The motivational hello

With its empathic style, motivational interviewing seems the ideal way to engage new clients in treatment, a psychological handshake that avoids gripping too tightly yet subtly steers the patient in the intended direction. And often it is, as long as we avoid deploying a mechanical arm.

by **Mike Ashton**

Editor, Drug and Alcohol Findings.

This text was written to provide background material for the Manners Matter series in Drug and Alcohol Findings rather than for publication, so no attempt has been made to avoid repetitive referencing. For published articles and subscriptions visit www.findings.org.uk. Thanks to Bill Miller, Jim McCambridge, Dwayne Simpson, Don Dansereau, Gerard Connors, and John Witton for their comments. Thanks also to Bill Miller, Janice Brown, Terri Moyers, Paul Amrhein, John Baer and Damaris Rohsenow for help with obtaining and interpreting their work. Though they have enriched it, none bear any responsibility for the final text.

The *Manners Matter* series is about how treatment services can encourage clients who make an initial contact to return and stay the course. Its focus is not so much on the therapy, but on the manner in which it is offered, and how this can create a bond with people seeking help with their drug or alcohol problems.[i]

Parts one and two dealt with the administrative 'good manners' which characterise retention-enhancing treatment: concrete things like responding quickly, sending reminders, keeping in touch, and providing transport. Even at this level, more is involved: evidencing respect, treating people as individuals, and conveying concern and caring, can be crucial ingredients.

From here on, such relationship issues will occupy centre stage. Relegated by medicine to the category of 'bedside manners' which lubricate the interaction while specific technical treatments do the curing, in psychological therapies, bedside

i To make the task more manageable this review picks up the process from where a client has made contact with a service. However, similar measures (eg, transportation, motivational interviewing) have been found to enhance the proportion of referrals who make an initial contact with a treatment service.

manners *are* the treatment, or a large part of it, while the specific therapeutic model usually matters little.[1 2 3]

We start with how to 'say hello', and specifically with motivational interviewing's role in preparing new patients or clients to engage with and profit from treatment, the purpose for which it was first developed.[4] This early 'induction' phase is critical because if patients are going to drop out, this is when they are most likely to do so.[5 6]

Motivation can be moved

Motivational interviewing is by no means the only way to reduce early drop-out. Systematic induction strategies aim to prime the client for treatment by telling them what to expect and what will be expected of them, addressing worries and obstacles, strengthening the client's psychological resources, enlisting support from friends and family, and bolstering confidence in treatment and in their ability to benefit from it. But most of all, the focus has been on reinforcing 'motivation'.

Rather than a single, uni-dimensional variable, motivation has been seen as a mix of recognising one has a problem, wanting help to deal with it, and finally resolving that treatment is the help one needs.[7] All three cumulate into a commitment to make the most of the treatment on offer.

Once thought of as something the patient either did or did not have about which little could be done, motivation is now seen as a dynamic state of mind susceptible to influence. With the right welcome it can be enhanced, while an insensitive start erodes pre-existing motivation and risks inciting resistance. This realisation naturally leads to a search for what a 'right', motivation-boosting welcome might consist of.

How motivational interviewing fits in

Among the candidates, motivational interviewing has been by far the most influential.[8] It qualifies for this review because, though its principles have been codified, it is a "a diffuse *style* of clinical interaction"[9] rather than a therapeutic programme.[10] It is more about *how* to relate to the client than what to say or do.

One way to think of it is as a crystallisation of interpersonal styles which create a trusting, open and egalitarian relationship, and then use this a broadband communication medium across which influence can be transmitted without disrupting the connection – see *Motivational interviewing: rooted in resistance*.[11 12] The 'crystallisation' consists of broad principles common to many therapies like 'expressing empathy', and specific interactional tools like 'reflective listening'. Usually the process is aided by feeding back an initial assessment of the severity of the client's substance use problem.

Implementation and maintenance of change follow, either 'naturally' or during subsequent treatment. This may be pharmacological (such as methadone or naltrexone) or more extended psychosocial therapy, including further motivational sessions. Motivational enhancement therapy is the best known example of the latter, a four-session manualised programme which starts with a phase intended to build motivation to change.[13 14]

Used as a precursor to the main treatment, motivational interviewing's particular role is to help resolve the client's ambivalence into a commitment to tackling their drug problem, and into doing so through treatment. Refined over several decades and across several major studies, the schema developed by Dwayne Simpson and colleagues at the Texas Christian University helps us see where it fits in.[15]

Their model not only identifies the processes underlying effective treatment, but also maps the pressure points where these could be promoted by specific interventions. Motivational interviewing is among the model's "Readiness Interventions". Its importance is that the more motivated and ready for treatment the patient is, the deeper their initial participation in therapy. In turn this is associated with staying longer which in turn is associated with better outcomes.[16] [17] [18] [19]

Via this chain, if motivational interviewing really does bolster motivation, it should increase the effectiveness of the treatment which follows. Whether it really does increase effectiveness, and whether it does so in these or in other ways, are among the key questions addressed by this review.

Case studies not tick boxes

One way to approach these questions is to total up the research pluses and minuses to get a verdict on whether on balance things improve when motivational interviewing is introduced. Though we will draw on this work (see *Positive verdict from aggregated research*), it does not take us far enough if the aim is to inform practice. Faced with evidence in this form, the only possible decisions are always to do it, never to do it, or to ignore the data and follow your intuition, and just what 'it' should be will remain unclear.

It is important to go beyond this, because done in the wrong way, in the wrong context, at the wrong time, or with the wrong people, motivational interviewing can be positively counter-productive. A motivational interview is less like a heavyweight's punch on the chin than a whisper in the ear. Whatever the circumstances, the former usually has a predictable and dramatic result. A whisper too can have a dramatic impact, but just what that is depends on the relationship between the people, the circumstances, what is said, how it fits into the what went before and what is expected to come, and the interactions between all these variables and more.

Teasing these out means treating each major study individually as a unique case study (each is given a number), trying to identify the interacting features which led to the results. Patterns will emerge – hypotheses about why some configurations worked and others did not. Practitioners can check these against their own experiences and decide whether to adapt their practice in the light of the evidence, taking into account not just what it says, but how confident we can be in its findings and in our interpretations of how those came about.

Positive verdict from aggregated research

Before analysing individual studies, we'll take what we can from attempts to reach general conclusions about the effectiveness of motivational interviewing by amalgamating the studies.

A single positive study is enough to show that motivational interviewing *can* work,[20] but in fact we have much more. Across ailments as diverse as diabetes, problem drinking, high blood pressure, and poor diet, adopting a motivational approach helps patients adhere to treatment and change their lifestyles more effectively than traditional clinical advice.[21] Compared to a no treatment or placebo control group, motivational interviewing improves success rates following substance misuse treatment (mainly alcohol) from about a third to about a half.[22] [23] For problem drinking in particular, it has a better research record than practically any other treatment.[24]

These omnibus verdicts tell us that we have something here worth investigating, but conflate studies of very different situations. For current purposes, the ideal analysis would separate treatment studies from studies of people not seeking treatment at all but identified through screening programmes, and then separate treatment induction studies from studies of motivational interviewing as a treatment in its own right. It would then assess whether treatment participation was productively deepened by motivational preparation. No analysis precisely fits this bill, but some come close.

One famous analysis – the *Mesa Grande* study – takes us part way there.[25] Among drinkers seeking treatment, it ranked motivational approaches eleventh in a league table of evidence of effectiveness. Rather than singling out treatment-seeking populations, another similar analysis adjusted for the strength of the treatments against which each approach had been compared – relevant, because more intensive therapies would normally only be offered to treatment-seekers.[26] The result was to place "brief motivational counselling" tenth among alcohol therapies. In both analyses, motivational approaches outranked most others, including many which take longer and cost more, but other alcohol treatments ranked even higher, especially those with an action-oriented, cognitive-behavioural bent.

Strongest record as an induction strategy

Neither of the previous analyses covered drugs other than alcohol and nor did they separate studies of motivational induction from those which tested motivational approaches as a standalone therapy. Brian Burke and colleagues did both[27] then calculated how strong the effect was in each of the studies they reviewed, pooled these to get a an overall estimate, and tested whether this was a real effect or could have happened by chance.[28] [29]

Two sub-analyses comprised mainly the populations of interest – those actually seeking treatment. First, compared to other substance misuse treatments, and despite being two[30] or three[31] hours shorter, motivational interviewing produced equivalent benefits. Second, it reaped significantly greater benefits as an induction to

further treatment than as a standalone therapy.[32] [ii]The authors linked this finding to another – that multi-session motivational interviews were more effective than a single session. Together these suggested that the approach's greatest strength is preparing people to change through subsequent treatment, which may itself be further motivational interviewing. In particular, there was evidence that motivational interviewing can (but not always) augment outcomes from cognitive-behavioural therapy.[33]

Analysing more or less the same set of studies, Chris Dunn and colleagues also concluded that motivational interviewing's record was strongest as an induction technique.[34] This view was based on the consistency of findings on treatment engagement and outcomes across four[35] [36] [37] [38] out of five substance misuse studies. But they did caution that in all four the motivational interview was one or two sessions distinct from the main therapy, usually conducted by specially recruited and trained staff. Whether results would have been the same if in-house therapists had routinely started treatment in a motivational manner is an open question.

The most recent meta-analysis from Bill Miller's (the approach's founder) New Mexico university confirms that motivational interviewing makes a greater difference to substance misuse outcomes when used as an introduction to the main treatment than when used as an alternative.[39] It also adds two interesting observations. First, that this result is because the gains from motivational induction persist over at least the next 12 months while the gains from using it as a standalone therapy decay. Second, and contrary to expectations, therapists had less impact when they followed a manual. The far-reaching implications of this finding are explored later - see *Is it dangerous to follow the manual?*

Because it improves retention?

The final review focused on the impact of motivational interviewing on turning up for and sticking with subsequent treatment, both the initial episode and aftercare.[40] Though for current purposes the ideal focus, Allen Zweben and Allan Zuckoff did include studies of people seeking help for problems other than substance misuse (six of the 23 studies) and did not combine the results so they could be tested for statistical significance. Still, on the basis that 12 of the studies found significant advantages for motivational interviewing, five that it was as effective as other approaches, and just four found no benefits, they declared themselves "cautiously optimistic".

With even more caution, they tried to identify patterns in the findings. The first was that motivational interventions may be even better at encouraging transition to aftercare than encouraging people to stick with the initial treatment. The second echoed Brian Burke in suggesting that, no matter how brief, adding at least one follow-up session is likely to augment the impact of a motivational interview. Lastly, there was some preliminary evidence that motivational interviewing could work with groups of clients as well in one-to-one counselling.

---

ii This analysis theoretically also included motivational adjuncts as well as inductions to other treatment, but in respect of substance misuse nearly all the studies were induction studies. The paper reports that the effects were significantly greater in induction studies but not how much greater they were.

Though the weight of the evidence was positive, in three of the substance misuse studies (and in another not included in the review[41]) adding motivational interviewing to normal procedures had no discernable impact on entering and staying in treatment. The reason, the reviewers argued, was that treatment adherence rates were already so good that there was little room for improvement.

In one study this was certainly the case.[42] In another, there was scope for improved treatment uptake, but in this primarily cocaine abusing caseload with multiple severe problems, the impediments to treatment entry were probably not lack of motivation, but lack of resources and a disordered, highly stressed lifestyle.[43] In the third, dependent drinkers had already started a day programme before the motivational interview, so there could be no impact on initial attendance.[44] However, subsequent attrition was also unaffected, and on this measure there *was* scope for improvement. Again, lack of motivation was perhaps not the issue, in this case because it was almost uniformly high.

Loose ends

Despite their supportive conclusions, these analyses left several loose ends. Among the loosest was whether some other approach to enhancing treatment uptake would do as well or better, including assessment feedback in another style. Nearly all the induction studies had tested motivational interviewing, not against a promising alternative, but against normal practice or a 'placebo' procedure not intended to have any positive effect. Yet as standalone treatments, various other forms of relatively brief intervention (such as advice and self-help manuals) also have a good research record.[45] Could this also apply to induction procedures?

Then there were the worrying negative studies, and no convincing explanations why motivational interviewing failed in these but not in others. In some lack of motivation might not have been the main impediment to patients committing to treatment. In others, the intervention might not really have been motivational interviewing.[46] One study seems a clear example,[47] but there are question marks over the nature of the counselling in several others. Until recently there was no accepted method for determining the degree to which therapists adhered to a motivational approach. As a result, few of the reviewed studies could definitely be said to have tested this approach.[48] Greater expertise and a 'purer' implementation of motivational interviewing could be why Bill Miller's team have had significantly greater impacts than therapists elsewhere.[49]

Conversely, the alternatives to which it was compared sometimes themselves included a hefty dose of motivational-type interactions.[50] Wide variations in intervention style mean motivational sessions can overlap with what was intended to be an opposing approach.[51] Even when approaches can reliably be recognised as distinctive, at a deeper level they may share common ways of relating to clients and common mechanisms of change, partly due to the influence the clients exert over the process.[52] [53] No surprise, then, that when a perhaps diluted motivational interviewing approach is compared with something not too distant from it, the results are sometimes the same.

Another gap was that during the periods most of the reviews covered, the evidence for illegal drug users as opposed to drinkers was very thin. Finally, we have greater

confidence that one thing (motivational interviewing) actually does cause another (better retention and outcomes) when we can see the mechanisms connecting the two, the issue unpacked below.

If it works, how does it work?

Its very name suggests that motivational interviewing works by boosting motivation for change and (as an induction) for treatment. Yet the reviews found little evidence that it actually did stimulate motivation more than alternative approaches.[54] The reason could be that in practice these alternatives share much common ground with motivational interviewing. Such overlaps have been identified in studies of other therapies (including motivational enhancement[55]) which supposedly work in different ways but in fact share similar mechanisms of change.[56] [57]

In turn this could be why there was no consistent evidence that motivational interviewing is particularly useful when clients lack motivation, supposedly its forte. However, this could be due to inadequacies in how motivation is measured. Paper and pen responses may be less indicative than what the clients actually say during counselling,[58] and even that has to be measured in the right way before it reveals sometimes startling changes in commitment levels related to outcomes - see *Care too with the unconvinced*.

Any successful induction technique can be expected to improve outcomes not (or not just) directly, but by enhancing engagement with the treatment which follows. The reviewers found only one study where this possibility was tested and confirmed.[59] [iii] In other studies, engagement and outcomes both improved, but there was no test of the link between the two.[60] In yet others, outcomes improved without any measured improvement in engagement, as if the motivational interview simply acted as an additional bit of therapy.

In practice, the difficulties of fully capturing the extent to which someone is involved with treatment mean that in all these studies, both effects could be at work: a direct effect on outcomes, and an indirect one via improved engagement.

To sum up, analysts agree that as well as making an impact in its own right, motivational interviewing can potentially give other treatments a boost by encouraging more people to turn up, stay longer, engage more fully and do better – but not always, and if this does happen, it is unclear how and who is likely to benefit most. To get more of a grip on these loose ends, we have to turn to the studies themselves and to several later studies not included in the reviews.

Albuquerque air: the first studies of drinkers

To set the scene we'll look at the very first trials of motivational interviewing. These established that motivational-style counselling was an effective basis for a standalone intervention and then that it was perhaps even more effective as an induction to further treatment. All these early studies were conducted by Bill Miller's research team based at Albuquerque in New Mexico. While they had the benefits of expert

iii Though a later study provided another partial confirmation. See: Connors G.J. *et al*. "Preparing clients for alcoholism treatment: effects on treatment participation and outcomes." *Journal of Consulting and Clinical Psychology*: 2002, 70(5), p. 1161–1169.

tuition and oversight from the approach's originator, at this stage there was no manual for them to follow. In the next section, we'll see whether the technique maintained its record away from home.

Promising as a standalone intervention

The first two tests of motivational interviewing were as a standalone brief intervention combined with the Drinker's Check-up, a battery of tests of alcohol use and related physical and social problems.

1 In the first, heavy drinkers responded to ads offering the check-up, which was followed a week later by feedback of the results in a motivational interviewing style.[61] Two-thirds had their check-ups without delay while a randomly selected third had to wait six weeks. Over this period there seemed[iv] no change in their drinking, while in the six weeks following feedback alcohol consumption fell by 27%, a reduction sustained for at least 18 months. However, about two-thirds[v] were still drinking heavily and experiencing alcohol-related problems. During this time a third of the sample had sought further help when few had done so before.

These outcomes suggested that motivational feedback was often insufficient in itself, but could serve as a useful motivator of change and treatment entry in this type of population – drinkers a long way from seeing themselves as alcoholics (most saw themselves as "social drinkers") but concerned enough to respond to the offer of a check-up. After years of alcohol problems, it seemed the offer had enabled them to take a first step towards seeking help without violating their self-image as non-alcoholics.

2 The next study was similar, except that feedback was provided in one of two styles.[62] One was the empathic motivational interviewing style, the other the supposedly counterproductive style this aimed to improve on: explicitly directive, confronting client resistance, arguing when they minimised their problems, and (when the cap fitted) telling them they were alcoholics. Again, feedback was followed by substantial reductions in drinking not seen in those who had to wait six weeks. As expected, giving feedback in the empathic style did result in greater reductions in drinking, but the effects were small and failed to reach conventional levels of statistical significance.

One reason may have been that, though they did differ in the intended ways, there was also considerable overlap between the two styles, which were delivered by the same therapists. For example, confrontation was practically absent in the motivational style and noticeable in the directive, yet even here it was relatively rare.[vi] Conversely, though there was more 'restructuring' in the motivational

---

iv They were not actually assessed at the beginning of the waiting period, but measures taken at the end were similar to the pre-intervention measures of the groups immediately given the check-up, suggesting nil change.

v Unimproved symptomatic plus improved symptomatic as a fraction of those for whom there was data at six weeks and 18 months.

vi Perhaps understandable, given that all but one of the therapists was a psychology student and they were faced by experienced drinkers averaging 40 years of age.

sessions, this core technique was rarely deployed compared to simple listening or 'teaching', responses not characteristic of motivational interviewing.

Only when the researchers focused on how therapists and clients *actually* behaved did significant findings emerge. The more the therapist confronted (arguing, showing disbelief, being negative about the client), the more the client drank a year later.[vii] The same was true of 'resistant' client behaviours like interrupting the therapist, arguing, avoiding therapeutic interactions, or being negative about their need to change or prospects for changing.

These relationships were very strong and highly statistically significant, but what they meant is unclear, because there was no way to pin down what was cause and what effect. The problem was that therapist confrontation and client resistance were closely related. For motivational interviewing, the favoured interpretation is that when therapists confronted, clients were provoked in to hitting back or withdrawing, rare but powerfully counterproductive interactions. In this scenario, by adopting motivational interviewing's non-confrontational style, therapists would avoid provocation and improve outcomes.

