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Understanding recreational ecstasy use in the United States: A qualitative inquiry

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Abstract

Background—Ecstasy use has increasingly become popular among young adults, many of whom view it as a safe drug with no or limited negative social and health consequences. In this paper, we explore the perceptions of ecstasy users about its recreational use as well as regarding the normalization of use.

Methods—The study participants were recruited using targeted and theoretical sampling. To be eligible, they had to be between 18 and 25 years and have used ecstasy at least four times within the past 90 days. In-depth interviews were conducted with 112 individuals. Data analysis included the constant comparison method commonly used in modified grounded theory.

Results—The study participants associated their recreational ecstasy use with control, shaping both the timing and setting of their use. In addition, they supported that easy access/availability and social accommodations of use contributed to their acceptance of ecstasy use as a normal part of life. Moreover, low risk perceptions of the social and health consequences of ecstasy used were identified as resulting in normalization.

Conclusion—The study findings reveal the importance of considering recreational ecstasy use from the perspective of the users themselves for prevention efforts and when providing social and health services, including intervention strategies. In addition, the potential normalization of ecstasy use must be considered.

Keywords

ecstasy; young adults; recreational drug use

Introduction

Ecstasy and its users began receiving media attention in the United States in the mid-1990s. During the 1970s and 1980s it was used in some psychotherapy as a means to assist people to cope with past traumatic past experiences (Beck & Rosenbaum, 1994; Millman & Beeder, 1994). The increase in the use of ecstasy among young adults in the 1990s triggered attention

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and a renewed interest among policymakers, service providers, researchers, and the general public (Beck & Rosenbaum, 1994). By the year 2003, in the United States ecstasy became a Schedule I drug under the Controlled Substance Act (Drug Enforcement Administration, 2003).

During the 1980s, at least a decade earlier than in the United States, ecstasy use already was being noticed in other parts of the world, most notably in the United Kingdom and in Australia. Its use frequently was associated with raves (Diemel & Blanken, 1999; Forsyth, Barnard, & McKeganey, 1997; Hammersley, Khan, & Ditton, 2002; Hammersley, Ditton, Smith, & Short, 1999; Hitzler, 2002; Measham, Parker, & Aldridge, 1998; Schwartz & Miller, 1997; Riley, Gregory, Dingle, & Cadger, 2001; Spruit, 1999). In the 1990s, the rave rage blew over to North America (Gross, Barrett, Shestowsky, & Pihl, 2002; Sloan, 2000). Ravers (those attending raves) tended to be young and white, and predominantly from a middle class background in the United States (Johnston, O'Malley, & Bachman, 2001). Subsequent studies among ecstasy users revealed an increased representation of non-white and non-middle class individuals. For example, this trend was reported in the United Kingdom (Measham et al., 1998), the Netherlands (Spruit, 1999), and the United States (Artigiani & Wish 2001).

To date, ecstasy remains easily available on the drug market in the United States (Byrnes, 2003; Chang, 2001; Madsen et al., 2006; Schensul, Diamond, Disch, Bermudez, & Eiserman, 2005), which may explain the spread of its use into wider groups and more diverse settings (Boeri, Sterk, and Elifson, 2004; Eiserman, Diamond, & Schensul, 2005). Increasingly, U.S. studies conducted by social science and public health researchers began focusing on the potential negative consequences of ecstasy use, including inquiries with a focus on the need for effective prevention and health education about ecstasy (Baggott, 2002; Carlson, McCaughan, Falck, Wang, Siegal, & Daniulaityte, 2004; Dew, Elifson, and Sterk, 2006; Theall, Elifson, and Sterk, 2006; Gamma, Jerome, Liechti, & Sumnall, 2004; McElrath & McEvoy, 2002; Reid, Elifson, and Sterk, 2006; Riley, & Hayward, 2004; Sholey, Parrott, Buchanan, Heffernan, Link, & Rodgers, 2004). Findings from these and other studies reveal that ecstasy is typically viewed as a relatively safe drug with minimal health consequences. In terms of its social consequences, the main risk was being detected as using an illegal substance and subsequent criminal justice involvement. Among those users who did express some awareness or concerns of health risks associated with ecstasy use, their positive use experiences tended to overwrite their worries (Boys, Fountain, Marsden, Griffiths, Stillwell, & Strang, 2000; Gamma, Jerome, Liechti, & Sumnall, 2005; Hansen, Maycock, & Lower, 2001; Lenton, Boys, & Norcross, 1997; Shewan, Dalgarno, & Reith, 2000; Topp, Hando, Dillon, Roche, & Solowij, 1999). Ecstasy, despite its illegal nature, was viewed as a substance that did not interfere with leading a normal life in mainstream society. Parker and his colleagues introduced the notion of a possible "normalization" of ecstasy and other club drugs in the United Kingdom, especially among recreational users (Measham, Newcombe, & Parker, 1994; Parker, Williams, & Aldridge, 2002; Parker, 2005). They defined recreational use as "the occasional use of certain substances in certain settings and in a controlled way" (Parker, 2005, p.206) with a recognition of such use as "perceived and sometimes tolerated as an embedded social practice" (Duff, 2005, p.162). The normalization of club drugs was supported by the reality that young British drug users included "well-adjusted and successful goal-oriented, non-risk taking young persons who see drug taking as part of their repertoire of life" (Parker, 1997, p.25). Parker and colleagues distinguished five dimensions of normalization, including access/availability, drug-trying rates, rates of recent/regular drug use, social accommodation of sensible recreational drug use, and cultural acceptance. In this paper, we explore the insider's perspective that of active young adult ecstasy users, on recreational ecstasy use. Their views largely have been ignored in the literature. In addition, we explore their views on the access and availability of ecstasy and the extent to which social circumstances accommodate its use.

