

# Crystal Methamphetamine and Ecstasy Differ in Relation to Unsafe Sex Among Young Gay Men

Arn J. Schilder<sup>1</sup>

Thomas M. Lampinen, PhD<sup>1,2</sup>

Mary Lou Miller, RN<sup>1</sup>

Robert S. Hogg, PhD<sup>1,2</sup>

## ABSTRACT

**Objective:** Poly-substance use in gay social ('club') settings is common. Recent studies suggest a link between 'club' drug use and sexual risk behaviours. In this qualitative study, we compare and contrast two 'club' drugs: crystal methamphetamine and ecstasy (MDMA).

**Methods:** Life history interviews were conducted with 12 HIV seroconverters and 12 age-matched controls recruited from a prospective cohort study of young gay and bisexual men in Vancouver, British Columbia. Textual data concerning illicit substance use and unsafe sex were analyzed using NUDIST software.

**Results:** Most men related a substantial knowledge of and experience with crystal and ecstasy. Both drugs had attributes that enhanced gay socialization and were used in the same venues. Crystal was used to remain awake and increase energy. Ecstasy was used to induce euphoria and group connectedness. However, unlike ecstasy, crystal was associated with a distinct pattern of sexual arousal that frequently included unprotected (sometimes group) sex, was more likely to be used regularly by HIV-positive men, and was reportedly highly addictive and problematic.

**Conclusion:** Crystal and ecstasy are used in the same social venues but differ markedly in relation to sexual risk behaviour.

**MeSH terms:** Ecstasy (drug); HIV-1; homosexual, male; methamphetamine; sexual behaviour; street drugs

*La traduction du résumé se trouve à la fin de l'article.*

1. British Columbia Centre for Excellence in HIV/AIDS, Vancouver, BC

2. Department of Health Care and Epidemiology, University of British Columbia, Vancouver

**Correspondence and reprint requests:** Dr. Thomas M. Lampinen, BC Centre for Excellence in HIV/AIDS, 608-1081 Burrard Street, Vancouver, BC V6Z 1Y6, Tel: 604-806-9044, Fax: 604-806-9142, E-mail: tlampinen@cfcenet.ubc.ca

**Acknowledgements:** We thank the Vanguard Project participants for their generosity in sharing their collective life experiences and Dr. Patti Spittal and Will Small for helpful conversations.

**Sources of support:** This study was supported by a grant from the National Health Research and Development Program. Drs. Lampinen and Hogg are supported by the Michael Smith Foundation for Health Research.

Concern has been expressed about what is perceived to be the common use by gay men of 'club' drugs [crystal (methamphetamine), ecstasy (MDMA or 3,4-methylenedioxyamphetamine), GHB (gamahydroxybutrate) and Special K (ketamine hydrochloride)].<sup>1-6</sup> Crystal was first synthesized in 1893<sup>7</sup> and ecstasy in 1914,<sup>8,9</sup> but neither entered mainstream gay culture until the last decade. Their increasing use<sup>8</sup> has been accompanied by reports of increasing unprotected anal intercourse (UAI) and sexually transmitted infections (STI) among men who have sex with men (MSM).<sup>10-15</sup>

While most clinic and community-based studies of MSM associate UAI and STI with use of crystal,<sup>3,7,16</sup> these studies have been inconsistent in associating UAI and STI with use of ecstasy.<sup>5,7,17-20</sup> However, these associations are rarely adjusted for age and other confounders, frequently reflect substance use that occurs outside of sexual encounters, and fail to account for poly-substance use.<sup>5,15,21</sup> Furthermore, crystal and ecstasy have distinctly different physiologic effects<sup>22</sup> and have markedly different potential for addiction.<sup>23</sup>

We conducted an in-depth qualitative study to compare HIV seroconverters and age-matched controls and sought to understand their respective lifetime use of illicit substances, including crystal and ecstasy. Since few previous studies of MSM describe the motivations, contexts and behavioural effects of use of either drug,<sup>16,19</sup> we used narrative research methods to examine the personal experiences, social contexts and consequences of use of these substances.

## METHODS

In 2001, we conducted an investigation of lifetime antecedents of HIV seroconversion among self-identified gay young men. We enrolled from among active participants in the Vanguard Project – a prospective study of 1000 men who have sex with men (MSM) – all 12 HIV seroconverters and 12 randomly selected age-matched HIV-seronegative controls. Eligibility for the Vanguard Project included an age at enrolment between 15 and 30 years of age, residence in the greater Vancouver area, no previous HIV-positive test result, and self-identification as gay.<sup>24,25</sup> Injection drug

users and bisexual men were excluded from the present study.

