table 4) and sexual orientation (see Table 5). In general, male respondents had higher lifetime rates of drug use than female respondents, particularly for cocaine, mushrooms, GHB, nitrous oxide, and salvia. Male drug-using respondents also reported using those drugs more frequently than female respondents. For example, 79% of male marijuana users reported having used the drug on more than 50 days, versus 55% of female marijuana users. Similar trends emerge for ecstasy and prescription opiate use; 30% of male ecstasy users have used the drug on more than 50 days compared to 20% of female ecstasy users, and 28% of male prescription opiate users have used the drug on more than 50 days versus only 5% of female ecstasy users. Male respondents also reported more diverse drug-using experience than female respondents. For example, nearly one-third (31%) of all male respondents had used ten or more different drugs in their lifetime versus only 19% of female respondents. Male respondents had also used on average seven drugs, as opposed to female respondents who report having tried only five different drugs.

Very different trends emerge when examining gender and sexual orientation. Lesbian and bisexual females reported significantly higher lifetime use rates than heterosexual females for almost all drugs, most notably methamphetamine (68% versus 28%), LSD (64% versus 23%), cocaine (60% versus 35%), mushrooms (88% versus 46%) and ketamine (64% versus 14%). Lesbian and bisexual women also reported having used on average eight drugs in their lifetime, while heterosexual females reported a median of four drugs used. Eighty percent of all lesbian and bisexual female respondents had used more than five drugs in their lifetime, compared to 41% of heterosexual female respondents. In fact, lesbian and bisexual females reported the highest rates of lifetime drug use of any gender/sexual orientation subgroup for methamphetamine, LSD, mushrooms, nitrous oxide, and salvia. Gay and bisexual males reported higher rates of lifetime GHB and ketamine use than heterosexual males as well as higher rates of current methamphetamine, GHB and ketamine use.

Additionally, while there are relatively few ethnic or gender differences in terms of respondents' age of initiation into drug use, there are noticeable differences with respect to sexual orientation. Both homosexual/bisexual men and women tend to start using drugs at a much later age than their heterosexual counterparts. For example, while the median age of initiation to ecstasy use is 18 years for heterosexual males, it is 21 years for gay and bisexual males. Similar trends emerge for methamphetamine (18 years versus 23 years) and cocaine (19 years versus 21 years). Lesbian and bisexual women report a median age of 21 years for initiation to cocaine use versus 19 years for heterosexual women, and a median age of 25 years for initiation to GHB use versus 20 years for heterosexual women.

Drug use contexts and settings

There are no significant ethnic or nativity differences in relation to the context and settings in which club drugs are consumed. There are relatively few statistical gender differences in drug-using venues. For example, men who had tried ecstasy were more likely than women to have used the drug at home (40% versus 26%), or at a private party (65% versus 52%), and methamphetamine-using women were more likely than men to have used the drug at home (55% versus 35%).

However, sexual orientation appears to have the largest influence on the contexts of drug use, particularly among male respondents. Heterosexual male ecstasy users were more likely than gay and bisexual male ecstasy users to have used the drug within the context of a rave (78% versus 46%). By comparison, gay and bisexual male respondents were more likely to report having used club drugs and cocaine in a bar/club environment than heterosexual male respondents. Eighty percent of methamphetamine-using gay and bisexual male respondents had used the drug in the club/bar compared to 25% of methamphetamine-using heterosexual respondents. Gay and bisexual male respondents reported similarly high rates of drug use in bars/clubs relative to heterosexual male respondents for GHB (100% versus 35%), ketamine (71% versus 17%) and cocaine (73% versus 41%).

Discussion

To date, there has been relatively little research on drug use among Asian American young persons; however, available data emphasizes the importance of Asian ethnic variations (Austin, 1999; Harachi et al., 2001; Otsuki, 2003; Sasao, 1992; Wong et al., 2004), nativity (Amodeo et al., 1997; Bhattacharya, 2004 & 2005; D'Avanzo, 1997; O'Hare & Tran, 1998; Yee & Thu, 1987; Takaki, 1989; Ying et al., 2008; Zane & Huh-Kim, 1994) and less-well-documented, gender and sexual orientation (Nemoto et al., 1999; Otsuki, 2003; Wallace et al., 2003). Similarly, our analyses report differences across Asian ethnicity, gender and sexual orientation; however, despite the emphasis in the extant literature on the importance of immigration status and acculturation as key factors to consider when taking into account drug use rates, our data produced no significant relationships between lifetime drug use rates and immigration status or age at immigration. This latter finding may be related to the study's sampling methods, as this is a non-representative sample of Asian American drug users; therefore findings are not generalizable to the broader Asian American youth and young adult populations. Clearly, more research needs to be done in this area, including representative or random samples of Asian American young persons to more fully understand the patterns and nuances of drug consumption within this diverse population, particularly as it relates to the respondents' nativity and levels of acculturation.

