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Review

Perceived risk and risk reduction among ecstasy users: the role of drug, set, and setting

David Shewan [a,*], Phil Dalgarno [a], Gerda Reith [b]

[a] *Department of Psychology, Glasgow Caledonian University, Glasgow, Scotland G4 0BA, UK*
[b] *Department of Sociology, University of Glasgow, Glasgow, Scotland G12 8RT, UK*

Abstract

In order to provide information on, and to identify factors associated with, risk-taking behaviours and adverse experience among ecstasy users, data were collected by way of focus groups involving 42 participants, all of whom had used ecstasy. While participants described a range of adverse experiences resulting from ecstasy use, they reported few major harmful outcomes from these experiences. Participants described a range of coping strategies for dealing with such experiences, which partly derived from an appreciation of the relative importance of drug, set, and setting, and the interaction between these factors. Social support networks were described as being particularly important in this respect. These strategies were applied not only during an unpleasant drug-taking episode, but also when preparing for using ecstasy, and also for 'winding down' after taking ecstasy. Participants' awareness of harm reduction principles in relation to ecstasy use was encouraging, but more worrying was the limited impact of possible long-term neurological damage on the group's behaviour and perceptions of risk. The risk reduction strategies of this group are discussed in the more general context of risk discourse, specifically to highlight participants' different subjective assessments of short- and long-term risk.

Keywords: Ecstasy users; Long-term neurological damage; Risk education

1. Introduction

It can be argued that using drugs inevitably involves an element of risk, whether in relation to personal health and well-being, or in relation to the criminal consequences of using an illegal drug. For many people, these clearly are risks they are willing to take, as evidenced by their drug use. The assumption tested in this paper, however, is that drug users are, by definition, reckless with regard to drug-related risk. A common assumption made of drug use is that is a necessarily chaotic, relatively unplanned, impulsive event.

* Corresponding author. Tel.: +44-141-331-3488fax: +44-141-331-3636.
E-mail address: dsh2@gcal.ac.uk (D. Shewan)

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The risks associated with ecstasy use are becoming increasingly well-documented (Henry, 1992), but this research has largely focused on harmful outcomes, such as rapid onset of heat-stroke (Screaton, 1992), overdose (Henry et al., 1992), factors related to the immediate situation including non-availability of fluids or overcrowding in clubs (Advisory Council on the Misuse of Drugs, 1994), and the consumption of adulterated ecstasy (Saunders, 1993; Shewan, et al., 1996; Forsyth, 1995). Symptoms of psychiatric disturbance-including 'schizophrenia-like' symptoms-have been reported in a small number of ecstasy users, although it is possible that in some cases the disturbance may be underlying rather than solely related to ecstasy use (McGuire, et al., 1994). More recently, there have been concerns raised by researchers about the possibility of long-term neurological damage resulting from use of methylenedioxymethamphetamine (MDMA) (Green et al., 1995), and the effects of MDMA use on mood and cognition have also begun to be researched (Curran and Travill, 1997). There is little information about social and behavioural characteristics of ecstasy users, which may be predictive of harmful outcomes resulting from their drug use.

The present study provides a qualitative account of the role of social and behavioural factors in both predicting and reducing risk among ecstasy users in Glasgow (Scotland). Specifically, the study looked at the role of previous experience while on ecstasy, to investigate whether the pleasurable effect of taking ecstasy becomes a main determinant of behaviour, such that positive effects are sufficiently rewarding to override the negative effects of taking a drug. The study also looked at the specific and interactional effects of drug, set, and setting. The importance of drug, set, and setting in relation to drug using behaviour and outcomes has been recognised for some time (Weil, 1972; Zinberg, 1984; Cohen, 1995), but further research is still required on the relative significance and the interaction of these factors, both in relation to drug research generally, and in relation to MDMA use specifically (McDermott, et al., 1993; Cohen, 1995).

2. Methodology

Participants were recruited in Glasgow (Scotland) in April–June 1996 through networks of ecstasy users and dealers already accessible to the authors from previous research, and through snowballing from this initial sample (Biernacki and Waldorf, 1981). A total of 42 ecstasy users participated in the study. The sample comprised 24 male and 18 female participants, average age 27 years. The majority of the sample (28/42) were employed, the remaining 14 were unemployed (7/14) or students (7/14). Eighteen (18/42) of the participants were educated to at least degree level.

Data were collected by way of focus groups. Eight such groups were run, and the number of participants in each ranged from four to seven, there being 42 subjects in total. The structure of the groups was as follows: one group of seven participants, two groups of six participants, three groups of five participants, and two groups of four participants.

The focus group method generally involves between four and eight individuals who discuss a topic of interest under the facilitation of the researcher. The advantage of a focus group is that it allows the researcher to interact with the participants directly, clarifying issues and also observe non-verbal behaviour that may contradict verbal response (Stewart and Shamdasani, 1990). One purpose of using a focus group, as opposed to individual interviews for example, is that this method

offers data which includes negotiation of meaning between participants and allows the identification of subtle differences in meaning between focus groups (Stewart and Shamdasani, 1990).

These groups involved discussion under broad headings, with each of the sessions being tape-recorded for transcription. The discussion headings for these groups were as follows: unprompted and prompted self-reports of psychological and social factors pertaining to risk behaviours; previous experience with ecstasy use; the impact of previous harmful outcomes; other risk behaviours (if any); knowledge and precautions with regard to type and amount of ecstasy typically consumed; expectations, intentions, and experience with regard to the effect of taking ecstasy; experience of taking ecstasy in different settings; awareness and precautions taken with regard to potential situational risks associated with ecstasy use; awareness, use, and assessment of different sources of information about ecstasy.

Data were analysed by two researchers according to the principles of grounded theory (Glaser and Strauss, 1967; Glaser, 1992; Strauss and Corbin, 1998). Transcripts from the focus groups were read through fully and independently at first to obtain a sense of overall meaning (Tesch, 1990). From this a list of key headings and relevant quotes were drawn up. Quotations and observations from focus group facilitators' were then categorised according to these key headings. These key headings were: positive and negative experiences of ecstasy use; the role of drug, set, and setting independently and in combination; perceptions of ecstasy-related risk. Negative cases were sought for and explored in detail (cf. Silverman, 1993). The researchers repeatedly analysed the data independently and in combination in order to search for competing themes and opposing explanations. As a final step, copies of the results and interpretation were shown to a group of five of the original participants for review, and no major changes were suggested at this stage.

