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Maximising the Highs and Minimising the Lows: Harm Reduction Guidance within Ecstasy Distribution Networks

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Abstract

Background—Little is known about how users build and share knowledge concerning the highs and lows of Ecstasy and the role that Ecstasy sellers play in the exchange of this information.

Methods—These findings are based on a National Institute on Drug Abuse-funded project, "An Exploratory Study of Ecstasy Distribution," conducted between 2003 and 2006. We completed indepth interviews with 120 men and women in the San Francisco Bay Area who had sold 5 or more doses 5 or more times in the 6 months prior to the interview. The research focused on buyer-seller relationships and the influence of these relationships on users' health.

Results—Users constructed harm reduction strategies in attempts to maximise the Ecstasy high and minimise the risks. The social context of Ecstasy use allowed for the exchange of harm reduction information and advice on how to maximise the pleasurable aspects of Ecstasy. Some participants served as "guides" to ensure that their customers had safe and enjoyable experiences while using Ecstasy.

Conclusion—These findings suggest that Ecstasy sellers are important points of intervention for the dissemination of harm reduction information as friendship networks were the primary link in creating awareness of safer Ecstasy use.

Keywords

Ecstasy; H	Iarm Reduction; I	Pleasure; Ecstasy	sellers	

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BACKGROUND

Study results have shown that peers influence the nature of Ecstasy use within social networks (Beck & Rosenbaum, 1994; Carlson et al., 2004; Gourley, 2004; Hansen et al., 2001; Schensul et al., 2005). Research findings also reveal that friends are one of the most common and important sources of information about Ecstasy's effects (Falck et al., 2004; Gamma et al., 2005; Murphy et al., 2006). Little is known about how users build and share knowledge concerning Ecstasy's highs and lows. Some study findings indicate that users exchange advice and information regarding controlled Ecstasy use (Southgate & Hopwood, 2001; Hansen et al., 2001). Few investigators, however, have examined the role of Ecstasy sellers in the dissemination of information among peer networks. Although sellers may not be traditionally viewed as agents of harm reduction guidance, our own research findings highlight their involvement in spreading knowledge regarding safer Ecstasy use. In this paper we examine how San Francisco Bay Area Ecstasy sellers formulated methods to maximise the pleasurable effects of their own Ecstasy experiences while attempting to minimise harms. We discuss how interviewees described their sources of information and disseminated knowledge to members of their social networks.

According to Becker's (1963) work on subcultural drug use, individuals learn how to experience drugs within a social context. Zinberg (1984) elaborated on this idea, positing that users' drug experiences are influenced by three major factors: drug (pharmacological properties of the drug), set (user's state of mind entering the use episode, along with personality factors), and setting (atmosphere in which the use episode occurs, including physical setting and surrounding people). New drug users build knowledge about drug related pleasure by observing and learning from more experienced users (Becker, 1963; Gourley, 2004). Transmission of information occurs because Ecstasy use is most often a social activity. Hunt and colleagues asserted, "the meanings [users] give drugs and the potential risks are all socially embedded and socially determined" (2007: p. 87). New Ecstasy users engage with more experienced users, who both support their use and advise them regarding what they should expect. They report they learned to overcome the drug's potentially negative side effects and find pleasure in its use (Gourley, 2004). The social network is instrumental in influencing how an individual formulates methods to maximise Ecstasy's pleasurable effects while minimising risk.

Recent studies have examined how Ecstasy users balance pleasure with risk (Copeland et al., 2006; Gourley, 2004; Hinchcliff, 2001; Hunt et al., 2007; Rodgers et al., 2006; White et al., 2006). Hitchcliff's (2001) study of women Ecstasy users in the United Kingdom found women experienced positive changes in attitude that overshadowed Ecstasy's perceived potential risks. Hitchcliff explains, "Their active construction of use allowed for a balance between pleasure and pain" (2001: p. 464). Other research findings also indicate that users created social settings in which they could achieve optimal drug using experiences while decreasing potential problems (Hunt et al., 2007).

Our study participants developed various strategies attempting to maximise the highs and minimise the lows of Ecstasy intoxication. In this paper we examine the role of pleasure in interviewees' perceived harm reduction practices. Participants did not regularly use the phrase harm reduction; for the purposes of this paper, harm reduction denotes practices described by our participants as ways to "keep safe," "protect [their] health," and "replenish the body." The empathogenic qualities of the Ecstasy high and the social bonding it produces formed closer friendships between buyers and sellers who used the drug together. Ecstasy using networks are unique because close friendships between sellers and buyers allowed for sharing of Ecstasy-related information. We found participants' social networks shaped both their perceptions of pleasurable Ecstasy experiences and harm reduction.

