

A systematic review of outcomes and measures used in randomised controlled trials of pharmacotherapies for meth/amphetamine use disorder/dependence

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Background

- No consensus to define treatment success in clinical trials
- Important given current draft FDA guidance on stimulant clinical trials
- Current outcomes often do not reflect community priorities
- Variation in outcome measures creates challenges in pooling results across trials for meta-analyses

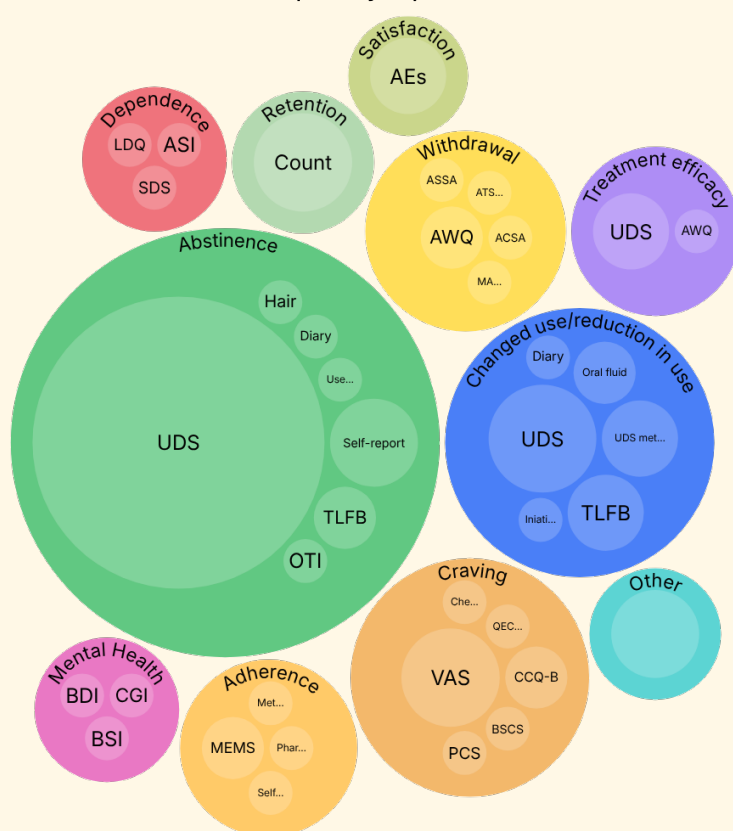
Methods

- Systematic review of MEDLINE, SCOPUS, EMBASE and CINAHL
- Included Randomised Controlled Trials (RCTs) of any pharmacotherapy for meth/amphetamine use disorder/dependence
- All studies published up to April 2026 included
- No language restrictions, secondary analyses and qualitative studies excluded
- Studies were evaluated for design, outcomes and methodology

Table: Change in outcome reporting in last 5 years

Full review	RCTs published since 2021
57 RCTs	8 RCTs
110 primary outcomes (1.9 per RCT)	8 primary outcomes (1 per RCT)
Abstinence was the primary outcome 54 times (50%)	Abstinence was the primary outcome 1 time (13%)
Change in use was the primary outcome 14 times (13%)	Change in use was the primary outcome 5 times (63%)
Self-reported change in substance use not supported as primary outcome before 2020	Of 5 studies reporting change in MA use 4 (80%) relied on self-report (with or without biological validation), 3 of which used standardised TLFB methods
Withdrawal symptoms primary outcome in 6 RCTs (6%)	Withdrawal symptoms primary outcome in 1 RCT (13%)

Figure: Proportion of primary outcomes and measures. Larger bubbles indicate more frequently reported outcomes



Results

- We included 57 RCTs randomising 5581 people (range 19 to 538 people)
- 1247 (22%) were identified as female
- Across the trials 110 primary outcomes were reported (15 trials reported more than one primary outcome, up to 4 primary outcomes)
- 27 individual pharmacotherapies were included

Discussion

- Significant heterogeneity in outcomes and measures across trials limits ability to meta-analyse and draw conclusions
- Marked shifts in outcome reporting over the last 5 years are present, including a move towards more patient centered outcomes and less reliance on multiple primary outcomes
- Self-reported drug use primary outcomes are acceptable outside the US (Australia and Japan)
- A consensus set of minimum outcomes may be warranted to ensure reliability across trials going forwards