



# A systematic review and meta-analysis of barriers to accessing methamphetamine treatment

Craig Cumming<sup>1</sup>, Lakkhina Troeung<sup>1</sup>, Jesse Young<sup>1,2,3</sup>,  
Erin Kelty<sup>1</sup>, David Preen<sup>1</sup>

<sup>1</sup>Centre for Health Services Research, University of Western Australia, Crawley, WA, Australia

<sup>2</sup>University of Melbourne, Melbourne, Victoria, Australia

<sup>3</sup>National Drug Research Institute, Curtin University, Shenton Park, WA, Australia



THE UNIVERSITY OF  
WESTERN AUSTRALIA

Centre for Health Services Research

## Methamphetamine use: current evidence



### Prevalence in Australia currently in 15-54 year olds<sup>1</sup>

- Regular Use: 2.09%, up from 0.74% in 2009-10
- Dependent Use: 1.24%, up from 0.47% in 2009-10

### Issues associated with methamphetamine use

- Physical and mental illness (cardio-vascular<sup>2</sup>, psychosis<sup>3</sup>, STI and BBV<sup>4</sup>)
- Social issues (violence<sup>5</sup>, aggression/hostility<sup>3</sup>)
- Justice involvement<sup>6,7</sup>

### Treatment for methamphetamine use is effective<sup>8,9</sup>

### Question: What prevents regular or dependent users from accessing treatment?

1. Degenhardt, L. et al. 2016. Estimating the number of regular and dependent methamphetamine users in Australia, 2012–2014. *Med. J. Aust.* 204, 153.
2. Darke, S. et al. 2008. Major physical and psychological harms of methamphetamine use. *Drug Alcohol Rev.* 27, 253–262.
3. Pattenka, W.J., et al. 2013. Methamphetamine use: a comprehensive review of molecular, preclinical and clinical findings. *Drug Alcohol Depend.* 129, 167–179.
4. Cheng, W.S., et al. 2010. Binge use and sex and drug use behaviors among HIV(-), heterosexual methamphetamine users in San Diego. *Subst. Use Misuse* 45, 116–133.
5. McKetin, R., et al. 2014. Does methamphetamine use increase violent behaviour? Evidence from a prospective longitudinal study. *Addiction* 109, 798–806.
6. Degenhardt, L., Roxburgh, A., Black, E., Bruno, R., Campbell, G., Kinner, S., Fetherston, J., 2008. The epidemiology of methamphetamine use and harm in Australia. *Drug Alcohol Rev.* 27, 243–252.
7. McKetin, R., et al. 2005. The Sydney Methamphetamine Market: Patterns of Supply, Use, Personal Harms and Social Consequences. National Drug Law Enforcement Research Fund, Sydney.
8. Luoma, J.B., et al. 2012. Slow and steady wins the race: a randomized clinical trial of acceptance and commitment therapy targeting shame in... *J. Consult. Clin. Psychol.* 80, 43–45.
9. Manning, V., et al. 2016. Substance use outcomes following treatment: findings from the Australian Patient Pathways Study. *Aust. N. Z. J. Psychiatry*, epub ahead of print.

# Review: Methods



## Systematic search using terms:

(barrier\* OR obstacle\* OR impediment\*) (access\*) (\*amphetamine OR speed OR goey OR wizz OR whizz OR meth OR ice OR gear) (treatment OR support)

**Criteria:** original research; investigating barriers to meth treatment; in English

**Data extraction:** PRISMA<sup>1</sup> method; 2 authors

**Data synthesis:** Thematic content analysis; meta analysis (random-effects model<sup>2</sup> and  $I^2$  statistic<sup>3</sup>)

1. Moher, D., et al, 2009. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Ann. Intern. Med.* 151, 264–269.
2. DerSimonian, R., Kacker, R., 2007. Random-effects model for meta-analysis of clinical trials: an update. *Contemp. Clin Trials* 28, 105–114.
3. Higgins, J., Thompson, S.G., 2002. Quantifying heterogeneity in a meta-analysis. *Stat. Med.* 21, 1539–1558.



THE UNIVERSITY OF  
WESTERN AUSTRALIA

Centre for Health Services Research

# Review: Results



974 records identified through database search, 21 additional using Google scholar

884 records after duplicates removed

855 records excluded for not meeting criteria after screening by abstract

29 full text of records assessed, 18 excluded for not focusing on barriers

**11 studies included in systematic review**

**7 studies included in meta-analysis** (reported either count or proportion of participants identifying particular barriers)

**5 Countries:** Australia (n=4); US (n=4); UK (n=1); China (n=1); South Africa (n=1)

**Study methodologies:** 6 quantitative; 3 qualitative; 2 mixed methods

**Study participants:** current or former meth users (n=9); service providers (n=1); or both (n=1)



THE UNIVERSITY OF  
WESTERN AUSTRALIA

Centre for Health Services Research

# Review and meta-analysis: Results

## Review

### Psychosocial Barriers (10 studies):

- Belief that treatment unnecessary (n=6)
- Stigma/embarrassment (n=5)
- confidentiality concerns (n=3)
- child custody concerns (n=3)
- No motivation to stop (n=3)
- self-reliance (n=2)

### Practical Barriers (8 studies)

- Affordability (n=6)
- Insufficient spaces (n=4)
- Waiting lists/times (n=4)