METHODS

We conducted an exploratory study of Ecstasy sellers in the San Francisco Bay Area (2003–2006) funded by the National Institute on Drug Abuse. The first phase of the project consisted of key informant interviews and field observations in three types of settings identified by our own and other investigators' work in this area as the main settings where Ecstasy was used and sold: 1) raves or public dance parties; 2) clubs; 3) private settings. During the second phase of the research, employing ethnographic sampling techniques, we recruited 120 participants who had sold five or more doses five or more times in the six months prior to the interview. We extended the study to relatively low-level dealers in hopes of garnering information from both initiates and experienced distributors.

We began recruitment by developing initial relationships with key informants from Ecstasy social scenes and hired these individuals as Community Consultants. Then using chain referral sampling we expanded our contacts with the help of Community Consultants and by asking interviewees to refer project staff to fellow sellers (Biernacki & Waldorf, 1981; Watters & Biernacki, 1989). In order to include a wide range of dealers, we employed a modified maximum variation sampling technique which allowed us to not only capture variation, but also to identify commonalities within a spectrum of cases. To maximise variation in sales levels, we recruited individuals who sold higher quantities of Ecstasy pills per transaction and asked participants to refer their own dealers. Concerning theoretical sampling, as themes emerged we recruited participants to help us understand the properties and dimensions of emerging concepts. For example when the theme of friendship-based buyer-seller relationships appeared, we began to recruit sellers who sold in more public settings. We thought drug sellers who sold in public, such as in raves or clubs, might also sell to individuals who they would not consider to be friends and would help us to better understand the role of setting in buyer-sell relationships. We continued to let our theoretical exploration guide our recruitment efforts until we reached theoretical saturation regarding emergent themes.

The interview process began with staff's initial contact with potential participants. When the interviewee met inclusion criteria an interview appointment was scheduled as soon as possible. Since it was not feasible to conduct interviews in the midst of a party atmosphere, we interviewed participants in their homes, at other locations of their choice or at our field offices. After acquainting the participant with the nature of the study and completing informed consent procedures, we began with the tape-recorded, depth interview followed by the questionnaire.

In our qualitative data analysis, we used the grounded theory method (Charmaz, 1983; Glaser & Strauss, 1967; Kuzel, 1992; Strauss & Corbin, 1990). This method is employed in an effort to both discover new theory and reconstruct existing theory where it is applicable (Buroway et al., 1991). We began initial coding with the first completed interviews. In the coding we noted patterns that seemed salient due to their recurring nature. Through coding the data for salient dimensions, constellations of basic social, social-psychological and structural processes were discovered. The code list was derived directly from the interview texts and consisted of subject areas that, by virtue of the time the interviewee spent discussing them and/or their recurrent nature, seemed important. While reviewing the depth interview data, we generated relevant codes and linked descriptive themes regarding Ecstasy sellers' use of harm reduction and pleasure enhancing strategies as well as the exchange of information between sellers and buyers. Due to the recurring nature of these and other themes, we would then revise the interview guide to further explore these topics.

RESULTS

Description of the Sample

These findings are based on 120 participants, 91 (76%) men, 28 (23%) women, and 1 (1%) transgender between the ages of 19 and 53 years with a median age of 27. Seventy-five (62%) of the interviewees were white, 12 (10%) African-American, 11 (9%) of mixed ethnicity, 10 (8%) Latino, 9 (8%) Asian, 2 (2%) Middle Eastern, and 1 (1%) Native American. The Ecstasy sellers we interviewed were predominantly white, male, middle to upper-middle class, and in their twenties.

Many interviewees described themselves as members of dance or art communities in which Ecstasy use was commonplace. These participants often sold within such networks to friends and acquaintances. In fact, the majority of sellers (98%) were also users and sometimes used Ecstasy with their customers. On average, interviewees sold ecstasy from 3 to 365 days out of the year, with a median of 49 days a year. In a typical week, interviewees sold between 2 and 2500 hits of Ecstasy with a median of 15 hits per week. While some viewed their Ecstasy sales as an important financial endeavour, most sellers also felt they provided a service to their friends (Jacinto et al., 2008). Eighty-nine percent of those who sold in private settings sold to their friends. Of those who sold at raves, 85 percent sold to their friends along with 78 percent of those who sold at clubs. Participants regarded trust as important in their relationships with their customers and dealers. These friendship-based relationships were a key factor in the exchange of quality Ecstasy and potentially useful information about how to maximise the highs and minimise the lows.