But the causal chain *could* have been the other way round: perhaps clients who were always going to resist change argued and interrupted more, provoking therapists to argue back. We know this can happen from a British study which used actors to mimic either highly resistant clients angry about being referred for counselling, or more contrite ones keen to reverse a relapse.[63] The former provoked counsellors into non-motivational-style responses including unilateral agenda-setting, confrontation, and closed-end questions, all related to poorer outcomes with this kind of resistant patient.[64] [viii]

Whether the Albuquerque therapists were also provoked by resistant clients is unclear. Arguing against is the fact that therapist and client behaviours *were* changed by the assigned therapist style – they were not simply determined by whether the client was difficult to begin with. From the client, the motivational style elicited twice as many statements acknowledging their problems and fewer resistant behaviour such as arguing, interrupting and introducing irrelevant topics. And though not possible in this study, some key studies of the impact of therapist behaviours have been able to eliminate the possibility that were simply reacting to the clients.[65] [66] [67] [68]

Conceivably, a combination of both processes explained the results in Albuquerque. Whatever the truth, probably more than any other, this study heightened the profile of the therapist's interpersonal style in substance misuse research, seeming to confirm that the style mandated by motivational interviewing was preferable to confrontation. The stage was now set for trials of the approach in its originally intended role – as a prelude to further treatment.

---

vii There remains the mystery of why this relationship was apparent at the 12-month follow-up but not at the six-week follow-up. This could be related to the fact that only at 12 months were 'collaterals' (wives, husbands or other people close to the patient) interviewed as well as the clients. Perhaps this led to greater honesty in the patients' responses.

viii However, only half the counsellors had been trained in motivational interviewing and how skilled they were is uncertain, the study having taken place before rather than after a workshop on behaviour change.

Startling impact as an induction method

In 1993 results were published from the first two trials of motivational interviewing as a prelude to alcohol treatment. One involved outpatients, the other inpatients. Both were conducted by Bill Miller's team and a single team member (not the same one in both studies) delivered the interventions.

Rather than responding to check-up ads, this time patients arrived at an alcohol treatment facility via normal referral routes. They were much heavier drinkers (averaging about 20 UK units[ix] a day) and more severely dependent than in the previous research. In both studies, a non-directive, one-on-one motivational session preceded considerably more directive, abstinence-oriented, 12-step based group therapy.[69] There was a real chance that one would undermine the other.

In both cases, the opposite happened. Motivational feedback had substantial beneficial effects on post-treatment drinking, partly because it deepened engagement with the treatment which followed, and perhaps partly because it avoided solidifying patients' identities as 'hopeless alcoholics'.

Virtually 100% success with outpatients

3 The outpatient study was set at a clinic for ex-military personnel (so the patients were probably all men).[70] Before starting treatment, problem drinkers were randomly allocated to two types of preliminary assessment and feedback sessions. During the first, they were told that tests indicated a diagnosis of alcoholism, that they should return for treatment, and were briefed on what this entailed – standard fare. For the second, more information was gathered on the clients' drinking and problems and they were asked back a day or so later for a motivational feedback session during which their consumption was compared to US norms. There was no manual for the therapist to follow; instead they sought to be faithful to the principles underlying motivational interviewing.

Regardless of the feedback style, in each group all but three of 16 patients went on to attend their first treatment session. No other measure was taken of engagement, but drinking outcomes strongly suggest that this was more productive after motivational feedback. In the three months after ending treatment, the standard feedback group continued to drink on 20% of days, the motivational group on just 4%, a statistically significant difference. On each day they drank, standard feedback patients on average consumed at binge levels (23 UK units) while the motivational group were relatively moderate (five units).[x]

The upshot was a huge difference in average consumption across the three months – over 400 UK units versus 19, just short of statistical significance. The patients' reports were broadly corroborated by friends and relatives.

Over the next three months the motivational group slipped back to drinking about two days a week, but on each of those days continued to drink fairly moderately,

---

ix Each unit is equivalent to about 8gm or 10ml of pure alcohol.

x Motivational group drank on 4.3% of days = approx 0.043 x 90 = 3.87 days and consumed on average 12.9 standard drinks = 12.9 x 1.5 = 19.35 UK units = 19.35/3.87 = 5 per day. Standard feedback group drank on 19.9% of days = approx 0.199 x 90 = 17.91 days and consumed on average 272.2 standard drinks = 272.2 x 1.5 = 408.3 UK units = 408.3/17.91 = 22.8 per day.

while when they drank, the standard group still drank very heavily.[xi] As a result, total consumption after motivational feedback remained far lower, under 30% of the other group's level. However, with small numbers and high variability, by this stage none of the differences were statistically significant.

These findings came from the 32 patients who agreed to enter the study; another 24 had refused. If motivational interviewing had been routine at the clinic, all 56 would have gone through it with potentially different overall outcomes, a question mark over many of the studies. Nevertheless, the results were startling: within the context of a much more extensive programme, a small additional intervention had for the succeeding months created a virtual 100% success rate, while without it a substantial minority of patients continued to drink excessively.

One possibility is that (as intended) motivational interviewing had prevented extremely counterproductive reactions to treatment, capping the extent to which these led to extremely poor drinking outcomes. This seems visible in much more moderate drinking when it did occur and much less variability in drinking outcomes.[xii] Consistent with this theory, standard feedback patients were sometimes highly emotional, while the atmosphere during motivational interviews was mundane and dry. Reactions were strongest when patients were being told they were an alcoholic, a label probably reapplied in subsequent treatment. Though the intention was to shock them into compliance, some standard feedback patients seem to have continued in the alcoholic role, a rare occurrence after the motivational interview.

Neither the preliminary sessions nor the main treatment were aimed at doing much to alter whatever it was in the patients' lives which had led them to drink so destructively. Slippage at six months might have been due to these influences re-imposing themselves; though the circumstances of this particular sample are not recorded, military veterans who avail themselves of free treatment are typically a multiply problematic population with limited means to alter their life circumstances.

Inpatients engage more, then drink less

4 The inpatient induction study was run on similar lines. As before, drinkers came for treatment via normal routes, this time to a private, non-profit psychiatric hospital in New Mexico.[71] Again as before, the therapist did not follow a manual but sought to deliver feedback in a motivational interviewing style, relying especially on reflective listening.

Alternate arrivals joined either a control group which progressed as normal through the 13-day programme, or were additionally allocated to the motivational interview, 14 in each set. All 28 were assessed for research and treatment purposes. Motivational patients underwent a further assessment within two days of admission,

xi Motivational group drank on 28.9% of days = approx 0.289 x 90 = 26.01 days and consumed on average 113.6 standard drinks = 12.9 x 1.5 = 170.4 UK units = 170.4/26.01= 6.55 per day. Standard feedback group drank on 18.7% of days = approx 0.187 x 90 = 16.83 days and consumed on average 394.1 standard drinks = 394.1 x 1.5 = 591 UK units = 591/16.83 = 35.1 per day.

xii For example, at six months the standard deviation of the number of standard drinks (= 1.5 UK units) was 181.3 in the motivational group and 1176 after standard feedback, the former being 160% of the mean and the latter 298%.

the results of which were fed back to them in a motivational interview, usually the following day.

It seems that all but one of the patients completed treatment,[xiii] leaving no room for improvement. However, while they were in the programme, the 'pre-motivated' patients engaged more fully. This was picked up not in ratings from patients (uniformly high), but from three programme staff who assessed the degree to which residents had participated in ("complied with") the therapy. Detailed analysis[xiv] suggested that enhanced participation accounted for the fact that three months after leaving treatment, motivational patients were drinking far less than control patients. The motivational interview had, it seemed, not improved outcomes directly, but by deepening engagement with the programme.

Again, the magnitude of the effect was startling. From before treatment consuming about 20 UK units a day, the motivational patients had cut down to on average four units; controls were still drinking 13 units a day. Also as before, the extremes had been reined in by the motivational session; after this more patients sustained abstinence, but even those who were drinking were consuming on average half as much as control group drinkers.[xv]

Two further features of the study make this impact all the more impressive. First, all the alcohol-dependent patients who came for treatment during the study period were included, leaving no reason to believe that the outcomes reflected an atypical caseload. Second, because alternate arrivals were allocated to the motivational interview, they shared the ward with others who had not experienced this induction. It seems reasonable to expect that the impact would have been even greater if patients had interacted only with other patients who had been through the same procedure.

Unresolved issues

This pioneering work suggests that even (especially?) when followed by a quite different therapeutic approach, a preliminary assessment plus motivational feedback can help alcohol-dependent patients make the most of the main treatment and dramatically improve short-term outcomes.

What will become familiar caveats apply. First, the staff from Bill Miller's unit who conducted the inductions can be expected to have been familiar with the arguments for one (motivational interviewing) and against the others (confrontation or routine practice). Possibly too, they were more enthusiastic about the leading edge technique being tested. Enthusiasm and optimism are key ingredients of effective therapy.[72] Second, more time was devoted to the motivational option, there was

xiii One patient did not complete the treatment participation measure at discharge.

xiv The conclusion that improved treatment participation was how the motivational interview had affected drinking was based on two findings. Firstly, that the staff's rating of how fully someone had participated was related to later alcohol consumption. Secondly, that when this effect was taken out of the equation, having gone through a motivational interview was no longer significantly related to drinking.

xv At three-month follow-up there were (assuming unlocated patients were drinking) 6 drinkers in the motivational group and 10 in the control group accounting respectively for a weekly consumption across all 14 in each group of 18.4 SECs and 60.9SECs, indicating that motivational group drinkers were averaging 85 SECs a week, control group drinkers 43.

more assessment, and more information was fed back to the patients. Had this also been the case in the standard induction, would it have proved as effective?

These studies also left several other important issues unresolved. A big one was how people dependent on drugs other than alcohol would react. Another was whether the results could be replicated by other research teams and by therapists not linked to Bill Miller's unit. Related to this was the issue raised by Chris Dunn – whether the results would be the same if the patient's usual therapist routinely started treatment in a motivational manner. This can be argued both ways. On the one hand, that an independent therapist is more likely to get the open airing of doubts on which motivational interviewing feeds,[73] on the other, that unless there is some linkage, change levers uncovered in the interview will not inform subsequent treatment unless the patient themselves brings them forward.

Leaving home: other research teams try to replicate findings on drinkers

Following Bill Miller's early work there has been a mushrooming of studies of motivational induction, but few attempted to replicate the early findings with problem drinkers. Among those which did, results were mixed, perhaps partly for technical reasons (eg, low follow-up rates), and partly because the therapy, by now often hardened into manual form, failed to adapt to the patients.

Mixed outcomes for outpatients

5 One outpatient study is so important that it deserves special consideration.[74] Not only did it test whether motivational interviewing was better than the most popular alternative induction method (role induction), but also whether this was because it truly did act as an induction, deepening engagement with later treatment. On both counts, the answer seemed 'Yes', though effects were neither large nor could they be securely attributed to the motivational approach.

The study involved drinkers seeking outpatient treatment at a clinical research unit in Buffalo. With one minor exception, role induction did not improve on normal procedures, but the motivational interview did significantly improve attendance and outcomes.

The researchers engineered a relatively uncontaminated comparison, clearing away everything else to leave the induction procedures as the sole remaining impact on outcomes. Therapists were the same for both procedures. Extensive training and supervision ensured that the approaches differed in the intended ways, but also that they shared a de-emphasis on confrontation, eliminating this as a potential reason for difference in outcomes. Other than the induction sessions, only routine efforts were made to encourage attendance.

On the grounds that they might already be primed, callers were excluded from the study if they had been in treatment in the past year, as were those legally coerced into treatment. People who'd gone through the same induction procedure were kept together in the weekly group therapy which followed, making the most of whatever effects there had been. These group sessions and the weekly individual counselling sessions were normally limited to 12 each and followed a regime

controlled by the research team,[xvi] limiting the degree to which therapists could compensate for whichever was the less effective induction.

All patients contacting the unit's reception were considered for the study. Some had been referred, others had responded to ads for the treatment programme. After sifting out ineligible callers, and an appreciable degree of rejection of either the treatment or the study, 126 alcohol abusers were left. No diagnosis of dependence was required and they were a less severely affected caseload than in other induction studies, drinking heavily[xvii] about 12 days a month, but abstaining almost as often. Half were employed full time and nearly half married or cohabiting.

After assessment they were randomly assigned to a control group who simply received an appointment for their first therapy session, or to one of the two types of induction. These 90-minute sessions were attended by all but nine of the 86 clients assigned to them.

Like the positive early US studies, the motivational interview sought to be faithful to principles without following a set programme, and incorporated feedback from a prior assessment of alcohol use and problems and physical and neuropsychological functioning.[xviii] In role induction, the same therapists instead acquainted the patient with what to expect from the therapy to come, answered questions, gave advice on how to get the most from counselling, and prepared patients to cope with possible negative reactions to treatment. Though interactive, these sessions followed a "detailed outline to ensure standardization".

Roughly the same proportions of each group later attended their first therapy sessions, but clients assigned to the motivational interview went on to attend 12 out of 24 sessions compared to eight for the controls, a significant gain not apparent after role induction.

Relative to controls, role induction also failed to reduce substance use, while the motivational sessions led to further reductions. Reminiscent of the pioneering US outpatient study (see *study 3*[75]), the improvements were at least as noticeable, and more persistent, in terms of moderation rather than abstinence. During the 12 weeks of treatment and the 12-month follow-up, motivational patients drank heavily on less than two days a month compared to five days for the controls (an effect confined to the men) and also used other drugs less often.

These effects did not fade with time, but the greater abstinence of motivational patients at the end of treatment (averaging about 28 days a month versus 20) faded into insignificance within six months of treatment ending. Confidence in these results is boosted by a high follow-up rate and multiple outcome indicators which converged to convincingly demonstrate the superiority of the motivational approach.

The study was also one of only two to test and demonstrate that motivational interviewing improves drinking outcomes by deepening engagement with

---

xvi This combined 12-step elements with relapse prevention skills training and a problem solving approach to the clients' concerns. Therapists were specially trained and supervised by the research team.

xvii Over six US standard drinks in a day equivalent to nearly 11 UK units.

xviii Whether this included comparison against population norms is not specified.

treatment. It did so by showing that when its retention-enhancing impact was statistically eliminated, so too was some (but not all) of its impact on heavy drinking.

The finding is consistent with a direct impact on drinking plus an indirect one via deepened engagement, but there is an alternative explanation. One effect of the motivational interview was to enable patients to quickly gain control of their drinking in the initial stages of therapy. In turn this might have enabled them to stick with the therapy and sustain their initial gains. In this scenario, motivational interviewing works solely because it rapidly reduces heavy drinking.

Persuasive as they are, the clinical significance of the findings is less clear than their statistical significance. Motivational patients on average attended just two more (out of 24) therapy sessions than role induction patients. Even the controls who received neither intervention stabilised their drinking at on average just one heavy drinking day a week. The further reductions achieved after motivational interviewing did not lead patients to feel better physically (relative to the role induction patients) or psychologically, nor did they reduce the extent to which they continued to experience alcohol-related problems (relative to controls).

Precisely because of its tight controls, the Buffalo study leaves some questions. There was no attempt to prevent clients missing sessions by contacting them shortly before and reminding them of the time and encouraging attendance. Such procedures might have raised attendance to the point where preparatory sessions of any kind would have made little difference.[76] However, increased attendance did not fully account for the impact of the motivational interview on heavy drinking and did not at all explain its impact on abstinence.

More seriously, in some ways the study may have tipped the balance in favour of motivational interviewing. First was timing. From their point of view, the motivational interviewing patients may have 'started treatment' sooner than both the other groups. (Readers will know from the first part of this series how delay can influence retention and outcomes.[77]) It happened because the study made sure each group waited the same time for their first main therapy appointment. During this period, motivational interviewing patients had what to them may well have seemed the start of some kind of treatment. Role induction patients too had an interpolated session, but this intervention explicitly indicates to patients that treatment has *not* yet started.

Possibly too, the psychologist who supervised the four induction therapists was enthused by an intensive, three-day motivational interviewing training workshop. No equivalent training seems to have been undertaken for role induction. Lastly, in effect the motivational interview was a two-session intervention because it drew on the prior assessment session, while role induction did not. What if the role induction session too had incorporated feedback and discussion of the assessment – would it have proved just as effective?

Such considerations raise doubts over whether it was the specific motivational approach which accounted for the findings, or instead therapist enthusiasm, assessment feedback, or what was perceived as an earlier start to treatment. Another question is why in this study role induction failed to improve initial attendance

when it has been effective in other settings, though it is easy to imagine that well-meant warnings of the frustration and distress patients might experience could have put some off, counteracting any positive effects.

6 In contrast, a British study failed to confirm the promise of the US work, possibly because it was an incomplete test, and possibly because, for these clients, its structured derivative of motivational interviewing mandated an inappropriate focus on the costs and benefits of drinking.[78]

Subjects were dependent drinkers referred via normal routes for a six-week, five-day a week cognitive-behavioural outpatient programme at a specialist hospital unit in Bournemouth. All 60 who had signed up for the programme agreed to enter the study and were randomly allocated to one of two additional interventions. These were conducted by the same researcher and consisted of an initial hour on the second day of the programme followed a week later by a brief review session. Where they differed was in content and style.

One was a pre-structured intervention closely modelled on an Australian approach first tested on methadone patients - see *study 12*.[79] Based on motivational interviewing, this focused on eliciting from the patient the pros and cons of drinking and amplifying the salience of the cons. It was compared to education about the effects of drinking, featuring feedback of the client's answers to a "quiz" without touching on their feelings.

The motivational derivative had no impact on retention in treatment. Six motivational and three comparison subjects missed their review sessions. Including these, 15 motivational and 13 comparison patients left the programme early. Since the motivational sessions aimed to stiffen the resolve not to drink, they could have reduced both 'drop-out' and 'throw-out' (the unit discharged clients who repeatedly turned up under the influence) but failed to do so.

This could have been because the patients were already highly motivated. Almost uniformly they recognised their alcohol problems and said they were working hard to resolve them.[xix] These attitudes were only slightly (but significantly) hardened by the motivational sessions. Indeed, these patients probably needed no reminding about the extent of their problems. Nearly all had lost whatever jobs they'd had, most had lost their husbands or wives through divorce[xx], each averaged over a decade of dependent drinking, and they had gone so far as to commit to and begin an intensive six-week programme.

---

xix Based on questionnaire results from those who survived to the second session (51 of the 60).

xx At the end of the six weeks, problem recognition remained significantly higher after the motivational exercise, but fewer than half the patients were resurveyed. Measured a week after the interventions the motivational subjects also exhibited reduced 'ambivalence', but on a scale whose results are hard to interpret. As measured before the intervention, the greater the ambivalence the more likely someone was to complete treatment, the opposite of what was expected. The questions (in SOCRATES version 8) measuring this concept could be seen as asking respondents the degree to which they are sure they are unsure, easily confused with being sure about the substantive issue. For example, one question reads: "Sometimes I wonder if I am an alcoholic." A "No" response could mean the respondent is sure they are, sure they are not, or just never wonders about it. Respondents who tick "Undecided or Unsure" are meant to be indicating that they are unsure whether they ever wonder whether they are an alcoholic, but could easily be meaning to convey that they are unsure they are an alcoholic.

For those who left early, the problem was unlikely to have been a failure to recognise the debit side of drinking, yet this was the focus mandated for the motivational interview. Instead the problem may have been keeping it together sufficiently to maintain sobriety and fulfil a demanding programme unsupported at home or by the shelter of a residential setting. Also, given the stage they had reached in recognising that they needed to stop, leading them to reflect on the *positives* of their drinking may to them have seemed a disconcerting backward step.

There remains the puzzle of why US studies,[80] [81] also of severely dependent patients, had recorded such startling effects. Possible reasons are not hard to find. In those studies, motivational interviewing scored on post-treatment drinking and staff ratings of participation. Neither was measured in Bournemouth. Second, the US patients had agreed to relatively undemanding programmes. Among them may have been some not entirely committed to resolving their drink problems, material for motivational interviewing to work on. In both US studies, motivational interviewing was compared to a quite different alcoholic-labelling and confrontational approach. In Bournemouth, the main cognitive-behavioural programme was less distant from motivational interviewing; replacing about an hour of one with an hour of the other may have made little difference.

