



The National Centre of Excellence  
in Youth Mental Health



## Evidence Summary

# How effective are brief motivational interventions at reducing young people's problematic substance use?



## Why is intervening early in substance use important?

Substance use is one of the most important issues that young people face.<sup>1</sup> Problematic substance use can be devastating for young people's health and wellbeing, as well as their relationships and life more generally. Strong evidence suggests that using alcohol and other drugs in early adolescence predicts higher levels of use later in life and increases the risk of developing a substance use disorder (SUD).<sup>2,3</sup> About half of the people who develop a SUD do so before the age of 20.<sup>4</sup>

It has been suggested that Motivational Interviewing (MI) may be particularly helpful for working with young people as it is brief, non-confrontational, sees the young person as a partner in the therapeutic process, and involves exploration of an individual's goals and values.<sup>5,6</sup> This resource outlines and summarises the available evidence for using MI with young people who present with problematic substance use/misuse, rather than established substance use disorders. MI was developed to be a style of communication and was not designed to be a stand-alone brief intervention for reducing substance use. However, most research has focused on evaluating MI as a brief intervention. Therefore this evidence summary focuses on the efficacy of MI when it has

been delivered as a brief intervention to address substance use behaviours in young people (aged 12–25 years). Evidence related to the efficacy of Motivational Enhancement Therapy (MET) is also considered.

## What is MI?

MI is a person-centred counselling style that addresses ambivalence about change.<sup>7</sup> Ambivalence is a normal part of preparing for change and a stage where a person can remain for some time. People using substances commonly experience ambivalence about their use. MI is goal-oriented in that it has 'an intentional direction toward change.'<sup>8(p135)</sup> Generally, there is no one goal of MI that is imposed by clinicians or others on what the 'best outcome' might be for a person or their substance use. Rather, MI 'is about eliciting the person's own inherent arguments for change'.<sup>8(p131)</sup> This might be communicated to a young person by saying: 'I am not here to tell you what to change or how to change, but rather to understand any concerns you have about your substance use'. Taking a non-judgemental stance to their use needs to be balanced with clinical responsibility and consideration of the safety of the young person. Supporting a young person to develop a clearly stated goal regarding their substance use behaviours (i.e. to develop a change plan) is an important part of MI.

## Glossary

**Motivational Interviewing (MI):** 'A collaborative, goal-oriented style of communication with particular attention to the language of change. It is designed to strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person's own reasons for change within an atmosphere of acceptance and compassion.'<sup>7(p29)</sup>

**Motivational Enhancement Therapy (MET):** delivery of MI as a brief intervention along with personalised feedback.<sup>8</sup>

**Evocation:** eliciting the person's inherent arguments for change rather than imposing someone else's.<sup>8</sup>

**The underlying 'spirit' of MI:** an essential mindset embodied by the clinician, which is characterised by partnership, acceptance, compassion, and evocation.

**Motivational interventions:** MI and MET.

**Change talk:** the person's own statements that favour change.

**Sustain talk:** concerns about change, or the person's own arguments in favour of the current behaviour, or for not changing.

**The righting reflex:** the desire to 'fix' what appears to be causing suffering or pain with people by directing them toward change.

**Ambivalence:** simultaneously wanting and not wanting to change a behaviour.

**Decisional balance (DB):** an approach for resolving personal conflict and ambivalence in which the clinician elicits and explores both the arguments for and against change.<sup>8</sup>

**Expectancy challenge:** intervention designed to illustrate the effects of alcohol-related expectations (e.g. 'alcohol will make me more sociable') through experiential learning or direct challenges to these expectations.<sup>9</sup>

Becoming proficient in MI requires time, specific training, and continuous practice.<sup>7</sup> MI can be used in conjunction with other evidence-based clinical skills and approaches.<sup>7</sup> It may be used to increase engagement in another more intensive intervention, or worked into another therapy when ambivalence or sustain talk is preventing progress.<sup>5,10</sup> More recently, MI is being used as a 'platform' on which to base other interventions, like cognitive behavioural therapy (CBT).<sup>5,10</sup> MI may therefore be considered a helpful clinical tool that can be flexibly applied in a therapeutic relationship in order to respond to ambivalence about changing substance use. It may be a useful preparatory tool to establish a therapeutic relationship and evoke motivation to change before addressing substance use behaviours within a biopsychosocial treatment model.<sup>10</sup>