Methods

Study Procedures

The data presented in this paper are part of a larger project, Project X, an investigation of the ecstasy scene in Atlanta, Georgia. Between September 2002 and October 2007, we conducted 112 face-to-face open-ended interviews with young adult ecstasy users. During that period, we also tracked possible changes in the local ecstasy scene. The only major shift we noted was an expansion of its use at raves, which made it more widely available. As is common in qualitative studies, we have a convenience sample. Our initial recruitment was based on information from our own previous research, that of other local drug researchers and information from local social and health service providers. Using ethnographic mapping we identified additional locations for recruitment (Boeri, Sterk, and Elifson, 2004; Sterk, Theall, and Elifson, 2006; 2007). We employed targeted sampling (Waters and Biernacki, 1989) and theoretical sampling (Glaser and Strauss, 1967; Strauss and Corbin, 1998).

A team of ethnographers and interviewers, including three white, one African American and one Asian American woman and two African-American and one Hispanic men conducted the recruitment and interviewing. Potential participants were screened in or near the setting where they were recruited such as at coffee shops, bars, clubs, parks, college dorms and off-campus student housing. Passive recruitment, involving the posting of flyers in local music venues and areas with greater concentrations of young adults, was also utilised. Individuals who called the project phone line listed on the flyers were screened over the phone using the same short form recruiters presented. The screening consisted of a number of socio-demographic questions and questions about past and current drug use.

To be eligible for participation in Project X, the participants had to be between 18 and 25 years and be an active ecstasy user, which was defined as having used ecstasy at least four times in the past 90 days prior to the interview. Exclusion criteria included being in drug treatment or any other institutional setting, being unable to conduct the interview in English, and being intoxicated at the time of the interview.

Once a potential respondent was identified as meeting the study's criteria, interviews were scheduled for interested individuals. The interviews were held at mutually agreed upon central locations and included such venues as the project offices, the participant's home, a local restaurant or cafeteria, coffee shop, community centres, and the interviewer's car. The consent procedures, approved by both Georgia State University's and Emory University's Institutional Review Boards, were reviewed and signed prior to the collection of any data. The average length of time to complete the interview was 90 minutes, with a range from one to 2.5 hours. The study participants received \$15 (US dollars) compensation for their time.

The in-depth interviews were organised around an interview guide that listed topics derived from the literature and our own past research. Among these topics were initial and continued ecstasy use, use patterns, types of users, the impact of set and setting, ecstasy market characteristics, and perceived social and health consequences. No direct questions were asked about defining recreational use or normalization. The topics listed on the interview guide were not addressed in a specific order for all participants. Instead, the participants were allowed to guide the flow of the interview. If a topic did not naturally emerge, the interviewer would probe. Demographic information was collected using a close-ended format questionnaire

Data analysis

The qualitative data analysis was guided by a modified grounded theory approach (Charmaz 1983; Glaser and Strauss 1967; Sterk, Theall, & Elifson, 2000; Strauss and Corbin 1998). The open-ended interviews were transcribed and the text imported into the qualitative analysis

software MAXqda2. The interview transcripts were read and summary memos written, followed by a next reading during which first-level (open) codes were assigned. Inter-coder reliability was established by using multiple coders for the same transcript. The codes were then clustered into categories and descriptive and axial coding notes were included, explaining the decision-making processes followed by the team. Inductive and deductive questioning occurred throughout this process to identify similarities and differences in the data. Subsequently, the categories were clustered into themes allowing more abstraction and checking of negative cases. The salient themes that emerged in the context of the focus of this paper centered on recreational ecstasy use and normalization.

