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Predictors and Comparisons of Polydrug and Non-Polydrug Cocaine Use in Club Subcultures

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Abstract

Background/Objectives—Club drug users have been shown to tend towards patterns of polydrug use, which has been linked to adverse health outcomes, such as impaired mental health, overdose, dependence, infectious disease exposure, and decreased cognitive functioning.

Methods—We analyzed data from the Club Drugs and Health Project, a study designed to examine the patterns and contexts of club drug use among young adults. Four-hundred recent club drug users were recruited through time-space sampling.

Results—Among recent cocaine users ($n = 361$), 61.2% were polydrug users. Male gender was predictive of polydrug cocaine use ($OR = 1.66$). Gay, lesbian, and bisexual (GLB) sexual orientation, White race, and Non-Latino ethnicity were not. No differences in mental health factors were found between cocaine polydrug users and users of only cocaine. However, polydrug users were significantly more likely to score high on drug-related sensation seeking as well as to use drugs to deal with unpleasant emotions and to have pleasant times with others.

Conclusions—Prevention and intervention efforts should account for contextual and motivational factors in attempting to reduce polydrug use and its negative effects.

Keywords

Club drugs; cocaine; mental health; polydrug use; youth

Club drugs remain key substances among youth and young adults involved in club subcultures. The extensive use of cocaine—the original club drug—in club subcultures has been obscured by the attention devoted to more recently emergent club drugs. Despite the obscuring of its presence, cocaine is currently the most widely used “club drug” in New York City (NYC) clubs (1). Many cocaine users consume other substances and engage in polydrug use.

Club drug users are highly likely to use multiple illicit substances (2,3). While polydrug use—the consecutive or simultaneous use of two or more substances—has been widely recognized as a health risk for injection drug users, the use of polydrug “cocktails,” consumed by club drug users to produce specific effects, has extended these concerns (4,5). Such practices remain

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an important issue as polydrug use has been linked to adverse drug experiences (6), impaired mental health (7–9), decreased cognitive functioning (8,10), drug overdose (11,12), and increased risk of exposure to infectious diseases (13). Thus, the combination of cocaine and other drugs may yield significant adverse outcomes.

Mental health in particular has been identified as adversely affected by polydrug use. For example, coterminous drug and alcohol use has been significantly correlated with depression (9). Speedball injection has been associated with higher levels of depression and anxiety in comparison to injectors of only cocaine (7). Among ecstasy users, polydrug use was significantly associated with both depression and anxiety, and mental health problems were not associated with ecstasy per se, but instead by the polydrug use engaged in by members of this group (8). Interest in polydrug use among club drug users has been considerable given the concern for the confounding effects of polydrug use on the relationship between ecstasy use and depression. However, most research on polydrug use has focused on injection drug users (e.g., 6,7,12,14), and in particular, explorations of polydrug use on the health of noninjectors have been sparse.

Beyond further research on the effects of polydrug use on mental health, there is a great need to explore the contexts of polydrug drug use. The purpose of this article is to briefly describe data on cocaine users who engage in forms of polydrug use in comparison to those who use only cocaine. We assessed demographic factors to identify predictors of polydrug cocaine use. In addition, we explored the differences between cocaine users who engage in polydrug use and those who only use cocaine on factors related to mental health, sensation seeking, and motivational contexts of club drug use.

METHODS

Participants and Procedures

The Club Drugs and Health Project, broadly conceived, is a study of health issues among young adults (ages 18–29) involved in NYC dance club scenes. Time–space sampling was used to systematically generate a sample of club-going young adults. Venues were selected at random from a list of enumerated dance clubs in Manhattan for random nights of the week (see 15). At the venues, selected participants were asked to complete a brief survey for which they received no compensation. This survey also served the process of screening individuals for eligibility into the longitudinal wave of the study, which was conducted at an off-site research facility at a later time.