Sources of Ecstasy Information

Our interviewees obtained Ecstasy-related health information from various sources. Most participants reported that learning from their own Ecstasy experiences and those of their friends was the most valuable way to build knowledge about the drug. They believed that their own Ecstasy use episodes best informed them about how to manage possible negative outcomes and enhance the Ecstasy high. As noted by this 30-year-old man, sellers found it difficult to trust outside sources.

You know the information that is out there is, like I said, very Reefer Madness...I haven't had a lot of experience with seeing a lot of the research that's been done on Ecstasy use. The information I like that pretty much is, you know, like as far as taking vitamin C and hydration and all that stuff is just from experience kind of. So I mean that's where I would get my information from. It's just my own personal experiences.

Peers were also trusted sources of information as sellers observed them as active agents in Ecstasy using social worlds. As with Becker's (1964) research, our participants learned how to use drugs from more experienced users. Even when sellers were not present to witness their friends' use episodes, peers still provided anecdotal information that helped build participants' overall knowledge. Interviewees perceived information from their peers as one of the most trusted resources of Ecstasy information as illustrated in the following quote from a 27-year-old man:

Humans are definitely the most valuable [source of information] because it's from experience. Like when I'm reading it, I can never fully trust it as much as if it's somebody that I know and love or trust that has experienced this stuff. So I think one-on-one is the primary source for education.

Similar to Gamma's (2005) findings, participants described other sources of Ecstasy information, such as television and the Internet; however trust in these types of sources varied. Regardless of what resources they had available to them, the majority of our sample felt unsure

about the real health effects, short and long term, of Ecstasy use. They relied mostly on friends and their own personal experiences to formulate harm reduction strategies as well as methods to maximise the pleasurable aspects of the drug experience. Although their Ecstasy knowledge may have been more experiential than scientifically based, participants perceived particular methods as successful and worthy of sharing with customers.

Maximising the Highs

When asked about the various effects of their Ecstasy use, many of our participants' responses conveyed the drug's positive impact. Some said the high made them euphoric and they had lots of energy while others said it made them feel relaxed. Ecstasy allowed some interviewees to feel more open and bond with others; many regarded this type of experience as both pleasurable and therapeutic. Participants practised various strategies to maximise the pleasure of the Ecstasy high. One of the more common practices mentioned was taking the drug on an empty stomach, which they believed enabled them to metabolise the drug more quickly and to "come on" faster.

Interviewees reported using other drugs in combination with Ecstasy to intensify the positive effects. For example, some interviewees liked to smoke marijuana upon peaking to enhance the high or as they were coming down to prolong the experience. Additionally, a few participants mentioned using GHB to extend the high or Viagra to heighten sexual feelings with Ecstasy. Reportedly "candy flipping" (taking LSD with Ecstasy) or "hippie flipping" (taking mushrooms with Ecstasy) also intensified the Ecstasy high.

Another method to maximise the high was to utilize various props or toys to enhance tactile and visual stimulation. One participant commented, "I knew all the little tricks and gadgets to kind of boost you." A popular technique was to use Vicks VapoRub (a mentholated salve used to alleviate cough and congestion) by applying it under the nose or in a mask worn over the mouth and nose to intensify the multi-sensory experience. Similar practices included applying lotion, exchanging massages, sucking on candies, and watching or performing light shows.

Interviewees also explained how various routes of administration influenced Ecstasy highs. While most had tried snorting, it had a much less positive reputation than other routes of administration. Sellers in our sample relayed rumors of using Ecstasy as a suppository supposedly producing the best high, though few had attempted that route of administration. Some participants dissolved the Ecstasy tab under the tongue, which was believed to make them feel the drug faster.

Interviewees' other recommendations to increase pleasure reflect the relevance of set and setting (Zinberg, 1984). Several sellers discussed the importance of being in a positive state of mind prior to use, which was also seen in Panagopoulos & Ricciardelli's (2005) work where their participants suggested entering a use episode in a positive emotional state to achieve a better Ecstasy experience (also see Shewan et al., 2000). In Gourley's (2004) and Hunt's (2007) studies, both samples described the environment, their mental state, and being around close friends as allowing them to get the most out of their Ecstasy experiences. Similarly, our interviewees emphasised the importance of taking Ecstasy in comfortable surroundings that included being with trusted friends, as evident in the following quote from a 26-year-old woman:

I tell people if they're nervous to make sure they're only around people they trust and around music that they like and um, I think I would tell anybody that, yeah that's how you achieve the maximum benefit, is by being in a great setting.