3. Results

3.1. Patterns of drug use

The mean number of times per month the sample used ecstasy was 2.9, with the mean amount of ecstasy used on each occasion being 1.3 tablets. All of the sample reported being experienced polydrug users, with forty (40/42) reporting mixing ecstasy with other drugs. The most frequent of these were alcohol (30/40) and cannabis (23/40). Nineteen (19/40) participants reported mixing both of these with ecstasy. LSD (17/40) and amphetamine sulphate (13/40) were also reported as being mixed with ecstasy. In the majority of these cases (22/30), alcohol and/or cannabis were also used. Two (2/42) participants claimed never to have mixed ecstasy with any other substances. These data were collected by way of short, self completion questionnaires, filled in after the focus groups took place. Curiously, the subject of mixing ecstasy with other drugs per se was not one which arose during the focus groups themselves.

Thirty-three (33/42) maintained that they would still be using drugs in 5 years time, one (1/42) said they would not, and eight (8/42) said that they were not sure (one of these described himself as an 'ex-ecstasy user').

3.2. Format and terminology

The following qualitative data are presented verbatim from participants and group facilitator. Discourse from the facilitator is

shown in bold. Where more than one participant is quoted, this is indicated by allocating a letter of the alphabet to each individual.

Throughout the results section, reference is made to 'ecstasy', and in some cases to 'MDMA'. There is a necessary underlying confusion which arises here due to the presence of tablets which may or may not contain MDMA, and which may be adulterated with other substances (Saunders, 1993; Forsyth, 1995; Shewan, et al., 1996). For the purposes of this paper, 'ecstasy' is used to refer to any tablet which is sold as purporting to contain unadulterated MDMA (cf. Forsyth, 1995).

3.2.1. Negative and positive experiences of ecstasy use

At the beginning of each focus group, the participants were asked in turn to talk about adverse experiences on ecstasy, and their strategies (if any) for coping with them. While most participants reported that they had, at some time, had some sort of negative experience with ecstasy, very few participants reported what could be described as 'major' negative experiences. For example, only two participants required medical assistance as a result of their ecstasy use, as described below:

"I took three E's, 250 mushrooms, speed, and I was meant to be DJ'ing in front of a thousand people." [Laughter]

Right.

"…and I just lost it completely. Ended up being taken to hospital by the police. They [hospital staff] gave me some valium and a cup of tea and I was fine… a bit shaken up but I was out doing more the next week."

What about the other times?

"Oh, just being violently sick and not wanting to be there."

Did you just go outside and talk to someone, get your mind off it?

"No, I drank ten pints of beer and felt much better."

Oh, uh, right…

"It worked though. Sorted me right out!" [Focus Group 4]

One participant had reported to casualty the morning following an accident which resulted in a minor head wound. In this case one tablet of ecstasy and approximately twenty units of strong alcohol had been consumed.

"I've had several [negative experiences]… I've got this small scar above my eyebrow, which is foolhardiness… lots of alcohol and I think that was the night I took a Flatliner [type of ecstasy tablet], and it was a case of these things happen, and I went to casualty the next day to get checked out. I didn't need stitches or anything but I do have this scar…"
[Focus group 5]

It should be noted that no long-term serious harm was caused for either of the above two participants.

For other participants, negative experiences also arose from what could be described as 'excessive' use:

"The only ones [negative experiences] I've had were when I took these really strong ones [ecstasy tablets]."

What kind were they, can you remember?

"The first time was two New Yorkers [type of ecstasy tablet] at the first xxx [rave event], and I just collapsed, but I was actually okay. The other time was at a rave in Dundee, and I had two Disco Biscuits [type of ecstasy tablet], and it was really just brought on by heavy duty strobes and lots of smoke, and I couldn't really see what was happening, and I felt like… well I took a sort of fit on the dancefloor."

So did someone help you?

"Somebody lifted me off the dancefloor, I'd collapsed on the dancefloor, and somebody pretty big was standing behind me and lifted me up, and I continued dancing, and it happened again, and I managed to get up myself and continue dancing [Laughter] then I crawled off the dancefloor."

You didn't take the hint and sit and cool off for a while, drink some water and all that kind of stuff?

"No, when I crawled off the dancefloor I went and sat down. I was really shaken up… it was the end of the night anyway, but I was really shaken up. I couldn't go back on to the dance floor…"
[Focus group 4]

"The only time I've ever had a bad time on E is when I took three or four different types."

At one time? [Laughter]

"Oh, yeah. In the end I couldn't speak, didn't know my name… I felt paralysed and so paranoid. The thing is, I was sitting there trying to explain to my friends what was wrong with me, but no-one was having any of it, and basically I had to stay up all night on my own until I could get to sleep. Next day I was okay."
[Focus group 4]

For one other participant a negative experience resulted from a combination of excessive use and his emotional state at the time:

"Well just the once [negative experience] and it only lasted about 5 minutes. Could've been longer like, but it only seemed like about 5 minutes."

What happened?

"Relationship hassles… too much ecstasy… more than I normally take. It… put me out of synch. I just wasn't sure what was happening for a wee while and went a wee bit mental… well not mental, just lost the plot. I was confused. You usually know where you're going with it even though you know it's… everything's going a bit slow? Your brain and everything to a certain extent… you know what's happening but things weren't happening and I just tried to block out my mind… carried on dancing and tried to block out that things were getting rocky and bad things were… I just carried on dancing and within 2 minutes or something it was out of my brain. The rest of the night was great!"

So you thought about something else and let it work itself out that way?

"Well, yeah. It was pretty bad at the time but it never lasted that long."
[Focus group 1]

Emotional problems were also identified as contributing to negative experiences on ecstasy by the following participant:

"Coming up on ecstasy, I've just not enjoyed it, and that's largely to do with not being comfortable with my own state of mind. I think I can describe it as 'I wish I hadn't done that.'"