Open-ended life story interviews<sup>26</sup> with a study investigator (AJS or MLM) addressed issues felt *a priori* likely to be related to seroconversion, including illicit substance use, relationships, anal sex-roles, and group sex as well as migrations, early life, family, and childhood violence. Each man was interviewed in a private research study office for ninety minutes on each of four occasions using prepared scripts that included probes for lifetime experience with illicit substances and in turn, any relation of such substance use to sexual experiences. Such extended life story interviews are used to develop rapport and elicit sensitive information over time.<sup>26</sup>

Verbatim transcripts were prepared then compared against the original audiotapes, personal identifiers were deleted and NUDIST software (Sage Publications Software, Thousand Oaks, CA, USA) was used to organize textual data. The analysis was as described elsewhere.<sup>27</sup> Briefly, to reduce the potential for bias, several members of the study team jointly reviewed and free-coded complete transcripts relating to substance use which led to identification of emergent themes (including differences between crystal and ecstasy), the proposal to contrast specific drugs used, and selection of representative quotes.

Informed consent that included linking of qualitative and quantitative data was obtained from every participant according to a protocol approved by the University of British Columbia Research Ethics Board.

## RESULTS

### Study population

The 24 men interviewed had an average age of 25 (range 19 to 30) years and 23 were Caucasian. Among cases, the median time from first HIV-positive test to interview was 24 months. Nine of the HIV-negative men had some post-secondary education, compared to only two of the men who became HIV-positive.

### Textual data concerning ecstasy and crystal

Crystal and ecstasy use were similar in several respects: each was used in association with dance, notably in venues that usually did not serve alcohol. Their use for

socialization most often followed cycles of a social calendar organized around circuit parties and gay 'high holidays': Gay Pride festival, Halloween, New Year's Eve, and Easter. Social events during these times continued into the following mornings, often for days in a row, and stamina was required to participate fully.

*"The gay circuit scene is a great avenue to release pain, stress, and joy. It goes a bit overboard. There is a core group of people that do four to six parties a year: Halloween, New Year's Eve, Pride, and there are a couple other parties, usually throughout that time. Gay men know how to party, and enjoy it. The gay after-hours scene is different in that it is more drug abuse every weekend. It is a different subculture at the circuit party."* Case #1001

*"It was Pride where it was all about being with my friends. On Friday we went to the circuit parties, nightclubs and after-hours. There were plenty of people to flirt with, but I was having more fun talking to everyone. I eventually left Sunday night from the after-hours to meet my friend at another club. I slept two hours that weekend. I used crystal and ecstasy to keep going."* Case #1006

'Club' drug use was localized to venues (licensed circuit parties, raves, and after-hours clubs) where disc jockeys (DJs) mixed live dance music specific to gay club culture. Generally, little or no alcohol was consumed in these venues.

*"I don't like the environment of the bar when I was doing drugs. It is a very drunken place. When you are on crystal, drunk people are extra annoying, slow, and stumbling around then you zoom across the dance floor. It is just a very different head space."* Control #1022

### Ecstasy

In study interviews, men related both beneficial and detrimental characteristics of ecstasy. Ecstasy induced heightened physical sensuality, increased emotional intimacy and group connectedness. It was usually described as a drug for special occasions, and exclusively in the company of others.

*"Ecstasy removes inhibitions. Does it improve intimacy? I do not know. I remember having taken ecstasy at an international dance party. I was with 20,000 of my closest friends, and one of my closest friends who I had never seen before in my life walked up and groped me. He was absolutely gorgeous."* Case #1004

*"I enjoy ecstasy on special occasions maybe three to four times a year. I love going out and dancing."* Case #1016

*"Oh I love ecstasy. But I only do it if I am with friends when we are together."* Case #1002

Some men disliked the effects of ecstasy, including dehydration and post-use depression.

*"At circuit parties most people are not really drinking. They are drinking bottles of water because they dehydrate and most of them are on ecstasy."* Control #1021

*"I did not like the depression if you do ecstasy and a couple of days later you just feel like crap."* Control #1015

### Crystal methamphetamine

Crystal was appreciated for being cheap. It increased energy and the capacity to stay awake for long periods of time.

*"Some gay guys use crystal for sex because it keeps you wide awake and it seems like you can have sex forever and ever."* Case #1013

A greater number of HIV-positive men than HIV-negative men reported experience with crystal. Both seroconverters and controls spoke very frequently of crystal's potential for addiction, sleep and caloric deprivation, post-use depression, paranoia, and social withdrawal.

