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Short Communication

Transition to and from injecting drug use among regular ecstasy users

Matthew Dunn [a,*], Louisa Degenhardt [a], Raimondo Bruno [b]

[a] National Drug and Alcohol Research Centre, University of New South Wales NSW Australia 2052
[b] School of Psychology, University of Tasmania, Private Bag 30, Hobart TAS Australia 7000

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ABSTRACT

There is a scant amount of research investigating injecting drug use among people not selected on the basis of their injecting behaviour, and less attention has been given to stimulant users who may have a different experience with injecting drug use than opioid users who are more commonly studied. The current study aimed to investigate initiation to, and transition from, injecting drug use among a sentinel sample of regular ecstasy users in Australia. Participants were regular ecstasy users recruited across Australia in 2007 who were administered a structured interview that contained questions regarding initiation to injecting, reasons for injecting cessation, and likelihood of future injecting. Among those with a history of injecting drug use, injecting first occurred at a similar age to that of first ecstasy use. The majority did not inject themselves at the first occasion, and two-fifths were under the influence of other drugs at the time. Two-fifths of injectors had not injected in the past 6 months, with many relating this to concerns surrounding stigma. Route of drug administration is clearly not static, and the findings from this study suggest that some who have ceased injecting may still be at risk for future injecting.

1. Introduction

The route of drug administration has important implications for health outcomes and is related to treatment goals (Kelley & Chitwood, 2004; Strang et al., 1998). Compared with other routes of administration, injecting drug use (IDU) is associated with a range of adverse health effects (Lloyd-Smith et al., 2008; Salmon et al., 2009), particularly HIV and other blood-borne viral infections (BBVI) (Crofts et al., 1997). Given the public health problems associated with injecting drug use, an important effort is to reduce the number of people who initiate this route of drug administration.

Routes of drug administration are not fixed. Those who inject drugs may cease to inject and switch to alternate routes of administration (Gossop et al., 2004). Conversely, those who cease may subsequently return to IDU: Evans et al (2009) found in their prospective cohort of young injecting drug users (IDUs) that one-quarter had ceased injecting at some point during the follow-up period, with one-half of these subsequently resumed injecting. In another study, Shah et al (2006) reported that three-quarters of those who had ceased injecting had resumed, with a median time to relapse of one year.

Much of the literature investigating the transition to and from injecting drug use has focused upon those in drug treatment, outreach services working primarily with IDUs, or those who are primarily heroin users (Bouhnik et al., 2004; Des Jarlais et al., 2007; Evans et al., 2009; Huo et al., 2006; Steensma et al., 2005). These studies may be less applicable when considering those who do not seek treatment, or less regular injectors. Further, these findings may not be applicable to stimulant users; there is little research investigating initiation into stimulant injecting, such as cocaine (Lloyd-Smith et al., 2009). Regular ecstasy users are a group of psychostimulant users, predominantly aged in their mid-20s, many of whom are not in drug treatment, and who are unlikely to use heroin and other opiate use compared with regular IDUs (Black et al., 2008; Dunn et al., 2007). It is important to explore initiation to injecting drug use amongst a sample not recruited based on their injecting or treatment status. As such, the aims of the current study were to investigate, amongst a sample of regular ecstasy users (REU):

1. Demographic and drug use characteristics of REU who report having ever injected but not in the past six months ('former injectors'), those who have injected in the past six months ('recent injectors'), and those with a non-injecting background '(non-injectors);
2. gender and age differences in the context and motivation of the initial injecting experience;
3. reasons for injecting drug use cessation; and

* Corresponding author. Tel.: +61 2 9385 0167; fax: +61 2 9385 0222.
E-mail address: m.dunn@unsw.edu.au (M. Dunn).

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4. predictors of former injectors not reporting a past-six month injecting drug use history.

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, Breen & 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.