At the time?

"After taking it, well at the time after taking it… I shouldn't have done it but I had, and it seemed to multiply on itself, so through the initial 'I'm not enjoying this' it suddenly starts doubling up."

And that happens every time?

"It hasn't recently, it did for a period of a good six to nine months."

And in that space of time how often did you do it?

"Not that often… maybe four or five."

What I was getting at was why after it happened once or twice, why did you keep doing it?

"Opportunism. Because it was there. The big shift is nowadays, the last three times I've taken it I've been more inclined to look after myself… been more cautious. For example now I'll take a half. I used to take a half in the pub and be coming up and not enjoying it… now I'd just go home, no chemical bravado, I'd just go home."

So when it happened, that was how you usually handled it, you went home?

"Yeah. I think the difference was before I'd feel bad about doing that. I'd feel obliged to either make the effort, or feel guilty about actually taking safety first measures, but that's the bit that's changed. Nowadays I'm just, 'look I'm sorry, I'm off', which I do [now] with alcohol as well."
[Focus group 5]

Some participants described how they found the initial 'coming up' phase (usually about thirty minutes after ingesting ecstasy) unsettling and unpleasant:

Participant A. "Although I've no negative experiences as such, I do often feel a slight confusion and nausea coming up on it… [ecstasy]"

I think that feeling seems to be an indicator that you're getting what you paid for. Lots of people don't seem to like it though.

A. "I still don't like it…"

Oh, sure.

B. "I know what you mean in terms of finding it alarming, I'm trying to get used to it, but I still don't like it. It's just waiting for it to settle down so you can find out what you've got."
[Focus group 5]

Participant A. "It's a curious one when you suddenly start thinking 'I wish I hadn't done that'… I get the same feeling about flying, I think 'shit, I wish I wasn't on this plane', by which point it's too late!"

B. "I know *exactly* what you mean… occasionally I'll think 'I wish I hadn't taken that', but then it passes and I just go with it.

So you can handle that?

B. "Yeah."

Is that because you know it's going to end?

B. "I think so, yeah."

Do you convince yourself that you're going to enjoy it?

B. "Yeah."

A. "I think having a few pints helps."

B. "Yeah."

A. "If you are a bit anxious, sometimes having a few drinks makes it a bit easier…"

B. "Yeah, yeah. I agree."

A." And it takes your mind off it a bit. That usually works for me.

B. "I think 'oh well', there's nothing I can do now."

A. "Well a few drinks evens it out a bit, plus I think it shifts the focus from the fact I've had an E or a couple of Es."

B. "I think that's it… I think if you have a pint and chat with people it takes your mind off whatever might be going on."
[Focus group 7]

Some people say that what they find rather concerning is when they're coming up…

"Aye, the boaks." [retching]

"Yeah, you just go with that." [General agreement]
[Focus group 8]

For these participants the 'coming up' phase was unpleasant, but an aspect of the ecstasy experience they were willing to undergo, and to cope with. For one participant, however, the coming up phase was pleasurable:

"I like coming up, very much… I know a lot of people don't like that, but I like it a lot. I think it's an important and enjoyable part of it."
[Focus group 7]

For other participants, their reported negative experiences were of a different nature:

"Mainly only as far as paying a lot of money and getting ripped off…feeling no effect. That's as far as my negative experiences go."
[Focus group 5].

For almost all participants, however, the positive effects of taking ecstasy were felt to outweigh the negative aspects, even in the case of the participant who no longer uses:
"I've had a miserable time maybe three or four times."

So after it happened the once, why did you do it again. And again. And again?

"Because there were great times in between when I'd be doing MDMA and it was amazing!"
[Focus group 4]

A similar attitude was voiced by other participants:

"The chances of having a shite time are far outweighed by the chances of a great night."
[Focus group 1].

"Sure, I've had a couple of white-knucklers [on ecstasy], but fuck it, the best times are just that: the best of times, and that's what

you remember, right? And they're worth the risk of another shite night out."
[Focus group 3].

As is discussed in more detail below under drug, set, and setting, the majority of participants reported that they employed various strategies to reduce the possibility of a negative outcome from taking ecstasy, and to maximise the chances of having an enjoyable drug taking experience.

4. Drug, set and setting

Drug, set, and setting have been identified as three basic components of a drug experience (Weil, 1972; Zinberg, 1984; Cohen, 1995). 'Drug' is particularly relevant in the context of this study due to the variability in the amount of MDMA present in a tablet, and the presence of other psychoactive drugs such as MDA, ketamine or MDE (Forsyth, 1995; Shewan et al., 1996).

'Set' is defined by Weil as a person's expectation of what a drug will do, considered in the context of a whole personality. 'Setting' is defined as the physical and social environment in which a drug is taken. As both Weil (1972) and Cohen (1995), have pointed out, the possible interactions of these components are equally important as determinants of a drug experience as are the components individually. While the following data are initially structured by individual component for the purpose of clarity, data have also been included which show evidence of participants' awareness of the importance of interaction effects.

4.1. Drug

The first application of 'drug' as an aspect of ecstasy use is actually obtaining the drug ('*scoring*'). In this respect, participants expressed a preference for there being what they perceived as a degree of reliability, or at least familiarity, with the source of their ecstasy:

4.2. Drug-scoring

Can I ask where most people usually get their ecstasy? Or how you get it?

Participant A. "Someone I know."

B. "Yeah, from a friend who usually has it."

What would be your worst case scenario for scoring ecstasy?

Participant A. "Being stuck on a housing estate without a taxi fare home."

B. "It's just this notion of scoring your E off strangers, basically…"
[Focus group 6]

"I'm more inclined to get sorted before I'm going out rather than take the chance there might be E at the club, then you get in there and, who knows? And I think it depends where you're going as well, and who you know's going to be there."
[Focus group 2].

So do you score it [ecstasy] at the club?