Another interviewee, a 19-year-old Middle Eastern man, spoke about how a rave setting, in particular, can maximise the high. His thoughts typify comments we heard about using Ecstasy at raves.

The way I feel about E is that at rave parties or where everyone is a lot more aware of drug-induced feelings, there's a whole ambiance where...people are going to be there to make it feel the best it can, you know? They're gonna wrap things around you that they know will feel cool when you're on Ecstasy, and the music is almost-I feel in a way it's almost made for it. It's made for these kinds of drugs and just the whole ambiance, and the people is sort of what makes it an ideal place to do it.

While Ecstasy's inherent properties may have contributed to pleasurable use episodes, participants stressed the relevance of a positive setting, whether at a rave or at an intimate house party, in creating the optimal drug experience. Even though they regarded the Ecstasy high as a positive experience, they were still aware of possible negative outcomes.

Minimising the Lows

Despite the positive appeal of the Ecstasy high, our participants experienced some negative effects from Ecstasy use. For our interviewees, the most troublesome consequence of Ecstasy use was the comedown and hangover that followed the next day or two days later, or what some interviewees called "the day after the day after." Ecstasy hangovers were described from mildly debilitating -- feeling tired and a little cranky -- to serious depression lasting several weeks or even months. This finding is consistent with other studies that indicate depressive symptomatology is a common problem among heavy Ecstasy users (Curran & Travill, 1997; Hinchcliff, 2001; Lieb et al., 2002; MacInnes et al., 2001; Parrot & Lasky, 1998; Soar et al., 2006; Verheyden et al., 2003). One 28-year-old woman shared her experiences with depressive mood.

For the first like 12 hours or 10 hours, 7 sometimes, 4 hours, yeah, sure it's great, it's wonderful, everything is great. And then afterwards I just get, like, the depression builds along with it... it feels like a chemical imbalance. I can feel, mentally, I can rationalize everything that's going well in my life and how happy I really am, but I just can't- my body just doesn't buy into it and for like a week, 5 days I'm just knocked out with depression. I don't want to get up. I'm totally apathetic about everything. I don't want to eat. I'm just like, eh, miserable.

In order to avoid depressive symptoms and other side effects, such as exhaustion and body aches, participants constructed strategies to reduce negative effects of the drug. One of the most common ways thought to counteract depression was to take 5-hydroxytryptophan (5-HTP), a serotonin precursor. Researchers have found that taking 5-HTP, also known as "Nature's Prozac," may aid in attenuating brain neurotoxicity and serotonin depletion (Birdsall, 1998; Erowid, 2001; Sprague et al., 1994; Weir, 2000), although Sprague and colleagues' (1994) research was conducted with rats who were administered high doses of 5-HTP via injections. While the following participant's success with ingesting 5-HTP after taking Ecstasy may have been psychosomatic, this 33-year-old man believed that this strategy reduced his potential depressed mood.

Well I know that [Ecstasy] depletes the serotonin in your brain so I know sometimes that it does afterwards make you feel depressed...so what I'll do sometimes I'll take, um, 5-HTP for a week afterwards...I'll take it the week after, everyday a couple times a day maybe a few times a day actually. And it'll help as far as change my mood and it'll help with the serotonin.

Some participants used other methods to lessen physical side effects, which included fatigue, lethargy, and body aches, rather than depressed mood. They restored their health by drinking

water or electrolyte drinks when dehydrated, and eating a power bar or drinking juice. Other people made sure to stretch muscles to release tension and cramping, especially after dancing for long periods of time. Similar to other studies (Allott & Redman, 2006; Baggott, 2002; Measham et al., 2001), participants also practised "preloading", which is taking vitamins, such as B, C and potassium, or antioxidants, such as Menthlysulfonylmethane (MSM), before taking Ecstasy. Some also made sure to get plenty of rest and to eat healthy, protein-rich foods in the days before and after an Ecstasy use period.

Participants developed various methods of diminishing the negative effects of Ecstasy that they believed were successful. Some methods had the added benefit of also maximising the high – in essence performing "double duty." In the following section we describe some of our participants' double duty strategies that simultaneously maximised the highs and minimised the lows of the Ecstasy experience.

Double Duty Strategies

An overall pleasurable Ecstasy experience can be characterized as feeling the maximum effects of the drug high while curtailing the negative health effects, both during the use episode and in the days following. Some sellers recognized that minimising lows helped to induce a better Ecstasy high and shared this information with their customers. For example, one belief was the importance, especially for novices, of starting with small doses of Ecstasy. This technique allowed new users to ease into the experience and not become overwhelmed when feeling the initial effects of the drug. One 41-year-old Latino said,

My advice to anybody that I know might be trying it or that I'm giving it to, take a half a hit or quarter hit to whatever you feel comfortable with and then if you feel good about it continue taking the rest of the pill.