To be eligible for the longitudinal study, the individuals had to be 18 to 29 years old and to report using any of six club drugs (MDMA, Ketamine, GHB, Cocaine, Methamphetamine, and LSD) at least three times in the previous year and at least once in the prior three months. Individuals were excluded if they exhibited signs of severe mental illness or could not commit to a follow-up period of one year. The longitudinal study assessed participants every four months over the course of a year (BL, 4 m, 8 m, and 12 m). After evaluating the subject for intoxication and obtaining informed consent, all assessments consisted of qualitative in-depth interviews and survey administered through Audio-CASI software program. Baseline assessments ranged from one to three hours, after which participants were compensated for their participation. The data for this article are drawn from the baseline assessments.

Measures

Demographics—Participants self-reported their gender, ethnicity, race, and sexual orientation from a list of possible choices: male, female, or transgendered; Latino or Non-Latino; White, Black, Asian/Pacific Islander, Native American, Mixed, or Other; and gay/

lesbian/queer, bisexual, or heterosexual. They were also asked to provide their date of birth from which their age was computed.

Polydrug Use—Study participants were asked whether they had recently used (past four months) six different club drugs: ecstasy, cocaine, Ketamine, GHB, methamphetamine, and LSD. They were also asked about whether they had combined each of these substances with other drugs. These variables were used to compute a dichotomous polydrug use/non-polydrug use variable based on whether or not they had combined other club drugs with cocaine.

Mental Health—We used several scales to assess the mental health differences between polydrug and non-polydrug users of cocaine. The depression and anxiety subscales of the Brief Symptom Inventory (BSI) were used to assess levels of these conditions (16). To assess stress and coping among the sample, we used the 12-item Rhode Island Stress and Coping Inventory (RISCI) (17). Given that cocaine is also often taken in conjunction with alcohol consumption, we used the Alcohol Use Disorders Identification Test (AUDIT) to assess levels of problem drinking (18).

Sensation Seeking—We used two sensation seeking scales to ascertain levels of sensation seeking specific to both drug use and sexuality using: the 11-item Sexual Sensation Seeking Scale ($\alpha = .812$; 19) and the 8-item Substance Use Sensation Seeking Scale ($\alpha = .832$; modified from 20).

Motivations—The 35-item Inventory of Drug Taking Situations (IDTS) was used to assess the motivational contexts underlying club drug use (21). Subscales for Unpleasant Emotions ($\alpha = .923$), Physical Discomfort ($\alpha = .606$), Conflict with Others ($\alpha = .874$), Social Pressures ($\alpha = .804$), and Pleasant Times with Others ($\alpha = .733$) were explored.

Analysis

We analyzed demographic predictors of polydrug abuse and differences between polydrug users and non-polydrug users on a range of factors discussed above. Stepwise logistic regression analyses and ANOVA were computed using SPSS.

RESULTS

The participants had an average age of almost 24 (see Table 1). They were evenly split between men and women. A majority (63.2%) identified as White, while 19.3% of the sample identified as Latino. Half the sample identified as heterosexual, while the others identified as gay, lesbian, or queer (32.8%), or as bisexual (17.3%). Study participants had used an average of 3.57 club drugs during their lifetimes and 2.05 during the previous 4 months. A large majority were recent cocaine users (90.3%) and 61.2% of the cocaine users had engaged in polydrug cocaine use within the previous four months.

Several demographic factors were examined as predictors of polydrug cocaine use. Of these demographic variables, only male gender was a significant predictor of polydrug cocaine use (OR = 1.66). Thus, the potential for polydrug use could not be predicted by most demographic factors within a club-based sample of cocaine users.

Mental health, sensation seeking, and motivations for club drug use were explored as factors potentially underlying polydrug use among cocaine users. Polydrug users did not differ on many of these factors from those who only used cocaine. These groups did not significantly differ on any of the mental health factors explored, including depression, anxiety, stress, coping ability, and problem drinking. Polydrug users scored significantly higher on drug sensation seeking ($F = 21.045, p < .001$), but did not differ from users of only cocaine on sexual sensation

seeking. Polydrug users were significantly more likely to use drugs to deal with unpleasant emotions ($F = 5.485, p < .05$) and to have good times with others ($F = 9.651, p < .01$). They did not differ from users of only cocaine on the motivational contexts of physical discomfort, dealing with conflict, and social pressure.