Results

Sample Characteristics

Among the 112 study participants a majority were male (68%), white (54%), educated at least at the high school level (63%), and self-identified as middle class or higher (64%). Their median age was 20.7 years, with the youngest person being 18 and the oldest 25. When asked about their relationship status, approximately two-fifths (44%) indicated that they were not involved in a steady relationship. Almost one-half (49%) of the study participants lived independently, either by renting or by owning a residence.

When asked about their age of first ecstasy use, the median was 17 years. The oldest person was 24 when first trying ecstasy and the youngest was eleven. Overall, the study participants had been using ecstasy for a median of 2.6 years, with the longest time of ecstasy use being eleven years and the shortest less than one year but at least three months. In terms of their use during the past 90 days prior to the interview, the median was nine days. Four was the fewest number of days of use, which was the minimum requirement for enrollment. One study participant reported almost daily use (88 days) and this person was an outlier. Close to three-fourths (73.8%) of the study participants had friends who also used ecstasy. Poly drug use was common (Boeri, Sterk, Bahora, and Elifson, in press).

Recreational ecstasy use

When we asked the respondent to elaborate on their drug use trajectories, many indicated that they viewed the use of ecstasy as a recreational activity. They did not associate its use with symptoms of withdrawal or craving or serious negative health and social effects. When exploring dimensions of recreational use, we learned that it was less about the frequency of use or the length of time a person had been using ecstasy. Instead, the recreational nature of ecstasy use was largely captured by a user's ability to take the drug without interference with their everyday functioning in mainstream society. Good grades, employment, and healthy relationships were cited as examples of evidence. A 19-year-old white female explained:

I do a lot of drugs, but I function well. I do well in school; I have healthy relationships. Most of the people that I'm around...they make good grades, they're good workers. They can keep jobs...they get along with their parents. If you just kind of keep it [ecstasy use] under control, then you can still just live your life normally.

Several study participants explained the unique nature of ecstasy, thereby highlighting that its high as well as its coming down were smooth. Consequently, they experienced less of an immediate desire for a next high, which in turn prevented bingeing. Instead, some reported taking a booster dose as a means to prolong the high. Ecstasy was described as a drug with some built-in control mechanism. However, some action on the part of the user remained necessary; for example, by only using ecstasy in certain settings or with certain people. A 19-year-old white college student discussed his approach to delineate his daily activities from his ecstasy use.

I don't go out to get blazed every day of the week or get so screwed up on ecstasy everyday of the week that [I] don't know what's going on...I keep myself, for the majority, sober during the week...Any day that the world kind of slows down is a day that I can take to myself and have a good time for me. But as long as the world's, you know, moving about its business during the week, I want to make sure I can still be there too. I don't want to get to the point where I'm...so screwed up that I'm behind everybody else.

Others explained that by using ecstasy at set-aside times, such as weekend, holidays, or special occasions, contributed to it remaining enjoyable. They were unsupportive of an ecstasy habit that involved daily use. Among them were those who preferred no or limited use during the week or when working. They explained that the weekend and other times off from school or work were most carefree, therefore the best for an enjoyable ecstasy high. A 20-year-old female, who frequently used with her boyfriend, remarked:

I go to school at night and I work in the mornings...he goes to work at night and he goes to school in the day. So it's kind of weird, like...that's kind of why we do it on special occasions like Fridays or like, Saturdays. Because we really, like, are so busy during the week [and] we just, basically, have our own time on the weekends.

Those who did report daily ecstasy use in the past 90 days tended to be a minority. In addition, they often also used other drugs such as heroin, cocaine or methamphetamine. Ecstasy was a drug they added to an already established drug repertoire. Compared with the effects, including the coming down and longing for the other drugs, ecstasy was perceived as harmless which in turn was associated with recreational.

The study participants referred to ecstasy as a means to relax and unwind independent of their frequency of use. A 19-year-old student athlete discussed this as follows:

...if I want to get crazy pretty much ecstasy is one of my only options...I mean I'm not that crazy of a person. I don't have, like, a record or anything. But its [ecstasy's] something that I like to take. It's still enjoyable to me...It's something that I can take off my shoes and relax and enjoy others' company and have a good time.