Another common piece of advice we heard from our participants was to avoid drinking alcohol. This suggestion worked to both maximise the pleasurable effects and minimise the hangover as explained in the following quote from a 23-year-old man:

I tell 'em try not to drink too much alcohol 'cause that will overpower it in some cases and they won't get their full effect and their money's worth out of it...I was like, 'Well, you know, you're not gonna feel it right away, it's kind of a waste of your money at the bar. But tomorrow you're probably gonna feel like shit because you're drinking more than you can actually really handle, so you'll wake probably feeling like shit tomorrow.'

Many interviewees found that using the drug too often decreased Ecstasy's positive returns and exacerbated their hangovers. Participants' reports are consistent with other research findings regarding drug tolerance. (Cottler et al., 2001; Parrott, 2005; Verheyden et al., 2003). After using weekly for a few months, they no longer felt the euphoric effects and instead experienced only physical exhaustion and depressive symptoms in the days following use. Some interviewees did not take Ecstasy excessively to ensure their ability to achieve maximum highs while avoiding negative effects. One 39-year-old man said,

The more you do [Ecstasy], the less effect it has. You know when I was doing it like weekly or every couple weeks, I was definitely getting diminished returns and that's one of the things that made me want to stop doing it so often.

Some interviewees attributed negative outcomes to using adulterated Ecstasy. Procuring Ecstasy from trusted dealers was an important strategy for achieving the best high while avoiding a bad experience due to the unexpected effects from different substances. Similar to other studies' findings, most sellers in our study avoided these problems by obtaining the drug from a consistent, trusted source (Carlson et al., 2004; Hansen et al., 2001; Measham et al.,

2001). Procuring Ecstasy from a reliable source contributed to a positive set when beginning a use episode, enabling users to relax and enjoy their experience, trusting they were avoiding harmful adulterants.

Study participants engaging in double duty strategies reflect the interconnected nature of pleasure enhancement and harm reduction, both in their own use and in their advice to customers. Their ultimate enjoyment of the drug's effects hinged upon their ability to decrease any negative outcomes. They realized their customers' desire for the same type of experience and distributed information on how to maximise the high while minimising the lows. This finding is particularly remarkable because Ecstasy sellers in our study were more than just a source of Ecstasy. They provided a complete Ecstasy experience, which included advice on how to maximise the highs and minimise the lows. Sometimes sellers were present when their customers/friends used Ecstasy, acting as guides to ensure a safe and pleasurable experience.

Sellers as Guides

Members of Ecstasy using networks regularly looked after each other while using the drug. Many sellers were part of dance communities where the norm was to share Ecstasy information among friends and strangers. The user-seller communities in which they belonged fostered trusted communication. Similar to Southgate and Hopwood's (2001) "network nannies" and participants in Hansen and colleagues' (2001) study, some interviewees felt that it was important to be a designated caretaker for their Ecstasy using friends. The network nanny's role was to enhance the experience of new users, provide support, monitor physical and psychological effects of the drug, and, in crisis, help with "trouble-shooting." Our findings demonstrate that 16 percent (n= 19) of sellers in our sample took on a similar role. These individuals advised customers about maximising the Ecstasy highs and minimising the lows, while monitoring their friends during their drug using episodes. Our interviewees described roles similar to network nannies such as "guide" and "trip sitter." One interviewee, who was often a caretaker to many of her friends and customers, explained the responsibilities of a guide.

I've been people's guides you know on their first times doing various [drugs]. I've actually had a bunch of people request that I be their first person around them which, you know, it's a huge honour, it's a huge responsibility and you know you got to treat them with care and monitor where they're at...and providing a safe and comfortable environment for them and trying to enhance the experience as much as possible, having fun things around and toys and music...try to make it as fun as possible, be there to listen if they need to talk, emotionally supportive is huge.

Another interviewee stressed the importance of having a trip sitter during one's first Ecstasy experience. He said that having a knowledgeable and seasoned user monitor novices is important for their physical and emotional safety. One 24-year-old male interviewee was conscientious about distributing a potentially dangerous drug and acted as a trip sitter for his friends.

A lot of times people would be like, 'Okay we're going out tonight, [name] can you hook some E up for us please?' I'm like, 'I'll hook it up.' And I'm going out with the people that are taking it and because they're taking it, it's like automatically I'm not going to take it. 'Cause I'm going to be the mentally stable one tonight. Cause I'm a person that when I'm out with my friends and I know like I sold them E, it's like I have that conscience that I need to look out for them. Yeah, like, okay, I sold this person the E, if anything they're not going to get in trouble when they're on it, not with me at least.

