

# An Overview of Reviews of the evidence for substance use interventions

Tayla J. Degan<sup>1</sup>, Poshan Thapa<sup>1</sup>, Natalia Uthurralt<sup>1</sup>, Alessandra Bo<sup>2</sup>, Louisa Degenhardt<sup>1</sup>, Michael Farrell<sup>1</sup>, Jane Mounteney<sup>2</sup>, Paul Griffiths<sup>2</sup>, & Rebecca McKetin<sup>1</sup>.

<sup>1</sup>National Drug and Alcohol Research Centre, University of New South Wales, Sydney, NSW, 2052, Australia; <sup>2</sup>European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), Lisbon, Portugal.

## Background

Policy makers and practitioners need evidence about the best available interventions for substance use disorders. This evidence is often found in systematic reviews of randomised controlled trials (RCTs). However, gathering this information often requires extensive reviewing of the literature and compilation of data to synthesis evidence from often disparate sources. This can be difficult and time consuming.

It is important to develop approaches to communicate both the evidence that is available and how it should be understood. An overview of reviews (or umbrella review) provides a way of navigating this problem.

## Aim

1. Conduct an overview of systematic reviews on the evidence to support interventions for cannabis, opioid and stimulant use disorders.
2. Compile evidence statements from existing reviews about the effectiveness of different interventions.
3. Document the quality of the evidence available.

## Methods

PubMed was searched for indexed systematic reviews and meta-analyses on interventions for cannabis, stimulant and opioid use disorder published from 2010 to March 2021.

“Evidence statements” were extracted from the latest comprehensive reviews. The quality of the evidence supporting each evidence statement was assessed using the Cochrane GRADE rating system. The quality of each evidence statement was mapped against whether the intervention had a benefit, no clear benefit or potential harm (Table 1).

## Interpreting the evidence

- Does not include all available evidence – only systematic reviews of RCTs up to March 2021 (single studies or evidence derived after this date are not included)
- Does not indicate magnitude of benefit/harm
- Low quality evidence does not mean an intervention does not work, rather it has not yet been adequately evaluated
- Not valid to directly compare different evidence statements as they are based on different sets of studies

**Table 1. Key to quality ratings of each evidence statement.**



KEY TO THE RATINGS	BENEFIT	NO CLEAR BENEFIT	POTENTIAL HARM	WHAT DOES THIS MEAN
High quality	★★★	★★★	★★★	The intervention should produce changes in the indicated direction.
Moderate Quality	★★	★★	★★	
Low quality	★	★	★	The intervention should produce changes in the indicated direction.
Very low quality or insufficient evidence	?	?	?	More studies are needed before conclusions should be drawn about whether the intervention is effective.

**Table 2. Interventions with moderate or high-quality evidence.**

Stimulant use disorder	
	<b>Psychosocial interventions:</b>
★★	Psychosocial interventions increase abstinence from stimulant use compared to no treatment.
★★	Contingency management (alone or together with community reinforcement or cognitive behavioural therapy) increases abstinence from stimulants compared to treatment as usual.
★★	Contingency management (alone or with community reinforcement) increases retention in treatment.
	<b>Pharmacological interventions:</b>
★★	Psychostimulant pharmacotherapies do not improve retention in treatment.
★★	Antidepressant medication does not reduce cocaine use (note - this evidence does not include bupropion).
Opioid use disorder	
	<b>Opioid agonist treatment:</b>
★★★	Methadone is an effective maintenance treatment for opioid use disorder, increasing retention in treatment and reducing heroin use more than treatments that do not use opioid agonist treatments.
★★★	There is usually greater retention in treatment with methadone than buprenorphine.
★★	Buprenorphine ( $\geq 16$ mg) reduces opioid use more than placebo and is similarly effective to methadone at reducing illicit opioid use.
★★	The addition of CM to opioid agonist treatment can reduce the use of other substances (e.g., cocaine) but not non-prescribed opioid use.
★★	Opioid agonist treatment reduces mortality.
★★	Opioid agonist treatment reduces crime.
★★★	Adding psychosocial interventions to standard opioid agonist treatments does not significantly improve opioid abstinence or retention in opioid agonist treatment.
	<b>Supervised heroin injection:</b>
★★	Supervised heroin injection in addition to flexible doses of methadone can improve treatment retention for people with long-term treatment resistant heroin dependence.
	<b>Withdrawal management:</b>
★★★	Methadone tapering is similarly effective to other pharmacological treatments for opioid withdrawal (both in terms of completing withdrawal and being abstinent at the end of withdrawal).
★★	Alpha2-adrenergic agonists (e.g., clonidine) reduce the likelihood of severe withdrawal and increase completion of withdrawal (compared to placebo).
★★	Buprenorphine reduces withdrawal severity and increases completion of opioid withdrawal more than clonidine or lofexidine.
★★	There is no difference between buprenorphine and methadone in terms of completing withdrawal.
★★	The addition of psychosocial interventions to pharmacological opioid withdrawal improves outcomes (increases compliance, reduces dropout and reduces opioid use during treatment).

