

# CHARACTERIZING METHAMPHETAMINE USE AMONG PEOPLE WHO USE OPIOIDS: A SYSTEMATIC REVIEW

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**Background:** The combined challenge of methamphetamine and opioid use presents complex global issues. It is crucial to understand the individual and structural factors influencing methamphetamine use among people who use opioids (PWUO) to address the increasing risks. This systematic review aims to synthesize the available evidence characterizing methamphetamine use among PWUO, with a specific focus on understanding methamphetamine use trends and associated individual and structural factors.

**Methods:** Following the protocol registration in PROSPERO (Registration #: CRD42022372905), we systematically searched five electronic databases for primary studies characterizing methamphetamine use and its associated risk factors among PWUO. Two reviewers independently screened, extracted data, and assessed the risk of bias using a modified version of the Newcastle-Ottawa Quality Assessment Scale.

**Results:** Our search yielded 3801 unique records, with 33 studies included in the review. Among these, 11 studies conducted in the US and Canada characterized an increasing trend of methamphetamine use among PWUO. Individuals who use methamphetamine were more likely to be younger, reside in rural areas, have lower socioeconomic status, and experience mental and physical health conditions. They were also more likely to engage in risky behaviors that increase their risk for sexually transmitted infections and substance use-related harms. Additionally, a longer duration of receiving medications for opioid use disorder (MOUD) was associated with lower levels of methamphetamine use.

**Conclusion:** Our findings emphasize the need to expand the focus on the opioid epidemic to address the growing issue of methamphetamine use, and potentially other drugs, among PWUO. Future clinical trials should evaluate treatment effects in the context of concurrent methamphetamine and opioid use and identify effective medications for stimulant replacement therapy. To combat the expanding "twin epidemic" of opioid and methamphetamine use, scaling up harm reduction interventions, supporting low-threshold addiction care, and investing in therapeutic options for methamphetamine use disorder are warranted.

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