Despite these limitations, this analysis provides several important findings. There were a number of statistically significant differences between Asian ethnic groups with respect to lifetime and current drug use. For example, Japanese American respondents report the highest lifetime hallucinogen use and prescription amphetamine and tranquilizer use, and is consistent with SAMHSA (2006) findings, but contradicts others who identify rates of drug use for Japanese that are higher than those for Chinese but significantly lower than those for Filipinos (Wong et al., 2004). However, other ethnic groups report higher than average rates of use for a particular substance, as evidenced by Filipino respondents' high rates of methamphetamine use, and South Asian respondents' use of cocaine. High rates of methamphetamine use among Filipinos have also been found by other researchers (Nemoto et al., 1999; Wong et al., 2004). Southeast Asian respondents were the only group for which there were consistent differences in drug use from the rest of the sample. For all drugs, Southeast Asian respondents reported the lowest rates of use. Southeast Asian respondents had also tried, on average, fewer substances than the rest of the sample, despite reporting

higher rates of drug use in the previous month than any other Asian ethnic group. These data point to a pattern of drug use among Southeast Asian respondents that suggest that the cultures and meanings of drug use among Southeast Asian young adults should be an area for future research insofar as identifying factors among this group that would have prevention implications. While our analyses are unable to take into account social class, it is possible that these differences derive from social class differences between Asian American ethnic groups, as Southeast Asians report a lower median household income than other major Asian ethnic groups including Chinese, Filipino, South Asian, and Japanese (U.S. Census Bureau, 2000). Moreover, differences in patterns and types of drug used may also be shaped by the marketing -- accessibility, and availability/quality -- of particular drugs in different Asian ethnic communities.

Male respondents report generally higher lifetime drug use rates than female respondents, similar to the findings of Wallace and colleagues (2003) and reflective of most studies regardless of ethnicity. Asian American male respondents tended to try more types of drugs and also used drugs more frequently than their female counterparts, particularly marijuana, ecstasy and prescription opiates. However, male and female respondents reported few differences with respect to age of initiation to drug use.

The most significant differences in drug use patterns within the sample were related to respondents' gender and sexual orientation. Non-heterosexual female respondents reported higher rates of lifetime drug use than heterosexual female respondents for all types of drugs, and the highest rates of use of all gender/sexual orientation subgroups for methamphetamine, LSD, mushrooms, nitrous oxide and salvia, which corroborates findings of other researchers who identify higher rates of drug use among non-heterosexual women regardless of ethnicity (Degenhardt, Copeland, & Dillon, 2005; Koh, 2000; Parsons, Kelly, & Wells, 2006). Lesbian and bisexual female respondents also tried significantly more types of drugs than heterosexual females, and tended to start using drugs at a later date. While these data support the notion that there is a unique culture of drug use among sexual minority Asian American women, there is almost no research on this population (with the exception of Hahm et al., 2008).

Gay and bisexual Asian American male respondents differed significantly from heterosexual Asian American males, but in a slightly different manner from female respondents. While lesbian and bisexual female respondents report uniformly higher rates of drug use than their heterosexual counterparts, gay and bisexual male respondents report higher rates of drug use for specific drugs, including lifetime use of ketamine and GHB, as well as current use of methamphetamine, ketamine, and GHB, which is consistent with findings of other researchers (Cochran, Ackerman, Mays, & Ross, 2004; Degenhardt et al., 2005; Greenwood et al., 2001; Grov, Bimbi, Nanín, & Parsons, 2006; McDowell, 1999). Gay and bisexual male respondents tended to start using drugs at a later age than heterosexual male respondents, and used club drugs more frequently within the context of a club/bar environment rather than a rave, a concert, or a more private setting as did many of our heterosexual respondents (for a further discussion of the role of club drugs within the dance event and rave scene, see Hunt & Evans, 2003; Hunt, Evans, & Kares, 2007; Kavanaugh & Anderson, 2008; Sanders, 2005; Weir, 2000; Yacoubian, Boyle, Harding, & Loftus, 2003).

The data concerning these respondents' use of club drugs within a club/bar setting corroborates the extant literature, which suggests that club attendance is central to the gay male community (Greenwood et al., 2001; Lewis & Ross, 1995; McKirnan, Ostrow, & Hope, 1996), and that within the club setting, drug use is not only common, but normative (Green, 2003; Hughes & Eliason, 2002; Reback, 1997). However, much of this literature

fails to take into account the role of Asian American men in this particular community or the meanings of drug use and club/bar attendance for Asian American gay and bisexual men.

