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Journal of Substance Abuse Treatment 20 (2001) 297-300

JOURNAL OF
SUBSTANCE ABUSE
TREATMENT

Brief article

Heroin smoking by “chasing the dragon” in young opiate users in Ireland:
stability and associations with use to “come down” off “Ecstasy”

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Received 24 May 2000; received in revised form 12 December 2000; accepted 7 January 2001

Abstract

We explored the frequency of commencing opiate use by “chasing the dragon” to “come down” off Ecstasy and the stability of heroin smoking in young opiate takers by assessing 102 subjects in Dublin using a semistructured interview. Ninety-two subjects had used Ecstasy. Of these, 68 reported “chasing” to “come down” off Ecstasy at some point in their history and were found to have used Ecstasy more frequently and in larger amounts. Thirty-six reported that their first experience of using opiates was to “come down” off Ecstasy, 28 citing this as their main reason for commencement. Eighty-six of the 102 commenced opiates by “chasing” heroin, 61 of whom progressed to injecting after a mean of 2.9 years. This was associated with starting illicit drug use earlier, starting heroin earlier, and a history of using Ecstasy. Implications for service planners in developing responses to illicit drug use among adolescents are discussed. © 2001 Elsevier Science Inc. All rights reserved.

Keywords: Heroin; “Chasing the dragon”; Ecstasy

1. Introduction

Heroin smoking by the method of heating free-base heroin over tin foil and inhaling the vapors is known as “chasing the dragon.” Strang, Griffiths, and Gossop (1997) reviewed this practice, tracing its origins in Southeast Asia and subsequent spread to parts of Europe. In this review Strang and colleagues commented on the lack of substantive data on heroin smoking in Ireland and Italy, and the reported preference for injecting in these countries. However, in Ireland, we recently reported evidence of an increased practice of heroin smoking in patients in a treatment service, which was primarily by the method of “chasing the dragon” (Gervin, Smyth, Bamford, & Keenan, 1998; O’Higgins & Duff, 1998). In our pilot study of 46 patients of ages less than 28 years, presenting over a one-month period in 1998, 96% had smoked heroin, all by “chasing the dragon,” and 76% had used their first opiate in this way (Gervin et al., 1998). Furthermore, 34% of the subjects reported that their first experience with opiates was in the context of “chasing” heroin after taking Ecstasy to

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ameliorate the stimulant effects. This is known as “chasing” to “come down” off Ecstasy. A further 25% reported smoking heroin for this reason at some point in their history. Solowij, Hall, and Lee (1992) have previously reported that cannabis has been used to “come down” off Ecstasy, but we could find no published reports of heroin having been used for this purpose.

We decided to investigate further the frequency of commencing opiate use by “chasing the dragon” to “come down” off Ecstasy. Based on police seizures and information from the national poisons center and National Drug Treatment Reporting System, Ecstasy use appears to have increased in Ireland in the late 1980s. We therefore targeted younger patients of ages less than 32 years, who had commenced opiate use in the previous decade. We also aimed to investigate the stability of heroin use by “chasing the dragon” in this younger sample by assessing the rate of transition from smoking to injecting. To facilitate these aims, our analysis looked at three subgroups of opiate users: (a) those who had ever used opiates to “come down” off Ecstasy vs. those who had never used opiates for this purpose, (b) those whose first use of opiates had been to come off Ecstasy, and (c) those who had commenced opiates by “chasing,” and then did or did not move to injecting.

2. Materials and methods

Study participants were recruited from all opiate users presenting at four centers in the Eastern Health Board Addiction Services in Dublin over a two-month period from October 1 to December 1, 1998: (1) patients attending a young persons’ treatment program in an addiction center, servicing a specific catchment area of Dublin; (2) patients attending a program for heroin smokers; (3) patients attending a rehabilitation program for young opiate abusers (#2 and #3 serviced a separate catchment area than # 1); and (4) in-patients in a central detoxification unit for opiate abusers. Patients older than 32 years were excluded from the study in order to target patients commencing opiate use no later than the late 1980s.