Finally, the interventions were different. Bournemouth's was not fully fledged motivational interviewing and the sub-strategy it elected to focus on may have been inappropriate, yet its pre-structured nature left limited scope for the therapist to adjust. Nor was there the US studies' feedback of a battery of physical and psychological tests – all the pros and cons of drinking had to come from the patients. Perhaps even long-time alcoholic drinkers can gain extra recovery impetus when faced with 'objective' indicators showing just how bad things have got.

No result with inpatients

7 Turning to inpatients, what seems an attempted replication of study 4[82] was published as a dissertation[83] the following year. Conducted by researchers in Virginia, it found that a post-admission motivational interview had no effect on retention in treatment or on ratings of participation, but some non-significant impact on drinking one month after leaving the centre. This was lower and much less variable in the motivational interviewing group, but little store can be placed on this finding since only just over half the former patients were followed up.

Extending to other drinkers and other formats

Remaining alcohol studies either involved special groups of clients or departed from the mainstream paradigm of a motivational interview, extending our understanding of what the approach can achieve and with whom.

Dual diagnosis patients

8 One such study involved substance (mainly alcohol) abusing psychiatric patients.[84] Its results suggested that there is no need (as some studies have done) to deny mentally ill drinkers the potential benefits of a motivational interview.

The 23 patients were starting a US day hospital programme intended to last 12 weeks. How they came to be there is unclear, but psychiatric referral seems the probable route. Though not necessarily dependent, 19 were diagnosed as abusing alcohol, 13 cocaine, and substantial minorities abused other drugs. Their circumstances and histories suggested severe problems. Mostly in their thirties, all were unemployed, none had an intact marriage, and on average they were poorly educated with a history of eight prior hospitalisations.

When they started at the unit, a randomly selected 13 met one of the researchers for an introductory motivational interview incorporating feedback from prior assessments and a decisional balance exercise, but seemingly following no set programme or manual. The rest met the same researcher for a standard introductory psychiatric interview and to be informed about the treatment to follow.

Though the patients started with good intentions, including for nearly 90% a commitment to abstinence, within four weeks 13 had dropped out and by eight weeks, 15. But the motivational interview did extend average retention from 22 to 31 days. Despite holding on to people who would otherwise have left, the interview also improved their punctuality and halved the number of days of substance use while in treatment. Only the punctuality improvements were significant in themselves, but the fact that all eight outcome measures favoured the motivational group indicated an improved overall record.

A comparison with patients admitted earlier without any special introduction helps tease out the active ingredients. Both groups in the study had stayed longer than previous patients, but this difference was greater and became statistically significant only for the motivational group. It seemed that in either format the researcher's introductory session may have helped, but that it helped even more when conducted along motivational lines. Again, these are impressive results given the brevity of the interview (up to an hour) and the severity of the caseload.

Some familiar caveats apply which make it impossible to say for certain that the motivational interview was the active ingredient. First, it would be surprising if the researcher/therapist did not believe more in the efficacy of motivational interviewing than in that of an absolutely standard procedure. Second, there is no indication of whether the two interventions took the same time. Third, the motivational interview incorporated feedback not given in the standard procedure. Lastly, we do not know whether this was induction for substance misuse treatment, psychiatric treatment, or (most likely) both.

How brief can you can get?

Among the unresolved issues left by the early US work was whether some other non-confrontational feedback technique might work as well motivational interviewing, ideally one even less time-consuming. One possibility is simply providing new patients written materials which incorporate elements of the approach.

This not so unlikely as it may seem. A meta-analysis co-authored by Bill Miller pooled studies comparing 'bibliotherapy' with more extensive alcohol treatments and found no difference in effectiveness among patients seeking help, usually in

response to media ads.[85] One of the studies directly compared a self-help book to a motivational-style interview. Short-term extra reductions in drinking after the interview were no longer apparent 12 months later.[86] In other work by Miller himself, a self-help booklet given to patients at the end of treatment helped maintain drinking reductions.[87]

9 For induction purposes, the most relevant study was conducted at a Toronto addiction treatment centre.[88] On alternate months over a six-month period, each new adult patient seeking treatment for an alcohol problem was handed the *Alcohol and You* booklet at the end of their intake assessment, adding just five minutes to the process.

Written by Bill Miller[89] and intended to combine motivational and 'normative' elements, the booklet summarised the results of the assessment, enabled clients to compare their drinking with national norms, indicated the degree of risk at different drinking levels, provided a sample drink diary, noted the benefits of reducing consumption, invited the reader to weigh up the pros and cons of reducing their drinking and to set a target for doing so, emphasised the value of getting help, and outlined next-step options.

Before contact, on average the 499 people assessed had drunk 15 UK units[xxi] every other day over the last three months. Those given the booklet were slightly more likely to return for treatment (89% versus 83%), but the biggest impact was seen in a follow-up of their drinking.

A random sample were interviewed six months after their assessment. In the second half of this period, more clients given the booklet had sustained abstinence (40% versus 22%) and they had drunk significantly less often (on 18 versus 27 days) and less heavily (1.6 versus 3 UK units a day). The impact was greatest among those who had not returned for treatment: the 10 given the booklet had drunk on average just over 4 units on each of 11 days, the 14 not given it, nearly 10 on 32 days, but with so few people the difference was not statistically significant. Among the majority who had returned for treatment, total alcohol consumption was a third less if they had received the booklet.

Though it did invite them to reconsider their drinking, the booklet did *not* attempt to persuade recipients to return for treatment, an attempt to avoid its rejection by people who decided not to do so. Importantly, there was no evidence that it led some to think they no longer needed treatment. The intervention was conducted during normal practice by the clinic's usual staff and there was no selection of clients on grounds of suitability or for research purposes. If the results are valid, they should be replicated in everyday practice.

The main question mark over the study is the fact that a third of the random sample could not be re-interviewed, but the results it got from the remainder support a key argument for starting each new treatment episode with a motivational intervention: not only may it encourage return for treatment, but it also constitutes a potentially effective brief intervention for those who do not.

xxi 8.9 Canadian drinks = 8.9x13.6/8 UK units.

Beyond drinkers: heroin and cocaine

For users of drugs including heroin, cocaine and cannabis, motivational interviewing has now been tried during the waiting period for treatment as well in the initial stages. As with drinkers, results have been mixed, perhaps because the patients themselves were mixed in the degree to which they needed a motivational boost or were at the stage in their treatment where they could benefit from one.

Making use of the wait

Taking us slightly beyond our induction remit, two studies have trialed motivational interviewing to help tide people over while waiting for treatment to start. In one study there was no impact, in the other, relatively long-lasting benefits. The difference may have been down to the degree to which motivation was the issue.

10 In Washington state, the unsuccessful trial inserted measures including a motivational interview between the time drug (mainly cocaine) abusing patients had been referred for treatment by a central intake unit and their first appointment at the selected programme.[90] Though a relatively full-featured attempt to bridge this gap, it made no difference to how many patients started treatment, how long they stayed, or how well they did, possibly because their circumstances were so dire that there was no need to enhance motivation.

Though not induction as defined here, nevertheless the findings shed light on this closely related process. The intervention took place shortly after the intake unit assessment and at the same premises, and was geared to promoting treatment entry and retention. To prospective patients, it might have seemed part of the referral process. As well as the motivational interview, it included follow-up appointments and phone calls to help the client overcome practical impediments but no direct help. The package was manual-guided and therapists were supervised through session videotapes to ensure adherence to protocol.

Just under half the 1416 potential subjects started the study, and they were overwhelmingly committed to treatment. It seems a fair guess that if motivation was lacking anywhere, it was among those who never got in to the study because they refused or missed their first research interview. Typically the sample suffered severe and multiple problems[xxii] and were already entangled with welfare and other agencies. It seems likely that they would have little ambivalence about the treatment on offer, for 85%, a spell as a hospital inpatient – conceivably an attractive respite for these poorly housed addicts, especially since as stimulant users most did not face the withdrawal symptoms entailed in detoxifying from opiates.

In these conditions, a creditable 71% started treatment, and 71% of these were known to have completed it. In the following three months, 44% remained abstinent from illicit drugs and avoided heavy drinking, and on average their psychological conditions improved. One none of these counts were there extra gains after motivational referral.

---

xxii The study excluded patients applying for methadone treatment, ensuring that those asked to join it were mainly cocaine users. Nearly three-quarters were also heavy drinkers and over 90% were living alone, mostly in unstable accommodation. Among the intake unit's criteria were incapacity (including being unemployable) due to drug addiction and sufficient poverty to qualify for public assistance.

What this study seems to tell us is that a motivational boost is beside the point given a set of would-be patients so badly affected that few contested their need for help, plus an undemanding and attractive treatment option. Those who nevertheless failed to turn up were probably less in need of a motivational boost than of intensive and practical assistance. Given their multiple agency contacts, a hands-on form of case management might have been the answer.

Demanding programme benefits

11 A Spanish study provides an instructive contrast. Unlike in Washington (see *study 10*), motivation could very much have been the issue at the marathon *Proyecto Hombre* project. This drug-free, abstinence-oriented programme attracted mainly heroin users living with their parents or in their own family home. It started with roughly a year-long day programme during which the family came with and supported the client.[91] Before this phase was half way through, as many as four out of five had dropped out,[xxiii] failing to transfer to the six to nine months therapeutic community phase.

To stem the outflow, while detoxified patients awaited entry to the programme, the project introduced a three-session intervention based on motivational interviewing.[92] It employed the familiar assessment feedback strategy and ended with an attempt to lead the patient to set goals related to the treatment to follow. Though a broad outline is provided of the three sessions, no mention is made of a manual or therapist supervision.

Forty patients were randomly allocated to this intervention or to the normal waiting list. Surprisingly, there was no difference in short-term retention (up to two months) but by three months more of the motivational group remained in treatment. The gap grew until by six months half were left compared to just 1 in 5 of the control group, a statistically significant difference. Clearly there was more to be done, but given that patients were heroin addicts attending a demanding drug-free programme, the motivational intervention had raised retention to a respectable level.

These Spanish addicts had a home base which supplied the practical and emotional support for attendance lacking in Washington, potentially leaving the client's desire for the treatment as the main influence on whether they stayed. Unlike in Washington, this was no brief respite from the streets, but an extraordinarily extensive and intensive programme which would dominate their lives for nearly two years. Wavering commitment would have provided fertile ground for motivational interviewing to prove its worth.

There is another possible explanation. On the assumption that the project's own staff conducted the motivational interviews, what we may be seeing instead is the impact of (from the client's point of view) starting treatment early, an impression which would not have been conveyed in Washington.

---

xxiii Figures from control group of: Secades-Villa R. *et al*. "Motivational interviewing and treatment retention among drug user patients: a pilot study." *Substance Use and Misuse*: 2004, 39(9), p. 1369–1378.

Motivational start has mixed record

As with alcoholics, for users of illegal drugs the waiting list studies above (10 and 11) suggest that motivational interviewing may be most beneficial for those still ambivalent about entering treatment. The few direct tests of the approach as an induction at the start of heroin or cocaine treatment concur. Among them are two direct indications that the approach can also be counter-productive for patients already committed to changing their drug use through treatment.

Aids retention on methadone

12 The first test of motivational interviewing as an induction to treatment for illegal drug use took place at a methadone clinic in Western Australia in the late 1980s.[93] There researchers had structured what its originators saw as a pervasive counselling style into a discrete, one-hour module (plus a brief review session a week later) which could be used as a "bolt-on" at the start of treatment.[94]

It consisted of a seven-point agenda to be covered flexibly in interaction with the client. As adapted for heroin users, a brief examination of what they see as the good side of heroin use is intended to establish this as a chosen rather than an out-of-control behaviour, and therefore one they can also choose to change. Then the focus is on eliciting and amplifying the client's account of the debit side of heroin use (especially where it conflicts with valued activities or goals or a preferred self-image) but without the aid of the comprehensive assessment feedback typical of interventions with drinkers. The client is then asked to complete a balance sheet of the pros and cons at home for review at the follow-up session. Ideally, sessions end with the client formulating a plan to resolve the conflict between who they want to be and continued heroin use by abandoning the latter.

This model has since been adapted for drinkers in Bournemouth[95] and drawn on to encourage treatment entry among cocaine users awaiting treatment in Washington[96] - see *studies 6 and 10*. Both times it failed to improve on normal procedures.

In Australia, its developers met with greater success when it was tried with methadone patients four days after they had started treatment. A researcher first completed the baseline research assessment with all 122 patients in the study, then followed this either with the motivational intervention or with an educational session built around a booklet on opiate use, a control procedure intended to equalise the time she spent with the clients (including the follow-up session) but to have no impact on outcomes.

Patients were allocated a month at a time to reduce 'cross-contamination' between the two groups, resulting in 57 'motivational' patients and 65 controls. Subjects who dropped out of treatment were not followed up, so retention in the study is more or less equivalent to retention in treatment.

At the last follow-up six months after the start of treatment, half the control group were left in the study, but 7 in 10 of the motivational group, a gap which had become apparent in the first week. On average the motivational sessions had improved retention from about 18 to 22 weeks. Among patients still in treatment there was no difference in how long they remained heroin-free, but when the fair

assumption was made that people who left[xxiv] had relapsed, motivational clients had avoided relapse for longer. All these advantages were statistically significant, especially the relapse delay effect.

Though this could not be directly tested, the findings are consistent with an indirect impact of motivational interviewing on heroin use via improved retention. However, improved retention may itself (as with drinkers in Buffalo - see *study 5*[97]) have been due to the interviews helping patients rapidly curtail their substance use. Compared to control patients, over the first week motivational patients significantly hardened their intention to abstain from heroin or cut down.[xxv]

How can we account for these findings, when in the very similar test on drinkers in Bournemouth (see *study 6*[98]), retention was unaffected? First is the motivational state of the patients – in Bournemouth, committed to recovery through treatment, in Australia, many still ambivalent.[xxvi] The Australian developers noted that for heroin users in particular, this ambivalence made it important to acknowledge the pluses of heroin use.[99] After all, patients entering a *methadone* programme are clearly not yet ready to see opiate-type drugs as, for them, an unambiguously bad thing.

Another key thing in Australia may have been the holding power of the intervention over the week between the two sessions. Patients seem to have appreciated the chance to explore the pluses and minuses of heroin use with what is described as a "highly skilled" therapist who quickly established rapport, to the point where many wished to exceed their allotted hour.[100] To return for 'closure' of this valued intervention (the review of the homework decisional balance sheet), patients had to stick with the methadone programme for at least the first week after being stabilised on the medication; 91% did so, 16% more than returned for the second of the impersonal education sessions.[xxvii] Though in both cases further patients drifted away, this gap remained roughly the same over the following six months.

The motivational intervention seems to have held patients over this vulnerable period to the point where they became established in the programme; only another 7% left in the next three months. In Bournemouth, there was no such holding effect, in fact, more motivational patients than controls missed their follow-up sessions.

Underneath it all may have been the 'developer effect': the intervention was being trialed by the people who created it, not the case in Bournemouth[101] and Washington.[102] Whilst they can be expected to have been enthusiastic about their creation, the alternative to which it was compared was intended to be inactive, not the best way to enthuse therapists or transmit optimism to clients.

---

xxiv Other than those who had reduced to under 10mg methadone.

xxv Another possible way the Australian sessions helped is that, as intended, they tipped the balance towards a greater awareness of the adverse consequences of continued heroin use and the benefits of abstinence. Though the increase in both groups over the week between the two induction sessions seems comparable, this could simply be because patients with low expectations of abstinence had dropped out of the control group over this period. By three months the difference between the groups on this measure had become significant. There was no test of whether this effect mediated retention or relapse outcomes.

xxvi 44% either pre-contemplators or contemplators on a stage of change questionnaire.

xxvii The impact relative to control patients may have been even greater had these not also been invited to return to see the same therapist, whom both sets of patients saw as equally empathic.

Perhaps also, as its 'owners', the Australian team had the licence to adapt it. Where they stressed skilful flexibility and interactivity in its delivery, the other two papers give the impression of a more prescriptive implementation, potentially leading to counterproductive as well as productive reactions.[103] The initial focus on the positives of drinking or drug use may need to be particularly sensitively handled unless, as with methadone patients, there is clearly still something positive which needs acknowledging.

Another methodological question mark is how the 92 patients left out of the study (because they stayed in treatment less than week, refused to participate, or in practice failed to do so) might have reacted. Potentially they were among the ones most in need of a motivational boost.

Interestingly, rather than just starting this way, in Bulgaria a methadone programme imbued every staff-patient interaction with a motivational interviewing flavour, from dispensing the drug to full encounters with the staff team.[104] Improved engagement in treatment and a more therapeutic atmosphere are said to have been among the results.

"Puzzling" failure with cocaine users

13 A 'developer effect' was notably lacking when Bill Miller's team tried a motivational enhancement session towards the start (at least, this was the intention) of routinely accessed addiction treatment.[105] The study took place at his university's outpatient centre in Albuquerque and at an inpatient detoxification and rehabilitation unit in the same town. All 208 patients were dependent on drugs other than alcohol but may also have been dependent on alcohol. For most, their presenting problem was cocaine (especially crack) and for nearly one in three, heroin.

Half were randomly allocated to continue as normal and half to an additional single-session motivational interview lasting up to two hours, conducted by therapists trained and supervised by the research team to follow a manual based on the motivational enhancement option trialed in Project MATCH.

Over a third of the patients invited to join the study refused. How they might have reacted is an important but unresolvable issue. But among the remainder, results were definitively negative. On practically every measure taken and no matter how the sample was divided up, the interview made no difference. Neither overall nor (where this was tested) at each site separately, nor for heroin versus cocaine users, was there any significant (statistically and in magnitude) impact on retention, motivation for change, or on drug and alcohol use outcomes tracked up to 12 months after intake. Regardless of whether or not they had undergone the additional interview, at each three-monthly follow-up patients had been alcohol and drug-free on 70% of the past 90 days and about 20% had been completely abstinent.

In other studies, absence of an overall effect masked a positive impact among the least motivated patients. Here this was not the case, perhaps because according to paper-and-pen tests nearly all the patients were at an advanced 'taking steps' level of

motivation.[xxviii] This could also account both for the failure to find a significant overall effect from motivational interviewing – perhaps these patients were simply not in need of a motivational boost. But a deeper analysis of how committed the patients were to curbing their drug use based on what they actually said in counselling sessions belies this interpretation.[106]

Unlike Project MATCH,[107] neither did relatively 'angry' patients benefit from the motivational interview, but anger was assessed using a cobbled-together measure rather than one intended for this purpose.

This "puzzling" absence of impact could also have had something to do with timing. Though intended as a prelude to treatment, at the inpatient unit, which accounted for over a quarter of the sample, scheduling difficulties delayed the motivational interview until on average two-thirds through a three-week stay, and, for 10 of the 28 patients, until after they had left. There must be a question over the relevance of running through the pros and cons of their former drug use and discussing treatment plans, when patients were already most or all of the way through the treatment intended to deal with their problem.

However, the same explanation cannot account for the failure at the outpatient centre. Though the interview took place on average over a week after patients had been assessed for treatment, most had not yet even met their counsellor.[108] Here, another explanation might apply. This clinic was housed in the home of motivational interviewing and many of its counsellors would have been trained in and familiar with motivational techniques. Even patients allocated to 'treatment as usual' were likely to have experienced a motivational approach.

