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▶ Motivational interviewing for substance abuse.

Smedslund G., Berg R.C., Hammerstrøm K.T. et al.

Cochrane Database of Systematic Reviews: 2011, 5, Art.No.: CD008063.

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Across the most rigorous studies, this synthesis of the research finds therapies based on motivational interviewing better than doing nothing, but no more effective than usual/ other treatments for problem drinkers and drugtakers – powerful further support for the 'Dodo bird' verdict that all bona fide therapies are equivalent.

Summary Motivational interviewing is a widespread (Editor's note: including in Britain) and influential approach to counselling intended to work through four main principles. As explained on the Motivational Interviewing web site, *expressing empathy* involves seeing the world through the client's eyes. *Supporting self-efficacy* means clients are held responsible for choosing how to change and implementing these plans. The third principle, *rolling with resistance*, means the counsellor does not fight or challenge client resistance, but uses the client's 'momentum' to further explore their views. Lastly, *motivation for change* occurs when people perceive a discrepancy between where they are and where they want to get to. Counsellors seek to generate this perception by helping clients examine discrepancies between their current behaviour and future goals. When clients appreciate their behaviour is not consonant with some important future goal, they become more motivated to make significant life changes.

Several reviews have already assessed the evidence for interventions based on this approach. The featured review for the Cochrane collaboration extended these by exhaustively searching for relevant research on individual face-to-face counselling for problems related to alcohol and/or other drugs. It assured a degree of rigour in the studies by limiting itself to those which tried to eliminate bias by randomly allocating clients (or groups of clients) to motivational interviewing or not, and which checked session recordings to make sure that what was intended to be a motivational interviewing approach actually was. Patients had to have been identified as not just 'misusing' but actually experiencing a problem with drugs or alcohol warranting at least a diagnosis (if

not formally) of 'abuse'. Because there is already a Cochrane review on motivational interviewing for smoking, tobacco was excluded. So too were studies which provided one session based on motivational interviewing during an emergency department visit.

A search updated in November 2010 identified 59 studies (of which 55 could supply relevant data) covering 13,342 participants. In 29 studies the clients seemed to be have problems only with alcohol, in eight cannabis, and four cocaine. In the remaining 18, problems were being experienced with several substances. The USA accounted for 44 studies. Other developed western nations accounted for the remainder.

Main findings

In 24 studies motivational interviewing interventions were compared with no corresponding treatment − either none at all, or only the treatment to which the motivational interviewing sessions were added. Across the four relevant studies, measures taken at the end of treatment registered the largest comparative reduction in substance use. Much smaller but still statistically significant was the comparative reduction assessed up to six months later across 15 studies and 6−12 months later across 12 studies. Just one study had a longer follow-up; it found no statistically significant comparative reduction in substance use. Across the studies readiness to change substance use behaviour − the degree to which someone feels they need to change and is taking steps to do so − was not significantly affected.

Often interventions based on motivational interviewing incorporate feedback of the results of an assessment of the patient's substance use and related problems. Seven studies compared interventions based on motivational interviewing against those amounting only to assessment or assessment plus feedback. Motivational interviewing approaches led to a small and not statistically significant extra reduction in substance use assessed up to six months later, and a larger and this time statistically significant reduction across two studies which assessed outcomes 6−12 months later.

Nine studies compared interventions based on motivational interviewing against 'treatment as usual'. Across these there were no statistically significant differences in substance use reductions at any follow-up point, nor was retention in treatment significantly affected.

In another 13 studies the comparison was with a specific therapy. At no follow-up point was there a substantial or statistically significant difference in substance use between clients allocated to motivational interviewing rather than another approach. Nor across the two studies to assess this did motivational interviewing significantly bolster readiness to change, and across five studies there was no impact on retention in treatment.

The authors' conclusions

Across these studies people who have participated in a motivational interviewing approach reduced their substance use more than people not offered treatment. However, it seems that motivational interviewing approaches are not consistently more effective than other active treatments, treatment as usual, or being assessed and given feedback. Data was insufficient to conclude about impacts on retention in treatment, readiness to change, or criminality. The certainty of these conclusions is limited by the quality of the research, and new research may change them.

For practitioners the implication is that those comfortable with this style of working should feel confident that despite its typical brevity (one to four sessions) it will be more effective than doing nothing. But if, for example, they prefer cognitive-behavioural therapy, the evidence is too weak to conclude that this will be more or less effective than motivational interviewing.

