

Practitioner Perspective

A critical evaluation of Miller and Rollnick's Motivational Interviewing as an approach for working with substance misuse

By Antoinette Copley



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and Rollnick that views a client's motivation for change as malleable, unlike the traditional view which viewed motivation as a stable personality trait of the client (Miller & Rollnick, 2002; Schneider, 2000). The MI practitioner uses a client-centred style of engagement designed to help clients explore and resolve their ambivalence about changing. The practitioner focuses on the client's readiness for change using this technique by applying client-centred principles that include an accurate understanding of the client's view, building trust and increasing the client's self-efficacy. By listening reflectively and eliciting change statements from the client it becomes possible to help the client reduce the level of perceived discrepancy

Introduction

Theories examining the reasons why some individuals change harmful behaviours while others do not, provide us with important perspectives on the factors that promote behavioural change and maintenance. The purpose of this article is to critically evaluate how one such theory, Miller and Rollnick's theory of Motivational Interviewing (MI), promotes individual behavioural change in

relation to substance misuse. In order to do this the article will critically evaluate available empirical evidence of how this theory is supported when it is applied in a variety of settings to determine its validity in the light of the evidence.

What is MI

Within the broad area of substance misuse, MI is a technique developed by Miller

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between their actual behaviour and their ideal behaviour and thus the practitioner evokes change rather than imposing it (Miller & Rollnick, 2002). Over the last decade or so the practice of MI has become increasingly popular as an approach within the field of substance misuse and therefore it is important to establish whether it is helpful, harmful or ineffective.

MI as an approach to treat substance misuse

The efficacy of MI has been demonstrated in several studies including systematic reviews indicating empirical support for its use in reducing substance use and increasing willingness to participate in drug treatment programs. In a recent randomised control trial (RCT) that compared the effects of two sessions of MI (intervention group) with treatment as usual (control group) on the reduction of substance use in a psychiatric population, the authors found a significant reduction in frequency of substance use among the intervention group when compared with the control group over the two years of the study (Bagoien et al, 2013). Another RCT of incarcerated adolescents found a higher level of engagement in substance use treatment among the adolescents who received MI compared with those who received relaxation therapy (Stein et al, 2006). MI has also been shown to be useful in a community setting and appears to work successfully when integrated with other strategies. In an RCT

of 423 substance-users who entered outpatient treatment in five community-based settings and who were randomly assigned to receive integrated evaluation that included MI techniques or to a standard intake evaluation, those who were assigned for enhanced evaluation were more likely to attend further treatment sessions throughout the 28-day-follow-up than those who received the standard substance intake evaluation (Carroll et al, 2006). Miller himself carried out a review of three clinical trials evaluating MI as a prelude to entering treatment programs for substance misuse whereby participants were randomly assigned to a single session on MI prior to treatment (Miller & Rose, 2009). In all three studies participants who received the single session of MI showed increased rates of abstinence at follow-up and were more likely to attend further treatment sessions.

In a synthesis of data from twenty-one studies of young people it appears that MI interventions have resulted in small but statistically significant

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reductions in substance misuse (Jensen et al, 2011). Further effectiveness of MI was demonstrated in a systematic review of 29 RCTs that assessed MI in relation to four risky behaviours (Dunn, 2001). The author noted that there was strong evidence for MI as an effective intervention noting that it was particularly useful for enhancing willingness to engage with further treatment sessions particularly in relation to problem drinking. The author did not however find adequate evidence to be able to assess the effect of MI on the other risky behaviours. Similarly, a later systematic review noted that while MI generated significant results when compared with other treatments in relation to drinking cessation or reduction, the efficacy of using MI for other risky behaviours like smoking was not supported in the author's meta-analyses of the studies they included in their review (Burke, Arkowitz, & Menchola, 2003). Burke et al did however note that in the studies they examined, change in drinking behaviour occurred in considerably less time using MI as an intervention than with other interventions. Therefore, the apparent cost-effectiveness of MI may be a factor contributing to its rise in popularity.

For some practitioners and service planners the appeal of MI as an approach for treating substance misuse is not just its brevity compared with other approaches but also its cost-effectiveness (Heather, 2005). According to Heather, there are obvious advantages to any treatment modality that can achieve behavioural change in fewer sessions when compared with other approaches. However, Heather cautions that such brief

interventions have higher rates of success in populations with low levels of substance misuse but they are not so successful where dependence levels are high. Nonetheless, such effective brief interventions delivered early and at low costs to populations where dependence levels are low, could be used as part of a public health approach to reducing levels of substance misuse and in turn reduce substance-related harm. However, cost-effective treatments are not enough if they are ineffective and the fact that there appears to be wide variation in effect sizes of the different outcomes measured, a closer inspection of MI is warranted.

Variability in outcomes and in the application of MI

A review that examined MI interventions on substance misuse in adolescents looked at the differences between the intervention formats used in the 39 different studies (Barnett, Sussman, Smith, Rohrbach, & Spruijt-Metz, 2012). The review found that overall 67% of the studies reported positive substance use outcomes. However, no significant differences were found between the different intervention formats used that included using feedback or not, or using combined treatment intervention formats compared with MI alone. The authors of another systematic review to assess the effectiveness of MI on drug use, retention in treatment and readiness to change, found mixed results between the 59 RCT studies carried out up-to November 2010 (Smedslund et al, 2011). In this review, the authors examined studies that compared other/no treatments to an MI intervention. No treatment compared with an MI intervention

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showed a significant effect post-intervention but the effect was weaker in the short and medium follow-up terms. Regarding the extent of substance misuse, MI did better than treatment as usual at the medium-term follow-up but there was no effect of MI at the short-term follow-up. The authors of this review noted that there was an overemphasis on the importance of the treatment modality with less focus given to the practitioner's or the client's role on substance use outcomes. The level of variability in study outcomes carried out in a variety of settings suggests an imperative to understand why some interventions work while others do not. One explanation for this may be linked to the process of delivery.