*"My boyfriend is HIV-positive with bad blood counts and he kept doing drugs. He does crystal often. It is his cup of coffee in the morning."* Case #1006

*"Crystal is really hard on you. When I do crystal I forget to eat and drink."* Case #1002

*"I am avoiding crystal meth. My mood suffers and I become depressed and go right down."* Case #1016

*"Normally you do your crystal on Saturday. Tuesday is when the after-effects of the crystal start. You are totally bitchy and cranky. It is a shitty day and you can be really depressed."* Control #1026

*"We would just sit at their house and smoke crystal. I would not go out. I had gone from hanging out and partying with a whole bunch of people to hanging out with three people."* Case #1007

### Relation of sexual behaviour and use of crystal and ecstasy

When asked about the relation of these substances to sexuality, two markedly different profiles emerged.

"Party favours [club drugs] do not necessarily cause more extreme behaviours, but I think that they are part of it. I would say from my experiences that it is more crystal than ecstasy. Crystal seems to be the main one." Case #1016

Crystal was associated with erotic arousal, including anonymous, unprotected, and group sex; these experiences were related most often by HIV-positive men.

"I came down with seroconversion illness after a trip to San Francisco. I had sex with about eight men in three days. Crystal fuelled marathon sessions. Completely unprotected and not even thinking about it." Case #1016

Of note, many men reported problems with erectile function when using crystal. And many had found a solution.

"...they could not get it up. They were doing crystal, so they would take Viagra." Case #1002

In contrast, ecstasy induced emotional intimacy and a physical, generally non-sexual arousal.

"You feel totally uninhibited, but not always in a sexual way, more in an emotional way.... Ecstasy does not make me horny. I am happy to hug someone, go to sleep or listen to music. Well, it does not make me sexual. Like, if it starts, and I am with someone and if they became sexual, yes! But that is not what is in my mind at the time." Control #1017

"Ecstasy is not always a sexual thing. It heightens your sexual arousal and stuff, but that is not the common denominator. I think a lot of people just use ecstasy just to get high in order to enjoy their evening." Case #1001

## DISCUSSION

Within a context of increasing HIV incidence within our cohort, we undertook a qualitative study of HIV seroconverters and HIV-negative young MSM. We found experience with 'club' drugs [crystal, ecstasy, GHB, ketamine] was ubiquitous, if occasional.<sup>2-6</sup> Crystal and ecstasy were used in the same social venues but for different purposes: crystal to stay awake<sup>19,28</sup> and ecstasy to induce euphoria, social connectedness, and heightened physical sensuality.<sup>7,8,29</sup> These men related that crystal had much greater potential for addiction and personal harm than ecstasy. Further, these drugs differed considerably in relation to reported sexual risk behav-

ours. Crystal was very often associated with erotic arousal, unprotected group sex, anonymous sexual encounters, and erectile dysfunction.<sup>7,16,18,19,30</sup> In contrast, ecstasy increased physical arousal without specific interest in sex.<sup>8</sup>

Our findings are consistent with previous studies, which found that both crystal and ecstasy have profoundly disinhibiting attributes.<sup>8,9,19,23</sup> Use of both drugs was described as enhancing gay socialization, frequent during 'high holidays' and circuit parties, associated with live-mixed dance music,<sup>3,4</sup> and infrequent in venues that served alcohol.<sup>8</sup> Given the stamina required to fully participate in lengthy Pride and circuit parties, reports of crystal use during these events is perhaps not surprising.<sup>3</sup> Our finding that ecstasy use was typically occasional is consistent with the results of larger surveys of HIV-positive<sup>21</sup> and HIV-negative men<sup>17</sup> in urban centres.

A strength of our study is the use of a qualitative life story method<sup>26</sup> with probes across four interviews about substance use. The result was extensive textual data concerning crystal and ecstasy use in relation to social and sexual experiences. A limitation is that we did not study seropositive or older gay men in whom 'club' drug use, increasing sexual risk behaviours and STI have been reported; and we cannot exclude the possibility that men answered questions in a socially desirable or boastful manner that misrepresented their own experience. In addition, poly-substance use was common; the effects men report may not be attributable solely to crystal and ecstasy individually.

In summary, we found that 'club' drug experience among these young MSM in Vancouver was normative, yet occasional. Ecstasy and crystal were used in the same venues for socializing but differed in their relation to sexual risk behaviours. The link between crystal and unsafe sex should be a high priority of providers of health care and related services to MSM.