These differences reflect what we have learned from our qualitative work on the scene (Hunt et al., 2005; Moloney et al., 2008), which includes qualitative interviews with all 250 of our respondents, and extensive monitoring and mapping of the San Francisco Bay Area dance scene. Those subgroups for which we did not find significant differences also do not describe any sort of affiliation with a particular sub-scene. In other words, subgroups of respondents for whom there are significant differences in rates and contexts of drug use (i.e., gay/bisexual men and lesbian/bisexual women) are the same groups for which we have identified unique scenes, each of which likely also possesses unique cultures of drug use, and normative behaviors. Future research will need to examine, not only the patterns, rituals and settings club drug use for Asian American gay, lesbian, and bisexual men and women, but also the role that this drug use plays in shaping the club and rave scene. Moreover, as recent research on other ethnic and sexual minority populations has shown, further investigation is critical given the role club drugs like methamphetamine has played in sexual risk behaviors (Drumwright, Patterson, & Strathdee, 2006; Fernández et al., 2005).

While this study provides valuable insight into the factors affecting drug use among Asian American youth, it is limited by its non-representative, San Francisco-based sample. Achieving a non-biased, representative sample is ongoing challenge for researchers studying hidden populations (Clatts & Sotharan, 2000; Zane & Huh-Kim, 1998). Some of this bias may be mitigated by the fact that, given the objectives of the overall research, respondents from diverse ethnic, cultural, and socioeconomic backgrounds were recruited from a wide variety of settings. The field of research on Asian American drug use would benefit greatly from increased attention, at both a national and local level, to Asian American subgroups and variations in drug-using patterns across those subgroups, particularly within the community of sexual minority Asian Americans.

Acknowledgments

Collection of data for this article was made possible by funding from the National Institute on Drug Abuse (R01-DA14317).

References

- Amodeo M, Robb N, Peou S, Tran H. Alcohol and other drug problems among Southeast Asians: Patterns of use and approaches to assessment and intervention. *Alcoholism Treatment Quarterly*. 1997; 15(3):63–77.
- Austin, GA. Current evidence on substance abuse among Asian-American youth. In: Yee, BWK.; Mokua, N.; Kim, S., editors. *Developing cultural competence in Asian-American and Pacific Islander communities: Opportunities in primary health care and substance abuse prevention*. Vol. 5. Washington, D.C: Center for Substance Abuse Prevention; 1999. p. 160-219.
- Bhattacharya G. Health care seeking for HIV/AIDS among South Asians in the United States. *Health & Social Work*. 2004; 29(2):106–115. [PubMed: 15156843]
- Bhattacharya G. Social capital and HIV risks among acculturating Asian Indian men in New York City. *AIDS Education and Prevention*. 2005; 17(6):555–567. [PubMed: 16398577]
- Boyd CJ, McCabe SE, d'Arcy H. Ecstasy use among college undergraduates: Gender, race and sexual identity. *Journal of Substance Abuse Treatment*. 2003; 24:209–215. [PubMed: 12810141]
- Boys A, Lenton S, Norcross K. Polydrug use at raves by a Western Australian sample. *Drug and Alcohol Review*. 1997; 16(3):227–234. [PubMed: 16203432]
- Carlson RG, Wang J, Siegal HA, Falck RS, Guo J. An ethnographic approach to targeted sampling: Problems and solutions in AIDS prevention research among injection drug and crack-cocaine users. *Human Organization*. 1994; 53(3):279–286.