Two further explanations might apply. First is the dislocation between the motivational interview and routine treatment, creating two independent tracks for motivating and planning treatment. Patients may well have seen their 'real' treatment counsellors who could directly influence their treatment as the ones they should take most account of. Second, and related to this, an inflexible manualised version of motivational interviewing left insufficient room for therapists to adjust to patients who were at different stages in their treatment and in their commitment to change. An analysis of what was said in the motivational sessions revealed that this provoked counterproductive reactions when the programme clashed with the client's state of mind[109] - see *Care too with the unconvinced*.

Depends on initial commitment

The next two studies found no *overall* effect on retention from a motivational intervention, but also that this masked positive impacts among patients who saw themselves as still thinking about changing rather than having started the process. Less expected was a *negative* effect among the latter – misapplied motivational interviewing can actually be damaging. The important implications of these and similar findings are explored under the heading *Is it dangerous to follow the manual?*

14 In Houston, 105 cocaine users started a ten-day outpatient 'detoxification' programme.[110] Crack smoking was the majority habit and most were black and

xxviii Note low standard deviations in table 2 and only small differences between inpatients and outpatients.

unemployed. The context was a study of relapse prevention aftercare, to which patients who achieved abstinence could transfer. Nested within this was a trial of whether starting detoxification with a motivational interview improved transfer rates.

Patients were randomly allocated to the normal programme (a couple of hours a day consisting mainly of tests and assessments plus some educational videos) or additionally to participate in the two-session motivational interview on days one and four. Deploying feedback from the prior assessments, these aimed to build motivation and to plan for abstinence. They were conducted by therapists trained and supervised by the research team, based on a detailed manual derived from the motivational enhancement option trialed in project MATCH.

With or without the interviews, about half the patients completed detoxification and did so successfully (five consecutive cocaine-negative urine tests), qualifying for transfer to the relapse prevention phase. But within this overall equality of effect was a markedly different impact on different patients. Motivational sessions improved completion rates among subjects still thinking about whether they needed to curtail their substance use, counterbalanced by the *opposite* effect in those who already saw themselves as having embarked on this process – they actually did worse after the interviews.

The effect was substantial and statistically significant. Without the interviews, 73% of 'taking-action' patients completed the programme, with it, just 41%, yet among 'still-thinking' patients, the interviews raised the completion rate from 34% to 56%. As in some other studies, this meant that the interviews evened out response to treatment, preventing differences in initial motivation dominating retention. Without the motivational interview, completion rates in low and high motivation subjects differed by 38%, with it, the gap narrowed to 18%.

By retaining 'thinking rather than acting' patients in the study, the interviews might have been expected to lead to a higher failure rate during relapse prevention aftercare. In fact, the opposite occurred.

The first positive sign was that the interview had helped more start this therapy cocaine-free (88% v. 62%). Consistent with this was a slightly but significantly greater pre- to post-detoxification increase in scores indicating that patients were implementing anti-relapse strategies. Because it is a marker of motivation which has actually been put into practice, starting therapy cocaine-free is a consistent predictor of successful treatment.[111 112 113 114] So too in this study, among those who transferred to aftercare, over the next 12 weeks the motivational interviewing group delivered more cocaine-free urines (82% v 64%).[xxix]

The positive effects of motivational interviewing in this study and the emergence of the interaction with motivational level were both absent in the study of (mainly) cocaine users in Albuquerque - see *study 13*.[115] A possible reason is the different ways the patients entered treatment, in Albuquerque via normal routes, in Houston via ads for the study. Judging from their motivational profiles, many in Houston were not yet at the stage where they would have sought treatment unless solicited

xxix But there was no impact on attendance.

by the ads.[xxx] Motivational interviewing had something to bite on in the form a substantial number in need of persuasion. In Albuquerque, the motivational profile was reversed and patients almost uniformly expressed high levels of commitment to change.

But for Houston too, there are alternative explanations. The motivational intervention was compared not with some other additional, one-to-one session with a skilled and (after their ten hours of training) probably enthusiastic therapist, but with nothing extra at all. While the mere fact of receiving extra therapy might account for the overall positive effects, it seems an unlikely explanation for the differential impact on more versus less motivated patients. Conceivably both sorts of effect might have been due to additional assessment feedback rather than the motivational interview, but why would this reduce the commitment of patients already convinced that their drug use was bad enough to need ending?

15 A very similar study which used a similar measure of motivation also found that this determined how patients would react.[116] The programme was a day-hospital regime in Rhode Island with an abstinence and 12-step orientation. On the second day of an average eight-day stay or when withdrawals had abated, researchers asked cocaine-dependent admissions[xxxi] to join the study, excluding only those actively psychotic or planning to stay fewer than five days, the time needed for the intervention. Over 7 in 10 smoked crack and on average they took cocaine and drank alcohol on one day out of three, but at this private facility they were not the poor minority caseload seen in Houston - see *study 14*[117].

Of the 165 patients who entered the study, two thirds were employed and nearly 90% white. Half were randomly allocated to a motivational interview and half to meditation and relaxation, conducted by the same therapists over two daily sessions, typically on the third and fourth days of the programme.[xxxii]

Their therapists had been recruited, trained and supervised by the research team, and motivational sessions were recorded to ensure they competently followed a manual. Though the emphasis could vary in response to client motivation and response,[118] this prescribed an exploration of the pros and cons of cocaine use, how use or non-use fitted with the patient's goals, feedback of a prior comprehensive assessment of their drug use and its consequences, and the formulation of a change plan. At issue was whether these sessions would improve on the passive and it was thought ineffective relaxation approach.

Overall, the answer was a surprising 'No'. Patients as a whole dramatically curbed their cocaine use, but on none of the many measures of retention or outcomes up to 12 months did the motivational interview improve on the 'inactive' alternative. As in

---

xxx Most were characterised more by thinking about whether they needed to change their substance use than actively deciding to do something about it.

xxxi Whether or not this was the main drug they were seeking help for. Personal communication from Damaris Rohsenow, 2005.

xxxii On average patients stayed eight days and attended six of the daily therapy sessions. The same therapists went on to deliver further group sessions of two different kinds but these did not differentially affect outcomes overall nor in interaction with assignment to prior motivational or control sessions.

Houston (see *study 14*[119]), this was not because the interview itself was inactive, but because it had opposing impacts on different patients.

Researchers analysed outcomes for patients in the top and bottom halves[120] on a measure of how far they saw themselves as actively tackling their cocaine use rather than still thinking about whether they needed to. Consistently the interviews seemed to worsen substance use outcomes among patients already tackling their cocaine use while (to a lesser and non-significant extent) improving outcomes among those still thinking about whether they needed to.

The effect was noticeable within the first three months after intake. As intended, the relaxation sessions seemed a non-intervention, leaving the more advanced motivation of the 'taking-action' patients to express itself in a higher abstinence rate – 45% versus 20% for those 'still thinking'. But if anything, the reverse was the case after motivational interviews; the more motivated patients were *less* likely to be abstinent – about 24% versus 36%.[xxxiii]

So too with the numbers of days on which non-abstinent patients had consumed cocaine. As expected, among the controls, more motivated patients used less often. After the motivational interview, it was the reverse; 'taking-action' patients consumed cocaine on over twice as many days (about 1 in 5) as their supposedly less motivated peers. To a lesser degree, the same pattern was apparent in the final three months of the follow-up year[xxxiv] and also over the entire year in terms of how long people sustained abstinence and the total number of days on which cocaine was used. Suggesting this was no fluke, there was a similar pattern with drinking.

The motivational interviews had some intended but minor effects bolstering awareness of the debit side of cocaine use, and patients believed they helped slightly more than the relaxation sessions, but there was no impact on motivational stage nor anything to account for their apparently damaging impact on people already in an advanced taking-action stage.

Neither does the way the research was done account for these findings. Few patients (10% of those asked) refused to participate. Another 20 dropped out before they could be randomised to the therapies, but attrition was less than in many other studies. True, it would be surprising if the qualified therapists who delivered both induction interventions did not have far greater faith in motivational interviewing, especially since all had just been through about 37 hours of training and supervised practice. There was no equivalent fresh training investment in the relaxation option. Yet this would if anything have given the motivational option a boost. It cannot account either for its overall ineffectiveness not for the damaging effect on taking-action patients.

As in Houston (see *study 14*[121]), the special assessment feedback given to the motivational patients might have played a part, but here too, why would this damage the prospects of patients already convinced that their drug use was bad enough to need ending? For both this study and the one in Houston, the most likely explanation is the obvious but worrying one: that motivational interviewing of this

xxxiii Estimated from figure 1.

xxxiv Estimated from figure 1 and associated text and table 1.

kind is as capable of knocking back the more motivated patients as it is of accelerating the recovery of those still in need of convincing.

Other applications

Another three studies used a motivational interview to start a longer treatment programme but did not directly test whether this was what improved outcomes. They do however demonstrate the feasibility of integrating motivational interviewing with other treatments.

16 In the north west of England, substance abusing schizophrenics in touch with mental health services were invited to join with a partner (usually a parent) in a programme which combined initial motivational interviewing with family and cognitive-behavioural therapy.[122] Contrasted with routine mental health care, over the next 12 months patients randomly allocated to also receive the combined programme used drugs or alcohol less often and improved more in psychiatric symptoms and overall functioning.

17 Dependent cannabis users in the USA who responded to ads or were referred to a free treatment programme were randomly assigned to three therapies, each of which started with a motivational interview.[123] For one group the programme was simply another three motivational interviews; for the second, 13 sessions aimed at teaching relapse prevention coping skills; for the third, these plus vouchers rewarding abstinence. In terms of abstinence from cannabis during and at the end of treatment, both the longer treatments improved on the motivational interviews alone, but only when the vouchers were added did these differences reach statistical significance.

18 Lastly, a US study started a course of cognitive-behavioural therapy with motivational sessions, but also continued to provide this therapy in a non-directive, motivational style.[124] This regime was compared with considerably more directive, 'straight' cognitive-behavioural therapy. Mentioned here for completeness, this study is best seen as a test of two different therapeutic styles maintained throughout a treatment programme. It yielded evidence that the directive option worked best for patients with anti-social personalities, who found it very difficult to recognise and communicate their feelings, or whose social networks were supportive of drinking, while those more able to communicate their feelings did best in the less directive regime.

Is it dangerous to follow the manual?

A similar question was posed by Bill Miller and his colleagues[125] after they had analysed the reasons why motivational induction failed in their study of cocaine users - see *study 13*,[126] and again after an analysis which pooled all the relevant studies suggested those which manualised the approach had worse outcomes.[127]

Useful for research purposes to standardise 'inputs',[128] prescribing what therapists should do and when they should do it risks an approach inappropriate for at least some patients. The risk seems particularly acute for an approach like motivational interviewing whose essence is to respond to clues from the client even if that means backtracking and cycling through phases rather than moving inexorably forward through a set programme. Attempts to manualise this approach yet stay true to its spirit end up being not a step-by-step manual at all, but largely a restatement of principles replete with alternatives depending on client responses, an inevitable consequence of an approach whose mantra is that the "responsibility and capability for change lie within the client".[129]

The Project MATCH manual is a case in point, the session-by-session guide occupying just six pages while principles and techniques occupy 40.[130] In contrast, the same study's manual for cognitive-behavioural therapy devotes 24 pages to the core sessions and just 11 to principles and techniques, sternly warning that it is "crucial that the guidelines in the manual be strictly followed".[131] Even in a research context, such prescriptiveness would be entirely out of place in a manual on motivational interviewing.

Unexpected finding from pooled studies

Quantitative indication that over-prescriptive manualisation might contravene the spirit of motivational interviewing comes from the latest analysis to pool the outcomes of relevant studies.[132] It included not just induction studies but studies of the approach used as a brief intervention and as a standalone treatment, as well as embracing applications beyond substance use problems.

Of all the differences between motivational approaches including duration, how many motivational-style principles and techniques were said to have been deployed, and therapist training and support, only one was related to outcomes – whether the therapist followed a manual. Unexpectedly, the relationship was in the 'wrong' direction: manualised therapy had *less* impact.

Though this result emerged from an analysis which tried to eliminate other explanations, the authors caution that undocumented differences between the studies where a manual was or was not used could have created a false impression. However, their comments suggest they believe the effect is real and important. It confirmed the conclusion we had come to from an in-depth analysis of individual studies of motivational induction.

More committed react badly

In three of these studies a motivational interview intended to encourage patients to engage with treatment helped 'low motivation' patients, but seemed to retard the progress of those already committed to action. During all three, therapists were supervised to ensure they adhered to a detailed[xxxv] manual. Each time this prescribed 'decisional balance' exercises, leading the patient to review what for them are the pros and cons of changing substance use or becoming involved in treatment or aftercare.

xxxv Described as such in two studies and appearing to be such in the third.

Two of the studies have already featured in this article because they involved induction for an initial treatment episode - see *studies 14 and 15*.[133] [134] Both involved mainly cocaine users attending a short-term day detoxification and rehabilitation programme, and tested whether a two-session motivational interview would improve retention and outcomes. Both divided patients into those typified more by 'taking action' to tackle their substance use problems as opposed to those 'still thinking' about it. On different measures (retention in the initial programme, post-treatment cocaine use and drinking), as expected, the motivational sessions improved outcomes for 'still thinking' patients. Unexpectedly, they also *worsened* outcomes for patients who already saw themselves as committed to and engaged in change.

19 The third study[135] concerned alcohol dependent patients admitted for on average five days of inpatient detoxification at what seems to have been the same private, non-profit Rhode Island hospital which hosted one of the cocaine studies - see *study 15*.[136] It has not featured so far in this review because the aim was to motivate take-up of aftercare rather than the initial treatment episode.

After settling in for at least a day, randomly selected patient intakes were allocated to one of two types of sessions with a research therapist. The first was five minutes of advice which comprehensively contravened the spirit of motivational interviewing. Patients were told they had a significant drink problem and that abstinence was very important, and were then unambiguously and directly advised to get as involved as possible in AA/NA aftercare.

The second type of session was a one-hour motivational interview which also advised abstinence and AA attendance, but not in the unambiguous manner of the more abrupt intervention. Instead, following a detailed manual patients were led through decisional balance exercises weighing the pros and cons of abstinence and AA/NA attendance and asked to contrast their current drinking with their longer-term goals. Finally, they were asked to choose their own goals for attending AA/NA meetings. Those less keen on this route were offered a menu of alternative ways to gain similar social and psychological support.

Among patients whose past records of attending AA/NA meetings and current plans to do so indicated less commitment to 12-step groups, the motivational interviews had the expected effects. They abstained more often, and when they drank, drank less than patients given the standard advice. But this was counterbalanced by an even greater and *opposite* effect on more committed patients; following the motivational sessions, they drank *more* often and more heavily than after standard advice.

Over the six months of the follow-up, as long as patients *least* committed to AA had been through the motivational exercises, and those *most* committed had been directly advised to abstain and attend AA, on average each patient was near 100% abstinent and drank very little when they did drink. When this matching was reversed, outcomes were far worse. These effects were far from trivial. In standard research terms they were consistently substantial and statistically significant. Most

notable was the large damaging impact of an hour's motivational therapy on patients who did better with five minutes of unsophisticated, didactic advice.

Two steps back?

In all three studies, the puzzle is not why the least committed subjects benefited from a motivational approach (this is the expected result), but why the most committed reacted badly. Possibly the explanation is what to the patient may have seemed a backward step to reexamine the pros and cons of whether they really did want to stop using drugs or commit to treatment and aftercare, when they had already decided to do so and started the process.

In the alcohol aftercare (see *study 19*[137]), this and more may have been going on. Unlike the abrupt advice session, the motivational interview did not presume that AA was the only way forward. Patients less committed to it were helped to explore and commit to other avenues. However, those already highly committed to the abstinence/AA route seem to have had this commitment undermined by being led once again to consider its pros and cons.

Within the same trial these studies incorporated a test of whether motivational interviewing had been counterproductive for more committed clients. In other unsuccessful induction trials, the approach's failure to improve on alternative methods or on treatment as usual might also be explained by the relatively high commitment of the clients allied with an insufficiently flexible approach - see *studies 6, 10 and 13*.[138] [139] [140] However, other differences between these and studies which have found the approach successful cannot be ruled out.

There is also a question mark over how far the closed-end, forced-choice questions typically used to measure motivation really do tap differing levels of commitment.[141] [142] In motivational interviewing's universe, this is precisely the wrong way to probe a client's state of mind. Also, the studies which found no interaction with motivation used a different measure from those which did[xxxvi] and the two main variants used in these studies sometimes fail to agree.[143]

Care too with the unconvinced

One of the unsuccessful trials mentioned in the previous section uncovered another hazard of prescriptive therapy – not undermining an already high level of commitment to change, but failing to back off in the face of continuing ambivalence. Though the hazard is different, the study provides insights into how both sorts of mistakes can occur.

---

xxxvi Study 6 used SOCRATES-8A to measure motivation, study 10 SOCRATES and the Pros and Cons of Quitting questionnaire, study 13 SOCRATES 7D. In study 10 there was no test of the interaction between motivation and the impact of a motivational intervention, in study 13 there was and it found none (yet the linguistic analysis did indicate that this was happening), in study 10 a test for confounding looked for changes in the relative impact of the attrition prevention intervention when motivation and other variables were taken into account but none were found. This seems to also indicate that there was no interaction between motivation and the impact of the intervention. In the three studies where this was found the URICA was used to measure motivation in study 14, the Cocaine Change Assessment Questionnaire in study 15, a scalse which seems similar to URICA (see: Prochaska J.O. et al. "Stages of change and decisional balance for 12 problem behaviors." Health Psychology: 1994, 13, p. 39–46, the citation in study 15 for the CCAQ), and no standard test in study 19.

As described earlier (see *study 13*[144]), therapists delivered a motivational interview to drug dependent patients intended as a prelude to treatment. So tightly was the single session programmed through a detailed manual, and so diligent, well trained and closely supervised were the therapists, that they introduced the same topics at roughly the same point with all their clients.[145] Despite their prior experience, supplemented by 16 hours' training and feedback of their videoed performances from Bill Miller, who personally certified their competence, the therapists failed to improve retention or outcomes – not even a hint.

With open-minded investigators, such a comprehensive failure forces a return to first principles. Unusually, they were aided by an analysis of videotapes of what clients and therapists actually said during the interviews.[146] [147] The tightness of the programming which seems to have neutralised motivational interviewing's effectiveness enabled client reactions to be related to the topics addressed in each succeeding tenth of each session – an example of how standardising therapies can aid research yet undermine therapy.

The analysis suggested that previous attempts to relate outcomes to commitment to change expressed during counselling had missed the mark.[148] [149] It was not the frequency of such 'change talk' which mattered, but the strength of the client's determination to change versus to stay as they are. The difference between 'I hope to' and 'I will' (or similar phrases) was more important than how many times either was said. Moreover, it was the end of each session which was the giveaway rather than overall average commitment strength, because it was here that clients were faced with concretising the discussion into an explicit and viable change plan.

Wrong moves and premature calls

During the first five to ten minutes of each session clients were being asked what had led them to seek treatment. Here the strength of their commitment to change simply reflected how far they had already cut their drug use.[xxxvii] From then on, commitment strength started to respond to what the therapist was doing, and instead of reflecting where the client had come from, it became a potent predictor of where they would end up in a year's time.

