

Is MDMA Present in Hair Samples Consistent with Reported Ecstasy Use?

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INTRODUCTION

Our group has conducted several Internet investigations into the biobehavioural effects of recreational use of MDMA (Ecstasy) and other psychosocial drugs [1-5]. They have relied on self-reports of drug use. Here we report a new study examining the relationship between self-reported Ecstasy use and traces of MDMA found in hair samples.

METHODS

While in the laboratory, 49 unpaid undergraduate volunteers (23 female, 26 male) performed an internet-based assessment battery which included mood scales, and the UEL Drug use questionnaire which asks for history and current drug use. They also provided a hair sample for determination of exposure to drugs including MDMA over the previous month. This was tested using the Society for Hair Testing guidelines [6]. The presence of an array of recreational and other drugs was assessed, although this paper only covers the MDMA findings.

RESULTS

MDMA was present in 22 of the 49 hair samples. Self-reports of Ecstasy use and presence of MDMA in hair samples were highly consistent ($p < 0.00001$). The main disagreements between hair and self-reports occurred in the lighter Ecstasy/MDMA users (1-9 times lifetime). However many of these participants would have taken the drug some time previously, hence explaining why it was no longer present in their hair. Both subjective and objective measures of MDMA presence predicted significantly lower self-reported ratings of happiness, and higher self-reported stress. The full findings from this study are being presented elsewhere [7].

DISCUSSION AND CONCLUSION

We have shown a good correspondence between self-report and objective assessment of exposure to MDMA. This is consistent with the concordance between recreational Ecstasy and MDMA, as noted by a review [8], and in a laboratory study where every weekend 'Ecstasy' user had MDMA in their saliva [9]. Finally, the present study demonstrates that the internet has high potential utility as a research medium, which complements more traditional laboratory methods into the sequelae of recreational drug use.

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