Patients were interviewed by one of four psychiatrists using a 15-20 minute semistructured interview, which was designed by the authors prior to the commencement of the study (copy available from primary author on request). Patients were specifically asked if they had ever used opiates to “come down” off Ecstasy, if this was their first exposure to opiates, and, if so, if this was the main reason for trying opiates.

A total of 102 patients in the four centers were interviewed in the study (55 male, 47 female). They had a mean age of 21.0 years ($SD=3.3$ years; range, 15-31 years), and all eligible patients in each center agreed to participate.

2.1. Statistics

Data was analyzed using the Statistical Package for the Social Sciences (SPSS). Between-group differences were analyzed using two-tailed independent t -tests for continuous variables and χ^2 tests for categorical variables. The relationship of clinical variables to the dichotomous variable of progression to heroin use by injection was examined using multiple logistic regression.

3. Results

First, we compared the patterns of Ecstasy use in those who reported ever taking opiates to “come down” with those who had taken Ecstasy but never used opiates for this purpose. Ninety-two of the 102 patients reported having taken Ecstasy, 68 of whom reported having taken opiates to “come down” and the remaining 24 of whom had not. The 68 patients who reported taking opiates to “come down” off Ecstasy were found to have significantly heavier Ecstasy use, in terms of the number of nights per week of taking Ecstasy (mean =2.6, $SD =1.5$, vs. mean =1.9, $SD=1.1$; $t=2.04$, $df=90$, $p=0.04$) and the number of tablets taken per night (mean =3.0, $SD=1.7$, vs. mean =1.7, $SD=0.7$; $t=4.86$, $df=85.59$, $p<0.001$).

Next, we examined the number of patients who reported that their first experience of using opiates was specifically to “come down” off Ecstasy. Thirty-six patients reported that their first-ever experience of opiates was in the context of “chasing” to “come down” off Ecstasy. Of these 36, 28 reported this as their main reason for commencing opiates, and the other 8 reported that they probably would have tried opiates independent of their Ecstasy use.

As we were also interested in the stability of heroin smoking, we analyzed the rate of and time to transition from smoking to injecting in the subgroup of patients who commenced opiate use by “chasing” heroin. Table 1 outlines the first opiate used, route of administration, the age commenced, and the duration of use. Of the 86 patients whose initial route of opiate abuse was “chasing” heroin, 61 patients reported changing to injecting, 23 continued to smoke heroin, and 2 switched to oral preparations of methadone and morphine sulfate. We compared these 61 patients who came to inject heroin with the 23 patients who continued “chasing.” As Table 2 reveals, those who came to inject heroin had commenced illicit drug use earlier, had started heroin at a younger age, were younger at the time of interview, and had been more likely to have a history of Ecstasy use (58/61 vs. 17/23; likelihood ratio $X^2=6.88$, $p= 0.008$). It is noteworthy that those who switched from smoking to injecting had a similar overall duration of heroin use but had smoked heroin for less time and were not taking larger amounts. Despite the younger age of onset of illicit drug use in those who came to inject, they had not been using illicit drugs for longer at the time of interview.

When age at interview, age of first illicit drug use, age of first opiate use, and history of Ecstasy use were entered into a logistic regression with changing route from smoking to injecting as the dependent variable, the overall model was

Table 1

First opiate used; type of opiate and route of administration, age commenced, and duration use

Type of opiate	Route	N	Age commenced (years)	Duration of use (months)
Heroin	“chasing”	86	17.0 (mean) 3.0 (SD)	13-28 (range) 34.7 (mean) 20.2 (SD) 1-84 (range)
	snorted	1	17	< i
	skin pop	1	15	<1
	iv	2	16, 17	36,4
Methadone	oral	6	13, 15, 16, 16, 17, 19	12, <!,<!, 6,24,24
	Other Opiates ^{a,b} oral	6	15 ^a , 15 ^a , 16 ^a , 16 ^b , 16 ^b , 22 ^b	1 ^a , 24 ^a , 3 ^a , 9 ^a , <1 ^b , 60 ^b

^a dihydrocodeine tartate (DF118).