- Choi KH, Han C-s, Hudes ES, Kegeles S. Unprotected sex and associated risk factors among young Asian and Pacific Islander men who have sex with men. *AIDS Education and Prevention*. 2002; 14(6):472–481. [PubMed: 12512848]
- Choi KH, Operario D, Gregorich SE, McFarland W, MacKellar D, Valleroy L. Substance use, substance choice, and unprotected anal intercourse among young Asian American and Pacific Islander men who have sex with men. *AIDS Education and Prevention*. 2005; 17(5):418–429. [PubMed: 16255638]
- Clatts MC, Sotharan JL. Challenges in research on drug and sexual risk practices of men who have sex with men: Applications of ethnography in HIV epidemiology and prevention. *AIDS and Behavior*. 2000; 4(2):169–179.
- Cochran SD, Ackerman D, Mays VM, Ross MW. Prevalence of non-medical drug use and dependence among homosexually active men and women in the US population. *Addiction*. 2004; 99:989–998. [PubMed: 15265096]
- Collins P. Negotiating selves: Reflections on ‘unstructured’ interviewing. *Sociological Research Online*. 1998; 3(3):1–21.
- Collins RL, Ellickson PL, Bell RM. Simultaneous polydrug use among teens: Prevalence and predictors. *Journal of Substance Abuse*. 1999; 10(3):233–253. [PubMed: 10689657]
- D’Avanzo GE. Southeast Asians: Asian-Pacific Americans at risk for substance misuse. *Substance Use & Misuse*. 1997; 37(7&8):829–848.
- Degenhardt L, Copeland J, Dillon P. Recent trends in the use of “club drugs”: An Australian review. *Substance Use & Misuse*. 2005; 40:1241–1256. [PubMed: 16048815]
- Drumright LN, Patterson TL, Strathdee SA. Club drugs as causal risk factors for HIV acquisition among men who have sex with men: A review. *Substance Use & Misuse*. 2006; 41(10):1551–1601. [PubMed: 17002993]
- Earleywine M, Newcomb MD. Concurrent versus simultaneous polydrug use: Prevalence, correlates, discriminant validity and prospective effects on health outcomes. *Experimental and Clinical Psychopharmacology*. 1997; 5(4):353–364. [PubMed: 9386962]
- Fernández MI, Bowen GS, Varga LM, Collazo JB, Hernandez N, Perrino T, et al. High rates of club drug use and risky sexual practices among Hispanic men who have sex with men in Miami, Florida. *Substance Use & Misuse*. 2005; 40:1347–1362. [PubMed: 16048821]
- Green AI. “Chem friendly”: The institutional basis of “club-drug” use in a sample of urban gay men. *Deviant Behavior*. 2003; 24(5):427–447.
- Greenwood GL, White EW, Page-Shafer K, Bein E, Osmond DH, Paul J, et al. Correlates of heavy substance use among young gay and bisexual men: The San Francisco Young Men’s Health Study. *Drug and Alcohol Dependence*. 2001; 61:105–112. [PubMed: 11137274]
- Grov C, Bimbi DS, Nanin JE, Parsons JT. Exploring racial and ethnic differences in recreational drug use among gay and bisexual men in New York City and Los Angeles. *Journal of Drug Education*. 2006; 36(2):105–123. [PubMed: 17153512]
- Hahn HC, Wong FY, Huang ZJ, Ozonoff A, Lee J. Substance use among Asian Americans and Pacific Islanders sexual minority adolescents: Findings from the National Longitudinal Study of Adolescent Health. *Journal of Adolescent Health*. 2008; 42:275–283. [PubMed: 18295136]
- Harachi TW, Catalano RF, Kim S, Choi Y. Etiology and prevention of substance use among Asian American youth. *Prevention Science*. 2001; 2(1):57–65. [PubMed: 11519375]
- Heckathorn DD. Respondent-driven sampling: A new approach to the study of hidden populations. *Social Problems*. 1997; 44(2):174–199.
- Heckathorn DD. Respondent-driven sampling II: Deriving valid population estimates from chain-referral samples of hidden populations. *Social Problems*. 2002; 49(1):11–34.
- Hughes TL, Eliason M. Substance use and abuse in lesbian, gay, bisexual and transgender populations. *The Journal of Primary Prevention*. 2002; 22(3):263–298.
- Hunt G, Joe K, Waldorf D. Culture and ethnic identity among Southeast Asian gang members. *Free Inquiry in Creative Sociology*. 1997; 25(1):9–21.
- Hunt G, Evans K, Wu E, Reyes A. Asian American youth, the dance scene, and club drugs. *Journal of Drug Issues*. 2005; 35(4):695–732.