The first clue came around the middle of each session when clients had received feedback from a prior in-depth assessment of their drug use and related problems. Most (about 70%) reacted as intended, strengthening their expressed commitment to tackle these problems, or maintaining it if they were among those who had already curtailed their drug use. These were the people who over the following year largely sustained abstinence from their primary drug of abuse.

But faced with this almost unremittingly negative feedback, a minority retrenched into a commitment, not to overcome these problems, but to continue their drug use. They tended to be the ones who from the start were less convinced that their drug experiences really had been all bad, and who over the following year continued to use. It was a classic case of the kind of counter-productive reaction to challenge which motivational interviewing is supposed to avoid.

xxxvii Days abstinent in 90 days before intake.

The same patients tended to be among[xxxviii] the ones who at the end of the interview backpedalled in the strength of their commitments to change. Following their script, at this stage the therapists tried to get their clients to tie up all the ends – no matter how loose – into a plan for a life free of dependent drug use, one concrete enough to have explicit criteria of success, and sufficiently well grounded to withstand the anticipated pressures of life outside the consulting room.

Despite its metal being tested in these ways, most sustained the strength of their commitment and went on to express this commitment in reduced drug use. But a minority sharply backed down; determined 'I wills'[xxxix] rapidly became 'I'm not sure', and they ended up expressing as strong a commitment to continued drug use as to stopping, again, a transparent indicator of what would happen in the following year. The strength of this closing, concrete commitment was the single most reliable harbinger of whether clients would later succeed in controlling their drug use.

Another significant juncture came about two-thirds of the way through each session, when, probing for commitment, therapists asked whether the client was yet ready to change. Again those who backtracked tended to do badly over the following year.

It seemed that landing clients with negative feedback when they were not yet ready to see things that way, seeking commitment to change before they had sorted out their ambivalence, or prematurely trying to firm this into a viable plan of action, each weakened expressed commitment to curtailing drug use, and that this was followed by the predictable outcomes in terms of actual drug use.

This was not just a case (as far as could be determined) of people who had a poor prognosis beforehand reacting poorly to counselling and then doing what they would have done anyway. In particular, how patients reacted when challenged to say if they were ready to change, or later to defend their change plan, still predicted outcomes regardless of how far they had already curbed their substance use before treatment had started.

For the analysts, who included Bill Miller, the manual's author, the implications were far-reaching. They cautioned that "a prescribed and less flexible approach to MI (as can occur with manual-guided interventions) could paradoxically yield worse outcomes among initially less motivated clients". Instead they argued for therapists to adapt to the client. Signs that they still see something good about their drug use should be a warning that totally negative feedback will stimulate defensive retrenchment.

Leading the client to review the good side of their drug use is, they thought, particularly risky. We know from one study that it can work well when it acknowledges a present and undeniable reality for the client, as for many entering methadone treatment.[150] In other circumstances, the linguistic analysis suggested that by fostering an 'It wasn't all bad' perception, mulling over the good things about substance use can pave the way for resistant reactions to assessment feedback.

---

xxxviii The relationship was significant but by no means one-to-one – patients who had not reacted badly to feedback may still have backpedalled when faced with concretising their plans.

xxxix Or similar such expressions.

Lastly, the analysts cautioned that a sudden drop in the strength of commitment to change is a warning that the wrong tack has been taken, and that it would be premature to try to get the patient to firm their remaining commitment into a concrete plan.

Empathy and acceptance elicits honesty

Among these salutary lessons was an important silver lining: the strength of the client's commitment to change at key junctures was so closely related to drug use in the following year, that from this alone one could predict with remarkable precision (in 85% of cases) who would do well and who would struggle.

Guided by the empathic principles of motivational interviewing, according to which wanting to use drugs is as valid and acceptable a feeling as wanting to stop, the therapists had established a non-judgemental context within which what the client said they would do, and how strongly they said it, signified real intentions and future actions rather than acting as a way to placate, save face, or to terminate an uncomfortable encounter. Most prognostic of all was the closing plan with its concrete actions and explicit criteria for success, a public commitment which could be verified in future contacts.

Whether this would also be the case in normal practice may depend not just on the therapist's approach, but the context within which the interaction takes place. First, in this study the motivational therapists were independent from the treatment programme – they had no power over the client, who therefore had no reason to lie. Second, from the client's point of view, it may well have seemed that their commitments were indeed subject to verification through research follow-ups.[xl]

In sum, the therapists had created a social space within which what the client said provided valid clues to their state of mind and readiness for change, yet were so constrained that they could not respond appropriately. It was not good practice, yet for this very reason, it afforded a valuable insight into what good practice consists of.

Directiveness is a key factor

Mandated by a manual they were required to follow, in the studies analysed above, therapists directed their clients to engage in set activities or take set decisions at predetermined stages. In the process they created a mismatch between where some clients were 'at' in their decision-making and commitment to action and where the therapist was leading them.

If this can be witnessed within motivational therapy, it should also be apparent when a less directive therapy is compared with a more directive one. For research examining this we have to step beyond induction to studies of full, standalone therapies. Unlike the induction studies reviewed above,[xli] these generally investigated not where the patient is at *now* in their feeling and thinking, but where they *typically* are at – their customary ways of relating to the world. What emerges is that those who like to feel in control of their lives and who react against being

xl And perhaps also through continuing contacts with the main treatment service.

xli None of these studies (14, 15 and 19) tested whether certain personality types responded best to motivational interviewing.

directed do best in a less directive therapy (like true-to-type motivational interviewing), while those willing to accept direction do better when this is what they get.

Because a manualised version of motivational interviewing was one of the therapies being tested, the most relevant example comes from the multi-million dollar US Project MATCH study. Compared to therapies which impose a set programme and a set view of the nature of addiction (12-step facilitation and cognitive-behavioural therapies), patients prone to react angrily did best in motivational therapy, at least in the arm of the study where this was the primary treatment.[151] [xlii] This much was expected; deflecting anger and resentment is supposed to be motivational interviewing's strength. But unexpectedly, the reverse was also the case – the least angry patients did *worse* when allocated to the motivational option.

How this happened has been investigated across the five clinics in the relevant arm of the study.[152] It was not because motivational therapy subdued anger any more than the other therapies. But what it did excel at was handling high client resistance to treatment, preventing this from expressing itself in continued drinking, presumably a benefit of the motivational therapists' drilling in 'rolling with resistance' and avoiding provocation. Conversely, it seemed that clients ready and willing to be directed were somewhat let down by the hands-off, 'It's up to you' stance of the motivational therapists.

This picture was pieced together from paper and pen measures rather than how clients actually behaved, but at the MATCH clinic in Providence, videos of counselling sessions afforded a direct, observational measure of both clients and therapists and how they reacted to each other.

Best not to provoke the provocable

Though in the other arm of the MATCH study,[xliii] at this clinic, too, motivational therapy was generally most effective for patients prone to react with anger, least effective for the less fiery.[153] The videos revealed the underlying reason. Across all three therapies, angry clients drank less after seeing therapists who avoided being directive, while the more relaxed did best when given a lead. Motivational therapists were significantly less directive than those implementing cognitive-behavioural therapy (predictable from the manuals - see *below*) and this accounted for the differences in how patients reacted to the therapies.[xliv]

We get closer to what was happening from observations not just of the therapists, but of the clients. In the first therapy session, raters assessed the degree to which they seemed reluctant to relinquish control and reacted against direction.[154] This was unrelated to how directive their therapist had been during that and subsequent sessions, suggesting that patients who started treatment in 'reactive' mode were not

xlii The findings which follow relate to the 'outpatient' arm of the study and were not duplicated in the aftercare arm, when the three therapies followed intensive in- or out-patient day hospital treatment.

xliii Whose patients had usually just left inpatient detoxification.

xliv But not than 12-step facilitation therapists. The reason might be two-fold. First, in the US context, 12-step based therapy is usual practice, accepted wisdom and familiar to patients. There would be less need to direct and teach than in the less familiar and less 'natural' cognitive-behavioural therapy. Second is the difference in the prescriptiveness of the manuals.

responding to the therapist; it was simply how they were – at least at that time and in that situation. It also suggests that therapists too were more or less directive in style regardless of how the patients reacted.

The more the therapists had adhered to a motivational-style, non-directive stance, the less these 'reactive' patients drank in the year after therapy ended. Findings were consistent whether the outcome was the number of drinking days or the amount drunk on each of those days. It seemed particularly important for therapists to avoided confronting reactive patients, trying to unilaterally set the agenda, asking closed-end questions, or offering interpretations of the client's resistance rather than 'rolling with it'.

This effect was seen in all three therapies, but was most apparent during motivational interviewing, perhaps because such tactics violate its essence in a way they do not for the other two therapies. Interestingly, a more neutral form of directiveness, providing information or assuming the stance of a 'teacher',[155] did not lead to a backlash among reactive patients.

Same view beyond motivational interviewing

By now a fairly clear picture is emerging. Whether or not the therapy is motivational interviewing, if in practice the therapist is directive they risk a backlash from patients who by nature resist direction. Conversely, patients who welcome direction thrive best when they get more of a lead. When direction is pre-structured and inflexibly applied, there is a risk of fouling things up both with those most, and those least, committed to tackling their substance use problems, when the programme's mandate fails to match their state of mind.

So far this picture has emerged from studies which have included motivational interviewing either as an induction technique or as a standalone therapy. The landscape remains familiar when we widen the view to studies which have not involved an identified motivational approach.

First is an analysis of alcohol patients engaged in two sorts of outpatient couples therapy, one cognitive-behavioural, the other family-focused.[156] Both were intended to span five or six months of which the last three or four were a 'maintenance' phase intended to sustain the gains made earlier. The outcome was how far drinking during this phase had changed compared to pre-treatment levels.[xlv] This was related to ratings made from videoed sessions of how directive therapists had been in the earlier phase.[xlvi]

Regardless of which type of therapy they were in, patients prone to defensively resist attempts to influence them[xlvii] drank least when the therapist had been non-directive, most when they had tried to take the lead. For patients willing to embrace overt influence and direction, the reverse was the case. They drank least when this is what they got from the therapist, most when the therapists avoided being directive and/or adopted non-directive tactics, a typical motivational interviewing style. Again,

xlv Pre-treatment drinking was a co-variate in the analyses.

xlvi Using the same scale as at the Providence clinic for the MATCH sessions.

xlvii Assessed before treatment using questionnaires intended to measure this concept.

how patients were prone to react and how the therapists behaved were unrelated,[xlviii] suggesting that therapists were not simply reacting to the patients.

These findings are compromised somewhat by an inability to re-assess 27 of the 75 patients who started the study. But had these been followed up, the results might have been even more clear cut, because these were the patients who tended to react most defensively and who had seen the most directive therapists.

For God's sake take a lead

A similar picture emerges from a study of a very different set of patients, not mainly white employed drinkers, but poor, black, single unemployed men seeking outpatient treatment at an inner-city clinic in Philadelphia, where cocaine was the dominant drug problem.

How far they resisted direction was not directly assessed but a quite similar characteristic was. People characterised by 'learnt helplessness' feel unable to control their lives, in particular that it is futile for them to try to initiate positive changes. They seem like the people who in other studies who would welcome direction from others. At the opposite end of learnt helplessness are people confident in their own abilities to initiate positive change, the ones who seem most likely to react against the therapist doing the initiating.

The Philadelphia patients were randomly allocated to 12 weekly sessions of two kinds of individual therapies designed to be in some ways at opposite poles. In one the counsellor structured the therapy, leaving little room for the patient to take the lead. They directed the client to identify concrete behavioural goals, taught cognitive-behavioural strategies for reaching those goals, and reviewed progress. In the less structured therapy, counsellors instead provided a sounding board for exploration of feelings and the development of the client's own awareness and understanding rather than leading them through a set agenda. Though the same counsellors delivered both therapies, video-based ratings by observers and feedback from clients confirmed that the therapies differed in the intended ways.

At the time of an earlier report,[157] 80 patients had been randomised and later 120 and post-treatment follow-up data was available.[158] Both reports found neither therapy preferable overall, but that this masked a very different impact on different types of clients. Those characterised by learnt helplessness did much better when the therapy required the counsellor to take the lead, while clients who felt more in control of their lives did better when the less structured therapy allowed them to set the agenda. During treatment the effect was seen in patient and therapist ratings of benefit, retention, and number of drug-free urines; in the six months after treatment, in measures of drug, family, social and psychiatric problems.[xlix]

More depressed clients also did best in the more structured therapy and worst when required to take the initiative, again potentially related to their tolerance for direction: depressed clients seem unlikely to be prone to angry defensiveness. However, depression did not account for the impact of learned helplessness: when

xlviii See page 790 – correlations between patient and therapy variables very low.

xlix Though these interactions narrowly missed the conventional threshold for statistical significance.

depression was statistically 'evened out', learned helplessness remained just as or even more significant.

By the time of a third report,[159] 143 clients had been recruited to the study but the results seen earlier still held up.[160] The main reservation over this study is a low follow-up rate, just 85 of the 120 patients in the most relevant of the reports,[161] a shortfall attributed to the indigent nature of the caseload.

Selecting and training therapists

The work reviewed above has obvious implications for how therapy should be structured, but also for how therapists should be selected and trained. It suggests that perceptive therapists who can sense when to push forward, when to hold back, when and with whom take the lead, and when to follow, will do less harm and make more progress with better outcomes overall. The aim of this aside is to show how resilient is the impact of the therapist in even the most highly technically specified therapies, as a prelude to discussing what all this means for training in motivational interviewing

The therapist cannot be ironed out

Researchers commonly attempt to homogenise the impact of the individual therapist by practical means such as careful selection and training and manual-guided programmes, or to eliminate it by statistical techniques which 'partial out' their contribution. The aim is to strip away side issues to gain an uncluttered view of the impacts of different therapeutic programmes.[162] But if the programme is not what matters most, and what does matter are interpersonal styles and personal attributes which are difficult to teach (including an ability to respond appropriately even if that means deviating from the programme), then the baby may be exiting with the bathwater.

Strong indications that this could be happening come from two psychotherapy trials, each the most closely controlled ever conducted with their respective client groups. Both took extraordinary measures to select, train and supervise therapists in the application of detailed manuals, yet were unable to suppress the impact of the individuals doing the therapy, in each case a greater influence on outcomes than the therapies themselves.

MATCH motivationalists vary in effectiveness

The landmark US Project MATCH study of alcohol dependence treatment found that its three therapies resulted in virtually no statistically and no clinically significant differences in drinking either during or after treatment.[163] Though the study was not intended to prove one better than the other (it was about which treatments are better for which patients, not which are better overall), given therapies so different and of such different intensities, it was a remarkable finding.

Underlying this equivalence was the fact that the supposedly distinct therapies actually worked in similar ways and in those ways, to a similar degree. In all three the clients engaged in the same kinds of thoughts and behaviours to control their drinking[164] and though markedly distinct in their specific techniques, the three

therapies generated similarly good client-therapist relationships and the therapists were equally empathic and skilful.[165]

However, there were enduring and statistically significant differences in how well different therap*ists* helped patients curb their drinking.[166] In the arm of the study which took patients typically exiting a short inpatient detoxification programme, the therapist's impact was greatest in motivational interviewing. Moreover, it was in this therapy that the client's satisfaction with treatment was most consistently affected by the therapist, and only here did therapists differ in the degree to which they forged a therapeutic alliance with their clients. Patients who felt satisfied with treatment and felt they had a good relationship with their therapists drank less during and after treatment.[167] [168]

The clients were even more influential. The thought processes, behaviours, and relationships (with the therapist) they used to recover from their dependence were driven largely by their resolve to tackle their drinking even before they had started treatment.[169] Among patients for whom MATCH was their primary treatment experience, this resolve was the single factor most closely related to outcomes.

Patients get what they need

In the treatment of depression, the US National Institute of Mental Health's Collaborative Research Program has a status similar to that of project MATCH. Here too, the therapies had no consistent impact on post-treatment outcomes, in this case, symptoms of depression. Though they benefited from detailed manuals, interpersonal psychotherapy and cognitive-behavioural therapy were essentially no more effective than clinical management – the kind of care any competent clinician could be expected to deliver. But as in MATCH, the therapists did make a difference.[170]

Audiotapes were used to dissect what was happening in the therapy sessions.[171] [172] Despite therapists' adhering to the specific techniques and topics (thoughts and behaviour versus personal relationships) mandated by the therapies, they interacted with the patients in very similar ways. Most striking were the similarities in how the patients participated – their emotional states and attitudes to the therapists. Rather than the distinctive features of the therapies, It was these cross-cutting, generic patient contributions which were consistently related to outcomes.

The degree to which therapists adhered to the cognitive-behavioural programme (the most highly specified of the treatments) was entirely unrelated to outcomes, but these were weakly related to the therapist's ability to structure the sessions, a generic competency rather than a component of the programme.[173] For the client too, across both structured therapies, outcomes were closely related to generic, non-specific processes including their understanding of the therapy, their positive sense of self, and their attachment to the therapist as a supportive and benevolent helper – a reflection of the therapeutic alliance. As experienced by the patient, in this study as in others, a strong alliance was predictive of good outcomes.[174]

As much as the therapist manipulating the client according to a set recipe, these results look like the client fastening on a supportive, caring relationship focused on their welfare to get what will benefit them, regardless of the recipe the therapist was supposed to follow.

What therapies share is what matters

Both studies highlight the primary role of processes which are important in the interaction between clients and therapists of whatever therapeutic persuasion, to do with the client wanting to change and feeling that the therapist really is a caring, understanding and effective ally in this process. It follows that training the therapist in specific techniques and ensuring they apply them according to a technical manual is less important than choosing people to whom others relate in these ways and supporting and developing these qualities.

Technical training may even impede therapy if it leads therapists to override their instincts and fail to respond to clues emanating from the client, or if it encourages them to adopt the stance of a 'technician' rather than that of someone who genuinely cares. Another implication is that while therapists understandably prefer to see themselves as promoting change, one of the biggest ways they can affect outcomes is by interfering with the impetus for change coming from the client.[175] [176] Above all, motivational interviewing aims avoid fouling up in this way.[177]

Enable trainees to learn from experience

Assessed by the frequency of statements of the kind motivational interviewing aims to promote, and the lack of those it is intended to eliminate, it has been known for well over a decade that being trained and supervised in the approach can lead to the intended changes in what both therapists and clients say.[178] But the study which demonstrated this also showed that this may not lead to significantly greater post-counselling behaviour change.

Since then research has clarified that 'making the right noises' is not enough – they have to be made at the right time and in response to the right clues from the client, and within a relationship which the client values. The latest schedule for assessing therapist competence in motivational interviewing has taken these lessons on board by enabling what was said by the therapist in a counselling session to be related to the client's statements, and in particular to the strength of their commitment to change.[179] How to coach therapists in this intricate dance has been the subject of a series of studies.

One-off workshops are not enough

Following a two-day workshop led by Bill Miller and his colleague, probation department staff in Oregon gave glowing accounts of their improvements in their understanding of and proficiency in motivational interviewing, a view they sustained over the subsequent four months.[180] Their views were corroborated at the end of the workshop by a paper-and-pen evaluation of how they would respond to sample client statements.