## REFERENCES

1. Klitzman RL, Pope HG, Jr., Hudson JI. MDMA ("Ecstasy") abuse and high-risk sexual behaviors among 169 gay and bisexual men. *Am J Psychiatry* 2000;157:1162-64.
2. Mattison AM, Ross MW, Wolfson T, Franklin D. Circuit party attendance, club drug use, and unsafe sex in gay men. *J Subst Abuse* 2001;13:119-26.
3. Colfax GN, Mansergh G, Guzman R, Vittinghoff E, Marks G, Rader M, Buchbinder S.

- Drug use and sexual risk behavior among gay and bisexual men who attend circuit parties: A venue-based comparison. *J Acquir Immune Defic Syndr* 2001;28:373-79.
4. Mansergh G, Colfax GN, Marks G, Rader M, Guzman R, Buchbinder S. The Circuit Party Men's Health Survey: Findings and implications for gay and bisexual men. *Am J Public Health* 2001;91:953-58.
5. Klitzman RL, Greenberg JD, Pollack LM, Dolezal C. MDMA ('ecstasy') use, and its association with high risk behaviors, mental health, and other factors among gay/bisexual men in New York City. *Drug Alcohol Depend* 2002;66:115-25.
6. Romanelli F, Smith KM, Pomeroy C. Use of club drugs by HIV-seropositive and HIV-seronegative gay and bisexual men. *Top HIV Med* 2003;11:25-32.
7. Freese TE, Miotto K, Reback CJ. The effects and consequences of selected club drugs. *J Subst Abuse Treat* 2002;23:151-56.
8. Parrott AC. Human psychopharmacology of Ecstasy (MDMA): A review of 15 years of empirical research. *Hum Psychopharmacol* 2001;16:557-77.
9. Green AR, Mehan AO, Elliott JM, O'Shea E, Colado MI. The pharmacology and clinical pharmacology of 3,4-methylenedioxymethamphetamine (MDMA, "ecstasy"). *Pharmacol Rev* 2003;55:463-508.
10. Nardone A, Mercey DE, Johnson AM. Surveillance of sexual behaviour among homosexual men in a central London health authority. *Genitourin Med* 1997;73:198-202.
11. Stolte IG, Coutinho RA. Risk behaviour and sexually transmitted diseases are on the rise in gay men, but what is happening with HIV? *Curr Opin Infect Dis* 2002;15:37-41.
12. Catania JA, Osmond D, Stall RD, Pollack L, Paul JP, Blower S, et al. The continuing HIV epidemic among men who have sex with men. *Am J Public Health* 2001;91:907-14.
13. Wolitski RJ, Valdiserri RO, Denning PH, Levine WC. Are we headed for a resurgence of the HIV epidemic among men who have sex with men? *Am J Public Health* 2001;91:883-88.
14. Elford J, Bolding G, Sherr L. High-risk sexual behaviour increases among London gay men between 1998 and 2001: What is the role of HIV optimism? *AIDS* 2002;16:1537-44.
15. Koblin BA, Chesney MA, Husnik MJ, Bozeman S, Celum CL, Buchbinder S, et al.; and EXPLORE Study Team. High-risk behaviors among men who have sex with men in 6 US cities: Baseline data from the EXPLORE Study. *Am J Public Health* 2003;93:926-32.
16. Gorman EM, Barr BD, Hansen A, Robertson B, Green C. Speed, sex, gay men, and HIV: Ecological and community perspectives. *Med Anthropol Q* 1997;11:505-15.
17. Waldo CR, McFarland W, Katz MH, MacKellar D, Valleroy LA. Very young gay and bisexual men are at risk for HIV infection: The San Francisco Bay Area Young Men's Survey II. *J Acquir Immune Defic Syndr* 2000;24:168-74.
18. Halkitis PN, Parson JT, Storratt MJ. A double epidemic: Crystal methamphetamine drug use in relation to HIV transmission among gay men. *J Homosexuality* 2001;41:17-35.
19. Semple SJ, Patterson TL, Grant I. Motivations associated with methamphetamine use among HIV+ men who have sex with men. *J Subst Abuse Treat* 2002;22:149-56.
20. Topp L, Hando J, Dillon P. Sexual behavior of ecstasy users in Sydney, Australia. *Culture, Health & Sexuality* 1999;1:147-59.
21. Purcell DW, Parsons JT, Halkitis PN, Mizuno Y, Woods WJ. Substance use and sexual transmission risk behavior of HIV-positive men who have sex with men. *J Subst Abuse* 2001;13:185-200.