- Ives R, Ghelani P. Polydrug use (the use of drugs in combination): A brief review. *Drugs: Education, Prevention and Policy*. 2006; 13(3):225–232.
- Ja DY, Aoki B. Substance abuse treatment: Cultural barriers in the Asian-American community. *Journal of Psychoactive Drugs*. 1993; 25(1):61–71. [PubMed: 8483049]
- Jang, M. HIV/AIDS education and prevention in the Asian American and Pacific Islander communities. In: Moore, MK.; Forst, ML., editors. *AIDS education: Reaching diverse populations*. Westport, CT: Praeger; 1996. p. 83-96.
- Joe Laidler, K. Senator sir, welcome to the world of “Orientalism”. In: Mann, C.; Zatz, M.; Rodriquez, N., editors. *Images of color, images of crime*. 3. Los Angeles, CA: Roxbury Press; 2006. p. 42-51. Retitled and revised for third edition
- Johnston, LD.; O’Malley, PM.; Bachman, JG. *Monitoring the Future: National survey results on drug use, 1975–2001. Volume I: Secondary school students* (NIH publication no. 02–5106). Bethesda, MD: National Institute on Drug Abuse; 2002.
- Kavanaugh PR, Anderson TL. Solidarity and drug use in the electronic dance music scene. *The Sociological Quarterly*. 2008; 49:181–208.
- Kibria N. The contested meanings of ‘Asian American’: Racial dilemmas in the contemporary US. *Ethnic and Racial Studies*. 1998; 21(5):939–958.
- Kibria N. Race, ethnic options, and ethnic binds: Identity negotiations of second-generation Chinese and Korean Americans. *Sociological Perspectives*. 2000; 43(1):77–95.
- Kim, S.; Coletti, SD.; Williams, C.; Hepler, NA. Substance abuse prevention involving Asian/Pacific Islander American communities. In: Botvin, GJ.; Schinke, S.; Orlandi, MA., editors. *Drug abuse prevention with multiethnic youth*. Thousand Oaks, CA: Sage Publications; 1995. p. 295-326.
- Koh AS. Use of preventive health behaviors by lesbian, bisexual, and heterosexual women: Questionnaire survey. *The Western Journal of Medicine*. 2000; 172(6):379–384. [PubMed: 10854384]
- Lee, SJ. *Unraveling the “model minority” stereotype: Listening to Asian American youth*. New York, NY: Teachers College Press; 1996.
- Lewis, LA.; Ross, MW. *A select body: The gay dance party subculture and the HIV/AIDS pandemic*. New York, NY: Cassell; 1995.
- McDowell, D. MDMA, Ketamine, GHB, and the “club drug” scene. In: Galanter, M.; Kleber, HD., editors. *Textbook of substance abuse and treatment*. 2. Washington, D.C: American Psychiatric Press; 1999. p. 295-305.
- McKirnan DJ, Ostrow DG, Hope B. Sex, drugs and escape: A psychological model of HIV-risk sexual behaviours. *AIDS Care*. 1996; 8(6):655–669. [PubMed: 8993716]
- Moloney M, Hunt G, Evans K. Asian American identity and drug consumption: From acculturation to normalization. *Journal of Ethnicity in Substance Abuse*. 2008; 7 (4):376–403. [PubMed: 19064437]
- Nemoto T, Aoki B, Huang K, Morris A, Nguyen H, Wong W. Drug use behaviors among Asian drug users in San Francisco. *Addictive Behaviors*. 1999; 24(6):823–838. [PubMed: 10628516]
- Nemoto T, Aoki B, Huang K, Morris A, Le MN, Nguyen H, et al. HIV risk behaviors among Asian drug users in San Francisco. *AIDS Education and Prevention*. 2000; 12(2):126–140. [PubMed: 10833038]
- Nemoto T, Operario D, Soma T. Risk behaviors of Filipino methamphetamine users in San Francisco: Implications for prevention and treatment of drug use and HIV. *Public Health Reports*. 2002; 117(Supplement 1):30–38.
- Nemoto T, Operario D, Soma T, Bao D, Vajrabukka A, Crisostomo V. HIV risk and prevention among Asian/Pacific Islander men who have sex with men: Listen to our stories. *AIDS Education and Prevention*. 2003; 15(Supplement A):7–20. [PubMed: 12630596]
- Neumark-Sztainer D, Story M, French S, Cassuto N. Patterns of health-compromising behaviors among Minnesota adolescents: Sociodemographic variations. *American Journal of Public Health*. 1996; 86(11):1599–1606. [PubMed: 8916527]
- O’Hare T, Tran TV. Substance abuse among Southeast Asians in the U.S.: Implications for practice and research. *Social Work in Health Care*. 1998; 26(3):69–80. [PubMed: 9456475]