### Other Barriers

- Services not suited for meth (n=6)
- Negative staff attitudes (n=3)

## Meta-analysis

### Psychosocial Barriers (pooled proportion %)

- Embarrassment/stigma (60%, 95%CI 54-67%)
- Belief that treatment unnecessary (59%)
- Prefer withdrawing unassisted (55%)
- Privacy/confidentiality concerns (51%)

## Studies included

- Kenny, P. et al. 2011. Treatment utilization and barriers to treatment: results of a survey of dependent methamphetamine users. *Subst. Abuse Treat. Prev. Policy* 6, 1–7.
- Quinn, B. et al. 2013. An exploration of self-perceived non-problematic use as a barrier to professional support for methamphetamine users. *Int. J. Drug Policy* 24, 619–623.
- Semple, S.J., Grant, I., Patterson, T.L., 2005. Utilization of drug treatment programs by methamphetamine users: the role of social stigma. *Am. J. Addict.* 14, 367–380.
- Wallace, C., et al. 2009. Methamphetamine use, dependence and treatment access in rural and regional North Coast of New South Wales, Australia. *Drug Alcohol Rev.* 28, 592–599.
- Wang, J., et al. 2016. Studying psychosocial barriers to drug treatment among Chinese methamphetamine users using a 3-step latent class analysis. *J. Subst. Abuse Treat.* 62, 89–95.
- Woodall, D., et al. 2014. When you got friends in low places, you stay low: social networks and access to resources for female methamphetamine users in..... *J. Drug* 44, 321–339.
- Wright, S., Klee, H., Reid, P., 1999. Attitudes of amphetamine users towards treatment services. *Drugs Educ. Prev. Policy* 6, 71–86.
- MacMaster, S.A., 2013. Perceptions of need, service use, and barriers to service access among female methamphetamine users in rural Appalachia. *Soc. Work Public Health* 28, 109–118.
- MacMaster, S.A., et al. 2008. Perceptions of HIV risk behaviors and service needs among methamphetamine users in rural Appalachian Tennessee. *J. Ethn. Subst. Abuse* 7, 115–130.
- Meade, C.S., et al. 2015. Addition and treatment experiences among active methamphetamine users recruited from a township community in Cape... *Drug Alcohol Depend.* 152, 79–86.
- Pennay, A.E., Lee, N.K., 2009. Barriers to methamphetamine withdrawal treatment in Australia: findings from a survey of AOD service providers. *Drug Alcohol Rev.* 28, 636–640.

# Addressing the issues

## Addressing stigma

- Psychosocial interventions are effective, eg acceptance and commitment therapy<sup>1</sup>, counselling<sup>2</sup>
- Media campaigns that are less stigmatising, must include information on treatment options<sup>3,4</sup>

## Addressing the belief that treatment unnecessary

- Education to raise awareness about when methamphetamine use may require treatment
- Important because lower pre-treatment meth use is associated with treatment success<sup>5</sup>

## Service design and delivery

- Polysubstance use is common<sup>8</sup>, research needed on effective polysubstance interventions
- Co-morbid MH problems prevalent<sup>9,10</sup>, greater AOD and MH service integration necessary<sup>11</sup>

1. Luoma, J.B., et al. 2012. Slow and steady wins the race: a randomized clinical trial of acceptance and commitment therapy targeting shame in... *J. Consult. Clin. Psychol.* 80, 43–45.
2. McKetin, R. et al. 2013. Treatment outcomes for methamphetamine users receiving outpatient counseling from the Stimulant Treatment Programme... *Drug Alcohol Rev.* 32, 80–87.
3. Bayer, R., Fairchild, A.L., 2016. Means, ends and the ethics of fear-based public health campaigns. *J. Med. Ethics* 42, 391–396.
4. Soames Job, R.F., 1988. Effective and ineffective use of fear in health promotion campaigns. *Am. J. Public Health* 78, 163–167.
5. Brecht, M., et al. 2006. Two-year outcomes of treatment for methamphetamine use. *J. Psychoactive Drugs*, 38(sup 3), 415–426.
6. Cantwell, B., McBride, A.J., 1998. Self detoxication by amphetamine dependent patients: a pilot study. *Drug Alcohol Depend.* 49, 157–163.
7. Newton, T.F., Kalechstein, A.D., Duran, S., Vansluis, N., Ling, W., 2004. Methamphetamine abstinence syndrome: preliminary findings. *Am. J. Addict.* 13, 248–255.
8. Quinn, B., et al. 2013. Methamphetamine use in Melbourne, Australia: baseline characteristics of a prospective methamphetamine-using cohort and... *J. Subst. Use* 18, 349–362.
9. Akindepe, T., Wilson, D., Stein, D.J., 2014. Psychiatric disorders in individuals with methamphetamine dependence: prevalence and risk factors. *Metab. Brain Dis.* 29, 351–357.
10. Ling, W., Mooney, L., Haglund, M., 2014. Treating methamphetamine abuse disorder. *Curr. Psychiatry* 13, 37–44.
11. Pennay, A.E., Lee, N.K., 2009. Barriers to methamphetamine withdrawal treatment in Australia: findings from a survey of AOD service providers. *Drug Alcohol Rev.* 28, 636–640.
12. Wright, S., Klee, H., Reid, P., 1999. Attitudes of amphetamine users towards treatment services. *Drugs Educ. Prev. Policy* 6, 71–86.