### How has MI changed in the past decade?

MI has continued to evolve since it was first developed in the 1980s.<sup>7</sup> Briefly, some of the most significant changes are:

- Increasing recognition of the importance of client speech – this is the most significant change. Language about change is either defined as 'change talk' or 'sustain talk'.<sup>7</sup> MI seeks to evoke 'change talk' from the client and to respond to any 'sustain talk' in a way that respects, but does not strengthen, the argument against change.<sup>11</sup>
- The concepts of 'resistance' and 'rolling with resistance' are no longer used as they imply that 'sustain talk' is pathological and introduce an element of blame that is unwarranted and unhelpful.<sup>7(p197)</sup> Client behaviours that used to be referred to as resistance are now identified as 'sustain talk' or 'discord' (i.e. friction in the relationship). Both are normalised within MI and the clinician is invited to be curious rather than challenging when either arise.
- Clinicians are now advised not to include decisional balance (DB) in MI as a routine technique, but rather to consider the timing of using DB carefully. DB is an approach for resolving personal conflict and ambivalence in which the clinician elicits and explores both the arguments for and against change. Using DB with individuals who are already experiencing ambivalence about their substance use can decrease commitment to change by increasing 'sustain talk'.<sup>11,12</sup> However, DB may be helpful to support an individual who does not think their substance use is problematic to begin to think about the potential benefits of change.<sup>11</sup>

### What are the challenges associated with evaluating MI?

MI differs from most other counselling approaches in that:<sup>13</sup>

- It is a communication style rather than an intervention per se.
- It was never intended to be a stand-alone intervention.
- It should not be delivered for a predetermined number of sessions. If MI is being used as a brief intervention, typically, it should not be the focus of more than one or two sessions (as continuing beyond this may be pushing other people's agendas on the client – i.e. trying to 'wear down' their ambivalence).<sup>8</sup> However, if MI is being interwoven with another treatment, it is appropriate to come back to it in future sessions if ambivalence arises.
- Symptom reduction (e.g. reducing substance use) is not necessarily the intended outcome.

Collectively, these factors make it hard to find a meaningful comparison to MI when evaluating how well it works. It is also difficult to compare outcomes for MI, which targets ambivalence, with other interventions that target reducing substance use. It is important to keep this in mind when reviewing the evidence base for using MI with young people with problematic substance use.

### Do motivational interventions reduce problematic alcohol use in young people?

A recent systematic review looked at the effects of MI in preventing alcohol misuse and alcohol-related problems in 15-24-year-olds.<sup>14</sup> In most of the trials (n=70), MI was delivered in individual rather than group-based settings. The duration of MI ranged from 10 minutes to 19 hours over five sessions; however, it was typically delivered only as a single session. Moreover, only three trials took place in substance use or youth treatment settings, which limits the generalisability of the results to inform clinical practice. The review indicated that young people who received MI did better than those who received a comparison condition (i.e. assessment only, feedback only, alcohol counselling, education or information only, relaxation training, and an Alcoholics Anonymous abstinence program) in both the short and longer term. This finding was similar to that of other large reviews.<sup>See: 15-18</sup> The review, however, concluded that the observed benefit of MI was too small to be clinically meaningful. For example, young people

who received MI had slightly lower alcohol consumption (12.5 drinks per week versus 13.7), with fewer days drinking (2.5 versus 2.7 days per week) at four-month follow-up. There was no evidence to suggest that the effects of MI were influenced by the setting in which it was delivered (e.g. schools, healthcare, justice), the length of intervention, the treatment comparison (i.e. assessment alone or another intervention), or the initial risk level of the young person's drinking. There was not enough evidence to say if there were better outcomes for group-based or individual MI. There was no evidence that MI was harmful.

Other research has compared outcomes for brief interventions more broadly than MET (e.g. CBT, psychoeducation, expectancy challenge, feedback only).<sup>19</sup> For adolescents, MET has more evidence than other brief interventions. Conversely, for young adults, expectancy challenge has stronger evidence than MET. Combining MET and CBT within one brief intervention for young people (aged 11-30 years old) is less effective than offering MET alone. Components of brief interventions that may be particularly effective for adolescents (11-17 years old) include decisional balance and goal setting. Conversely, for young adults (aged over 18), evidence suggests that brief interventions including DB are less effective.<sup>19</sup> Differences in ambivalence levels may explain why DB can be unhelpful for young adults, but helpful for adolescents.<sup>See: 5,11,20,21</sup> Adolescents may generally experience less ambivalence about their alcohol use than young adults (i.e. they may not think their alcohol use is problematic). This is potentially because they may not have experienced the same negative health and social consequences that people using substances for longer periods of time encounter. As a result, they may benefit more from the inclusion of DB to move them towards a more ambivalent state, however more research is required.