^b morphine sulphate (MST).

Table 2

Comparison of primary heroin “chasers” who changed to injecting with those who continued to “chase”

Clinical correlate	Patients changing to injecting (n=61)		Patients continuing to “chase” (n=23)				
	mean	SD	mean	SD	t	df	P
Current age	20.0 years	2.7 years	22.8 years	4.2 years	2.89	28.79	0.007
Age starting illicit drugs	13.0 years	2.3 years	15.6 years	2.4 years	4.50	82	< 0.001
Duration of drug use	7.0 years	2.5 years	7.7 years	3.5 years	0.2	30.86	0.84
Age starting heroin	16.3 years	2.1 years	18.9 years	4.1 years	2.93	26.68	0.007
Duration of “chasing”	2.6 years	1.7 years	3.4 years	1.5 years	2.01	82	0.05
Duration of heroin use	3.7 years	1.6 years	3.9 years	1.8 years	0.27	82	0.78
Amount of heroin per day (quarter-gram bags)	6.6	3.8	6.9	3.7	0.37	82	0.92

significant ($-2 \log$ likelihood $X^2 = 78.69$, $df= 4$, $p = 0.0005$). A stepwise logistic regression with the same variables revealed that only age of commencing illicit drug use discriminated between the groups (Wald $X^2=10.99$, $df=1$, $p=0.0009$).

4. Discussion

The current study was not designed to quantify the rate of heroin smoking by “chasing the dragon” but to explore its association with Ecstasy in young heroin takers. However, similar to O’Higgins and Duff (1998), we found that the majority of young heroin takers administered the drug by smoking, rather than injecting or snorting. We also confirmed our previous finding that the primary method of smoking was by “chasing the dragon” (Gervin et al., 1998). The current study also replicated the association between heroin smoking by “chasing the dragon” and Ecstasy use, with one third of our sample reporting that their first experience of opiates was in the context of “chasing” to “come down” off Ecstasy. Furthermore, a quarter reported this as their main reason for commencing opiate use. Whether these patients represent a group, who, except for their use of Ecstasy, may not otherwise have taken opiates, is a question they themselves probably could not answer reliably. However, it does lead us to emphasize the importance of further research to investigate the prevalence of heroin smoking to “come down” in the wider population of young Ecstasy users. These questions are of social and clinical importance and may have implications for service planners in developing responses to illicit drug use among adolescents.

Those reporting “chasing” heroin to “come down” reported taking more Ecstasy tablets per night and taking Ecstasy more frequently than those who had not engaged in this practice. Those who had taken Ecstasy, but had not taken opiates to “come down,” had a level of Ecstasy use closer to previously reported levels of recreational use of one tablet on 1-2 nights per week (Hammersley, Ditton, Smith, & Short, 1999; Peroutka, 1987). This would suggest that “chasing” heroin to “come down” might be practiced mainly by those taking heavier levels of Ecstasy. We have previously noted that the tendency of opiates to raise levels of serotonin could have a compensatory effect on the reported fall following the initial euphoria after Ecstasy (Curran & Travill, 1997). However, heroin may be no more effective than other sedative drugs in dealing with Ecstasy “come downs.” While education in this regard, targeted at Ecstasy takers, would appear to be a valid addition to risk management strategies, it raises difficult ethical and moral considerations for clinicians in treatment settings.