Face-to-face interviews were conducted with current regular ecstasy users, a non-probability sample of ecstasy users who were selected on the basis of their at least monthly use of ecstasy in the six months prior to interview. Topp, Barker and et al. (2004) found that ecstasy users recruited using probability and non-probability methods were broadly similar, although those recruited using non-probability methods were less likely to be employed full-time and more likely to be unemployed; they were also less likely to report the use of ecstasy in conjunction with alcohol, cannabis, amphetamines and/or cocaine. Miller et al. (2010) compared two non-probability samples and one probability sample of illicit drug users and found that the three samples possessed similar demographic profiles although, perhaps owing to the methods of recruitment, differences did exist in drug use patterns.

The interview covered demographic characteristics; lifetime and recent drug use; risk-taking; and blood-borne virus screening and vaccination. Transitioning between injecting was assessed by asking participants if they had ever injected, if they had injected in the six months prior to interview, and, where applicable, reasons for injecting cessation and the likelihood of future injecting. Participants who indicated they had ever injected a drug were asked a series of multiple- and forced-response questions pertaining to the circumstances surrounding their first injection experience. 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. Multinomial logistic regressions were conducted to make comparisons between non-injectors, those who had a history of injecting but had not done so in the 6 months prior to interview, and those who had injected in the 6 months prior to interview. The Kruskal–Wallis test was used to compare median age and median age of initiation to ecstasy use. Among those with a history of injecting drug use, a binary logistic regression with backwards stepwise removal was conducted to predict non-injecting in the 6 months prior to interview. All analyses were conducted using PASW Statistics Version 18 (SPSS, 2009).

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), 13% were both studying and employed and 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 six 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%).

Seventy-nine percent (n = 586) of the sample reported having never injected a drug ('non-injectors'), while 7.8% (n = 58) reported having a history of injecting drug use but not in the six months preceding

Table 1
Demographic and drug use characteristics of non-injectors, lifetime injectors and recent injectors.

Variable	Non-injectors	Former injectors	Recent injectors
	n = 586 (95%CI)	n = 58 (95%CI)	n = 95 (95%CI)
Male (%)	55 (51–59)	64 (52–76)	72* (63–81)
Age (median) [SD; range]	22 [6; 16–54]	29 [7; 17–48]	31*** [7; 18–53]
Heterosexual (%)	84 (81–87)	67*** (55–79)	67** (58–77)
Employed full-time (%)	33 (29–37)	45 (32–58)	20* (12–28)
Unemployed (%)	12 (9–15)	16 (7–25)	42*** (32–52)
Post-school qualifications (%)	53 (49–57)	71* (59–83)	59 (49–69)
Currently in drug treatment (%)	0##	7** (1–14)	24*** (15–33)
Prison history (%)	3 (2–4)	3##	12*** (13–29)
Median age first used ecstasy [SD; range]	18 [4; 12–44]	18 [6; 14–40]	20*** [5; 14–45]
Median age first injected a drug [SD; range]	–	18 [4; 14–30]	19 [5; 14–35]
Recent use of			
Methamphetamine powder (%)	54 (50–58)	57 (44–70)	72** (63–81)
Crystal methamphetamine (%)	26 (23–30)	40* (27–53)	68*** (59–77)
Any methamphetamine (%)	67 (63–71)	72 (60–84)	97*** (94–100)
Dependent on methamphetamine (SDS ≥ 4)# (%)	10 (7–13)	14 (4–25)	41*** (31–51)
Cocaine (%)	40 (36–44)	45 (32–58)	36 (26–46)
Ketamine (%)	15 (12–18)	21 (11–32)	15 (8–22)
GHB (%)	5 (3–7)	5##	20*** (12–28)
Cannabis (%)	80 (77–83)	86 (77–95)	84 (77–91)
Heroin (%)	0	2##	33*** (23–43)
Alcohol (%)	97 (96–98)	95 (89–100)	86 (79–93)
Tobacco (%)	72 (68–76)	76 (65–87)	83* (76–91)

*Significant at the $p<0.05$ level, using non-injectors as the baseline. **Significant at the $p<0.01$ level. ***Significant at the $p<0.001$ level.
#Among those who reported past six month use of methamphetamine powder, crystal methamphetamine or methamphetamine base.
##Confidence interval unable to be calculated due to low numbers.