DISCUSSION

As found elsewhere, polydrug use was common in our sample of club drug users. Young male cocaine users in particular tended to be more likely to engage in polydrug abuse with other club drugs, suggesting that gender is a key factor governing polydrug use. Young men may be particularly at risk for polydrug abuse due to assertions of masculinity in their “drug scripts” particularly as it pertains to drug-related sensation seeking. In other words, polydrug use may be part of a masculine bravado associated with drug taking. Future studies should address the cultural and contextual factors associated with such gendered patterns of polydrug use.

Polydrug use among cocaine users was not significantly associated with depression, anxiety, stress, or coping ability. In particular, it is important to note that the sample of cocaine users in general displayed only moderate levels of depression and anxiety regardless of polydrug use. This finding is of note because it suggests that the practice of polydrug use may not amplify mental health problems generated by cocaine use. Polydrug use was also not associated with increases in problem drinking. Though not different on various mental health measures, polydrug abusers scored higher on measures of drug-related sensation seeking. Additionally, although polydrug cocaine users in club subcultures are similar to their non-polydrug using counterparts in many ways, they are more likely to use drugs to deal with unpleasant emotions as well as to have pleasant times with others, suggesting that the emotions influence polydrug use.

A strength of this study was that time—space sampling was used to generate a sample of club drug using youth (15), which improves upon convenience sampling and other less rigorous methods. However, despite this strength, there remain some limitations. First, this study is limited to a club-going sample of young adults who live in the NYC metropolitan area. Additionally, as with all research on drug use, we were limited to a sample of individuals willing to participate in a research study, wherein they would be required to discuss the intimate details of their lives and their illegal behaviors. Also, as in most research that utilizes self-report measures of past behaviors, the data may be limited by recall bias and by social desirability concerns. Despite these limitations, this research provides an important preliminary examination of polydrug abuse and its implications among young adult cocaine users. Future research should continue to address the topic of polydrug abuse among youth and among other noninjector populations.

Though the practice of polydrug use with cocaine was not associated with mental health problems, it nonetheless remains important to engage in health promotion efforts amongst this group. Prevention and intervention efforts should account for contextual and motivational factors—particularly the issues of pleasant and unpleasant times in the lives of young adults—in order to reduce polydrug use and its associated adverse outcomes.

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Table 1

Demographics (<i>n</i> = 400)	
Mean Age	23.9 (range 18–29)
Gender	
Male	50%
Female	50%
Latino Identity	19.3%
Race	
White	63.2%
Non-White	36.8%
Sexual Orientation	
Gay/Lesbian/Queer	32.8%
Bisexual	17.3%
Heterosexual	50.0%
Mean lifetime club drugs used	3.57 (range 1–6)
Mean club drugs recently used	2.05 (range 1–6)
Recent cocaine users	90.3% (<i>n</i> = 361)
Polydrug cocaine use	61.2% (<i>n</i> = 221)
Predictors of Poly Drug Use	OR (95% C.I.)
Age: 25–29	.82 (.54–1.27)
Male gender	1.66* (1.05–2.48)
Latino identity	1.40 (.74–2.66)
White race	.89 (.54–1.48)
Heterosexual	.84 (.56–1.26)

Differences between Polydrug and Non-Polydrug Cocaine Users (*n* = 361)

	Polydrug Users	Non-Polydrug Users	F
Mental Health			
Depression	.87	.91	.276
Anxiety	.78	.85	.833
Stress	2.70	2.55	2.723
Coping ability	3.68	3.65	.146
Problem drinking	12.49	13.64	2.361
Sensation Seeking			
Sexual sensation seeking	2.45	2.41	.399
Drug sensation seeking	1.95	1.67	21.045***
Motivations			
Unpleasant emotions	2.08	1.87	5.485*
Physical discomfort	1.85	1.73	3.321
Conflict with others	1.57	1.49	1.467
Social pressure	2.14	2.13	.043

Differences between Polydrug and Non-Polydrug Cocaine Users ($n = 361$)

	Polydrug Users	Non-Polydrug Users	F
Pleasant times w/ Others	3.31	3.06	9.651 **

*
 $p < .05$.

**
 $p < .01$.

 $p < .001$.