Participant A. "No. Absolutely not. We always get it sorted beforehand." [General agreement]

B. "We always get it off the same person, too. Have done for ages."
[Focus group 8]

However, participants described how the situation could arise where plans could go awry:

"I'm talking about those situations where you've arranged it all and the dealer hasn't turned up and you've no choice in the matter. You speak to someone you know…it's happened a few times and I'm never too happy about that because I prefer to know as close to the source as possible rather than getting it off a friend of a friend kinda thing. You know, they might not know what's in it, but my regular dealer might have some idea, or at least he'll have tried it. Apart from that, I know where my regular dealer lives, so if it's crap I can go and find him and ask for my money back."
[Focus group 7]

Under these circumstances, many participants were prepared to obtain their ecstasy from strangers:

What about if you were in a club you didn't know?

"I'd score and hope for the best…it's fairly obvious who's got it."
[Focus group 4]

"You take your chances. If you want it bad enough, you take your chances."
[Focus group 1]

Well, okay, lets say you're in a strange town and…

Participant A. "Oh that's what we were talking about on Thursday night, and I ended up doing it that same night, buying E off a total stranger…"

How would everyone else sort it out?

B. "Look for the happiest person!" [Laughter].

C. "Look for the shadiest person with a smile on his face!" [Laughter]

B. "Yeah!"

A. "Look for the person with the maddest look on his face!"
[Focus group 2]

Even under these circumstances, however, participants described some of the ways in which they would attempt to reduce the level of chance involved:

Participant A. "I'd look for someone who didn't look threatening. I'd probably ask a woman."

B. "I was just about to say that."

C. "Look for someone who's smiling and enjoying themself, and looks approachable. I have done this."
[Focus group 4]

Indeed, there was some indication among participants that they believed there were existing protocols within the ecstasy dealing network:

Participant A. "I've found that the guys selling it are usually straight… got his head together 'cos you're gonna bump into him again maybe, so…"

Sure… *but*, how do you know you're not going to get ripped off, or get a snidey?

A. "You don't."

At all?

A. "Well I don't think there's much chance of being totally ripped off in a club; the guy's going to be there all night…and thing is, there's usually a good feeling attached…you know? There's very few people who'll sell someone a good time and rip them off, 'cos it is quite, like a serious charge, getting known for ripping folk off."

Surely all these folk [ecstasy dealers] sound dodgy? You know…purely by the nature of what they do?

A. "No, not at all, no. Not from my experience."

B. "Yeah, and they're not going to rip off people who then aren't gonna come back to them."

A. "Bad business practice."
[Focus group 1]

One participant even described his belief that there were factors which mitigated against risk of obtaining fake or adulterated ecstasy tablets under what could be perceived as the most unpredictable of circumstances:

"There have been nights I've been out and the best stuff I've had has been off some shady wee ned. He's selling maybe to experienced neds and possibly he'd get a kicking for selling you crap."
[Focus group 3]

4.3. Drug-effects

One strong feature of the focus group discussions was the belief in the positive effects of 'real ecstasy' (MDMA):

Have you ever turned up at a club, raring to go and it's a crap night and it just flattens the whole evening?

Participant A. "I think if you've taken good E, then it doesn't matter what the night's like, you're still going to enjoy that E."

B. "Yeah, I agree."

A. "If the E is that good…a lot of the time the E isn't that good and that's the problem. If there is a time that you can take a good E then it doesn't matter what the situation's like, you feel *good*, you know?"

B. Yeah. You can sit and talk to people and be open…it's great."
[Focus group 3].

"I've never even considered having a bad time when I take the drug, I'm taking a chance that I'm going to get a decent one, the real MDMA love, love, love energy feeling…"
[Focus group 5].

Participant A. "It reminds you of all the things you'd forgotten you liked about each other. Generally there's so much shit going on that you forget that, whereas an E reminds you of what you actually feel. The thing is, if you've done E and you meet somebody you don't like, you still think they're a prick, you can't do ecstasy and think 'oh I really love you', you can do E and think 'nah, I still don't like you'…it doesn't change your opinions of people."

B. "Yeah, if you find someone's okay, it makes it even better. If you think they're a prick, they're still a prick, whether you're on E or not."
[Focus group 8]

Although one participant described how the pleasurable effects of ecstasy could have their downside:

"One ironic thing is that when I'm having a really good experience on ecstasy, if there's somebody I know who's selling ecstasy and I've taken one and I'm feeling really good, and I buy another one, and then I buy another one. I did that once and I collapsed in the club like, just because I was feeling that good."
[Focus group 1].

For many participants, the main risks emanating from drug derived from taking tablets which were sold as ecstasy but which contained the adulterants described above:

Can I ask if anyone has ever had one that's absolutely not been MDMA?

Participant A. "One time I definitely was taking Squares[1], and I've taken ketamine before, and I've no problems at all with ketamine, I actually like it, because it's real instant and that's fine. Squares, as it turns out *did* contain ketamine and I wasn't expecting it. I was in the wrong mood as well. It was one of the few times I got persuaded…'well okay, everyone else is doing it so I will too…', then I thought 'this is not right', I didn't enjoy that at all. However, because I did it in the house, I was able to say 'right, I'm off'. It wasn't pleasant, and the next day, I was a bit unsettled to say the least.

B. "One of my friends had a bad experience on what he thought was an ordinary Dove [type of ecstasy tablet], but suddenly everything was spinning round and he couldn't keep his balance or anything. He collapsed twice, came to in the toilets with people trying to give him drinks and everything, but he was totally confused, a real state. He's stopped taking everything now because of that. Another friend had a similar experience a couple of years ago and vowed he'd never take it again."
[Focus group 5]

Although:

C. "It might be interesting to point out that I've seen the complete opposite happen, where an evening where the entire club were buying aspirins, we got the guy later, a few people were saying they didn't get anything off it, but the majority were bouncing around with huge smiles on their faces all night having a wonderful time." [Laughter].
[Focus group 5]

4.4. Set

But while participants expressed a belief in the positive effects of ecstasy, a clear consensus emerged from the groups as to the importance of being the appropriate frame of mind, *set*, when taking ecstasy:

Let's talk about preparations you make for going out and taking E…Like, if you were in a shit mood, would you take it?