22. Parrott AC, Stuart M. Ecstasy (MDMA) amphetamine, and LSD: Comparative mood profiles in recreational polydrug users. *Hum Psychopharmacol* 1997;12:501-4.
23. Kalant H. The pharmacology and toxicology of "ecstasy" (MDMA) and related drugs. *CMAJ* 2001;165:917-28.
24. Strathdee SA, Hogg RS, Martindale SL, Cornelisse PG, Craib KJ, Montaner JS, et al. Determinants of sexual risk-taking among young HIV-negative gay and bisexual men. *J Acquir Immune Defic Syndr Hum Retrovirol* 1998;19:61-66.
25. Strathdee SA, Martindale SL, Cornelisse PG, Miller ML, Craib KJ, Schechter MT, et al. HIV infection and risk behaviours among young gay and bisexual men in Vancouver. *CMAJ* 2000;162:21-25.
26. Atkinson A. *The Life Story Interview: Qualitative Research Methods*. Thousand Oaks, CA: Sage Publications, 1988. Series vol 44.
27. Small W, Kerr T, Charette J, Wood E, Schechter MT, Spittal PM. Impacts of intensified police activity on injection drug users: Evidence from an ethnographic investigation. *Int J Drug Policy* (in press).
28. Murray JB. Psychophysiological aspects of amphetamine-methamphetamine abuse. *J Psychol* 1998;132:227-37.
29. Frosch D, Shoptaw S, Huber A, Rawson RA, Ling W. Sexual HIV risk among gay and bisexual male methamphetamine abusers. *J Subst Abuse Treat* 1996;13:483-86.
30. Parrott AC, Buchanan T, Scholey AB, Heffernan T, Ling J, Rodgers J. Ecstasy/MDMA attributed problems reported by novice, moderate and heavy recreational users. *Hum Psychopharmacol* 2002;17:309-12.

Received: August 4, 2004

Accepted: March 10, 2005

## RÉSUMÉ

**Objectif :** La consommation de plusieurs drogues est courante dans les milieux (« clubs ») gais. Des récentes études montrent un lien de corrélation entre la consommation de drogues dans ces « clubs » et les comportements sexuels à risque. Dans le cadre de cette étude qualitative, nous effectuons une analyse comparative de deux drogues utilisées dans les milieux gais : la métamphétamine en cristaux et l'ecstasy (MDMA).

**Méthodes :** Des entrevues ont permis de recueillir les témoignages de 12 personnes qui ont été séroconverties et 12 témoins du même âge recrutés dans une étude prospective des cohortes de jeunes gais et de bisexuels à Vancouver, en Colombie-Britannique. Les données textuelles concernant l'utilisation de substances illicites et les pratiques sexuelles peu sûres ont été analysées à l'aide du logiciel NUDIST.

**Résultats :** La plupart des hommes ont indiqué bien connaître la métamphétamine en cristaux et l'ecstasy et ont même reconnu en avoir consommés. Les deux drogues favorisent les rencontres sociales dans le milieu gai et sont consommées dans les mêmes endroits. On a utilisé la métamphétamine en cristaux pour ses effets d'accroissement du niveau de vigilance et d'énergie et l'ecstasy pour sa capacité à créer un état euphorique et de favoriser les rapports sociaux. Toutefois, contrairement à l'ecstasy, la consommation de la métamphétamine en cristaux est associée à une augmentation du désir sexuel, effet qui donne souvent lieu à des pratiques sexuelles non protégées (parfois en groupe); les hommes séropositifs étaient plus susceptibles d'en faire une utilisation courante. On dit que cette drogue crée une forte dépendance et que sa consommation est source de problèmes.

**Conclusion :** Même si la métamphétamine en cristaux et l'ecstasy sont consommés dans les mêmes milieux, elles sont utilisées à des fins très différentes pour ce qui de l'adoption de comportements sexuels à risque.

## Nurses working together make a difference

Every minute there are 11 new HIV infections worldwide. More than half occur in young people under the age of 24.

With more than a billion young people on earth between the ages of 15 and 24, the spread of HIV is a great concern to health care professionals.

As leaders in primary health care, nurses worldwide do make a difference

by providing education and care to those most vulnerable.



CIDA Photo,  
Gerard Dolan

**Partners  
IN HEALTH**

### Canadian Nurses Association

Department of International Policy and Development

E-mail: [info@cna-aiic.ca](mailto:info@cna-aiic.ca) Web site: [www.cna-aiic.ca](http://www.cna-aiic.ca)



**CANADIAN  
NURSES  
ASSOCIATION**

**ASSOCIATION  
DES INFIRMIÈRES  
ET INFIRMIERS  
DU CANADA**

Program undertaken  
with the financial sup-  
port of the Government  
of Canada through the  
Canadian International  
Development Agency  
(CIDA).