These results are consistent with motivational interviewing and other approaches sharing common therapeutic factors such as empathic attention from and a therapeutic relationship with a helper. Clinicians and researchers may have overemphasised treatment method as opposed to the individual who delivers the treatment and the client who receives it, and some studies may have failed to pay sufficient attention to whether the patient and/or therapist feel positive towards the treatment and whether they like and respect each other. Such factors may have a much greater influence on outcome than the contribution made by a specific approach or technique.

FINDINGS The featured review adds its considerable weight to the common conclusion that any well structured therapy is as good as any other – a conclusion reached in another recent review and meta-analysis of motivational interviewing. The same conclusion has been reached in respect of the main alternative psychological approach, cognitive-behavioural therapy. Another analysis found that the equivalent-impact finding also applied specifically to comparisons between cognitive-behavioural therapy and motivational interviewing, though the latter took less time. In respect of psychological therapy for drinking problems, any structured approach grounded in an explicit model seems as effective in curbing drinking as any other. The fact that the featured analysis confirmed these findings after minimising the risk of bias by selecting only randomised trials, and ensuring the study assessed whether motivational interviewing actually characterised the therapy, means the conclusion that on average interventions based on motivational interviewing are no more effective than alternative therapies can be considered well established.

An important distinction not explicitly made by the featured analysis is whether participants were seeking treatment for the problems addressed by the interventions, or had been identified by screening programmes while, for example, routinely visiting their GPs. The motivational state of people who decide they have a problem and seek help is likely to be very different from those not seeking help for this issue at all, but (from their point of view) unexpectedly find it investigated and are told they have an actual or potential problem. The featured study's stipulation that clients warrant an abuse diagnosis did not exclude several studies of clients identified by screening and/or not seeking help for substance use problems.

Not even better than usual treatment?

It is particularly disappointing that in the featured analysis even 'treatment as usual' proved as effective as structured, theory-driven programmes featuring a widely respected approach, seemingly justifying a 'carry on as we are' policy. This was not the case in a broader recent review of motivational interviewing, which included studies not just of substance use but diet, exercise, safe sex, gambling, and engagement in treatment, and was not confined to randomised controlled trials. Also, examined in detail, the negative findings in the featured review were far from definitive, and motivational interviewing did improve on usual treatment in some of the most appropriate and generalisable trials.

For example, of the ten short-term follow-up studies in the featured analysis, half were of people seeking treatment in the normal way. Of these, two shared a particularly rigorous and appropriate design (1 2) in that they substituted outpatient counselling sessions based on motivational interviewing for the same number of usual-counselling sessions. Both studies found similar reductions in substance use during treatment whichever type of counselling was offered, but also that after treatment these reductions were sustained significantly better among motivational interviewing patients. Of the remaining three studies, one was of a very special population – pregnant women – and in another the comparison was arguably not treatment as usual, consisting of a manualised, 12-session, skills-based treatment package developed by researchers. The remaining study led by Bill Miller himself, architect of motivational interviewing, seems an example of the over-constricting manualisation of motivational interviewing which has been found to weaken its impact. Also the motivational interviewing was a minor addition to the overall treatment and one which was often offered too late to perform an induction role.

Are all specific interventions really equivalent?

Though well established as an average across groups of patients, for at least three reasons, the 'it doesn't matter what you do' message does not necessarily apply to individual patients or different types of patients:

- Across psychological therapies (including those for substance use problems), implementing the client's informed choice of their preferred therapy nearly halves drop-out rates and significantly if modestly improves outcomes.
- Relative to treatment as usual or directive advice consonant with their decisions, motivational sessions can worsen outcomes for patients who already see themselves as committed to and engaged in a process of change. For less committed patients, motivational interviewing has been more consistently beneficial.
- While the specific therapeutic programme may not be directly relevant, some programmes are more conducive to certain interpersonal styles than others, and these styles suit some patients more than others.

Without being able to make these fine distinctions, when analyses like those in the featured study find an overall equivalence between different therapies, this probably masks the fact that different therapies have done better or worse with different types of clients, the ups and downs evening out to the 'equivalent' verdict. Also not to be dismissed is the fact that motivational interviewing lends itself to relatively brief programmes of therapy, possibly a benefit in terms of cost-effectiveness if not effectiveness as such.

For a discussion of these issues and one-click access to all relevant Effectiveness Bank entries see this hot topic. See in particular these Findings reviews (1 2).

Thanks for their comments on this entry in draft to Geir Smedslund of the Norwegian Knowledge Centre for the Health Services. Commentators bear no responsibility for the text including the interpretations and any remaining errors.

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