Participant A. "If I was feeling in a shite mood I probably wouldn't go out in the first place."

Have there been any nights when you've just thought 'I'm not up for it'?

A. "Oh, yeah."

[1] "Squares" were being sold in Glasgow as ecstasy. A few of the many adverse effects reported anecdotally even by experienced ecstasy users include panic and anxiety attacks, spatial distortions, and "out of the body experiences". When these tablets were analysed by the Drugs Intelligence Laboratory, they were found to contain ketamine (an anaesthetic), and ephedrine (a stimulant). For more on this, see Shewan et al. (1996).

B. "A good few."

Why?

A. "Well if I'm too tired, or sometimes I just can't be bothered. If I don't feel up to it on the night I won't bother taking anything, or probably not anyway."

It's not a written law that you've *got* to take ecstasy.

A. "Sure, but what I'm getting at is how you feel in yourself before. Do I feel happy, do I feel sad, will I go to this club, that club, or what?"

B. "I tend to save up. I go out and don't take E because it's not MDMA or whatever, so I reduce my intake until there's something on I really want to go to, and I'll like save up my experience for that, if you know what I mean."

Anyone else?

C. "Listen to music when you're getting ready to go out."

D. "A rest during the day as well. And eat. I make sure I eat."

C. "Make sure you've had enough sleep. That's really important."
[Focus group 2]

The importance of preparation and planning was also stressed by other participants:

Participant A. "I can't speak for anyone else, but when I go out I like to make it a bit of an event rather than do it every weekend. I'll do it once a month or once every six weeks, but then I really go for it big time if you know what I mean? It's like make a real session of it…it's like nine to nine in the morning, sitting watching the sun coming up."

B. "Physical and mental preparations…a wash."

A. "Yeah, usually a wash before, and then you know when you next wash, it's like you're washing the dirt and the drugs away. It's almost like a psychological thing."
[Focus group 8]

The consensus among participants was that ecstasy was not a drug that should be taken when the individual was experiencing psychological difficulties of some sort:

"It's [ecstasy] definitely something I wouldn't take if I was feeling down or depressed. It's definitely not something I would take to get out of that…there's only one drug I'd bother with and that's alcohol, you know, to get yourself through a bad patch…it's the only thing I can think of."
[Focus group 6]

Participant A. "I've had quite a few bad experiences as well…my emotional state at the time before taking the ecstasy was possibly one of great confusion, usually to do with relationships, and I was coming up on the drug and my confusion grew, and I could be on an emotional high of love for the person, to the next minute thinking about ending it all. Emotionally, every time I take ecstasy there's an impact, but these particular times when I was stressed with life and relationships…vulnerable is a perfect way to describe it, I was in a vulnerable mess to anyone who would come near me or talk to me the entire evening."

B. "When I had the problems with ecstasy, I took the drugs expecting everything to be okay, but the problems I was having at the time far outstripped the potential happy time that night and I found the E cut me off from the relationship I was in, and rather than being able to express that love openly, I focused *in* the way, causing great distress to myself and to the people around me at the time.
[Focus group 5]

You were saying earlier on you took it [ecstasy] when you weren't feeling happy, it made you more unhappy…why did you keep doing it?

"Because… I felt…"

Did you make preparations to try to make sure this didn't happen?

"…no I was going out that night anyway, and this experience came along, very scary, and it really freaked me out big time, but I went ahead and went out for the evening anyway, because I thought I'll take some drugs and I'll have a good time and it'll be fine, but of course it didn't work that way at all, in fact it was the complete opposite, it was just heavy as fuck, couldn't handle it…felt suicidal, really. I went home on my own. I just wanted to sit in the dark, not see anyone, not talk to anyone. Not listen to music or anything…you know? Everything I'd done just seemed completely empty. My head was really, really messed up, and I'd taken a whole one [ecstasy tablet] that night.

How long did this last?

"It lasted right into the next day, but eventually I talked myself out of it."

You talked yourself out of it?

"Yeah. I got to the point where it was like 'look, come on, get your act together', and reminded myself of all the things I did have and all the things that were happening in my life, like my daughter, and that's how I dealt with it. I felt awful for days and days, but I'm not sure if that was the aftermath of the ecstasy, or the aftermath of the experience in the first place. But certainly when I took the ecstasy it most certainly intensified the unhappiness.

So I assume it's not something you would try again if you felt that way?

"No, I'd probably go and get completely pissed or something!"
[Focus group 6].

One participant, however, described his belief in the capacity of ecstasy to overcome underlying negative emotions:

"I find E will take care of itself in most situations."

What? E will?

"E. If it's decent E…if you're in a bad mood or not in a particularly good mood, if it's good E you don't need to worry about that 'cos the E will take care of it."

Do you think so?

"Aye. Totally."

It changes your mood?

"Oh, absolutely."

So if you're suddenly having a crap time, you don't need to make any effort to handle it or sort it?

"Not if it's real ecstasy. It takes care of everything. For me."

Fair enough.
[Focus group 4]

4.5. Setting

Participants' expressed similar views with regard to *setting* as they did with regard to set, in that particular surroundings were perceived as being important in both maximising enjoyment and reducing problems associated with using ecstasy:

"Well before I drop my pill, I like to suss out the club, the punters, the music and stuff, just kinda make sure that I want to take it in that particular environment…don't want to drop a pill and then Motorhead [very loud heavy metal band] come on!"
[Focus group 2].

As with set, descriptions of the wrong setting in which to use ecstasy were illuminating:

"I sat in a Jacuzzi with big bags under my eyes…it was quite a scary experience, 'cos with my dilated pupils, looking around and seeing the Sunday morning hangover faces, plus the overheating effect of the water, I suddenly felt very sick and out of place on my drug [ecstasy]."

So on that occasion, what happened?

"Leapt out of the Jacuzzi, drank a pint of water and sat in a cubicle talking to myself while getting dried! I had to get away from the situation…"

Yeah, sure.

"…be away from people who obviously weren't in the same frame of mind as I was."

Is that what caused it?