- Ompad DC, Galea S, Fuller CM, Edwards V, Vlahov D. Ecstasy use among Hispanic and black substance users in New York City. *Substance Use & Misuse*. 2005; 40:1399–1407. [PubMed: 16048824]
- Ono, KA., editor. *Asian American studies after critical mass*. Malden, MA: Blackwell Publishing; 2005.
- Operario D, Choi KH, Chu PL, McFarland W, Secura GM, Behel S, et al. Prevalence and correlates of substance use among young Asian Pacific Islander men who have sex with men. *Prevention Science*. 2006; 7(1):19–29. [PubMed: 16435077]
- Otsuki TA. Substance use, self-esteem, and depression among Asian American adolescents. *Journal of Drug Education*. 2003; 33(4):369–390. [PubMed: 15237863]
- Parsons JT, Kelly BC, Wells BE. Differences in club drug use between heterosexual and lesbian/bisexual females. *Addictive Behaviors*. 2006; 31:2344–2349. [PubMed: 16632210]
- Price RK, Risk NK, Wong MM, Klinge RS. Substance use and abuse by Asian Americans and Pacific Islanders: Preliminary results from four national epidemiologic studies. *Public Health Reports*. 2002; 117(Supplement 1):39–50.
- Ramirez-Valles J, Heckathorn DD, Vázquez R, Diaz RM, Campbell RT. From networks to populations: The development and application of respondent-driven sampling among IDUs and Latino gay men. *AIDS and Behavior*. 2005; 9(4):387–402. [PubMed: 16235135]
- Reback, CJ. The social construction of a gay drug: Methamphetamine use among gay and bisexual males in Los Angeles (Contract #93427. Los Angeles, CA: AIDS Coordinator; 1997.
- Sanders B. In the club: Ecstasy use and supply in a London nightclub. *Sociology*. 2005; 39(2):241–258.
- Sasao, T. Substance abuse among Asian/Pacific Islander Americans. In: Cervantes, R., editor. *Substance abuse and gang violence*. Newbury Park, CA: Sage Publications; 1992. p. 3-23.
- Schensul JJ, Convey M, Burkholder G. Challenges in measuring concurrency, agency and intentionality in polydrug research. *Addictive Behaviors*. 2005; 30:571–574. [PubMed: 15718073]
- Skager, R.; Austin, G. Fourth biennial statewide survey of drug and alcohol use among California students in grades 7, 9 and 11: Winter 1991–92: Report to the Attorney General. Sacramento, CA: Office of the Attorney General, Crime Prevention Center; 1993.
- So DW, Wong FY. Alcohol, drugs, and substance use among Asian-American college students. *Journal of Psychoactive Drugs*. 2006; 38(1):35–42. [PubMed: 16681174]
- Strada MJ, Donohue B. Substance use in ethnic minority youth. *Journal of Ethnicity in Substance Abuse*. 2006; 5(1):67–89. [PubMed: 16537338]
- Substance Abuse and Mental Health Services Administration. Table 1.67A Nonmedical use of pain relievers in lifetime, past year, and past month among persons aged 18 or older, by demographic characteristics: Numbers in thousands, 2004 and 2005. 2005 National Survey on Drug Use & Health: Detailed tables. 2006. Retrieved June 1, 2008, from <http://oas.samhsa.gov/NSDUH/2k5NSDUH/tabs/Sect1peTabs67to132.htm>
- Substance Abuse and Mental Health Services Administration. Table 1.41B Hallucinogen use in lifetime, past year, and past month among persons aged 18 to 25, by demographic characteristics: Percentages, 2005 and 2006. Results from the 2006 National Survey on Drug Use and Health: Detailed tables. 2007. Retrieved June 9, 2008, from <http://www.oas.samhsa.gov/NSDUH/2k6nsduh/tabs/Sect1peTabs39to43.pdf>
- Takaki, R. *Strangers from a different shore: A history of Asian Americans*. New York, NY: Penguin Books; 1989.
- U.S. Census Bureau. Fact sheet for a race, ethnic, or ancestry group. US Census Bureau American FactFinder. 2000. Retrieved June 1, 2008, from http://factfinder.census.gov/servlet/SAFFFactsCharIteration?_event=&geo_id=01000US&_geoContext=01000US&_street=&_county=&_cityTown=&_state=&_zip=&_lang=en&_sse=on&ActiveGeoDiv=&_useEV=&pctxt=fph&pgsl=010&_submenuId=factsheet_2&ds_name=DEC_2000_SAFF&_ci_nbr=null&qtr_name=DEC_2000_SAFF_R1010®=DEC_2000_SAFF_R1010%3Anull&_keyword=&_industry=
- U.S. Census Bureau. The Asian population: 2000. Census 2000 Brief Series. 2002. Retrieved June 1, 2008, from <http://www.census.gov/prod/2002pubs/c2kbr01-16.pdf>

- U.S. Census Bureau. Projections of the population by race and Hispanic origin for the United States: 2008 to 2050. 2008 National population projections tables and charts. 2008. Retrieved September 1, 2008, from http://www.census.gov/population/www/projections/tablesandcharts/table_3.xls
- Võ, L.T.; Bonus, R., editors. Contemporary Asian American communities: Intersections and divergences. Philadelphia, PA: Temple University Press; 2002.
- Wang J, Carlson RG, Falck RS, Siegal HA, Rahman A, Li L. Respondent-driven sampling to recruit MDMA users: A methodological assessment. *Drug and Alcohol Dependence*. 2005; 78:147–157. [PubMed: 15845318]
- Wallace JM, Bachman JG, O'Malley PM, Schulenberg JE, Cooper SM, Johnston LD. Gender and ethnic differences in smoking, drinking and illicit drug use among American 8th, 10th and 12th grade students, 1976–2000. *Addiction*. 2003; 98(2):225–234. [PubMed: 12534428]
- Watters J, Biernacki P. Targeted sampling: Options for the study of hidden populations. *Social Problems*. 1989; 36(4):416–430.
- Weir E. Raves: A review of the culture, the drugs and the prevention of harm. *Canadian Medical Association Journal*. 2000; 162(13):1843–1848. [PubMed: 10906922]
- Wong MM, Klingler RS, Price RK. Alcohol, tobacco, and other drug use among Asian American and Pacific Islander adolescents in California and Hawaii. *Addictive Behaviors*. 2004; 29:127–141. [PubMed: 14667425]
- Wong FY, Huang ZJ, Thompson EE, De Leon JM, Shah MS, Park RJ, Do TD. Substance use among a sample of foreign-and US-born Southeast Asians in an Urban Setting. *Journal of Ethnicity in Substance Abuse*. 2007; 6(1):45–66. [PubMed: 17430816]
- Yacoubian GS, Boyle C, Harding CA, Loftus EA. It's a rave new world: Estimating the prevalence and perceived harm of ecstasy and other drug use among club rave attendees. *Journal of Drug Education*. 2003; 33(2):187–196. [PubMed: 12929709]
- Yacoubian GS, Urbach BJ. Exploring the temporal relationship between race and the use of Ecstasy: Findings from the national household survey on drug abuse. *Journal of Ethnicity in Substance Abuse*. 2004; 3(3):67–77.
- Yang PQ, Solis P. Illegal drug use among Asian American youths in Dallas. *Journal of Ethnicity in Substance Abuse*. 2002; 1(3):17–38.
- Yee BWK, Thu ND. Correlates of drug use and abuse among Indochinese refugees: Mental health implications. *Journal of Psychoactive Drugs*. 1987; 19(1):77–83. [PubMed: 3585596]
- Ying YW, Han M, Wong SL. Cultural orientation in Asian American adolescents: Variation by age and ethnic density. *Youth & Society*. 2008; 39(4):507–523.
- Zane, N.; Huh-Kim, J. Substance use and abuse. In: Zane, NWS.; Takeuchi, DT.; Young, KNJ., editors. *Confronting critical health issues of Asian and Pacific Islander Americans*. Thousand Oaks, CA: Sage Publications; 1994. p. 316-343.
- Zane, NWS.; Huh-Kim, J. Addictive behaviors. In: Lee, LC., editor. *Handbook of Asian American psychology*. Thousand Oaks, CA: Sage Publications; 1998. p. 527-552.