We found primary heroin abuse by “chasing the dragon” to be relatively stable in our sample. Specifically, the mean duration of smoking heroin before injecting was almost 3 years, which was similar to the study of Griffiths, Gossop, Beverly, and Strang (1994), who found that the mean duration of smoking before first injecting was 2.4 years. Two thirds of the patients in our sample changed to injecting, which was associated primarily with having started illicit drug use at a younger age, and this was not associated with a longer duration of illicit drug use, length of time smoking heroin, or total duration of opiate use. It may be that those who commence drug use earlier are more chaotic, using many different classes of drugs, including Ecstasy, and begin opiate use earlier and progress readily to injecting. However, a quarter of the patients in our sample did not change to injecting, and some did so only for a brief period. This, coupled with the long duration of smoking prior to switching to injecting in our sample, would suggest that there is a relatively long window of opportunity for intervention with these patients before they begin more harmful intravenous injection (Smyth, Keenan, & O’Connor, 1998).

It is important to note that the sample sizes of some of the comparison groups are small in the subgroup analysis within this study, and the findings may not be generalizable beyond treatment participants in the Dublin area. The self-reports of patients are open to potential biases related to underreporting of frequency of use or use of multiple drugs. Despite the fact that the phenomenon of “chasing” to “come down” off Ecstasy was noted in the context of wider clinical interviews, screening questions in the semistructured interview may have lead to expectancy effects of increased reporting that the first use of opiates was for the purpose of moderating Ecstasy effects. Despite these important limitations, the study highlights some important issues for prevention education, and intervention as well as for future research in this area.

4.1. Conclusions

There is an association between heroin smoking and Ecstasy use. Although opiates may be no more effective than other sedative drugs in ameliorating the stimulant effects of Ecstasy, one third of patients started opiates by “chasing” to “come down” off Ecstasy and one quarter cited this as their main reason for starting opiates. Using opiates to “come down” off Ecstasy is associated with heavier and more frequent use of Ecstasy. This may have implications for service planners developing educational and treatment programs for young people. Heroin smoking is increasing as the major route of primary opiate abuse in Ireland. Heroin smoking is a relatively stable practice, and there is a relatively long window of opportunity for interventions prior to patients switching to injecting with its associated risks.

Acknowledgments

We wish to thank Prof. Harold Rosenberg, Department of Psychology, Bowling Green State University, Bowling Green, OH 43403, USA, for his help in the preparation of this manuscript.

References

- Curran, H.V, & Travill, R.A. (1997). Mood and cognitive effects of ± 3 , 4-methylenedioxymethamphetamine (MDMA, “Ecstasy”): weekend “high” followed by midweek low. *Addiction* 92, 821-831.
- Gervin, M., Smyth, B. P., Bamford, L., & Keenan, E. (1998). ‘Chasing the dragon’: experience in Ireland and associations with ‘Ecstasy.’ *Addiction*, 93, 601-602.
- Griffiths, P., Gossop, M., Beverly, P., & Strang, J. (1994). Transitions in patterns of heroin administration: a study of heroin chasers and heroin injectors. *Addiction*, 89, 301-309.
- Hammersley, R., Ditton, J., Smith, I., & Short, E. (1999). Patterns of Ecstasy use by drug users. *British Journal of Criminology*, 39, 625-647.
- O’Higgins, K., & Duff, P. (1998). *Treated drug misuse in Ireland. First national report, 1996*. Dublin: The Health Research Board.
- Peroutka, S. J. (1987). Incidence of recreational use of 3,4 methylenedioxymethamphetamine (MDMA, Ecstasy) on an undergraduate campus. *New England Journal of Medicine*, 317, 1542-1543.
- Smyth, B. P., Keenan, E., & O’Connor, J. J. (1998). Bloodborne viral infection in Irish injecting drug users. *Addiction*, 93 (11), 1649-1656.
- Solowij, N., Hall, W., & Lee, N. (1992). Recreational MDMA use in Sydney: a profile of ‘Ecstasy’ users and their experiences with the drug. *Addiction*, 87, 1161-1172.
- Strang, J., Griffiths, P., & Gossop, M. (1997). Heroin smoking by ‘chasing the dragon’: origins and history. *Addiction*, 92, 673-683.