Additionally, a few sellers exhibited concern for their customers by refusing to sell to friends who they believed were abusing Ecstasy. One participant saw himself as a "drug dealer with a conscience."

Guides and trip sitters served as sources of Ecstasy as well as support during their customers' use episodes. In addition to selling a product, Ecstasy sellers also provided information. The guides and trip sitters offered a complete experience -- a total package of quality drugs, pleasure enhancement, and harm reduction. Not all of the study participants regarded themselves as altruistic; instead some expressed their desire to engage in the business of Ecstasy dealing with no questions asked, no advice given. These participants were profit-motivated, expecting their customers to know about the drug they were purchasing. Still, the majority of the sample were at least willing to share what they had learned about maximising the pleasurable effects of the drug while maintaining health-consciousness.

CONCLUSION

The sharing of Ecstasy use and health strategies between sellers and buyers was an important aspect of their communities. Participants conveyed the belief that they were selling and using a distinctive drug that could produce a range of pleasurable and harmful effects. Ecstasy's unique psychopharmacology, particularly its empathogenic qualities, lends itself to social bonding between Ecstasy users, and as we discovered, between buyers and sellers since they often used together. Furthermore, sellers aided in creating a pleasurable set and setting in which customers could take the drug by providing information and guidance regarding Ecstasy use. Many perceived Ecstasy to have therapeutic value and took pride in giving their friends positive drug experiences, seeing themselves as providing a service. Similar to Southgate and Hopwood's (2001) and Hansen and colleagues' (2001) studies, our findings demonstrate that lay experts in Ecstasy using social networks engaged in folk pharmacology. Our findings are important because Ecstasy sellers, in particular, distributed harm reduction strategies among their networks.

Relying upon their own experiences and those of their friends and customers, some sellers became lay experts on the drug's potential benefits and pitfalls. As members of social worlds where Ecstasy use was customary, having such knowledge about the drug was expected. However, participants' knowledge of harm reduction techniques may not have always been accurate as it was rarely based on scientific research. The exchange of inaccurate information may endanger users rather than benefit them, which is troubling. It is noteworthy that study participants were only Ecstasy experts insofar as they were experienced drug users and sellers. While some of their knowledge was impressive, given they were not scientists in the field, they lacked complete medical knowledge about Ecstasy and proven harm reduction strategies. If armed with the most science-based and up-to-date information, these sellers could be effective educators.

Although drug sellers are not traditionally seen as peer educators, our findings suggest that sellers are important points of intervention for the dissemination of harm reduction information as friendship networks are a primary link in creating awareness of safer Ecstasy use. Participants reported that their friends were the most trusted sources of information. Findings from our study indicate that targeting sellers with information can be an effective pathway for the propagation of lifesaving information to users. Translations of research findings should be accessible to Ecstasy user/sellers so that the information they pass on is more than anecdotal. Harm reduction agencies may be interested in Ecstasy sellers taking the role of distributors of valuable information. While drug sellers are not traditionally thought of as dispensers of health-conscious advice, the guides in our sample revealed that they had an interest in protecting their customers', or, more often, their friends', well-being.

There were some limitations of our study in regards to this paper's topics. One limitation is that the theme of maximising the Ecstasy high was not one of our original foci. This theme emerged too late in the course of the study to shape the focus of data collection, and specific data analyses became difficult. For example, while we gathered data from all interviewees regarding their levels of Ecstasy sales, we did not investigate harm reduction guidance in every interview due to its later emergence. Therefore, we were not able to analyze the differences regarding sales level's effect on the likelihood of sharing harm reduction and drug enhancing practices since relevant questions on this topic were not asked consistently in early interviews. Additionally, it would have been beneficial to examine systematically under what conditions or circumstances maximising Ecstasy highs took precedence over health concerns. Future studies should investigate further the Ecstasy high and the connection between maximising pleasure and minimising negative outcomes. Second, we did not ask all participants if they had served as guides for other users, as this notion arose in some early interviews, which caused us to probe for information concerning caretaking practices in later interviews. The concept of caretaking practices among both users and sellers would benefit from further exploration.

