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Short Communication

Sexual and injecting risk behaviours among regular ecstasy users

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ABSTRACT

Substance users may be at a heightened risk for the transmission of HIV and other blood-borne viral infections (BBVI) through injecting drug use or risky sexual behaviours. The current study aimed to investigate the engagement in BBVI-risk behaviours among a sentinel group of regular ecstasy users in Australia, with a particular focus on sexual practices and describe the occurrence of BBVI testing among this group. Participants were regular ecstasy users recruited across Australia in 2007 who were administered a structured interview that contained questions regarding substance use, sexual behaviours and occurrence of BBVI testing. Results indicate high levels of unprotected sex in the past 6 months (77% reported inconsistent condom use with a regular partner; 54% with a casual partner). Half the sample reported never having an HIV test. Unprotected sex was associated with being heterosexual; despite this, heterosexuals were also less likely to report HIV testing status. These data suggest that targeted health promotion messages may be needed for this group of predominantly young, heterosexual substance users who may fall out of the reach of traditional messages.

1. Introduction

Groups such as men who have sex with men (MSM), sex workers and people who inject drugs may be at a heightened risk for the transmission of HIV by engaging in sex and/or injecting risk behaviours, with the latter group at risk of hepatitis C infection (Crofts et al., 1997; Kwiatkowski et al., 2002; Dore et al., 2003; Aceijas & Rhodes, 2007; Prestage et al., 2007; Roxburgh et al., 2008). In Australia, MSM comprise the majority of newly acquired HIV infections (Guy et al., 2008) and transmission of hepatitis C continues to occur among people with a recent history of injecting drug use (National Centre in HIV Epidemiology and Clinical Research, 2007).

From a public health perspective it is important to continue to design targeted health messages aimed at reducing blood-borne viral infection (BBVI) risk for these groups, but other groups of drug users are also at risk. People who use ecstasy and other club drugs have been demonstrated to have elevated levels of engagement in sexual risk behaviours relevant to BBVI transmission (Mitcheson et al., 2008), and engage in injecting drug use at higher levels than the general population (Dunn et al., 2007). Regular ecstasy users (REU) are a large group of users who are typically young and predominantly heterosexual, with a minority reporting injecting drug use (Topp et al., 1999). While needle and syringe sharing among this group is low (White et al., 2006), a majority report being sexually active (Black et al., 2008).

Sentinel groups of substance users are important, as problematic aspects of substance use are likely to first emerge among them (Wardlaw, 1994). Due to their more frequent substance use, REU may be at a heightened risk of engaging in BBVI-risk behaviours. The aims of the current paper are to:

1. Investigate engagement in BBVI-risk behaviours, with particular focus on sexual practices, among a sentinel group of REU; and
2. Describe the occurrence of BBVI testing, especially HIV testing, among this group.

2. Methods

2.1. Participants and procedure

The Ecstasy and Related Drugs Reporting System (EDRS) is an Australian national monitoring study aimed at detecting emerging trends in the markets for ecstasy and related drugs. Methodology is described in full elsewhere (Topp et al., 2004). Participants were recruited through advertisements in entertainment publications, interviewer contacts, and 'snowball' procedures (Biernacki & Waldorf, 1981). All respondents were volunteers who were reimbursed AUD $30 for their participation.

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Face-to-face interviews were conducted with current regular ecstasy users, defined as those who used tablets sold as 'ecstasy' at least monthly during the 6 months prior to interview. The interview covered demographic characteristics; lifetime and recent drug use; risk-taking; and blood-borne virus screening and vaccination. Ethics approval was obtained from relevant Human Research Ethics Committees in each jurisdiction.

2.2. Data analysis

Percentages are presented for categorical variables and means or medians presented for continuous variables. Categorical variables were analysed using chi-square tests. Binary logistic regressions were conducted using backward stepwise elimination. All analyses were conducted using SPSS for Windows, Version 14.0 (SPSS Inc., 2005).

3. Results

3.1. Demographic and drug use characteristics of the sample

There were 741 participants of whom 58% were male. The mean age was 25 years (SD = 6.9; range = 16–54). The majority (81%) identified as heterosexual. Two-fifths (42%) reported being in a relationship. Three-fifths (59%) were employed (full or part-time); 16% were unemployed. Most (71%) had completed secondary education. A small proportion reported currently being in drug treatment (4%) or having a prison history (6%).

All participants reported past-six month use of ecstasy, with use occurring on a median of 12 days in the preceding 6 months. Past-six month use of a range of substances was reported, including alcohol (96%), cannabis (81%), tobacco (74%), methamphetamine (71%), cocaine (40%), LSD (28%), ketamine (16%) and gammahydroxybutyrate (GHB) (7%).

