Crystal MDMA: A Unique Addition to Australian Markets

Gavin Entwistle and Lucy Burns
National Drug and Alcohol Research Centre

A Shift in the Use of Ecstasy Forms

In the EDRS, we distinguish between four different forms of ecstasy: pills, powder, crystal MDMA and ecstasy capsules.

Crystal MDMA was introduced as its own category in the 2013 EDRS survey.

As shown in figure 1, there was a significant decline in the proportion of regular psychostimulant users (RPU) who reported using ecstasy pills and a significant increase in RPU reporting the use of crystal MDMA from 2013 to 2014.

Given this increase and the fact that Crystal MDMA accounts for a sizable proportion of the sample (49%), the current study examined the predictive factors of crystal MDMA users.

We hypothesised that crystal MDMA users present riskier patterns of drug use and lower health outcomes compared to non-crystal MDMA users.

Drug Use Characteristics of Crystal MDMA Users

Twelve variables were selected (5 risk variables, 7 health variables) to be included in the analysis. The Benjamini-Hochberg procedure was used to control the false positive rate.

Only two variables were significant at the critical value of 0.0125 for 4 comparisons. Despite this, some variables were significant when placed into a binary logistic procedure was used to control the false negative rate. When appropriate critical values were selected, only one variable was significant.

We found that crystal MDMA users were more likely to have used more than 6 different drugs in the last 6 months and more likely to have used a new psychoactive substance (NPS).

When placed into a binary logistic regression, these variables remained significant.

Health Concerns

When appropriate critical values were selected, none of the health variables significantly predicted crystal MDMA users (table 1).

Specifically, crystal MDMA users did not report higher mental health prevalence or higher rates of high psychological distress, risky drinking or stimulant dependence. Furthermore, this user group did not report higher overdose rates or drug use problems.

It is important to remember that the vast majority of RPU in the 2014 EDRS sample were regular ecstasy users (90%) and almost all (96%) had used ecstasy at least once in the 6 months prior to survey. Thus it may be difficult to find health differences in the use of a similar drug.

State Comparisons

Reports of use were evenly spread across all states. NSW and Victoria reported the highest proportion of crystal MDMA users and the eastern states accounted for the majority of users in Australia (figure 4).

Conclusion

Given the significant increase in the use of crystal MDMA in the 2014 EDRS sample, the current analysis looked at 12 risk and health variables to assess whether there were significant predictive factors for this specific group of users.

Only two variables were predictive of crystal MDMA users. People who use crystal MDMA are more likely to be broader drug users and more likely to have used an NPS.

Crystal MDMA is more potent and more quickly absorbed than pills or powder ecstasy. However when you have a more experienced sample of ecstasy users, the inflated effects of the drug may not necessarily increase the prevalence of negative health factors.

Crystal MDMA

As the name suggests, MDMA crystal is the crystalline form of 3,4-methylenedioxy-N-methylamphetamine and as a result a purer form of ecstasy.

In relation to physiological differences, the absorption of crystals in the digestive system is higher compared to pills or powder MDMA. As a result, users experience a stronger ‘peak’ effect and longer lasting aftereffects.

As the purity of the crystals is higher than ecstasy pills, users may often ingest similar measures of crystal MDMA which can potentially lead to overdose.

Anecdotal reports from RPU in the 2014 EDRS suggest that unlike in European countries, MDMA crystals are most commonly available in capsules, one capsule typically containing roughly 100mg of crystal.

It is unclear when this new form was introduced to Australian markets, however notable numbers or RPU first reported its use in the 2012 EDRS survey.

Unfortunately there are no available data sources looking at the chemical composition of crystals obtained, thus it cannot be guaranteed that the substance reported by participants contains only MDMA.

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For more information contact Gavin Entwistle (NDARC)
Phone: (02) 9385 0161
Email: g.entwistle@unsw.edu.au