Harm reduction has been a continually growing movement. Among our study participants the construction of strategies to enhance drug highs while possibly reducing the harms was particularly noteworthy. Traditionally, harm reduction proponents have advocated minimising drug-related harms. We found that harm reduction may also encompass increasing pleasure, which is the first step in examining an alternative approach to harm reduction. Future research should explore whether or not pleasurable Ecstasy use may be safer than other use practices. The promotion of pleasurable drug use may be controversial, but in the context of harm reduction, novel methods of reaching users deserve to be explored. When supplied with timely and accurate information, perhaps user/sellers may teach us a different way of practising harm reduction by incorporating understandings of pleasure within harm reduction models.

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References

- Allott K, Redman J. Patterns of use and harm reduction practices of ecstasy users in Australia. Drug and Alcohol Dependence 2006;82:168–176. [PubMed: 16226850]
- Baggot M. Preventing problems in ecstasy users: Reduce use to reduce harm. Journal of Psychoactive Drugs 2002;34:145–162. [PubMed: 12691205]
- Beck, J.; Rosenbaum, M. Pursuit of Ecstasy: The MDMA Experience. Albany: State University of New York Press: 1994.
- Becker, H. Outsiders: Studies in the Sociology of Deviance. New York: Free Press; 1963.
- Biernacki P, Waldorf D. Snowball sampling: Problems, techniques and chain-referral sampling. Sociological Methods and Research 1981;10(2):141–163.
- Birdsall T. 5-hydrotryptophan: A clinically-effective serotonin precursor. Alternative Medicine Review 1998;3(4):271–280. [PubMed: 9727088]
- Buroway, M.; Burton, A.; Ferguson, A.; Fox, K.; Gamson, J.; Gartrell, N.; Hurst, L.; Kurzman, C.; Salziner, L.; Schiffman, J.; Ui, S. Ethnography Unbound: Power and Resistance in the Modern Metropolis. Berkeley and Los Angeles, CA: University of California Press; 1991.
- Carlson RG, Falck RA, McCaughan JA, Siegal HA. MDMA/Ecstasy use among young people in Ohio: Perceived risk and barriers to intervention. Journal of Psychoactive Drugs 2004;36(2):181–189. [PubMed: 15369199]

Charmaz, K. Contemporary Field Research. In: Emerson, R., editor. Contemporary Field Research. Boston: Little-Brown; 1983. p. 109-126.

- Copeland J, Dillon P, Gascoigne M. Ecstasy and the concomitant use of pharmaceuticals. Addictive Behaviors 2006;31:367–370. [PubMed: 15961251]
- Cottler LB, Womack SB, Compton WM. Ecstasy abuse and dependence: Applicability and reliability of DSM-IV criteria among adolescents and young adults. Human Psychopharmacology 2001;16:599–606. [PubMed: 12404539]
- Curran HV, Travill RA. Mood and cognitive effects of +/-3,4-methylenedioxymethamphetamine (MDMA, 'ecstasy'): Week-end 'high' followed by midweek low. Addiction 1997;92(7):821-831. [PubMed: 9293041]
- Erowid. Do antioxidants protect against MDMA hangover, tolerance and neurotoxicity? Erowid Extracts 2001 December;2:6–11.Retrieved from
 - $http://www.erowid.org/chemicals/mdma/mdma_article3.shtml\\$
- Falck RS, Carlson RG, Wang J, Siegal HA. Sources of information about MDMA (3,4-methylenedioxymethamphetamine): Perceived accuracy, importance, and implications for prevention among young adult users. Drug and Alcohol Dependence 2004;74(1):45–54. [PubMed: 15072806]
- Gamma A, Jerome L, Liechti ME, Lumnall HR. Is ecstasy perceived to be safe? A critical survey. Drug and Alcohol Dependence 2005;77(2):185–193. [PubMed: 15664720]
- Glaser, B.; Strauss, A. The Discovery of Grounded Theory. Chicago: Aldine; 1967.
- Gourley M. A subcultural study of recreational ecstasy use. Journal of Sociology 2004;40(1):59-73.
- Gouzoulis E, von Bardeleben U, Rupp A, Kovar KA, Hermle L. Neuroendocrine and cardiovascular effects of MDE in healthy volunteers. Neuropsychopharmacology 1993;8(3):1987–1993.
- Hansen D, Maycock B, Lower T. 'Weddings, parties, anything...', A qualitative analysis of ecstasy use in Perth, Western Australia. International Journal of Drug Policy 2001;12:181–199. [PubMed: 11399420]
- Hinchcliff S. The meaning of ecstasy use and clubbing to women in the late 1990s. International Journal of Drug Policy 2001;12:455–468.
- Hunt GP, Evans K, Kares F. Drug use and meanings of risk and pleasure. Journal of Youth Studies 2007;10(1):73–96.
- Jacinto C, Duterte M, Sales P, Murphy S. 'I'm not a real dealer': The identity process of Ecstasy sellers. Journal of Drug Issues. 2008forthcoming
- Kuzel, A. Sampling in qualitative inquiry. In: Crabtree, BF.; Miller, WL., editors. Doing Qualitative Research. Newbury Park, CA: Sage; 1992. p. 31-45.
- Lieb R, Schuetz CG, Pfister H, von Sydow K, Wittchen H. Mental disorders in ecstasy users: A prospective longitudinal investigation. Drug and Alcohol Dependence 2002;68:195–207. [PubMed: 12234649]
- MacInnes N, Handley SL, Harding GFA. Former chronic methylenedioxymethamphetamine (MDMA or ecstasy) users report mild depressive symptoms. Journal of Psychopharmacology 2001;15(3):181–186. [PubMed: 11565625]
- Measham, F.; Aldridge, J.; Parker, H. Dancing on Drugs: Risks, Health and Hedonism in the British Club Scene. London: Free Association Books; 2001.
- Morton J. Ecstasy: Pharmacology and neurotoxicity. Current Opinion in Pharmacology 2005;5:79–86. [PubMed: 15661630]
- Murphy PN, Wareing M, Fisk JE. Users' perceptions of the risks and effects of taking ecstasy (MDMA): a questionnaire study. Journal of Psychopharmacology 2006;20(3):447–455. [PubMed: 16574719]
- Parrott AC. Chronic tolerance to recreational MDMA (3,4-methylenedioxymethamphetamine). Journal of Psychopharmacology 2005;19(1):75–87.
- Parrott AC, Lasky J. Ecstasy (MDMA) effects upon mood and cognition: before, during and after a Saturday night dance. Psychopharmacology 1998;139:261–269. [PubMed: 9784083]
- Rodgers J, Buchanan T, Pearson C, Parrott AC, Ling J, Heffernan T, Scholey AB. Differential experiences of the psychobiological sequelae of ecstasy use: Quantitative and qualitative data from an internet study. Journal of Psychopharmacology 2006;20(3):437–446. [PubMed: 16174668]