"Oh, yes…the setting, definitely."
[Focus group 4]

Although one participant described the pleasant effects of taking ecstasy in what would not be regarded as a usual setting for taking the drug:

Participant A. "I've taken E sitting in the house, and I enjoyed it."

B. "I've never done that, but I'd like to."

A. "A couple of my friends took it at home, just sitting in the living room, and the two kids had got up during the night, and this was about two in the morning, and they said it was one of the best times they'd ever had…E'd out their heads with two kids, playing: how relaxing can you get?"

B. "Yeah, nice."

A. "I mean it makes you want to borrow someone's kids!" [Laughter] "Well, if not kids, cats are pretty good too!"
[Focus group 3].

Participants expressed the importance of being in the company of friends that one trusted and felt comfortable with:

"…it's happened to me a couple of times now I think about it, once fairly recently, I'd dropped one, I was coming up, and it was more to do with the company…than a bad trip. It was coming up around people that I

wasn't too sure about, and all that. I think I was noising myself up about it, but it was all very shady, and that put an edge on that immediate part of it, but how that was sorted out was that I got up and went elsewhere…but I think you've got to choose who you take it with, you know?''
[Focus group 7].

Participant A. ''Yeah, it's something that comes with experience…you know how much you can take, who you want to be with, who you feel comfortable with.''

B. ''That's right, you have your *preferred* people…''

A. ''… yeah, and again you don't even need to *talk* to them even, you can spend five minutes with them all night, but as long as you know that they're *there*, that they're about and they're alright.''

B. ''And they're having a good time.''

A. ''And you trust them enough not to go and get messed up.''
[Focus group 8].

''Even when it's a spur of the moment thing, trust me, it's a situation which should be a good situation. For example, if I was out with people I hardly knew, in another city or something, and someone offered me half an E, I don't think I'd take it, even if it was free…I'd definitely think twice about it.''
[Focus group 3].

One participant described how being in unfamiliar company had adversely affected his experience of taking ecstasy:

''It was…to do with the people I was with rather than the drugs I'd taken. I hadn't taken it [ecstasy] in about nine months, and I was like, anxious. I got tricked into taking it, I didn't know any of them [the company] but I didn't like any of them, and the only person I knew buggered off, and I sort of lost it.''
[Focus group 2]

4.6. Drug, set and setting: the importance of planning and preparation

The above data indicate participants' awareness of aspects of drug, set, and setting which can lead to both adverse and positive effects when using ecstasy. The general trend within these data is not only recognition of these factors, but also a pattern of use which was aimed towards minimising harm, while maximising enjoyment. The data below indicate participants' general awareness of the application of drug, set and setting in combination, and particularly the benefits of planning and preparing for an ecstasy-taking episode on the basis of these three principles:

You were saying about how you make arrangements for how you take your E…

''Oh, yes…the majority of times when I'm using drugs I plan it in advance, just to fit in with my lifestyle. If you're going to work on Tuesday, then at the weekends you know you can't be too many miles from home, and not have recovered fully by the time you're back in class, so pretty much it's planned. But it still happens that you have the occasional unplanned wild night, and you take something that wasn't expected, and I always leave room for that…the unexpected, because I'm sure I'd crack up if I didn't. But place and setting are very important to me now…too many times in the past I've gone somewhere and taken drugs and spent over half of the evening holding off my fears and paranoia. All because I wasn't in a relaxed atmosphere.

I like to have as trustworthy a supplier as possible, lots of happy people and friends around, and an escape route for the morning.''
[Focus group 5]

''Sometimes I've been out and it's [taking ecstasy] like the last thing on my mind, and someone might offer me a half an E, and I'll not take it if I'm not in the mood for it. It's not always a real planned thing, but I would say…most of the time when I take ecstasy it's in a situation where I know I'm probably going to be out and up for a long period of time, usually out somewhere…I don't usually sit in and take it…and normally I know that I don't have anything I'm going to have to do the next day. And then I can make a night of it.''
[Focus group 3].

So have you found that…where and when you take it [ecstasy] is important?

Participant A. ''Definitely, aye. For me it is anyway…who I'm with, and also what state of mind I'm in before I take it.''

B. ''Yeah, I'd usually want to get it sorted out [buying ecstasy] in the afternoon so we could take it in the house, a bit of wine, a smoke [cannabis], a bit of music…y'know?

A. ''If I *know* I'm gonna be taking it, there's maybe a wee bit more preparation goes intae it, and other times it's like I'm sitting in the pub on a Thursday…a few beers and somebody'll say 'come on, we're going somewhere and off you'll go. I wouldnae go to a nightclub without E.''
[Focus group 1]

While for most participants a night out using ecstasy generally involved a degree of planning and preparation, these same participants allowed for the occasional 'unplanned' night out:

Sounds like you're pretty much organised for your nights out.

Participant A. ''Yeah, but as I say, I make allowances for surprises 'cos life can't all be planned, or it would get so dull.''

B. ''Yeah, I agree with that.''

C. ''I've only started planning more recently, but that's mainly due to the fact that I was unhappy with the effect I was getting from the ecstasy…not that I was having adverse effects.''
[Focus group 3].

The principles of safer drug use described by participants were held to be important in preventing negative experiences while using ecstasy. For example, the following group described the importance of having supportive friends to offset the adverse effects of taking adulterated ecstasy tablets:

Assume that all of you went out together one night and all took, say, these squares that were kicking about last year…would being in each others company make them easier to handle?

Participant A. ''Probably…yeah, I think you could.''

You could handle a snidey[2] if you were in the right company?

A: ''As long as at least one other person had taken the same thing…''

[2] Snide or snidey in this context refers to an ecstasy tablet which can contain any number of different substances which can potentially produce a number of different effects, but *not* the euphoria of MDMA. A snidey can be taken as having made the user in some way unwell. See Forsyth (1995).

B: "Yeah, you'd be able to suss it out…"
[Focus group 2].

A minority of participants did not adhere with the view that preparation and planning were important aspects of taking ecstasy:

"I don't really plan it like that. I don't really think E is anything special anymore. It's just part of my social apparatus. Drink is as well. I don't make a big issue out of having a pint."
[Focus group 7].