Biographies

Adam Fazio received his B.A. in Sociology/Anthropology and French at Middlebury College, Middlebury, Vermont. He is currently a research associate at the Institute for Scientific Analysis.

Karen Joe-Laidler received her Ph.D. in sociology at the University of California at Davis. She is currently Professor in the department of sociology at the University of Hong Kong. Dr. Joe-Laidler has been involved in criminal justice research for the past 20 years.

Molly Moloney received her M.A. in Sociology at University of California at Santa Barbara. She is currently a Research Associate at the Institute of Scientific Analysis in Alameda, CA. Her current research is focused on gender, club drugs, and raves, and on Asian American gay/bisexual men and club drug use.

Geoffrey Hunt (Corresponding Author) is a social anthropologist. He received his Ph.D. in Social Anthropology at the University of Kent, England. Currently, Dr. Hunt is the Principal Investigator on three National Institutes of Health research projects.

Table 1

Sample Characteristics (N=250)

	%	(N)
Gender		
Male	54	135
Female	46	115
Age (mean=21.5)		
15 and Under	2	6
16–17	6	16
18–20	25	62
21–24	30	75
25–29	28	70
30 and Over	8	21
Ethnicity		
Chinese	22	56
Vietnamese	11	27
Japanese	3	8
Filipino	16	39
Korean	8	19
Indian	9	22
Cambodian	10	25
Laotian	2	4
Taiwanese	2	6
Indonesian	1	2
Pakistani	1	2
Mien	1	3
Mixed	15	37
Nativity		
American Born	69	172
Immigrated at age 5 or under	18	46
Immigrated at age 6–10	5	13
Immigrated at age 11 or over	19	8
Sexual Orientation		
Heterosexual	84	208
Homosexual	10	25
Bisexual	5	13
Other	1	3

Table 2

Lifetime Drug Use Rates by National Subgroup

		National Subgroup (N=229) ^f								
		Chinese/Taiwanese			Filipino	Southeast Asian	South Asian	Japanese	Korean	
Lifetime Drug Use Rates % (N) of Total		(66)		(44)	(57)	(26)	(15)	(21)	P	
Ecstasy									.454	
Yes		98.5		93.2	96.4	92.3	100.0	90.5		
No		1.5		6.8	3.6	7.7	0.0	9.5		
Methamphetamine									.006	
Yes		34.8		65.9	21.1	26.9	46.7	42.9		
No		65.2		34.1	79.9	73.1	53.3	57.1		
Cocaine									.020	
Yes		43.9		61.4	35.1	69.2	53.3	61.9		
No		56.1		38.6	64.9	30.8	46.7	38.1		
LSD									.031	
Yes		36.4		51.2	22.8	34.6	60.0	42.9		
No		63.6		48.8	77.2	65.4	40.0	57.1		
Mushrooms									.019	
Yes		66.7		70.5	49.1	73.1	93.3	71.4		
No		33.3		29.5	50.9	26.9	6.7	28.6		
GHB									.290	
Yes		21.2		22.7	10.5	11.5	6.7	9.5		
No		78.8		77.3	89.5	88.5	93.3	90.5		
Ketamine									.196	
Yes		18.2		25.0	8.8	15.4	13.3	4.8		
No		81.8		75.0	91.2	84.6	86.7	95.2		
Nitrous Oxide									.067	
Yes		40.9		38.6	17.5	26.9	40.0	42.9		
No		59.1		61.4	82.5	73.1	60.0	57.1		
Prescription Opiates									.947	
Yes		54.5		59.1	50.9	61.5	53.3	57.1		

National Subgroup (N=229) ^J						
	Chinese/Taiwanese	Filipino	Southeast Asian	South Asian	Japanese	Korean
No	45.5	40.9	49.1	38.5	46.7	42.9
Tranquilizers						.000
Yes	25.8	31.8	1.8	11.5	40.0	28.6
No	74.2	68.2	98.2	88.5	60.0	71.4
Salvia						.000
Yes	25.8	6.8	1.8	15.4	46.7	19.0
No	74.2	93.2	98.2	84.6	53.3	81.0

^J A number of respondents identified their ethnicity as mixed and chose not to identify with a specific Asian ethnic group, and were therefore not included in this analysis. Other identify with ethnicities that did not appear in sufficient numbers in our sample to be included in the analysis.