One of the unique features mentioned by almost all study participants was that one of the effects of ecstasy use was an ability to easily connect to others. Some added it that it allowed them to be more open and less shy or withdrawn. Those who tended to use alone were an exception. Their reflections revealed that ecstasy allowed them to relax and be in touch with themselves. A number of them also indicated that ecstasy served as a form of self-medication similar to the prescribed medications they had for diagnosed mental health problems. One woman began using ecstasy immediately after having had a miscarriage and she continued to use it when feeling down because it helped her so well that first time.

Some study participants expressed concerns about persons who used ecstasy alone, commenting that solitary use was 'depressing' and a sign of a problematic and unregulated habit. A main component of the recreational use in the company of friends as that they would keep "each other in check." Some referred to ecstasy as solidifying their friendship. A 21-year-old white male explained:

...it's different when you're with people you know because...like rolling with a group of your friends already enhances that friendship so much. Because you've got those memories of what was, you know, until you roll the next time, the happiest moment in your life and you're with these people...So it really, really strengthens the bond you have with your friends to roll with them. You've got a lot of memories there.

A young female elaborated on this thought comparing her ecstasy-using friends to family. She also explained that the connection established between friends while using ecstasy remained long after the high was over.

I think that relationship[s] you create with people around ecstasy are very, very influential or significant because it is so emotional. And I think it's hard to let go of people that you've met...because there's so much emotional background between two people when you share an experience on ecstasy.

Ecstasy Use and Mainstream Lives: Normalization

As ecstasy use extended beyond raves and ravers, it became more widely available. According to a number of study participants, the increased availability or wider access allowed them to obtain the drug from a person they knew. In addition, we learned that the expansion of settings and the diversification of ecstasy users were viewed by many as a sign of normalization. They explained that it made it more difficult to pinpoint or stereotype ecstasy users.

Availability & accessibility of ecstasy

None of the study participants indicated experiencing trouble obtaining ecstasy. The task of obtaining ecstasy was described as “effortless” or “like buying a bag of potato chips.” Few worried about being detected as engaged in an illegal behavior when procuring ecstasy. Some declared it easier than being an under-aged person buying alcohol. The reality appeared to be that someone in the network of friends had ecstasy or that the group easily could get it through a dealer. Those dealers, whose market mainly was limited to raves in the early days, now could be found at local clubs or bars or at their private residence. One young male user described his experiences at a local club:

...there's always three or four people that as soon as I walk in I'm, like, alright, and I just walk around the outside of, like, around the inside of the club. And I always find it. It's easy. Fifteen minutes and [if] you can't find pills at the Globe, there's a problem. You're not looking.

A common theme among the study participants was the emerging popularity of ecstasy and the inability to “pigeonhole [ecstasy] into one specific demographic or another.” A 24-year-old African-American male comments on this shift:

Well for one – more and more people are knowing about ecstasy because it's more common now, you know. And now since like everybody is doing it...it's kind of like almost getting like marijuana...cause so many have accepted it...Cause before it was kind of like, you know, I don't want to be stereotypical but it's like...you know only white people do this drug. I don't know if it was cause maybe they heard about it first, or maybe it happened in a certain, you know, area first and then it finally got around to this community or that community...but next thing you know, you're like in the club [and] everybody doing it.

This user, like others, held the view that the more aware individuals became about ecstasy, the more commonplace its use became in different contexts.

Social accommodation of recreational ecstasy use

The belief that ecstasy was analogous to other known substances perceived as harmless contributed to the reduced risk that the study participants associated with ecstasy use. Those who differentiated between soft and hard drugs, frequently placed ecstasy in the ‘soft drug’ category, alongside cigarettes, marijuana, alcohol, and LSD. A 21-year-old African American male explained why he ranked ecstasy directly above marijuana in relative harm, but beneath LSD, speed, crack, heroin, and cocaine:

Everybody takes ecstasy...and I haven't seen anyone die, fall out or whatever. So it's just like marijuana. It hit the scene and it ain't killing people so."

