

Does methamphetamine use increase violent behaviour? Evidence from a prospective longitudinal study

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Aims

To determine whether violent behaviour increases during periods of methamphetamine use and whether this is due to methamphetamine-induced psychotic symptoms.

Design

A fixed-effects (within-subject) analysis of four non-contiguous one-month observation periods from a longitudinal prospective cohort study.

Setting

Sydney and Brisbane, Australia.

Participants

A total of 278 participants aged 16 years or older who met DSM-IV criteria for methamphetamine dependence on entry to the study but who did not meet DSM-IV criteria for lifetime schizophrenia or mania.

Measurements

Violent behaviour was defined as severe hostility in the past month on the Brief Psychiatric Rating Scale (BPRS) (corresponding to assault / damage to property). Days of methamphetamine and other substance use in the past month were assessed using the Opiate Treatment Index. Positive psychotic symptoms in the past month were identified using the BPRS.

Findings

There was a dose-related increase in violent behaviour when an individual was using methamphetamine compared with when they were not after adjusting for other substance use and socio-demographics (cf. no use in the past month: 1-15 days of use OR 2.8, 95% CI 1.6 – 4.9; 16+ days of use OR 9.5, 95% CI 4.8 – 19.1). The odds of violent behaviour were further increased by psychotic symptoms (OR 2.0, 95% CI 1.1 – 3.6) which accounted for 22-30% of violent behaviour related to methamphetamine use. Heavy alcohol consumption also increased the risk of violent behaviour (OR 3.1, 95% CI 1.4 – 7.0) and accounted for 12-18% of the violence risk related to methamphetamine use.

Conclusions

There is a dose-related increase in violent behaviour during periods of methamphetamine use that is largely independent of the violence risk associated with psychotic symptoms.