The disappointment came when these in-theory assessments were checked against ratings of audiotapes of how the therapists actually behaved at three stages: before the workshop with a client; at the end with someone acting as a client; and with a real client four months later. Especially when the raters were assessing overall adherence to motivational principles rather than specific techniques, the improvements were quite small and left the trainees falling far short of expert practice, largely because they were unable to suppress their previous interactional

styles. On one dimension which attempted[l] to reflect how 'genuine' the therapists were, things had even got worse, seemingly because for them this new approach felt unnatural, making them feel uncomfortable.

By four months later even the post-workshop boost in use of specific techniques had eroded. Clinching this negative picture was the fact that, compared to pre-workshop tapes, their clients too did not 'improve' in the balance of commitment versus resistance to change. It seems likely that the natural way a parole officer relates to real 'clients' is quite far removed from motivational interviewing, and reversion to type was the dominant trend.

Importance of where the trainee is coming from

A study of a similar workshop whose participants were mainly addiction treatment specialists confirmed the rapid erosion of improvements in practice and added an intriguing insight into the importance of choosing the right raw material.[181] Unlike the parole officers in Oregon, these trainees were willing volunteers.

They demonstrated their motivational interviewing skills with actor-clients before the workshop, at the end, and two months later, when most indicators of how far they had absorbed the approach's principles and techniques were no longer significantly elevated. However, this was not the case for all the trainees.

Based on their last audiotapes, eight of the 19 has retained their proficiency in motivational interviewing. The interesting thing was that *even before the training*, these clinicians had been more proficient than the other trainees, in fact, they were already more proficient than the rest would be two months after training. Not only did they start from a higher level, they went on to absorb and retain more of what they had learnt.

On this basis, given a choice between choosing the 'right' people who have not been trained, and the 'wrong' people who have, the right people is the better choice. It seems that some people are more receptive to this approach in their everyday lives and the same people are more able to become yet more proficient. In contrast, within months much of the training was wasted when it fell on less fertile human ground.

Let's try giving feedback as well

Given limited improvements from the standard workshop, Bill Miller's team tried changing it somewhat and adding continuing support which enabled counsellors to adjust in the light of feedback on their performance. This time the practice improvements were sustained.

Addiction counsellors applying for training were randomly allocated to different training regimes.[182] Some were just given a training video and a manual and told to train themselves. They altered their practice little. In comparison, those allocated to a workshop but no follow-up evidenced immediate improvements in counselling

---

l It was later dropped from the coding scheme presumably as on the of the constructs which was insufficiently reliable and/or discriminable from the other dimensions. Miller W.R. *et al. Manual for the Motivational Interviewing Skill Code (MISC). Version 2.0*. Center on Alcoholism, Substance Abuse and Addictions, The University of New Mexico, 2003.

proficiency with a client-actor. But, as in previous studies, these had largely been reversed four months later when the trainees submitted tapes of their work with real clients.

The three forms of continuing support trialed in the study largely prevented this deterioration. One took the form of mailed feedback on the trainee's counselling samples, comparing their detailed proficiency profile with that of expert practitioners. The second instead took the form of six 'coaching' phone calls initiated by the trainer to ask about any problems and help solve them, each incorporating role play exercises.

The third consisted of both forms of continuing input, meaning that counsellors could not only gain expert guidance on their problems with clients, but also on the feedback from their sample sessions. Only this third, enriched form of support made enough difference to what the trainees did for this to be reflected in the responses of their clients in increased 'change talk' and diminished resistance.

For the core workshop, the main change was to stress that this was not a complete training regime, but a platform from which trainees could learn by paying attention to and responding to their clients in their everyday work. Signs of commitment to change would indicate that the counsellor is on the right track, while resistance would call for a change of direction. Yet it seemed that without some external guide to help trainees recognise these clues and/or respond appropriately, this attempt at self-generated learning was insufficient.

Be empathic, but also be genuine

Post-training, real-client tapes from this same study have been used to analyse client responses to an unusually diverse (in terms of motivational interviewing proficiency) set of therapists. At issue was the degree to which their clients cooperated with the therapist and opened up emotionally and by disclosing personal information,[183] responses which overlap with therapeutic alliance and signify active engagement in therapy.

Overall, client engagement was unrelated to the frequency with which the therapist made statements compatible (such as open questions) or incompatible (such as warning) with the specific techniques recommended in motivational interviewing, a surprise result. But engagement *was* strongly related to embodying the overall spirit of motivational interviewing and to more general social skills not confined to motivational therapists, including empathy, warmth, supporting the client's autonomy, and coming across as 'genuine', an amalgam of seeming open, honest and trustworthy.

This last quality, being genuine, was difficult for raters to agree on from the audiotapes (videos might have helped), but still about as strongly related to engagement as the other qualities. It also seemed to account for a twist in the findings with potentially far-reaching implications.

As already pointed out, doing the things a diligent motivational interviewer should avoid surprisingly made no overall impact on the client's engagement with therapy. In theory, confronting clients, warning or directing them, and imposing advice or

expressing concern without their permission, should have provoked clients to resist therapy.

But when socially skilled therapists 'broke the rules' in these ways, they actually enhanced the effect their skills had on the client engagement. Moreover, it seemed that within (and only within) the kind of empathic, caring context they were able to create, doing things such as warning and expressing uncalled for advice and concern deepened the client's engagement with therapy. Socially skilled therapists tended to avoid these risky manoeuvres, but also had the wherewithal to carry them off without alienating their clients, in fact, the reverse.

Genuineness seemed one explanation for this conundrum. Therapists who honestly and openly expressed the concerns they were feeling and gave advice they felt the client needed without holding their tongues, or trying to manipulate the client into doing the expressing for them, would have rated higher on being genuine, and perhaps also come across this way to the clients. This quality has long been recognised as one of the keys to effective therapy.

By now bells may be ringing in the reader's head, reminders of Bill Miller's earlier study of training parole officers which found that raters felt they were less genuine in their interactions with clients after than before the workshops.[184] Told about this finding the trainees explained that this new approach felt unnatural. It does not take much imagination to realise that within the undeniably unequal and coercive context of the criminal justice system, adopting an 'It's up to you' stance might feel like a false position, and also feel false to outsiders and clients.

A warning from the heart

In a way, none of this is a surprise. Everyone knows the difference between warning, advice and concern which conveys and comes from loving care and respect for one as an equal, and that which comes from and conveys accusation and denigration and an attempt to exert control. We also know that the former is likely to be listened to and deepen our relationship with the carer, while the latter signifies an alternative agenda rather than common purpose in the pursuit of the hearer's welfare.

Despite intuitively 'making sense', caution is needed here. Despite an echo from the parole officers,[185] these results came from a single study and should not be taken to give the green light to extreme negative responses contraindicated in motivational interviewing like shaming and sarcasm, indicative less of good social skills and a caring attitude than of the lack of them. And though we might expect it, we do not know if deepened client engagement in this study translated in to stronger commitment to curbing substance use and then in actual change. For example, one component of engagement was expressing emotion, yet this is not always related to better post-therapy outcomes.[186]

If we take it at face value, overall this work confirms that learning technical skills and abstract principles is not enough to securely transfer the wisdom experts have gained over many years of practice, reflection and discussion with colleagues, though some willing trainees with a head start in their existing social skills and attitudes to their clients can do well.

As the analysts who found manuals diminish effectiveness put it, "counselors sometimes attend such training in the hope of learning a few tricks to make clients do what they want them to do. MI is nothing of the sort. Rather, it is a complex clinical style for eliciting the client's own values and motivations for change. It is far more about listening than telling, about evoking rather than instilling."[187]

Had they had the latest findings to hand,[188] they might have added that the quality of being genuine can suffer from drilling in "tricks" and in unnaturally withholding normal caring responses, but also that breaking motivational interviewing's rules is risky unless done by a socially skilled therapist who by doing so conveys rather than erodes the empathic concern at the heart of good therapy.

Interchange not journey's end; time to reflect

This review has focused on motivational interviewing as an induction to an initial treatment episode. Still to come are its uses as a way of encouraging take-up of aftercare and with people coerced in to treatment via the criminal justice system. At this juncture in the journey, it seems appropriate to (in the spirit of the approach) summarise where we have been.

First, there can hardly be another counselling approach in addictions which has been the subject of so much research yet emerged the stronger and more convincing for it. Clearly there is something here which works most of the time and for most people and more consistently and at less cost than the usual alternatives.

What that something is, is becoming clearer, but remains ill-defined. In every induction study in which motivational interviewing has been followed by a positive overall impact, this can be explained by other factors. Most common and potentially most powerful is the enthusiasm and faith of the therapists, often newly trained or associated with the approach's developers - see *studies 3, 4, 5, 8 and 12*.[189] [190] [191] [192] [193] Then there is the extra assessment and/or extra feedback of assessment results, itself potentially a spur to change whether delivered motivationally or not (see *studies 3, 4, 5, and 8*[194] [195] [196] [197]) and in some cases perhaps, the impact of simply spending more time with a sympathetic listener - see *studies 3, 4, 8 and 11*.[198] [199] [200] [201] Finally, in two studies patients may have perceived the interviews as an earlier start to treatment - see *studies 5 and 11*.[202] [203]

Ironically, studies in which some patients did worse and others better after a motivational interview are a sign that there is more to the approach than these non-specific influences; if these were *all* there was to it, we would expect every patient to benefit. But even here, such considerations cannot entirely be ruled out. In these studies, too, therapists are likely to have been especially enthused or convinced about the approach's efficacy and special assessment feedback was only provided to motivational interviewing patients (see *studies 14 and 15*[204] [205]), while in one case, no comparable time was spent in an alternative induction process - see *study 14.*[206]

Empathy and optimism not trickery

Rather than some psychological trickery, motivational interviewing's strength may be that it provides a platform for these non-specific, everyday, relationship-building behaviours: empathy, respect, optimism, enthusiasm, confidence, seeing things

from the other person's point of view, treating them as if they matter and as an equal. At a minimum, it seeks to avoid behaviours which obstruct these qualities; at best, discovering motivational interviewing helps to generate them, giving therapists confidence, optimism and respect for their clients. It is a fair guess that one of the approach's virtues is that it instills optimism even in the face of difficult, resistant clients, where before their reactions may have generated negativity and demoralisation.[li]

In this way, what *becoming* a motivational therapist does for the general positivity of the therapist's work may as important as the specific learning. It is not the only way to give expression to these therapeutic (or just plain human) virtues, nor is it one simply learnt. However, it clearly is a workable model that also incorporates specific techniques which, *as long as they are implemented sensitively in the spirit of the overall approach*,[207] probably make a useful contribution. Given such a sprit, even supposedly contra-indicated therapist responses and techniques may be effective.

No substitute for skill and sensitivity

Motivational interviewing's impact depends on the context but also depends on how it is done, and here there is a difficult balance to be struck. The truer therapists stay to motivational interviewing's 'It's up to you' stance, the less they risk counter-productively provoking clients unwilling to accept direction.

The problem with maintaining this stance regardless is that it may also short-change clients ready and willing to follow the therapist's lead and who feel unable to self-initiate change. Some of these patients do better when left to treatment as usual or given direct advice congruent with the decisions they have already reached, rather than being led to reconsider these.

Other hazards await therapists who follow set procedures which mandate a review of the good things about drug use when clients have moved beyond needing this as a way of establishing empathy, which land damningly negative assessments of drug use on people not ready to see it that way, or demand commitment before the ground has been firmed up sufficiently to support it.

In all these situations, sensitive, supported and socially skilled therapists can be expected to adjust to avoid irrelevant or counter-productive interactions. In some research contexts, instead they were constrained by a manual specifying the topics to be addressed, and held to it through supervision.

The main clinical justification is that this is one way to even up the quality of the therapy from different therapists by giving them expert and explicit guidance. But guidance in this form (as opposed to feedback and clinical supervision) limits the degree to which therapists exercise judgement in the application of therapeutic

---

li This is certainly how the approach is sometimes 'sold'.

"If you sometimes feel discouraged about insufficient progress with your patients, if you occasionally feel frustrated that patients seem 'resistant', 'non-compliant' or 'uncooperative', if you have lost some of the joy you had when you chose your career, Motivational Interviewing Training can help!

"Our trainees frequently report decreased feelings of professional 'burn out" when they implement the spirit and skills they've learned as part of Motivational Interviewing Training."

Motivational interviewing training web site motivationalinterviewtraining.com, 10/08/05.

principles, and also the extent to which the clients can truly be partners, exercising their own influence over the therapeutic process.[208]

In therapies such as motivational interviewing, where therapist judgement and client participation are essential, the effect can be to even *down* quality and outcomes. Though more dramatic interventions may be capable of doing greater harm, motivational interviewing is not always the safe, 'At least it can't hurt' option it once seemed,[209] at least not in too inflexible a format or done without due sensitivity.

Managers and commissioners also need to exercise judgement. Since increasingly these are what is researched, manualised programmes gather an evidence base around them and become seen as a therapeutic gold standard, while principle-based approaches reliant on the right spirit and social and clinical skills remain unsupported. Staff and commissioners under pressure[210] to base practice on evidence may then transfer over-prescriptive research programmes in to clinical practice, valuing adherence to protocol above interpersonal skills.

Back to basics

No matter how well it is done, there is no universal answer to whether motivational interviewing is an effective induction approach and one preferable to the alternatives.

In the first instance, it depends on the nature of the blockages to turning up and staying in treatment. Where these are primarily being unconvinced that you have a problem that needs treating or that treatment can help, motivational approaches should have a role. Where they are to do with access-blocking administrative procedures, changing these is the first line of attack. Where they are to with the client's disordered or over-stretched life and inadequate resources, no feasible amount of motivational enhancement will provide all the answers.

When motivational interviewing does seem fit the bill, the research seems to argue for a return to the modus operandi of the successful early studies, when absorbing the principles of the approach took precedence over a set series of techniques, to the client-centred philosophy which was motivational interviewing's starting point,[211] and to the kind of client originally envisaged – not one already convinced they must change, well on the way to recovery, or determined on a way to get there, but unsure or ambivalent.

In these circumstances, motivational interviewing has been successful at improving retention and substance use outcomes. It seems to have a particular role in evening out the response to treatment, helping to prevent initial low commitment becoming expressed in extremely poor outcomes - see *studies 3, 4,* 9, *14 and 15*.[212] [213] [214] [215] [216] But even in the most conducive of circumstances, the approach requires sensitivity and social skills.

Yet that perhaps understates it. True-to-type motivational interviewing *is* the application of sensitivity and social skills, acquired by the therapist as much in their lives outside this therapy as inside it, and developed less by formal training than by interaction with clients combined with individualised feedback from expert coaches.

The bad news is that this is not a tidy, packageable programme to be lifted off the shelf and put into practice – or is that the good news?

Motivational interviewing: rooted in resistance

Resistance to or ambivalence about treatment is the central reality addressed by motivational induction. Rather than confronting it, motivational interviewing seeks to avoid aggravating this resistance and to defuse anger and resentment by sidestepping conflict between patient and therapist about who/what the patient is and what they need.[217]

In his first account of motivational interviewing,[218] Bill Miller noted that many clients resist treatment because they reject stigmatisation through a process which actually or in their perception entails being pigeon-holed as an 'addict' or 'alcoholic' no longer in control their lives[219] – effectively, no longer fully human. Others may accept all this yet be unconvinced that treatment will help.[220] [221] Patients coerced into seeking help may not accept they have a problem at all and resent being forced to get this 'non-problem' treated. Others doubt the relevance of drug-focused treatment to what they see as their most urgent priorities.[222] [223]

On the other side of the table, they found treatment services which commonly demand immediate abstinence, treat them as the embodiment of an addiction, and rarely prioritise or offer effective help with the personal, housing, employment, family, financial or other issues heading their list of immediate concerns.[224] [225] This mismatch can still be observed in British drug services.[226]

In the USA, researchers and clinicians observed the consequences: despite clearly being in need, most dependent substance users avoided treatment and when they did try it, most quickly left.[227] One interpretation of the genesis of motivational interviewing is that rather than realigning treatment to the patient, clinicians devised a way to get the patient to realign themselves, but by a more roundabout route which gave them less to react against.[228] But if the spirit of the approach truly pervades the treatment process, this too must realign itself to become more client-centred in its goals and methods.

Avoid de-humanisation and conflict

Swimming against the strong US disease-model tide, Dr Miller argued that the 'addict' should be treated (in both senses of the word) as someone who behaves just as 'we' might in a similar situation – someone whose self-perceptions and desires are to be respected as the valid expressions of a "responsible adult" capable of making their own decisions.[229] [230]

From this perspective, resistance to treatment is neither the manifestation of an inherent character flaw nor a symptom of disease, but a product of interactions with therapists who impose abstinence goals and stigmatising diagnoses. Dr Miller developed an approach which explicitly avoided these and other deterrent interactions such as telling the client what they 'must' do, implying that they are powerless, arguing, and confrontation. Instead he relied on the amplification of aspects of the client's ambivalence which cannot be resolved without changing in a positive direction.[231]

The result was motivational interviewing, now probably the most influential counselling style in addiction treatment.[232] Despite its prominence, motivational

interviewing is not the only approach to elevating readiness for treatment nor a complete solution.[233] [234] Neither is it limited to an induction role. One or two sessions can form a complete brief intervention, or the underlying principles can provide the relationship model for treatment programmes as diverse as methadone maintenance and cognitive behavioural therapy. But readying patients for treatment was where motivational interviewing started, and where it has had its greatest successes.

Directive in intention if not in words

The client envisaged by motivational interviewing is at least to some degree unclear or ambivalent about their goals and the degree of commitment they have to changing their substance use. Applied to patients screened for heavy drinking (eg, at GPs' surgeries), they may not even be aware they have a problem to address. But even if the client is unsure or unaware, the therapist typically knows where they are heading and systematically seeks to get there – with heavy drinkers, usually to moderate drinking and reduce related problems.[235]

In this sense, like more up-front tactics ('You are an alcoholic and must stop drinking'), motivational interviewing *is* 'directive'; the difference is that it seeks to generate momentum by *not* being explicitly directive with the client.[236] Its underlying principles are the antithesis of explicit directiveness: express empathy; develop discrepancy; avoid argumentation; roll with resistance; support self efficacy.[237]

The ethical issues involved in this more covert approach have been addressed by Bill Miller,[238] who in his original formulation accepted that it could be used by therapists whose goal was abstinence[239] even if that was not the client's. However, this degree of preemptive agenda-setting departs from the client-centred ethos of the approach.[240] From the first, Dr Miller was willing to accept goals short of abstinence and argued for the client's choice to be respected – but from a position where the therapist had their own ideas of the locus of the problem and what would constitute "unwise" and what "healthful" paths forward. The aim was get the patient *themselves* to come to a matching conclusion rather than to impose these views.

A message from Albuquerque

Edited comments from Bill Miller on an earlier draft of this review

It is true that early on motivational interviewing was "rooted in resistance" – ie, designed to help therapists deal with resistant clients. This is what counselors wanted from the training, and they came into workshops armed to role-play the client from hell. What I have found over the years is that dealing with client resistance is less and less of an issue in clinical practice and in training. The primary reason for this seems to be that if you practice the spirit and style of motivational interviewing, you simply don't encounter a lot of resistance, and what you do meet is easily taken into stride.

I link that back to my first experiences with alcoholics. I got interested in this field on an internship at a hospital in Milwaukee. The psychologist-director, Bob Hall, enticed me to work on the alcoholism unit, even though (and because) I had learned nothing about alcoholism in my graduate training up to that point. Knowing nothing about alcoholism, I did what came naturally to me – Carl Rogers – and in essence asked patients to teach me about alcoholism, and tell me about themselves: how they got to where they were, what they planned to do in the future, etc. I mostly listened with accurate empathy.