The majority of participants also asserted that it was nearly impossible to become addicted to or dependent on ecstasy. Typically, they based this belief on their own experiences as well as those experiences of their peers. Further justification was provided by the lack of experiencing withdrawal symptoms or craving. A substantial number of the study participants moreover believed that their ability to "take it or leave it" at will was indicative of ecstasy's inability to be addictive. A 21-year-old male explained, "I know that for me to survive every day I don't have to do ecstasy...because it's a choice. I want to do it. Not because I feel like I have to do it." Other study participants, as a result of their experimentation with other drugs, came to the same conclusion about ecstasy's addictiveness. Referencing her experiences of addiction with methamphetamine, this 21-year-old said:

I don't think it's addictive because I feel like I've experienced addiction with meth and that's a different kind of thing. It just kind of stops you from doing the things you want to do...Like with ecstasy when you come down, you're like, 'Wow that was really fun, that was really special, I'd like to do that again.' And when you come off of speed you're like, 'Yo, we need to get more high, we need to go buy another bag.' so it's kind of debilitating and I don't think ecstasy really does you like that.

Few study participants considered ecstasy to be an addictive substance, indicating that it might create some mental dependence. Nevertheless, they went on to explain that ecstasy itself had limited addictive properties but that a person with limited willpower maybe could develop a habit.

Perception of risk regarding recreational ecstasy use

When reflecting upon possible negative effects of ecstasy, some study participants recalled having heard or read about some long-term side effects associated with extended ecstasy use. However, none of them knew a person who had experienced dramatic or abnormal side effects. Negative reports were regarded skeptically and categorised as hearsay. A 20-year-old female who had been using ecstasy for approximately two years, replied:

I've watched, like, Dateline, not too long ago. And it – they said – people really don't know, you know, like, really about it and never study, like, the long-term effects on it. Like, as far as, deaths, I never knew anybody who died of ecstasy. Or, you know, like OD'd, I never knew anybody like that. I heard of a girl...she didn't know that she was even taking it. So she was freaking out...that's the only thing. That's the only one, you know, the only person that I heard of, like, freaking out. Other than that, the people I do it with and other people I have done it with over the years and it's like, no, they haven't told me of had any bad effects. As far as, like, I haven't heard, they haven't told me anything.

This respondent, like many others, were cautious to embrace the validity of circulating information on ecstasy, relying on personal accounts of consequences. A doubtful 20-year-old female explained "I am starting to hear more about the news about ecstasy and the effect that it has on people. And then I am starting to see my friends...and its not happening to them, but it is happening to the people on the news." Having sought a variety of sources including internet chat rooms, telecast reports, and print media, users frequently referenced the ambiguity in reports on effects of ecstasy, confirming their general distrust of the media. Whether commenting that 'people don't really know about it' or that researchers had not studied long-term effects of the drug, they concluded that available knowledge was inconclusive at best. A 24-year-old male discussed his suspicion of the information about ecstasy's effect on the body, presented on television:

...supposedly it like puts holes in your brain and does something to your spinal cord and stuff...I mean, I watch like a lot of Dateline, and you know they did something on Oprah about it. Or like in the paper, you know, they're always trying to do something to scare, you know? They're trying to show stuff to scare you to leave it alone.

The majority of study participants perceived any experienced negative side effects of ecstasy use to be minor and of little concern. Their main worry tended to be the potential of dehydration. This, however, was easily addressed by assuring the sufficient intake of fluids. Others described having experienced a temporary loss of perfect vision or hearing but, at the same time explained that this was because they truly become “emerged in the high.” Few study participants who began using in the raves days mentioned that ecstasy has become “safer,” noting that they have not heard recently of ecstasy being cut with heroin. Overall, little distinction was made between possible short or long-term effects of ecstasy use. In general the notion seemed to be that any short-term negative effects were minimal and that long-term effects were a public health scare tactic to keep people away from the drug. The general consensus appeared to be that any negative effects were overwritten by positive use experiences.

Discussion

The aim of this paper is to examine the meaning and culture of recreational ecstasy use among a sample of young ecstasy users in Atlanta, Georgia. In doing so, we sought to explore findings in the context of the ‘normalization’ thesis, focusing on the social and contextual factors, as well as the influence of knowledge about possible consequences of ecstasy use, that contribute to users' perceptions of risk. This study gives further evidence to studies noting that the meaning of recreational drug use, namely ecstasy use, for adolescents and young adults has and is changing. In exploring how this process of normalization is constructed in the lives of young adults, we hope to further consider the implication these data have on current treatment and policy models.