One participant took a more extreme view of the role of planning and preparation in relation to drug taking. However, this view was not only contrary to that of most participants but was also challenged by another participant in the same group:

Participant A. "Planned nights out can be a bit fucking *boring*! It's another routine, and I'm not totally convinced that's what drug use is supposed to be *like* fundamentally. It's supposed to be something slightly different at least, to that kind of organised lifestyle. I think it's all become terribly sterile, the whole notion of 'well, how was your experience? I'll give it an 8 on the scale, but that's because I was sitting on a cushion with my loved one and we'd had the tablet analysed'. That to me is not drug taking. You can use a bit of chaos in your life."

B. "There you go again! I don't agree!"

A. No, no…it's just a personal opinion."

B. "Drug taking *has* to have rules!"
[Focus group 5]

4.7. Coming down

The final aspect of the ecstasy taking experience, *coming down*, also tended to be something which participants prepared for in advance:

"Planning a night, aye. Organise the evening, get hash in, get booze in for later. I like to make sure I've nothing to do the next day as well. That's a definite."
[Focus group 1]

"It's nice to have some things organised for a good night. It's good to have some hash at home and some drink maybe, even if I don't actually go home, it's good to know it's there. Also I like to know I've got the day off. I also like to have company too, when I'm coming down."

[Focus group 2].

Participant A. "The next night I like to have a few joints and a few beers and chill [relax]. It just takes off the rough edges."

B. "That's true, the comedown can be a bit nasty, and a wee drink can smooth it all off for you."

C. "Yeah, it's like being prepared, you know? It's like the more you do it the more you become…"

B. "You know what to expect."

C. "…yeah, and you know what's going to make you feel *most comfortable*, 'cos that's basically what everyone wants, is to feel as comfortable as possible, before, during and after. I mean the only hassle for us is if we've got to go somewhere, who's going to drive, that's a hassle sometimes.

D. "What I do is get a square meal inside me, a wash and a bit of a kip, and I feel right as rain usually."
[Focus group 8].

4.8. Risk

While it is apparent from the above data that participants generally took precautions which they felt would mitigate against negative experiences while taking ecstasy, a different perspective emerged from many participants when they were talking about the possible long-term risks associated with ecstasy use. One participant was concerned about the possible long-term effects:

Participant A. "You see, I find when I take acid and take other drugs it's been known for years…I've met older people and they've been taking it for years and you can see what the effects are. But with a new drug like ecstasy, when it's available then you don't know what the long term effects are, or even like long short term effects, so you're kinda…scared."

So you're quite happy to take that chance that it might happen?

"I'm no quite happy about taking it…that's why I experience so much paranoia, why I probably drink so much alcohol beforehand, 'cos if I'm rational, and sober, my mind's going overtime, like 'what the fuck am I doing this for? I'm a Protestant, I shouldn't be doing this.'" [Laughter] "I should be banging a drum."
[Focus group 1]

However, this view was not shared by other participants, and indeed the above statement was immediately contradicted by other participants in group 1:

Do you find that as well?

B. "No, never had that. I just sort of take it. It's not something I worry about 'cos I always buy it off someone I know, who buys it off someone else that I know that…they're like not dead, you know? The only reason people die of it is by being stupid and dehydrating or by getting something shady that's mixed."

C. "For me anyway it's like a combination of like, smoking hash, taking speed, taking acid, but here's a drug that's all that and makes you euphoric…can do more than all the other ones put together, and is supposedly cleaner and washes out of your body more quickly…and as far as we know there's no side-effects."

Well, that's one that the jury is still out on. I mean, there could be major league things happening with your brain chemistry…it's just a bit early…

C. "Aye, but there's not been any really obvious *bad* side-effects…"
[Focus group 1]

Other participants also indicated that they were not overly concerned over the long-term risks:

Participant A. "I've been taking it for years now, and nothing's happened."

B. "Aye, me too."
[Focus group 2]

Participant A. "Nobody seems to have been in, uh, life threatening situations, but the potential for having a good time outweighs the risk of everything going horribly wrong."

B. "Oh, yeah, absolutely."

C. "Definitely."
[Focus group 3].

Now a gloomier question…does anybody worry about long-term effects?

Participant A. "Nope."

B. "No, I've got the ostrich approach to drug taking."

C. "It's not something that worries me because I don't take very much of it."

Do you worry about the long-term effects of smoking cigarettes?

A. "Nope."

Well, why not?

"Well because I smoke, you know? If I was concerned I wouldn't."
[Focus group 7].

A slightly fatalistic perspective was taken by one participant:

"Yeah, well I'm prepared to take a chance. I know all this stuff [adverse effects], but the bottom line is it's a chance I'm prepared to take."
[Focus group 2].

5. Discussion

The possibility that using snowballing as a method for recruiting ecstasy users leads to a profile of a particular 'type' of user has been discussed elsewhere (Forsyth, 1996). As this same author points out, however, it is virtually the only method available to carry out intensive research with this population. It may be that the patterns of risk and risk limitation described here may be confined to a specific 'type' of ecstasy user, and this is a question for future research which would more fully incorporate sociodemographic and individual differences variables. Cross-cultural research would be of great value in this respect. Also, the participants described here were typically fairly experienced drug users, and different processes may occur among less experienced users.

While participants here described a range of adverse experiences resulting from ecstasy use, they reported few major harmful outcomes from these experiences. Participants described a range of coping strategies for dealing with such experiences, which partly derived from an appreciation of the interaction between drug, set, and setting. Social support networks were described as being particularly important in this respect. These strategies were applied not only during an unpleasant drug-taking episode, but were also applied when preparing for using ecstasy, and also for 'winding down' after taking ecstasy. The existence and operation of such networks could be usefully incorporated into harm reduction strategies.

Mixing ecstasy with alcohol was the most common risk behaviour reported by this sample. Other drugs were also used over the course of an evening, with cannabis being the main illicit drug of choice, followed by LSD and then amphetamine sulphate. The subject of mixing drugs was not one which arose during the group discussions, and these data come solely from a short self completion questionnaire.

