

MENTAL HEALTH CONSEQUENCES OF METHAMPHETAMINE USE: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction and Aims: Methamphetamine use is a growing global health concern. We summarise global data on methamphetamine use and mental health outcomes that are likely to have a major public health impact.

Design and Methods: A systematic review and meta-analysis (CRD=42017081893). We searched three databases (Medline, EMBASE, PsycInfo) for methamphetamine or amphetamine combined with five mental health outcomes (psychosis, violence, suicidality, depression, anxiety) from 1950 until May 2017. Inclusion criteria were human empirical cross-sectional surveys, case-control studies, cohort studies or randomised controlled trials that examined the relationship between methamphetamine or amphetamine (referred to hereafter collectively as methamphetamine) use and at least one of the mental health outcomes. Meta-analyses were conducted to pool the results for (i) any methamphetamine use vs. no methamphetamine use, and (ii) a methamphetamine use disorder vs. no methamphetamine use disorder.

Results: Of 149 identified studies, 58 were included in meta-analyses. Methamphetamine use was associated with significantly higher odds of suicidality (OR 4.4), psychosis (OR 2.0), violence (OR 2.4) and depression (OR 1.6). Having a methamphetamine use disorder was associated psychosis (OR 3.0), suicidality (OR 2.3) and violence (OR 6.2), but not with depression. There was insufficient data to draw conclusions about anxiety. The evidence was strongest for psychosis and suicidality. There was substantial heterogeneity in effects suggesting caution in generalising from these global estimates.

Discussions and Conclusions: Poor mental health outcomes, particularly psychosis and suicide, are likely to be key harms associated with growing global methamphetamine use. Clinical responses should incorporate strategies to mitigate these harms.

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