In summary, MI has a small statistically significant effect in reducing alcohol use among young people, but there is no evidence to suggest it has a clinically meaningful benefit. From a harm reduction and early intervention perspective, any reduction in use, particularly from a brief intervention, can be considered a step in the right direction. For adolescents, no other brief intervention targeting alcohol use has more evidence than MET. For young adults, expectancy challenge has stronger evidence than MET. Combining MET and CBT in a brief alcohol-use intervention (i.e. over five or less hours, or less than a month of treatment excluding booster sessions) is not recommended for adolescents or young adults.

## Do motivational interventions improve substance use outcomes among young people using illicit substances?

A meta-analysis (a study of studies) investigated the efficacy of MI in treating illicit substance use (cannabis, cocaine, methamphetamine/ amphetamines, and ecstasy) in young people.<sup>6</sup> MI was no more effective than control interventions (treatment as usual, education/information only) in reducing young people's substance use behaviours, however it was slightly more effective in changing their attitudes toward substance use (e.g. their intention to use substances, their readiness to change their substance use, and their beliefs about the effects of substances). There was also some evidence to suggest that MI may be more effective in changing the attitudes of young people attending clinics, than those who receive MI in other settings (e.g. schools, prisons), perhaps because they are already more motivated to change. Overall, the review found a smaller treatment effect for MI as an intervention for young people using illicit substances than what has been demonstrated in the adult literature. This may indicate that MI is less effective as an intervention for young people using illicit substances than it is for adults, which may be influenced by differences in ambivalence or other factors between these two groups (e.g. differences in cognitive and emotional development and life stages). However, the available data does not allow us to say if this is the case. There is no evidence that using feedback in addition to MI (i.e. MET), or interventions that are combined with other treatment, are more effective than using MI alone for illicit substance use among young people.<sup>22</sup>

In summary, while MI has not been found to reduce young people's use of illicit substances, its impact on attitude change is encouraging and should not be dismissed. Further research is needed to demonstrate the clinical utility of this finding.

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**There is no evidence that brief motivational interventions have a clinically meaningful benefit in reducing young people's substance use. However, there is no evidence that they are harmful.**

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## What about using motivational interventions as brief interventions for young people abusing alcohol and illicit substances?

There is evidence that brief motivational interventions targeting both alcohol and other drug problems can lead to small, statistically significant improvement in alcohol and illicit substance use outcomes.<sup>16</sup> However, the extent to which these gains are clinically meaningful remains unclear. Importantly, the results show that in order to have an effect, brief interventions need to explicitly target both alcohol and illicit substance use. If only alcohol issues are targeted, 'knock-on benefits' in reducing illicit substance use are unlikely.<sup>16</sup>

## What about using motivational interventions as brief interventions for young people abusing prescription drugs?

It is widely recognised that abuse of prescription drugs among young people is quite common and intervention for this kind of substance misuse is important. Unfortunately, there is currently no research about the effectiveness of MI in this context among young people. In the absence of any clear evidence, clinicians may draw from the illicit substance use literature in assuming that brief motivational interventions are unlikely to cause harm and may be helpful to work toward attitude change, based on the evidence for its use with illicit substance use. However, brief motivational interventions should not be used as a stand-alone treatment.

## What about using motivational interventions as part of standard (rather than brief) integrated treatment for young people using substances?

Motivational interventions are typically flexibly interwoven within a broader biopsychosocial treatment approach for substance use that may include psychoeducation, CBT, and pharmacotherapy. This type of broad treatment approach typically sits within a harm reduction framework. Two reviews have concluded that integrating CBT and MET as a standard rather than brief intervention (i.e. typically 10 or more sessions) is effective in improving substance use outcomes (both illicit and alcohol use) among adolescents.<sup>23,24</sup> Clinicians can feel confident using MET as part of an integrated treatment for SUDs, typically delivered over 10 sessions or more. Evidence from the adolescent psychiatric literature

also suggests that using MI to enhance young people's engagement in substance use treatment may be helpful.<sup>10</sup>

## What about using motivational interventions for young people experiencing substance use problems and comorbid disorders?