In general, however, participants' awareness of harm reduction principles in relation to ecstasy use was encouraging. This did not mean that these principles were always ob-

served: there was strong evidence that on occasion a more hedonistic attitude towards ecstasy use would override such caution, with a contributory factor in this respect the extent to which users had found previous ecstasy use to be pleasurable.

A distinction should be made between actual risk and perceived risk among this group of drug users. Risk itself is a notoriously difficult concept to quantify, possessing a range of meanings that are as much dependent on the social context as the objective 'knowledge' of the individual (Douglas and Wildavsky, 1982; Dake, 1992; Rhodes, 1995). What constitutes 'risk' among ecstasy users from a subjective perspective would be clarified in future research. Almost by definition, taking a drug involves an element of risk: after this decision has been made a continuum of risk becomes apparent. The users described here, on the whole, seemed to feel that observing a number of basic harm reduction principles provided them with what they felt were acceptable safeguards. For this group, this is an element of safer drug use, which they did not see as impinging on the more hedonistic aspects of their ecstasy use.

The ecstasy-related risks which were, subjectively, most salient to this group, and which appear to have most influence on their behaviour are largely short-term negative experiences while taking ecstasy. In this context, the preparations which the group reported add an element of rational planning to the drug-taking episode. In terms of risk discourse (Douglas, 1986; Giddens, 1991; Beck, 1992; Douglas, 1992; Furedi, 1997; Reith, 1999), this could be described as 'conservative' behaviour, rather than 'true risk taking' behaviour. In the short-term, surprisingly little is left to chance by this group when taking ecstasy, to the extent that events are under participants' control. For example, when buying ecstasy tablets there is always an element of doubt as to the actual content of the pill: that said, participants did seem to try and find out about the type of experience associated with particular designs (see Forsyth, 1995). An element of impulsive behaviour is reported verbally by some of the group, but typically this is contradicted by descriptions of actual behaviour.

Furedi (1997) has argued that the greater one's perception of risk, the more conservative one's behaviour will be. This would appear to be confirmed in relation to the perceived short-term risk of the sample described here, in terms of planning, preparation and monitoring of the ecstasy experience. Indeed this pattern could be described as archetypal harm reduction drug using behaviour, both in terms of the safer drug use messages given in harm reduction leaflets, and in terms of the provision of adequate safety facilities within clubs.

However, describing the 'controlled hedonism' of this group highlights an apparent contradiction between their response to short-term and the potential long-term risk in terms of neurological damage. There was an awareness among the group of the potential long-term effects, and their response cannot be explained in terms of basic lack of information. Again in the context of mainstream risk discourse (Douglas, 1986; Giddens, 1991; Beck, 1992; Douglas, 1992; Furedi, 1997; Reith, 1999) it could be argued that this type of negative outcome has 'no meaning' to this group, given the lack of any immediate reference at this time. Rhodes (1995) argues that the long term threat of risk tends to be weighed up by individual drug users against a range of more immediate benefits that are influenced more by cultural and social factors than by the possibility of physical harm. The resultant 'model' of risk constructed by the individual is therefore a relativistic one, based primarily on personal experience and social

context. It may be that this view of risk has been influenced by long-term ecstasy users' perceptions of ecstasy-related fatalities, where the chances of this happening to them are viewed subjectively as being remote.

This study investigated the role of preparation and planning for a drug taking episode and, as such, identified a version of set which involved the intention to reduce the risk of unpleasant side-effects, or even psychological or physical harm. Common to the participants was an awareness of the benefits of being in a good state of mind prior to using ecstasy, and the potential negative effects of using ecstasy when burdened with feelings of anxiety or depression. As such, these participants could be said to *control for set*. This would seem to be contrary to the view that people use drugs to *overcome* negative emotions and cognitions.

It is the case that these ecstasy users paid heed to existing guidelines in most UK harm reduction drug information (e.g. Lifeline, 1992; Scottish Drugs Forum, 1996). Becker (1953, 1963, 1967) has described how drug knowledge, including learning the appropriate way to use a drug, is communicated among groups of drug users and this type of 'social learning' may be a feature of the patterns of drug use described here. The principles of drug, set, and setting drawn from Zinberg's work have been used in this study to analyse drug using and related risk behaviour among ecstasy users (Zinberg, 1984). McDermott et al. (1993) have described using Zinberg's principle of controlled drug use as the starting point for a health promotion initiative. It may be that the principles of drug, set, and setting could be successfully implemented in future initiatives. It is important in this respect that a clear definition of drug, set, and setting is developed as it applies to ecstasy users, and to drug users generally (Cohen, 1995). In this respect 'drug' should be seen to incorporate not only the basic pharmacology of the substance, but also factors such as amount taken, purity, and the presence of any adulterants. 'Set' should incorporate a range of psychological factors, including expectation and risk perception. 'Setting' should include immediate environmental surroundings when taking drugs, the social networks around the user, and broader socio-economic factors.

It should also be recognised, however, that while these participants do take their drugs seriously the main motivation for this is to maximise the enjoyable effects of the drug. As such, while set in these examples involves a degree of caution, it can be described as a 'positive cognition' (to maximise enjoyment) as well as a 'negative cognition' (to minimise harm).

It is a discouraging thought, but it might be that further proof is required for this population of users of the likelihood of neurological damage before this particular outcome is perceived as relevant. It is important that any such information is made available to ecstasy users in a non-sensationalistic and accurate way (Merrill, 1996).

A basic question arises at this point in relation to the future behaviour of the relatively rational and conservative group of drug users described here. Specifically, will the adoption of the safer drug use principles reported here in relation to short-term risk, and the enjoyment these participants report in relation to their use, make this group more or less amenable to behavioural change if long-term damage through ecstasy use is confirmed? Before this question can properly be answered, more information is required on the long-term neurological effects of ecstasy use. At the present time, it is important that the impact and influence of existing evidence on the behaviour of ecstasy users is carefully monitored and researched, as such indicators

my be of great value to health educationalists and policy makers in the future.

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