Table 3

Lifetime Drug Use Rates by Nativity

	Nativity (N=250)		P
	American Born	Foreign Born	
Lifetime Drug Use Rates % (N) of Total	(172)	(78)	
Ecstasy			.510
Yes	94.2	96.2	
No	5.8	3.8	
Methamphetamine			.256
Yes	39.8	47.4	
No	60.2	52.6	
Cocaine			.932
Yes	49.4	50.0	
No	50.6	50.0	
LSD			.900
Yes	38.0	37.2	
No	62.0	63.8	
Mushrooms			.725
Yes	65.1	62.8	
No	34.9	37.2	
GHB			.121
Yes	14.0	21.8	
No	86.0	88.2	
Ketamine			.278
Yes	16.9	11.5	
No	83.1	88.5	
Nitrous Oxide			.832
Yes	32.0	33.3	
No	68.0	66.7	
Prescription Opiates			.266
Yes	57.6	50.0	
No	43.4	50.0	
Tranquilizers			.940
Yes	20.9	20.5	
No	79.1	79.5	
Salvia			.052
Yes	18.6	9.0	
No	81.4	91.0	

Table 4

Lifetime Drug Use Rates by Gender

	Gender		P
	Male (135)	Female (115)	
Lifetime Drug Use Rates % (N) of Total			
Ecstasy			.549
Yes	95.6	93.8	
No	4.4	6.2	
Methamphetamine			.118
Yes	46.7	37.2	
No	53.3	62.8	
Cocaine			.005
Yes	57.8	40.4	
No	42.2	59.6	
LSD			.052
Yes	43.3	31.6	
No	56.7	68.4	
Mushrooms			.008
Yes	71.9	55.3	
No	28.1	44.7	
GHB			.019
Yes	21.5	10.5	
No	79.5	89.5	
Ketamine			.053
Yes	19.3	10.5	
No	80.7	89.6	
Nitrous Oxide			.012
Yes	39.3	24.6	
No	60.7	75.4	
Prescription Opiates			.162
Yes	59.3	50.0	
No	40.7	50.0	
Tranquilizers			.064
Yes	25.2	15.8	
No	74.8	84.2	
Salvia			.015
Yes	20.7	9.6	
No	79.3	90.4	

Table 5

Lifetime Drug Use Rates by Sexual Orientation and Gender

		Sexual Orientation (By Gender)					
		Males (N=135)			Females (N=114) ^J		
		Homosexual/Bisexual		Heterosexual	Homosexual Bisexual		Heterosexual
Lifetime Drug Use Rates % (N) of Total		(15)	(120)	P	(25)	(89)	P
Ecstasy				.076			.606
Yes		86.7	96.7		96.0	93.2	
No		13.3	3.3		4.0	6.8	
Methamphetamine				.100			.000
Yes		66.7	44.2		68.0	28.4	
No		33.3	55.8		32.0	71.6	
Cocaine				.196			.023
Yes		73.3	55.8		60.0	34.8	
No		26.7	44.2		40.0	65.2	
LSD				.409			.000
Yes		33.3	44.5		64.0	22.5	
No		66.7	55.5		36.0	77.5	
Mushrooms				.021			.000
Yes		46.7	75.0		88.0	46.1	
No		53.3	25.0		12.0	53.9	
GHB				.000			.081
Yes		60.0	16.7		20.0	7.9	
No		40.0	83.3		80.0	92.1	
Ketamine				.004			.001
Yes		46.7	15.8		28.0	5.6	
No		53.3	84.2		72.0	94.4	
Nitrous Oxide				.618			.000
Yes		33.3	40.0		64.0	13.5	
No		66.7	60.0		36.0	86.5	
Prescription Opiates				.030			.258

		Sexual Orientation (By Gender)			
		Males (N=135)		Females (N=114) ^I	
		Homosexual/Bisexual	Heterosexual	Homosexual Bisexual	Heterosexual
Tranquilizers	Yes	33.3	62.5	60.0	47.2
	No	66.7	37.5	40.0	52.8
Salvia	Yes	33.3	24.2	20.0	14.6
	No	66.7	75.8	80.0	85.4
Salvia	Yes	6.7	22.5	24.0	5.6
	No	93.3	77.5	76.0	94.4

^I One female respondent chose not to identify her sexual orientation, and therefore was not included in our analysis of this factor.