3.2. Injecting risk behaviour

Thirteen percent ($n = 95$) reported past-six month injecting drug use. Six percent of recent injectors ($n = 6$) reported that they had used a needle/syringe after someone else in the 6 months preceding interview. Thirty-eight percent ($n = 36$) of recent injectors reported having shared other injecting equipment (e.g. swabs, cottons, filters) in the preceding 6 months.

3.3. Sexual risk behaviour

Ninety-two percent ($n = 678$) reported having penetrative sex in the past 6 months. Of this group, 54% reported having two or more sexual partners during this time. Eighty-four percent ($n = 567$) reported having sex with a 'regular' partner during this time and 59% ($n = 398$) reported having sex with a 'casual' partner. Among those who had sex with a regular partner, 23% ($n = 131$) used condoms on every occasion with this partner, with the remaining 77% ($n = 436$) reporting inconsistent condom use (that is, those reporting they used condoms 'often', 'sometimes', 'rarely' or 'never'). Among those who had sex with a casual partner, 46% ($n = 183$) always used condoms, with 54% ($n = 215$) reporting inconsistent condom use.

Eighty-eight ($n = 593$) percent of sexually active participants reported having sex under the influence of ecstasy or other drugs (including alcohol) in the past 6 months. Among the 460 participants who had sex with a regular partner while using ecstasy or other drugs during this time, 81% ($n = 374$) reported that they used condoms inconsistently with their regular partner. Among the 320 who had sex with a casual partner while using ecstasy or other drugs during this time, 57% ($n = 181$) reported inconsistent condom use.

Those who reported any inconsistent condom use in the past 6 months were significantly less likely than those who reported consistent condom use to be male (56% vs. 67%; OR = 0.6; 95%CI = 0.4, 0.9), but were more likely to identify as heterosexual (84% vs. 74%; OR = 1.9; 95%CI = 1.2, 2.9) and to report sex in the preceding 6 months under the influence of a substance (90% vs. 80%; OR = 2.3; 95%CI = 1.4, 3.7) compared to those who always used condoms. There were no significant differences regarding the specific drugs which participants were under the influence of during these episodes (Table 1).

A multivariate model predicting unprotected sex with a casual partner was conducted. Variables found to be significant univariate predictors of recent inconsistent condom use with a casual partner or were of theoretical interest were entered into a multivariate model. These included: age, gender, number of partners in the past 6 months, sexual identity, sex under the influence of any drug, and sex under the influence of ecstasy, crystal methamphetamine, GHB, amyl nitrite, alcohol or cannabis. The final model was significant ($\chi^2 = 9.038$, $df = 2$, $p = 0.011$), with the only significant predictor of inconsistent condom use with a casual partner in the past 6 months being self-identification as heterosexual (OR = 1.782; 95%CI = 1.082, 2.935; $p = 0.023$; $\chi^2 = 9.038$; Cox and Snell $R^2 = 0.026$; Nagelkerke $R^2 = 0.034$).

Table 1
Characteristics of those who reported any inconsistent condom use and those who did not ($n = 678$).

Variable	Inconsistent condom use		OR [t]	CI	p-value
	No	Yes			
Mean age (SD)	25.6	25.2	[0.639]	–	n.s.
Male (%)	66.7	55.8	0.6	0.4, 0.9	$p < 0.05$
Heterosexual (%)	74.1	84.3	1.9	1.2, 2.9	$p < 0.01$
Past-six month injecting drug use (%)	65.6	59.3	0.8	0.3, 1.7	n.s
Sex under the influence of ecstasy or other drugs (%)	80.1	90.1	2.3	1.4, 3.7	$p = 0.001$
Sex under the influence of:					
Ecstasy (%)	66.7	64.9	0.9	0.6, 1.4	n.s.
Alcohol (%)	47.3	49.8	1.1	0.7, 1.6	n.s.
Cannabis (%)	36.4	39.2	1.1	0.8, 1.7	n.s.
Any methamphetamine (%)	25.6	29.5	1.2	0.8, 1.9	n.s.
Methamphetamine powder (%)	9.3	14.2	1.6	0.8, 3.1	n.s.
Methamphetamine base (%)	8.5	6.3	0.7	0.3, 1.5	n.s.
Crystal methamphetamine (%)	8.5	13.1	1.6	0.8, 3.2	n.s.
Cocaine (%)	10.9	7.8	0.7	0.4, 1.3	n.s.
LSD (%)	3.9	3.9	1.0	0.4, 2.8	n.s.
GHB (%)	2.3	3.4	1.5	0.4, 5.2	n.s.
Ketamine (%)	3.9	1.3	0.3	1.0, 1.1	n.s.
Amyl nitrite (%)	1.6	2.6	1.7	0.4, 7.6	n.s.
Nitrous oxide (%)	1.6	1.3	0.8	0.2,4.2	n.s.

Note: specific p-values available from the authors on request.