The majority of study participants viewed themselves as recreational ecstasy users, identifying their ability to maintain their daily activities, and function in mainstream society (Beck & Rosenbaum, 1994; Solowij, Hall, & Lee, 1992). By prioritising their responsibilities including employment, education, and family relationships, participants appeared to frame their consumption of ecstasy around these activities and believed their drug use to be another activity that fit into their leisure or recreational time. Accordingly, they did not identify with drug users who are often typified as reckless, irresponsible, or unable to negotiate their existence in mainstream society (Shildrick, 2002; Shiner & Newburn, 1997). Instead, participants' experiences were mirrored in the literature focusing on ecstasy, demonstrating its users to be conscientious and controlled in their patterns of use (Baggott, 2002; Gamble & George, 1997; Hansen, Maycock, & Lower, 2001; Panagopolous & Ricciardelli, 2005; van de Wijngaart, Braam, de, Bruin, Fris, Maalaste, & Verbraeck, 1999). These findings present an overall cohesive picture of purposeful and conscientious consumption of ecstasy among young adults, providing corroborating evidence to studies proposing the emergence of a new type of drug user who is ‘well-adjusted, responsible, and outgoing adolescent or young adult who uses drugs recreationally, very deliberately, and very strategically’ (Parker, 1997, p.25; Duff, 2005). In this study, we suggest that users' generally minimal level of concern appeared to stem partly from their perceptions of ecstasy's prevalence in their immediate and larger social networks, as well as easy accessibility, confirming aspects of Parker's normalization thesis (Parker, 2005). Their repeated exposure and contact with individuals who used ecstasy served, in essence, to accommodate ecstasy's recreational use, and desensitise participants to the possibilities of ecstasy's negative consequences. Given the social nature of ecstasy consumption, further research needs to clarify the role peer networks can play in intervention

and recovery services. Contributing to users' perception of ecstasy's risk was their mistrust of a great deal of mass media's messages about ecstasy's adverse effects, a trend that is confirmed in available literature (McElrath & McEvoy, 2002; Eiserman et al., 2005). Participants believed ecstasy unlikely to cause such long term effects as brain damage or death, despite research linking ecstasy to hyperthermia, dehydration, depression, and impaired cognitive functioning (Hegadoren, Baker, & Bourin, 1999; Parrott, Sisk, & Turner, 2000; Parrott, 2002). Of information that was widely circulated, study participants categorised these accounts as rumors, thereby disparaging their credibility and accuracy. Given these findings, it is unsurprising that these young ecstasy users remained undeterred in their substance-using pattern, and believed ecstasy to be generally safe.

It can be argued that in a 'normalized drug culture', the actual risk of harm increases due to the presence of ill-informed, inexperienced users who are not able to easily access the knowledge informally held within a more entrenched illicit drug culture (Merchant & MacDonald, 1994; Masterson, 1993; Baxter, Bacon, Houseman, & Van Beek, 1994; Henderson, 1993). This research, combined with our own findings, alludes to the saliency of providing accurate and detailed information, specifically addressing acute adverse risks but also strategies to reduce negative experiences and moderate harmful patterns of drug use. By placing emphasis on a user's self-awareness in the myriad of settings of their consumption patterns, we provide tools to young adults weighing benefits against potential dangers (Parker & Egginton, 2002).

The limitations of this study need to be acknowledged. First, though this sample may be representative of young adult ecstasy users in the Atlanta area, we are unable to generalise our findings to wider populations in other cities and countries. The specific impact of drug legislation and law enforcement, as well as trends in drug availability may vary significantly across localities. Second, the cross-sectional design of this study limited our ability to draw causal conclusions between participants' beliefs and attitudes regarding ecstasy use and their changes in behavior, as well as perceptions of availability and risk. Finally, it is important to note that findings from this study are based upon self-reported data, which may be subject to recall and social desirability bias. Although a 90-day time frame was used to minimise recall bias, participants may have altered responses in attempts to create rapport with interviewers or out of fear in reporting illegal activities.

Despite these limitations, findings from the current study as well as previous work point to the need of re-examining current drug-intervention and education models and the theories that drive these policies for young adults. These policies should strive to consider accounts of youth and young adults' drug using experiences and the culture that encompasses it. With only their input can prevention and intervention strategies be better informed and equipped to reduce the harms associated with their drug use. Further, considering that in some cases users were not only aware of the risk involved in taking ecstasy, but also willing to forego the risk to participate in the drug-using behavior, services designed for young adults and adolescents, alike, should consider the willingness of these youth to accept such risks. In criminalising their drug using behaviors, and concentrating efforts on cessation, we neglect to engage a vast number of young ecstasy users who perceive their behavior as sensible, safe, and acceptable.

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