The practitioner's contribution to outcome variability

There appears to be a level of complexity in the delivery of MI that warrants judicious application by the practitioner

When it was compared with two other established treatments no effect was found in MI condition but significantly increased levels of readiness were found in the other two treatments

(Allsop, 2007). Allsop argues that while practitioners require comprehensive training and skills in order to embrace the spirit of MI, this varies widely by practitioner. The client-practitioner relationship has been well established as a contributory factor to the efficacy of MI (Miller & Rose, 2009). Despite this, there is wide variation in practitioner levels of competence to use the skills necessary to apply MI appropriately (Lundahl, 2009). According to Lundahl the ability to ask open-ended question, to use reflective listening and to be able to summarise the client's statements are all essential skills for an effective MI practitioner. In addition to this, the practitioner also needs to adhere to the principles of person-centred therapy laid down by Carl Rogers that include accurate empathy, congruence and positive regard if they are to foster an environment that allows the client to explore the possibilities of change (Miller & Rose, 2009). Added to the above issues, a poorly trained practitioner may elicit client resistance by inadvertently setting up any one of a series of twelve potential "roadblocks" (e.g. giving advice, making suggestions or providing solutions) arising out of their own poor reflective listening skills (Miller & Rollnick, 2002). In addition to the contribution that practitioners make to the level of variability in study outcomes, the client may also have a role to play.

The client's contribution to outcome variability

Client behaviour may be another factor in predicting outcomes associated with MI but it seems the results vary depending on which mechanism of the client's behaviour is being examined and what it is being compared

Apodaca also noted that client readiness to change varied depending on the control conditions. Increased readiness to change was more evident when MI was compared with a minimal/placebo condition (e.g. relaxation training or education) but less evident when compared with standard care.

with (Apodaca, 2009). In a systematic review of nineteen RCTs that examined several different mechanisms of client behaviour, Apodaca noted that clients of an MI intervention were more likely to report higher levels of intention to change their substance use behaviour than clients who received standard care and that change talk was a likely mediator of that change. Apodaca also noted that client readiness to change varied depending on the control conditions. Increased readiness to change was more evident when MI was compared with a minimal/placebo condition (e.g. relaxation training or education) but less evident when compared with standard care. Additionally, when it was compared with two other established treatments no effect was found in MI condition but significantly increased levels of readiness were found in the other two treatments. However, Apodaca noted with surprise that those studies did not report the relationship between post-treatment readiness to change and substance use behaviour. In other studies examined for Apodaca's review, the client's level of engagement in the process was highest in MI condition when compared with both minimal/placebo and standard care conditions. In addition greater engagement significantly impacted on substance use behaviour. Client resistance to change was also examined in this review with

Apodaca noting how few of the studies in his review examined this mechanism. The study that did review it reported that MI had a small but significant effect on reducing resistance when compared with confrontational therapy and that higher levels of resistance during an intervention resulted in worse outcomes. The variable effectiveness of MI as dependant on client behaviour mechanisms is also apparent among different population groups.


Cultural variation in the efficacy of MI was evident in one meta-analysis where the effect size of MI on recipients was doubled when participants were predominantly ethnic minorities compared with white, non-Hispanic Americans (Hetteema, Steele, & Miller, 2005). Native Americans have also been shown to have a significantly more positive response to MI when compared with other treatment interventions such as cognitive-behavioural therapy or 12-step programmes (Villanueva, Tonigan, & Miller, 2007). Winhusen et al (2008) also found evidence in their RCT that MI had a significantly more beneficial effect on the drug use of pregnant users from ethnic minority backgrounds. Such findings are important as according to Miller & Rollnick (2002) cultural factors affect how individuals perceive their own behaviour and how they weigh up the effect that the behaviour is having on their lives. Service

providers and practitioners should further investigate the role of both client behaviour and their socio-demographic characteristics that include cultural differences, in order to better understand the mechanisms of change underlying MI.

Conclusion

The aim of this article was to critically evaluate how Miller and Rollnick's theory of MI promotes individual behavioural change in relation to substance misuse. The article reviewed empirical evidence to determine how this theory was supported when it was applied in a variety of settings. This review found that MI had a variable effect on substance use outcomes. The studies examined for this review were RCTs or systematic reviews of RCTs that compared an MI intervention with other or no interventions. The results showed that MI compared favourably to no intervention or to standard interventions with positive effects on substance use behaviour noted. However when MI was compared with other established treatments, such as giving feedback or other forms of psychotherapy, the effect size was either small or there was no significant effect. Nevertheless, the review found no evidence that MI causes harm to clients and there was evidence that is helpful in some circumstances whereby it assisted in engagement

New research is needed to establish the causal mechanisms of change underlying MI that should include socio-demographic characteristics as well as client behaviour.

with further treatments. The review highlighted some possible explanations for the different levels of variation that included the practitioner's skill level, the client's own behavioural mechanisms of change and cultural explanations. While there appears to be no shortage of studies examining when MI works there is a paucity of research into how or why it works. New research is needed to establish the causal mechanisms of change underlying MI that should include socio-demographic characteristics as well as client behaviour. In addition there is a further need to explore the optimal method of delivery of MI so that practitioners can become more proficient in this treatment method. 

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