## Contact

Email: [t.degan@unsw.edu.au](mailto:t.degan@unsw.edu.au)

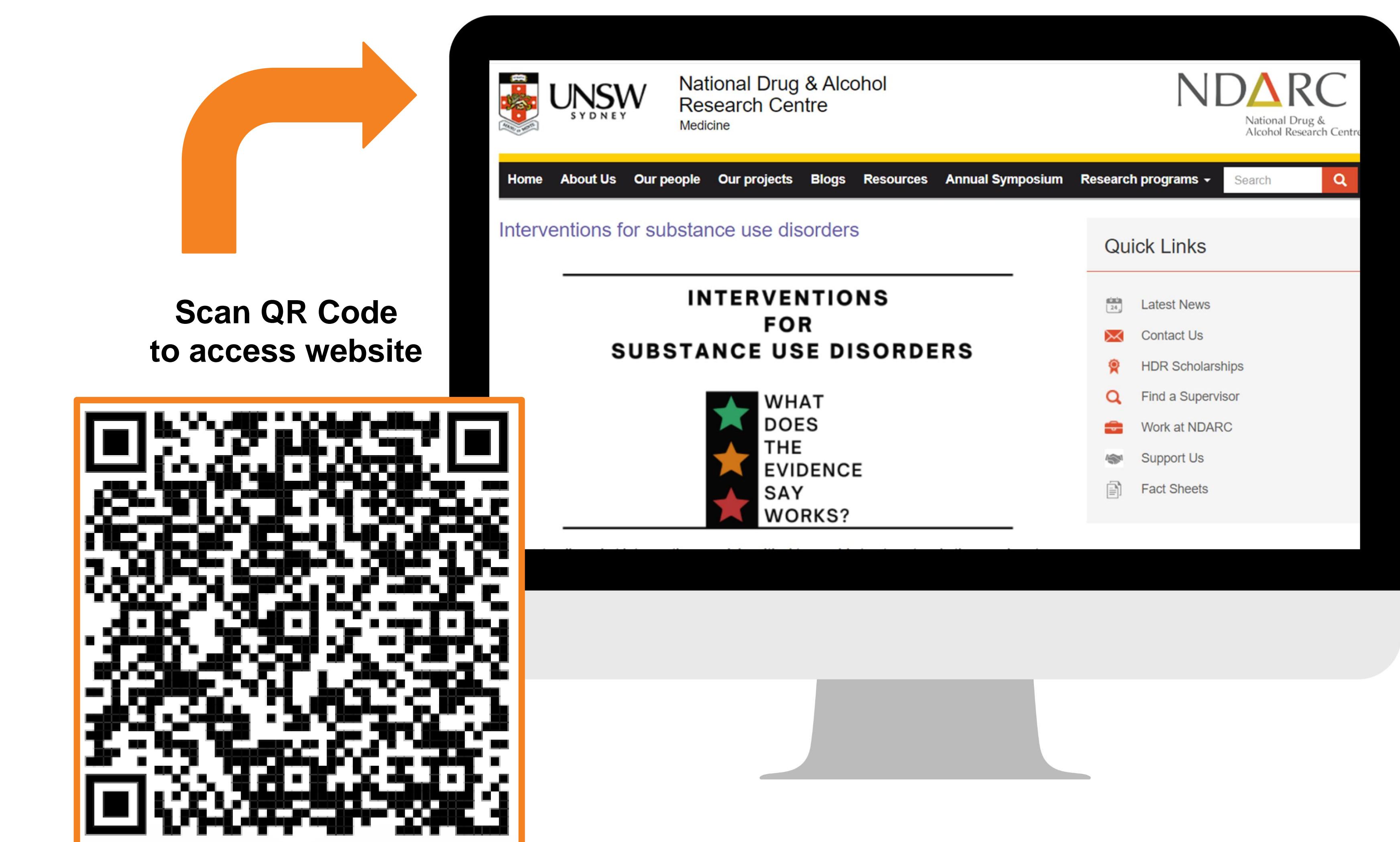
Website: <https://ndarc.med.unsw.edu.au/substance-use-disorder-interventions>

## Results

We identified 78 systematic reviews from which we extracted 47 evidence statements pertaining to interventions for cannabis use disorder (n=8), opioid use disorder (n=27), and stimulant use disorder (n=12).

Moderate to high quality evidence (n=13) was largely constrained to interventions for opioid use disorder (specifically opioid agonist therapy and withdrawal management for opioid use, Table 2) and stimulant use disorder (psychosocial interventions) (Table 2).

There is good evidence to support opioid agonist treatment, medically supported opioid withdrawal, and psychosocial treatment for stimulant use. Evidence is lacking for pharmacotherapies for stimulant use disorder and cannabis use disorder, and low quality for other interventions to address cannabis use disorder. There was also insufficient evidence for alternatives to opioid agonist treatment. Refer to the website for full list of evidence statements (Figure 1).



**Figure 1. Website “Interventions for substance use disorders”**

## Conclusions and implications

This overview of systematic review findings has provided a relatively rapid and accessible synthesis of what evidence is available to support interventions for substance use disorders. To facilitate dissemination of this evidence we have developed a website which summarises the evidence statements and accompanying quality ratings for policymakers and practitioners to access (Figure 1).

## Disclosure of Interest Statement

This research was conducted as part of a project funded by the European Monitoring Centre on Drugs and Drug Addiction (EMCDDA), European Union. We would like to thank staff at the EMCDDA for their expert opinions on the data collection and analysis methods. The views expressed here do not necessarily reflect those of the European Union or the EMCDDA.