Three trials have demonstrated positive effects of integrated MI/MET and CBT (9–12 sessions) on substance use and depression outcomes in the short-term (i.e. three months or less).<sup>25–28</sup> Longer term follow-up results were mixed.<sup>25,26</sup> One trial has evaluated integrated treatment for adolescents with comorbid disruptive behaviour and SUD. Adolescents received integrated MET, CBT, parental management training and contingency management (over 14 sessions). Marijuana use and externalising behaviour outcomes were positive.<sup>29</sup> Based on the limited evidence available, clinicians should consider integrating MI/MET with other evidence-based treatments for young people with comorbid presentations. However, it is important to ensure you have enough sessions to do this (minimum 9–12). It is not recommended to try to incorporate CBT and MI in a brief intervention.<sup>16</sup> Moreover, MI alone is insufficient as a treatment for young people with comorbid mental health and substance use disorders.

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## Understanding the 'big picture' in MI research

Perhaps the biggest problem facing MI research is the difficulty of evaluating its effectiveness at reducing problematic substance use in young people. Reduced substance use should not be assumed to be the goal of MI; rather, MI is designed to support a person to resolve ambivalence about change. Within substance use work, this typically involves resolving ambivalence by eliciting a young person's reasons for reducing substance use and increasing their confidence that they can make positive changes.

It is also unclear whether treatments described as MI in research are, in fact, implementing 'true MI' that's adherent to the model and competently delivered. None of the reviews examining the effectiveness of using MI to address problematic substance use in young people have used a standardised process to decide what interventions were considered to be 'true MI'. In MI trials, the intervention is often poorly described. Sometimes interventions described as 'MI' involve components that are inconsistent with the core principles of MI (e.g. delivering 19 hours of MI over five sessions). This is problematic for the following reasons:

- Researchers may have been comparing different interventions, all labelled as MI.<sup>30,31</sup>
- We cannot be confident about the quality of the interventions delivered in the included trials, as few actively monitor how well the clinicians deliver MI.
- It is likely that the MI used in older and newer trials differed because the concept of MI, and how it should be delivered, has changed over time.

## So where does this leave clinicians who may already be using or who are interested in using MI in their practice with young people?

Given the problems that exist within the research, it is not recommended that clinicians stop using or don't consider using motivational interventions to address young people's ambivalence about substance use or engaging in treatment based on limited evidence of its effectiveness as a stand-alone brief intervention. Rather, it is important to use MI as it is intended to be used; as a clinical tool to address the specific issue of ambivalence about change.<sup>7</sup> MI was never intended to be, and should not be used as a stand-alone treatment for substance use problems. A biopsychosocial approach to assessment and treatment is needed. Motivational interventions have a place in substance use treatment with young people, particularly as part

of an integrated treatment approach (10 sessions or more). The limited evidence evaluating integrated MI and CBT as a treatment for young people with both SUDs and comorbid mental health issues (minimum nine sessions) is promising but further research is required to say how effective it is, and which treatments should be integrated with MI depending on the comorbidity. There is no evidence that using motivational interventions with young people engaging in substance use is harmful.

Clinical guidelines for targeted prevention of substance misuse recommend using a motivational intervention as an 'opportunistic brief intervention' when they encounter ambivalence among young people (aged 16-25-years-old) who have limited/no engagement with substance use treatment, but concerns around substance use are identified by the young person or professionals they encounter (e.g. GPs).<sup>32</sup> Clinical guidelines also recommend that any young person who is misusing alcohol (i.e. engaging in problematic use or with alcohol dependence) should be offered a motivational intervention as part of an initial assessment.<sup>33</sup>

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**It is important to use MI as it is intended to be used; as a clinical tool to address the specific issue of ambivalence about change. It should not be used as a stand-alone treatment.**

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If a young person does not think their substance use is problematic, and does not experience any ambivalence about their use, they are not ready for MI. In this case, it may be helpful to use DB to explore the pros and cons of using and not using substances. If a young person has resolved their ambivalence and is ready to change their substance use, MI may be used to explore obstacles to change and build self-efficacy but should not be the primary treatment. In this case, consult the relevant clinical guidelines regarding the recommended treatment choices (e.g. personal or social skills training, CBT, family-based interventions). For further guidance, see the 'helpful resources' below. Emerging evidence also supports other longer-term interventions (e.g. over 10 sessions) to treat established SUDs in young people.<sup>34</sup> Always consider the need for medical supervision, detoxification

support, and Medication Assisted Therapy (MAT) if a young person has an established SUD, particularly in the case of alcohol, benzodiazepine, heroin, and other opioid dependence. Finally, remember, any substance use intervention should be engaging, relevant, and creative in addition to being tailored to consider the young person's developmental stage, cultural background, and treatment preferences.<sup>35</sup>