There was an immediate chemistry – I loved talking to alcoholics, and they seemed to enjoy talking to me as well. Then I began reading about the alleged nature of alcoholics as lying, conniving, defensive, denying, slippery, and incapable of seeing reality. "Gee, these aren't the same patients I've been talking to", I thought. The experience of listening empathically to alcoholics stayed with me, and became the basis for motivational interviewing.

Something going on with the therapists

One of the puzzles in our meta-analysis of 72 studies[241] is the substantial variability of effect size for motivational interviewing across sites and studies. The same also seems to be true for therapists within the same study. In the largest study of therapist effects[242] we found that there were still substantial differences attributable to therapists after controlling for patient characteristics and for sites. The spread was clearest with motivational therapy.

These therapists had been trained together, intensively supervised for fidelity, used the same manual, and yet a large determinant of patients' outcome was still the therapist to whom they had been assigned. At the same time, I continue to be surprised at how robust motivational interviewing seems to be – interventionists can receive relatively modest training and still produce effects. Anyhow, there is something going on in the delivery of motivational interviewing that affects outcomes, and clearly it is not just differences in patient populations.

I wrote the manual!

To me our drug abuse study was a clear example of manuals failing to adapt to the patients.[243] I am now working on a paper in which we collapse the two 'poor

outcome' groups (strugglers and discrepants) and the two 'good outcome' groups (changers and maintainers).[244] Their speech patterns are strikingly different.

Relative to good outcome patients, those who will have poor outcomes showed two substantial deviations. They backpedalled around the third decile [tenth of the session]. Commitment strength stopped climbing, and instead flattened out or fell. Then around the sixth decile it started picking up again, and actually reached the same point at decile 9 as the good outcome group. In decile 10, however, it fell abruptly back to zero.

"What were you doing to these people?" Paul Amrhein [language analyst] asked. The answer is, that in deciles 1 and 2 we were doing pure motivational interviewing. Around decile 3 we started the assessment feedback portion. About 70% of patients went with it and showed the expected effect of increasing commitment to change, but the poor outcome group did not. They seemed to balk at or resist the feedback. I gave the therapists no choice in the manual but to continue with the feedback. Then around decile 6 the feedback was done, and the therapist went back to pure motivational interviewing.

Then the manual says to develop a change plan by the end of the interview. Again, no flexibility as to whether to do this or not. The essential message was, develop a change plan whether or not the patient is ready for it. Crash. Any decent practitioner would know not to persist when patients start balking. The manual (which I wrote!) left no flexibility.

Best for the ambivalent?

Your collection of studies suggesting an adverse effect with motivational interviewing for more ready clients is an important observation. The same direction is there in the anger match in Project MATCH. Low-anger clients showed somewhat worse outcomes with motivational therapy relative to the other two treatments. I can understand motivational interviewing having no effect with clients who are already ready for change, but the seeming adverse effect, now observed in several studies, seems surprising.

The clinical sense I can make of it is that when clients are ready to go, it is not time to be reflecting on whether they want to do so. It is a good point that motivational interviewing was originally envisaged for working with people who are ambivalent or unclear about change, and perhaps that is the group for whom it will be most helpful.

---

1 Hubble M.A. *et al. The heart and soul of change: what works in therapy*. Washington, DC: American Psychological Association.1999. Cited in: Clark M.D. "Change-focused drug courts: examining the critical ingredients of positive behavior change." *National Drug Court Institute Review*: 2001, 3(2), p. 35–87.

2 Wampold B.E. *The great psychotherapy debate: models, methods, and findings*. Lawrence Erlbaum Associates Inc., 2001

3 Westen D. *et al*. "Empirical status of empirically supported psychotherapies: assumptions, findings, and reporting in controlled clinical trials." *Psychological Bulletin*: 2004, 130(4), p. 631–663.

4 Personal communication from William Miller, May 2005.

5 Galbraith L. *et al. An outcomes pilot study*. ISD Scotland, 2001.

6 Donmall M. *Outcome of Waiting Lists (OWL) Study*. Manchester: Drug Misuse Research Unit, 2002.

7 Knight K. *et al*. *TCU psychosocial functioning and motivation scales: manual on psychometric properties*. 1994.

8 Heather N. "Motivational interviewing: is it all our clients need?" *Addiction Research and Theory*: 2005, 13(1), p. 1–18.

9 Squires. D.D. et al. *Motivational interviewing. A guideline developed for the Behavioral Health Recovery Management project*. Undated.

10 Rollnick S. "Enthusiasm, quick fixes and premature controlled trials." *Addiction*: 2001, 96(12), p. 1769–1770.

11 Zweben A. *et al*. "Motivational interviewing and treatment adherence." In: Miller W.R. *et al, eds. Motivational interviewing: preparing people to change addictive behaviour*. New York: Guilford Press, 2002, p. 299-319.

12 Saunders B. *et al*. "Motivational intervention with heroin users attending a methadone clinic" In: Miller W.R. *et al. Motivational interviewing: preparing people to change addictive behaviour*. New York: Guilford Press, 1991, p. 279–292.

13 Miller W.R. *Motivational interviewing. Motivational enhancement therapy*. http://casaa-0031.unm.edu/projects/complete/mimet.html.

14 Miller W.R. *Motivational enhancement therapy with drug abusers*. 1995.

15 Simpson D.D. "A conceptual framework for drug treatment process and outcomes." *Journal of Substance Abuse Treatment*: 2004, 27(2), p. 99–121.

16 Simpson D.D. *et al*. "A longitudinal evaluation of treatment engagement and recovery stages." *Journal of Substance Abuse Treatment*: 2004, 27(2), p. 89–97.

17 Joe G.W. *et al*. "Retention and patient engagement models for different treatment modalities in DATOS." *Drug and Alcohol Dependence*: 1999, 57, p. 113—125.

18 Gossop M. *et al*. "Treatment process components and heroin use outcome among methadone patients." D*rug and Alcohol Dependence*: 2003, 71(1), p. 93–102. D

19 Joe G.W. *et al*. "Retention and patient engagement models for different treatment modalities in DATOS." *Drug and Alcohol Dependence*: 1999, 57, p. 113—125.

20 Saltz R F. "What is 'evidence', and can we provide it? In: Stockwell T. *et al*, *eds*. *Preventing harmful substance use: the evidence base for policy and practice*. Chichester: Wiley, 2005, p.313–323.

21 Rubak S. *et al*. "Motivational interviewing: a systematic review and meta-analysis." *British Journal of General Practice*: 2005, 55, p. 305–312.

22 Burke B.L. *et al*. "The efficacy of motivational interviewing: a meta-analysis of controlled clinical trials." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 843–861.

23 Burke B.L. *et al*. "The emerging evidence base for motivational interviewing: a meta-analytic and qualitative inquiry." *Journal of Cognitive Psychotherapy*: 2004, 18(4).

24 Miller W.R. *et al*. "Mesa Grande: a methodological analysis of clinical trials of treatments for alcohol use disorders." *Addiction*: 2002, 97, p. 265–277.

25 Miller W.R. *et al*. "Mesa Grande: a methodological analysis of clinical trials of treatments for alcohol use disorders." *Addiction*: 2002, 97, p. 265–277.

26 Finney J.W. *et al*. "The cost effectiveness of treatment for alcoholism: a second approximation." *Journal of Studies in Alcohol*: 1996, 57, p. 229–243.

27 Burke B.L. *et al*. "The efficacy of motivational interviewing and its adaptation." In: Miller W.R. *et al, eds. Motivational interviewing: preparing people for change*. New York: Guilford Press, 2002, p. 217-250.

28 Burke B.L. *et al*. "The efficacy of motivational interviewing: a meta-analysis of controlled clinical trials." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 843–861.

29 Burke B.L. *et al*. "The emerging evidence base for motivational interviewing: a meta-analytic and qualitative inquiry." *Journal of Cognitive Psychotherapy*: 2004, 18(4).

30 Burke B.L. *et al*. "The emerging evidence base for motivational interviewing: a meta-analytic and qualitative inquiry." *Journal of Cognitive Psychotherapy*: 2004, 18(4).

31 Burke B.L. *et al*. "The efficacy of motivational interviewing: a meta-analysis of controlled clinical trials." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 843–861.

32 Burke B.L. *et al*. "The efficacy of motivational interviewing: a meta-analysis of controlled clinical trials." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 843–861.

33 Burke B.L. *et al*. "The emerging evidence base for motivational interviewing: a meta-analytic and qualitative inquiry." *Journal of Cognitive Psychotherapy*: 2004, 18(4).

34 Dunn C. *et al*. "The use of brief interventions adapted from motivational interviewing across behavioral domains: a systematic review." *Addiction*: 2001, 96(12), p. 1725–1742.

35 Bien T. *et al*. "Motivational interviewing with alcohol outpatients." *Behavioural and Cognitive Psychotherapy*: 1993, 21, p. 347–356.

36 Saunders B. *et al*. "The impact of a brief motivational intervention with opiate users attending a methadone programme." *Addiction*: 1995, 90, p. 415–424.

37 Aubrey L.L. "Motivational interviewing with adolescents presenting for outpatient substance abuse treatment." Ph.D. diss., University of New Mexico. Dissertation Abstracts International: 1998, 59-03B, 1357.

38 Swanson A.J. et al. "Motivational interviewing and treatment adherence among psychiatric and dually diagnosed patients." *Journal of Nervous and Mental Disease*: 1999, 187, p. 630–635. Note that these hospitalised psychiatric patients were not necessarily seeking treatment for substance misuse problems though over three quarters were diagnosed as also suffering from substance use disorders.

39 Hettema J. *et al*. "Motivational interviewing." *Annual Review of Clinical Psychology*: 2005, 1, p. 91–111.

40 Zweben A. *et al*. "Motivational interviewing and treatment adherence." In: Miller W.R. *et al, eds. Motivational interviewing: preparing people for change*. New York: Guilford Press, 2002, p. 299-319.

41 Wertz J. "Effect of motivational inteviewing on treatment participation, self-efficacy, and alcohol use at follow-up in inpatient alcohol dependent adults." *Dissertation Abstracts International*: 1994, 55(1), 219-B.

42 Bien T. *et al*. "Motivational interviewing with alcohol outpatients." *Behavioural and Cognitive Psychotherapy*: 1993, 21, p. 347–356.

43 Donovan D.M. "Attrition prevention with individuals awaiting publicly funded drug treatment." *Addiction*: 2001, 96, p. 1149-1160.

44 Dench S. *et al*. "The impact of brief motivational intervention at the start of an outpatient day programme for alcohol dependence." *Behavioural and Cognitive Psychotherapy*: 2000, 28, p. 121–130. Document N5116 6.11 6.8

45 Miller W.R. *et al*. "Mesa Grande: a methodological analysis of clinical trials of treatments for alcohol use disorders." *Addiction*: 2002, 97, p. 265–277.

46 Zweben A. *et al*. "Motivational interviewing and treatment adherence." In: Miller W.R. *et al, eds. Motivational interviewing: preparing people for change*. New York: Guilford Press, 2002, p. 299-319.

47 Kuchipudi V. *et al*. "Failure of a 2-hour motivational intervention to alter recurrent drinking behavior in alcoholics with gastrointestinal disease." *Journal of Studies on Alcohol*: 1990, 51(4), p. 356–360.

48 Rollnick S. "Enthusiasm, quick fixes and premature controlled trials." *Addiction*: 2001, 96(12), p. 1769–1770.

49 Burke B.L. *et al*. "The efficacy of motivational interviewing: a meta-analysis of controlled clinical trials." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 843–861.

50 Bien T. *et al*. "Motivational interviewing with alcohol outpatients." *Behavioural and Cognitive Psychotherapy*: 1993, 21, p. 347–356.

51 Miller W.R. *et al*. "Enhancing motivation for change in problem drinking: a controlled comparison of two therapist styles." *Journal of Consulting and Clinical Psychology*: 1993, 61, p. 455–461.

52 Ablon J.S. "Validity of controlled clinical trials of psychotherapy: findings from the NIMH treatment of depression collaborative research program." *American Journal of Psychiatry*: 2002, 159, p. 775–783.

53 McCambridge J. *et al*. "Deterioration over time in effect of motivational interviewing in reducing drug consumption and related risk among young people." *Addiction*: 2005, 100, p. 470–478.

54 Dunn C. *et al*. "The use of brief interventions adapted from motivational interviewing across behavioral domains: a systematic review." *Addiction*: 2001, 96(12), p. 1725–1742.

55 Babor T.F. *et al, eds. Treatment matching in alcoholism*. Cambridge University Press, 2002.

56 Crits-Christoph P. *et al*. "Mediators of outcome of psychosocial treatments for cocaine dependence." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 918–925. Supplemented by personal communication from the first author March 2004.

57 Morgenstern J. *et al*. "Examining mechanisms of action in 12-step treatment: the role of 12-step cognitions." *Journal of Studies on Alcohol*: 2002, 63(6), p. 665–672.

58 Personal communication from William Miller, May 2005.

59 Brown J.M. *et al*. "Impact of motivational interviewing on participation and outcome in residential alcoholism treatment." *Psychology of Addictive Behaviors*: 1993, 7(4), p. 211–218.

60 Zweben A. *et al*. "Motivational interviewing and treatment adherence." In: Miller W.R. *et al, eds. Motivational interviewing: preparing people for change*. New York: Guilford Press, 2002, p. 299-319.

61 Miller W.R. *et al*. "Motivational interviewing with problem drinkers: II. The Drinker's Check-up as a preventive intervention." *Behavioural Psychotherapy*: 1988, 16, p. 251–268.

62 Miller W.R. *et al*. "Enhancing motivation for change in problem drinking: a controlled comparison of two therapist styles." *Journal of Consulting and Clinical Psychology*: 1993, 61, p. 455–461.

63 Francis N. *et al*. "An experimental manipulation of client resistance to determine its effects on practitioner behaviour." Draft submitted for publication.

64 Karno M.P. *et al*. "Less Directiveness by Therapists Improves Drinking Outcomes of Reactant Clients in Alcoholism Treatment." *Journal of Consulting and Clinical Psychology*: 2005, 73(2), p. 262–267.

65 Karno M.P. *et al*. "Less Directiveness by Therapists Improves Drinking Outcomes of Reactant Clients in Alcoholism Treatment." *Journal of Consulting and Clinical Psychology*: 2005, 73(2), p. 262–267.

66 Karno M.P. *et al*. "Interactions between psychotherapy procedures and patient attributes that predict alcohol treatment effectiveness: a preliminary report." *Addictive Behaviors*: 2002, 27, p. 779–797.

67 Gottheil E. *et al*. "Effectiveness of high versus low structure individual counseling for substance abuse." *American Journal on Addictions*: 2002, 11, p. 279–290.

68 Thornton C.C. *et al*. "High- and low-structure treatments for substance dependence: role of learned helplessness." *American Journal of Drug and Alcohol Abus*e: 2003, 29(3), p. 567–584.

69 Zweben A. *et al*. "Motivational interviewing and treatment adherence." In: Miller W.R. *et al, eds. Motivational interviewing: preparing people to change addictive behaviour*. New York: Guilford Press, 2002, p. 299-319.

70 Bien T. *et al*. "Motivational interviewing with alcohol outpatients." *Behavioural and Cognitive Psychotherapy*: 1993, 21, p. 347–356.

71 Brown J.M. *et al*. "Impact of motivational interviewing on participation and outcome in residential alcoholism treatment." *Psychology of Addictive Behaviors*: 1993, 7(4), p. 211–218.

72 Wampold B.E. *The great psychotherapy debate: models, methods, and findings*. Lawrence Erlbaum Associates Inc., 2001

73 Saunders B. *et al*. "Motivational intervention with heroin users attending a methadone clinic" In: Miller W.R. *et al. Motivational interviewing: preparing people to change addictive behaviour*. New York: Guilford Press, 1991, p. 279–292.

74 Connors G.J. *et al*. "Preparing clients for alcoholism treatment: effects on treatment participation and outcomes." *Journal of Consulting and Clinical Psychology*: 2002, 70(5), p. 1161–1169.

75 Bien T. *et al*. "Motivational interviewing with alcohol outpatients." *Behavioural and Cognitive Psychotherapy*: 1993, 21, p. 347–356. 4233 6.11 6.1

76 Ashton M. "The power of the welcoming reminder." *Drug and Alcohol Findings*: 2004, 11, p. 4–7, 16–18.

77 Ashton M. "The power of the welcoming reminder." *Drug and Alcohol Findings*: 2004, 11, p. 4–7, 16–18.

78 Dench S. *et al*. "The impact of brief motivational intervention at the start of an outpatient day programme for alcohol dependence." *Behavioural and Cognitive Psychotherapy*: 2000, 28, p. 121–130.

79 Saunders B. *et al*. "Motivational intervention with heroin users attending a methadone clinic" In: Miller W.R. *et al. Motivational interviewing: preparing people to change addictive behaviour*. New York: Guilford Press, 1991, p. 279–292.

80 Bien T. *et al*. "Motivational interviewing with alcohol outpatients." *Behavioural and Cognitive Psychotherapy*: 1993, 21, p. 347–356.

81 Brown J.M. *et al*. "Impact of motivational interviewing on participation and outcome in residential alcoholism treatment." *Psychology of Addictive Behaviors*: 1993, 7(4), p. 211–218.

82 Brown J.M. *et al*. "Impact of motivational interviewing on participation and outcome in residential alcoholism treatment." *Psychology of Addictive Behaviors*: 1993, 7(4), p. 211–218.

83 Wertz J. "Effect of motivational interviewing on treatment participation, self-efficacy, and alcohol use at follow-up in inpatient alcohol dependent adults." *Dissertation Abstracts International*: 1994, 55(1), 219-B. This account is based on findings reported in: Dunn C. *et al*. "The use of brief interventions adapted from motivational interviewing across behavioral domains: a systematic review." *Addiction*: 2001, 96(12), p. 1725–1742. Document 1851 6.1; and Burke B.L. *et al*. "The efficacy of motivational

interviewing: a meta-analysis of controlled clinical trials." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 843–861.

84 Martino S. *et al*. "Motivational interviewing with psychiatrically ill substance abusing patients." *American Journal on Addictions*: 2000, 9(1), p. 88–91.

85 Apodaca T.R. *et al*. "A meta-analysis of the effectiveness of bibliotherapy for alcohol problems." *Journal of Consulting and Clinical Psychology*: 2003, 59(3), p. 289–304.

86 Sanchez-Craig M. *et al*. "A self-help approach for high-risk drinking: effect of an initial assessment." *Journal of Consulting and Clinical Psychology*: 1996, 64(4), p. 694–700.

87 Miller W.R. "Behavioral treatment of problem drinkers: a comparative outcome study of three controlled drinking therapies." *Journal of Consulting and Clinical Psychology*: 1978, 46, p. 74–86.

88 Cunningham J.A. *et al*. "Using self-help materials to motivate change at assessment for alcohol treatment." *Journal of Substance Abuse Treatment*: 2001, 20, p. 301–304. 1588 6.3 6.11.

89 Personal communication from William Miller, May 2005.

90 Donovan D.M. "Attrition prevention with individuals awaiting publicly funded drug treatment." *Addiction*: 2001, 96, p. 1149-1160.

91 Fernández-Hermida J-R. *et al*. "Effectiveness of a therapeutic community treatment in Spain: a long-term follow-up study." *European Addiction Research*: 2002, 8, p. 22–29.