Schensul JJ, Diamond S, Disch W, Bermudez R, Eiserman J. The diffusion of ecstasy through urban youth networks. Journal of Ethnicity in Substance Abuse 2005;4(2):39–71. [PubMed: 16275634]

- Shewan D, Dalgarno P, Reith G. Perceived risk and risk reduction among ecstasy users: The role of drug, set and setting. International Journal of Drug Policy 2000;10:431–453.
- Soar K, Turner JJD, Parrott AC. Problematic versus non-problematic ecstasy/MDMA use: The influence of drug usage patterns and pre-existing psychiatric factors. Journal of Psychopharmacology 2006;20 (3):417–424. [PubMed: 16574716]
- Southgate E, Hopwood M. The role of folk pharmacology and lay experts in harm reduction: Sydney gay drug using networks. International Journal of Drug Policy 2001;12:321–335.
- Sprague JE, Huang X, Kanthasamy A, Nichols DE. Attenuation of 3,4 methylenedioxymethamphetamine (MDMA) induced neurotoxicity with the serotonin precursors tryptophan and 5-hydroxytryptophan. Life Science 1994;55(15):1193–1198.
- Strauss, A.; Corbin, J. Basics of Qualitative Research. Newbury Park, CA: Sage Publications; 1990.
- Verheyden SL, Hadfield J, Calin T, Curran HV. Sub-acute effects of MDMA (3, 4-methylenedioxymethamphetamine, "ecstasy") on mood: Evidence of gender differences. Psychopharmacology 2002;161:23–31. [PubMed: 11967627]
- Verheyden SL, Maidment R, Curran HV. Quitting ecstasy: An investigation of why people stop taking the drug and their subsequent mental health. Journal of Psychopharmacology 2003;17(4):371–378. [PubMed: 14870948]
- Watters J, Biernacki P. Targeted sampling: Options for the study of hidden populations. Social Problems 1989;36(4):416–430.
- Weir E. Raves: A review of the culture, the drugs and the prevention of harm. Canadian Medical Association Journal 2000;162(13):1843–1848. [PubMed: 10906922]
- White B, Degenhardt L, Breen C, Bruno R, Newman J, Proudfoot P. Risk and benefit perception of party drug use. Addictive Behaviors 2006;31:137–142. [PubMed: 15907371]
- Zinberg, NE. Drug, Set and Setting: The Basis for Controlled Intoxicant Use. New Haven, CT: Yale University Press; 1984.