## Clinical considerations when using MI with young people with problematic substance use

- A comprehensive and collaborative assessment of mental health, substance use, and functioning is important in order to gauge the appropriateness of an intervention such as MI.
- Invest in training and supervision – attending a two-day workshop is not sufficient to develop proficiency in using MI well in practice.<sup>8,36,37</sup> Gains are stronger and more likely to last beyond a year if you have the opportunity to access ongoing support in implementing MI in practice.<sup>See: 30</sup>
- Don't try to 'cram too much in' to a brief intervention – doing so can weaken the effectiveness of both interventions (MI and CBT).
- If a young person is misusing alcohol and using illicit substances, explicitly target each in your MI – just targeting one is not going to have a 'knock-on benefit' to the other.
- We can't say with confidence which aspects of MI work best for whom. It is not recommended to use DB if someone is experiencing ambivalence.
- MI is not intended to be a stand-alone or prolonged intervention. Be mindful that you are not using it too intensely and, as a result, pushing your agenda for change on the client.
- Ensure you are up-to-date with current best practice guidelines for the treatment of problematic substance use in young people.

Providing clinical tips on how to deliver MI well with young people is beyond the scope of this resource. Reading the most current MI text is recommended for this purpose (see below).

## Helpful resources

### Clinical guidelines\*

- NICE (2017) CG64: [Drug misuse prevention: targeted interventions](#)
- NICE (2007) CG51: [Drug misuse in over 16s: psychosocial interventions](#)
- NICE (2011) CG115: [Alcohol-use disorders: diagnosis, assessment and management of harmful drinking and alcohol dependence](#). Contains guidance for treating young people (aged 10+) as well as adults.

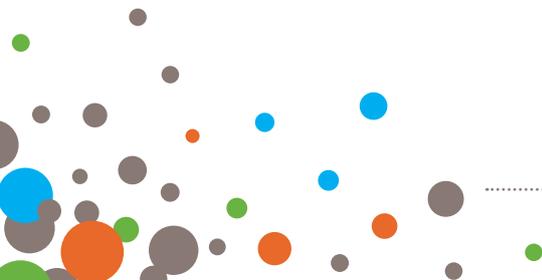
\*Note: all NICE guidelines are periodically reviewed and updated since the original date of publication

### Resources for clinicians

- Miller WR, Rollnick, S. *Motivational Interviewing, Third Edition: Helping People Change*. New York: Guildford Publications, 2012 – as MI continues to evolve it is recommended that clinicians check for updated versions.
- [Motivational Interviewing Network of Trainers](#) – for resources and information on high-quality MI training.
- [Free online training for allied health professionals](#) in working with young people around drugs, alcohol and sexual health is available on the headspace website.
- For a range of clinical resources on working with young people around alcohol and drugs, including a 'good practice toolkit', [see Dovetail](#).
- [YODAA also provides online resources](#) for workers and schools about substance use.

### Resources for young people and parents

- [Evidence-based parenting guidelines](#) to prevent adolescent substance misuse.
- Free [confidential online parenting coaching](#) for parents of adolescents is available from ReachOut Parents.
- [Online and telephone-based support for parents and young people](#) in Australia is available at [www.eheadspace.org.au](http://www.eheadspace.org.au).
- [YODAA](#) is an Australian website that provides resources for young people, families, and carers about substance use.
- A range of [factsheets for young people](#) are available on the headspace website.



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## Suggested citation

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Randell A, Scanlan F. Evidence Summary: how effective are brief motivational interventions at reducing young people's problematic substance use [Internet]. 2<sup>nd</sup> Version. Orygen, The National Centre of Excellence in Youth Mental Health (AU); 2018.

## Previous versions

Version 1.0 (No longer available)

Bailey A, Colautti L, Parker A. Evidence Summary: the effectiveness of motivational interviewing for young people engaging in problematic substance use [Internet]. Orygen, The National Centre of Excellence in Youth Mental Health (AU); 2012 [cited 2018 May 14].



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