92 Secades-Villa R. *et al*. "Motivational interviewing and treatment retention among drug user patients: a pilot study." *Substance Use and Misuse*: 2004, 39(9), p. 1369–1378.

93 Saunders B. *et al*. "The impact of a brief motivational intervention with opiate users attending a methadone programme." *Addiction*: 1995, 90, p. 415–424.

94 Saunders B. *et al*. "Motivational intervention with heroin users attending a methadone clinic" In: Miller W.R. *et al. Motivational interviewing: preparing people to change addictive behaviour*. New York: Guilford Press, 1991, p. 279–292.

95 Dench S. *et al*. "The impact of brief motivational intervention at the start of an outpatient day programme for alcohol dependence." *Behavioural and Cognitive Psychotherapy*: 2000, 28, p. 121–130.

96 Donovan D.M. "Attrition prevention with individuals awaiting publicly funded drug treatment." *Addiction*: 2001, 96, p. 1149-1160.

97 Connors G.J. *et al*. "Preparing clients for alcoholism treatment: effects on treatment participation and outcomes." *Journal of Consulting and Clinical Psychology*: 2002, 70(5), p. 1161–1169.

98 Dench S. *et al*. "The impact of brief motivational intervention at the start of an outpatient day programme for alcohol dependence." *Behavioural and Cognitive Psychotherapy*: 2000, 28, p. 121–130.

99 Saunders B. *et al*. "Motivational intervention with heroin users attending a methadone clinic" In: Miller W.R. *et al. Motivational interviewing: preparing people to change addictive behaviour*. New York: Guilford Press, 1991, p. 279–292.

100 Saunders B. *et al*. "Motivational intervention with heroin users attending a methadone clinic" In: Miller W.R. *et al. Motivational interviewing: preparing people to change addictive behaviour*. New York: Guilford Press, 1991, p. 279–292.

101 Dench S. *et al*. "The impact of brief motivational intervention at the start of an outpatient day programme for alcohol dependence." *Behavioural and Cognitive Psychotherapy*: 2000, 28, p. 121–130.

102 Donovan D.M. "Attrition prevention with individuals awaiting publicly funded drug treatment." *Addiction*: 2001, 96, p. 1149-1160.

103 Amrhein P.C. *et al*. "Client commitment language during motivational interviewing predicts drug use outcomes." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 862–878.

104 Kantchelov A. *et al*. "Structured motivational interventions in methadone maintenance treatment." *Heroin Addiction and Related Clinical Problems*: 2003, 5(3), p. 13–22.

105 Miller W.R. *et al*. "Motivational interviewing in drug abuse services: a randomized trial." *Journal of Consulting and Clinical Psychology*: 2003, 71(4), p. 754–763.

106 Amrhein P.C. *et al*. "Client commitment language during motivational interviewing predicts drug use outcomes." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 862–878.

107 Waldron H.B. *et al*. "Client anger as a predictor of differential response to treatment." In: Longabaugh R. *et al, eds*. *Project MATCH hypotheses: results and causal chain analyses*. National Institute on Alcohol Abuse and Alcoholism, 2001.

108 Personal communication from William Miller, May 2005.

109 Amrhein P.C. *et al*. "Client commitment language during motivational interviewing predicts drug use outcomes." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 862–878.

110 Stotts A.L. *et al*. "Motivational interviewing with cocaine-dependent patients: a pilot study." *Journal of Consulting and Clinical Psychology*: 2001, 69(5), p. 858–862.

111 Sofuoglu M. *et al*. "Prediction of treatment outcome by baseline urine cocaine results and self-reported cocaine use for cocaine and opioid dependence." *American Journal of Drug and Alcohol Abuse*: 2003 , 29(4), p. 713–717.

112 Wong C.J. *et al*. "Examining interrelationships between abstinence and coping self-efficacy in cocaine-dependent outpatients." *Experimental and Clinical* psychopharmacology: 2004, 12(3), p. 190–199.

113 Kosten T. *et al*. "Desipramine treatment for cocaine dependence in buprenorphine- or methadone-treated patients: baseline urine results as predictor of response." *American Journal on Addictions*: 2005, 14(1), p. 8–17.

114 Carroll K.M. *et al*. "Choosing a behavioral therapy platform for pharmacotherapy of substance users." *Drug and Alcohol Dependence*: 2004, 75(2), p. 123–134.

115 Miller W.R. *et al*. "Motivational interviewing in drug abuse services: a randomized trial." *Journal of Consulting and Clinical Psychology*: 2003, 71(4), p. 754–763.

116 Rohsenow D.J. *et al*. "Motivational enhancement and coping skills training for cocaine abusers: effects on substance use outcomes." *Addiction*: 2004, 99, p. 862–874.

117 Stotts A.L. *et al*. "Motivational interviewing with cocaine-dependent patients: a pilot study." *Journal of Consulting and Clinical Psychology*: 2001, 69(5), p. 858–862.

118 Personal communication from Damaris Rohsenow, 2005.

119 Stotts A.L. *et al*. "Motivational interviewing with cocaine-dependent patients: a pilot study." *Journal of Consulting and Clinical Psychology*: 2001, 69(5), p. 858–862.

120 Personal communication from Damaris Rohsenow, 2005.

121 Stotts A.L. *et al*. "Motivational interviewing with cocaine-dependent patients: a pilot study." *Journal of Consulting and Clinical Psychology*: 2001, 69(5), p. 858–862.

122 Barrowclough C. *et al*. "Randomized controlled trial of motivational interviewing, cognitive behavior therapy, and family intervention for patients with comorbid schizophrenia and substance use disorders." *American Journal of Psychiatry*: 2001, 158, p. 1706–1713.

123 Budney A.J. *et al*. "Adding voucher-based incentives to coping skills and motivational enhancement improves outcomes during treatment for marijuana dependence." *Journal of Consulting and Clinical Psychology*: 2000, 68(6), p. 1051–1061

124 Rosenblum A. *et al*. "Moderators of effects of motivational enhancements to cognitive behavioral therapy." *American Journal of Drug and Alcohol Abuse*: 2005, 31(1), p. 35–58.

125 Miller W.R. *et al*. "A motivational interviewing failure: hazards of a therapy manual?" Poster presentation. University of New Mexico Center on Alcoholism, Substance Abuse and Addictions (CASAA), undated.

126 Miller W.R. *et al*. "Motivational interviewing in drug abuse services: a randomized trial." *Journal of Consulting and Clinical Psychology*: 2003, 71(4), p. 754–763.

127 Hettema J. *et al*. "Motivational interviewing." *Annual Review of Clinical Psychology*: 2005, 1, p. 91–111.

128 Westen D. *et al*. "Empirical status of empirically supported psychotherapies: assumptions, findings, and reporting in controlled clinical trials." *Psychological Bulletin*: 2004, 130(4), p. 631–663.

129 Miller W.R. *et al. Motivational enhancement therapy manual: a clinical research guide for therapists treating individuals with alcohol abuse and dependence*. US Department of Health and Human Services, 1995.

130 Miller W.R. *et al. Motivational enhancement therapy manual: a clinical research guide for therapists treating individuals with alcohol abuse and dependence*. US Department of Health and Human Services, 1995.

131 Donovan D. *et al. Cognitive-behavioral coping skills therapy manual: a clinical research guide for therapists treating individuals with alcohol abuse and dependence*. US Department of Health and Human Services, 1995.

132 Hettema J. *et al*. "Motivational interviewing." *Annual Review of Clinical Psychology*: 2005, 1, p. 91–111.

133 Stotts A.L. *et al*. "Motivational interviewing with cocaine-dependent patients: a pilot study." *Journal of Consulting and Clinical Psychology*: 2001, 69(5), p. 858–862.

134 Rohsenow D.J. *et al*. "Motivational enhancement and coping skills training for cocaine abusers: effects on substance use outcomes." *Addiction*: 2004, 99, p. 862–874.

135 Kahler C.W. *et al*. "Motivational enhancement for 12-step involvement among patients undergoing alcohol detoxification." *Journal of Consulting and Clinical Psychology*: 2004, 72(4), p. 736–741. 5061 6.12

136 Rohsenow D.J. *et al*. "Motivational enhancement and coping skills training for cocaine abusers: effects on substance use outcomes." *Addiction*: 2004, 99, p. 862–874.

137 Kahler C.W. *et al*. "Motivational enhancement for 12-step involvement among patients undergoing alcohol detoxification." *Journal of Consulting and Clinical Psychology*: 2004, 72(4), p. 736–741.

138 Dench S. *et al*. "The impact of brief motivational intervention at the start of an outpatient day programme for alcohol dependence." *Behavioural and Cognitive Psychotherapy*: 2000, 28, p. 121–130.

139 Donovan D.M. "Attrition prevention with individuals awaiting publicly funded drug treatment." *Addiction*: 2001, 96, p. 1149-1160.

140 Miller W.R. *et al*. "Motivational interviewing in drug abuse services: a randomized trial." *Journal of Consulting and Clinical Psychology*: 2003, 71(4), p. 754–763.

141 Amrhein P.C. *et al*. "Client commitment language during motivational interviewing predicts drug use outcomes." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 862–878.

142 Personal communication from William Miller, May 2005.

143 Thomas H. *et al*. "Assessing stages of change in DUI offenders: a comparison of two measures." *Journal of Addictions Nursing*: 2005, 16(1–2), p. 57–67.

144 Miller W.R. *et al*. "Motivational interviewing in drug abuse services: a randomized trial." *Journal of Consulting and Clinical Psychology*: 2003, 71(4), p. 754–763.

145 Amrhein P.C. *et al*. "Client commitment language during motivational interviewing predicts drug use outcomes." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 862–878.

146 Amrhein P.C. *et al*. "Client commitment language during motivational interviewing predicts drug use outcomes." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 862–878.

147 Amrhein P.C. "How does motivational interviewing work? What client talk reveals." *Journal of Cognitive Psychotherapy*: 2004, 18(4).

148 Hettema J. *et al*. "Motivational interviewing." *Annual Review of Clinical Psychology*: 2005, 1, p. 91–111.

149 Miller W.R. *et al. Manual for the Motivational Interviewing Skill Code (MISC). Version 2.0*. Center on Alcoholism, Substance Abuse and Addictions, The University of New Mexico, 2003.

150 Saunders B. *et al*. "The impact of a brief motivational intervention with opiate users attending a methadone programme." *Addiction*: 1995, 90, p. 415–424.

151 Project MATCH Research Group. "Matching alcoholism treatments to client heterogeneity: Project MATCH three-year drinking outcomes." *Alcoholism: Clinical and Experimental Research*: 1998, 22 (6), p. 1300–1311.

152 Waldron H.B. *et al*. "Client anger as a predictor of differential response to treatment." In: Longabaugh R. *et al, eds. Project MATCH hypotheses: results and causal chain analyses*. US Department of Health and Human Services, 2001, p.134–148.

153 Karno M.P. *et al*. "What do we know? Process analysis and the search for a better understanding of Project MATCH's anger-by-treatment matching effect." *Journal of Studies on Alcohol*: 2004, 65(4), p. 501–512

154 Karno M.P. *et al*. "Less directiveness by therapists improves drinking outcomes of reactant clients in alcoholism treatment." *Journal of Consulting and Clinical Psychology*: 2005, 73(2), p. 262–267.

155 Karno M.P. *et al*. "Interactions between psychotherapy procedures and patient attributes that predict alcohol treatment effectiveness: a preliminary report." *Addictive Behaviors*: 2002, 27, p. 779–797.

156 Karno M.P. *et al*. "Interactions between psychotherapy procedures and patient attributes that predict alcohol treatment effectiveness: a preliminary report." *Addictive Behaviors*: 2002, 27, p. 779–797.

157 Gottheil E. *et al*. "Effectiveness of high versus low structure individual counseling for substance abuse." *American Journal on Addictions*: 2002, 11, p. 279–290.

158 Thornton C.C. *et al*. "High- and low-structure treatments for substance dependence: role of learned helplessness." *American Journal of Drug and Alcohol Abuse*: 2003, 29(3), p. 567–584.

159 Thornton C. *et al*. "Coping styles and response to high versus low-structure individual counseling for substance abuse." *American Journal on Addictions*: 2003, 12, p. 29–42.

160 Personal communication from Charles Thornton, 2003.

161 Thornton C.C. *et al*. "High- and low-structure treatments for substance dependence: role of learned helplessness." *American Journal of Drug and Alcohol Abuse*: 2003, 29(3), p. 567–584.

162 DiClemente C.C. *et al*. "A look inside treatment: therapist effects, the therapeutic alliance, and the process of intentional behavior change." In: Babor T.F. *et al,. eds. Treatment matching in alcoholism*. Cambridge University Press, 2002, p. 166–183.

163 Babor T.F. *et al,. eds. Treatment matching in alcoholism*. Cambridge University Press, 2002, p. 166–183. See especially chapters 7 and 8.

164 DiClemente C.C. *et al*. "A look inside treatment: therapist effects, the therapeutic alliance, and the process of intentional behavior change." In: Babor T.F. *et al,. eds. Treatment matching in alcoholism*. Cambridge University Press, 2002, p. 166–183.

165 Carroll K.M. *et al*. "Internal validity of Project MATCH treatments: discriminability and integrity." *Journal of Consulting and Clinical Psychology*: 1998, 66(2), p. 290–303.

166 Project MATCH Research Group. "Therapist effects in three treatments for alcohol problems." *Psychotherapy Research*: 1998 8, p. 455–474.

167 DiClemente C.C. *et al*. "A look inside treatment: therapist effects, the therapeutic alliance, and the process of intentional behavior change." In: Babor T.F. *et al,. eds. Treatment matching in alcoholism*. Cambridge University Press, 2002, p. 166–183. 3155

168 Donovan D.M. *et al*. "Client satisfaction with three therapies in the treatment of alcohol dependence: results from Project MATCH." *American Journal on Addictions*: 2002, 11, p.291–307.

169 DiClemente C.C. *et al*. "A look inside treatment: therapist effects, the therapeutic alliance, and the process of intentional behavior change." In: Babor T.F. *et al,. eds. Treatment matching in alcoholism*. Cambridge University Press, 2002, p. 166–183. 3155

170 Blatt S.J. *et al*. "Characteristics of effective therapists: further analyses of data from the National Institute of Mental Health Treatment of Depression Collaborative Research Program.." *Journal of Consulting and Clinical Psychology*: 1996, 64(6), p. 1276–1284.

171 Ablon J.S. "Validity of controlled clinical trials of psychotherapy: findings from the NIMH treatment of depression collaborative research program." *American Journal of Psychiatry*: 2002, 159, p. 775–783. 5112 6.8

172 Ablon J.S. *et al*. "Psychotherapy process in the NIMH Collaborative Study." *Journal of Consulting and Clinical Psychology*: 1999, 67, p. 64–75.

173 Shaw B.F. *et al*. "Therapist competence ratings in relation to clinical outcome in cognitive therapy of depression. *Journal of Consulting and Clinical Psychology*: 1999, 67(6):, p. 837–846.

174 Krupnick J.L. *et al* "The role of the therapeutic alliance in psychotherapy and pharmacotherapy outcome: Findings in the National Institute of Mental Health Treatment of Depression Collaborative Research Program." *Journal of Consulting and Clinical Psychology*: 1996, 64(3), p. 532–539.

175 Cooney N.L. *et al*. "Clinical and scientific implications of Project MATCH." In: Babor T.F. *et al,. eds. Treatment matching in alcoholism*. Cambridge University Press, 2002, p. 222–237. 3155

176 Moyers T.B. et al. "What makes motivational interviewing work? Therapist interpersonal skill as a predictor of client involvement within motivational interviewing sessions." *Journal of Consulting and Clinical Psychology*: in press, 2005.

177 Moyers T.B. et al. "What makes motivational interviewing work? Therapist interpersonal skill as a predictor of client involvement within motivational interviewing sessions." *Journal of Consulting and Clinical Psychology*: in press, 2005.

178 Miller W.R. *et al*. "Enhancing motivation for change in problem drinking: a controlled comparison of two therapist styles." *Journal of Consulting and Clinical Psychology*: 1993, 61, p. 455–461.

179 Miller W.R. *et al. Manual for the Motivational Interviewing Skill Code (MISC). Version 2.0*. Center on Alcoholism, Substance Abuse and Addictions, The University of New Mexico, 2003.

180 Miller W.R. *et al*. "A small study of training in motivational interviewing: Does one workshop change clinician and client behavior?" *Behavioural and Cognitive Psychotherapy*: 2001, 29, p. 457–471.

181 Baer J.S. *et al*. "An evaluation of workshop training in motivational interviewing for addiction and mental health clinicians." *Drug and Alcohol Dependence*: 2004, 73(1), p. 99–106.

182 Miller W.R. *et al*. "A randomized trial of methods to help clinicians learn motivational interviewing." *Journal of Consulting and Clinical Psychology*: 2004, 72(6), p. 1050–1062.

183 Moyers T.B. et al. "What makes motivational interviewing work? Therapist interpersonal skill as a predictor of client involvement within motivational interviewing sessions." *Journal of Consulting and Clinical Psychology*: in press, 2005.

184 Miller W.R. *et al*. "A small study of training in motivational interviewing: Does one workshop change clinician and client behavior?" *Behavioural and Cognitive Psychotherapy*: 2001, 29, p. 457–471.

185 Miller W.R. *et al*. "A small study of training in motivational interviewing: Does one workshop change clinician and client behavior?" *Behavioural and Cognitive Psychotherapy*: 2001, 29, p. 457–471.

186 Bien T. *et al*. "Motivational interviewing with alcohol outpatients." *Behavioural and Cognitive Psychotherapy*: 1993, 21, p. 347–356.

187 Hettema J. *et al*. "Motivational interviewing." *Annual Review of Clinical Psychology*: 2005, 1, p. 91–111.

188 Moyers T.B. et al. "What makes motivational interviewing work? Therapist interpersonal skill as a predictor of client involvement within motivational interviewing sessions." *Journal of Consulting and Clinical Psychology*: in press, 2005.

189 Bien T. *et al*. "Motivational interviewing with alcohol outpatients." *Behavioural and Cognitive Psychotherapy*: 1993, 21, p. 347–356.

190 Brown J.M. *et al*. "Impact of motivational interviewing on participation and outcome in residential alcoholism treatment." *Psychology of Addictive Behaviors*: 1993, 7(4), p. 211–218.

191 Connors G.J. *et al*. "Preparing clients for alcoholism treatment: effects on treatment participation and outcomes." *Journal of Consulting and Clinical Psychology*: 2002, 70(5), p. 1161–1169.

192 Martino S. *et al*. "Motivational interviewing with psychiatrically ill substance abusing patients." *American Journal on Addictions*: 2000, 9(1), p. 88–91.

193 Saunders B. *et al*. "The impact of a brief motivational intervention with opiate users attending a methadone programme." *Addiction*: 1995, 90, p. 415–424.

194 Bien T. *et al*. "Motivational interviewing with alcohol outpatients." *Behavioural and Cognitive Psychotherapy*: 1993, 21, p. 347–356. 4233

195 Brown J.M. *et al*. "Impact of motivational interviewing on participation and outcome in residential alcoholism treatment." *Psychology of Addictive Behaviors*: 1993, 7(4), p. 211–218.

196 Connors G.J. *et al*. "Preparing clients for alcoholism treatment: effects on treatment participation and outcomes." *Journal of Consulting and Clinical Psychology*: 2002, 70(5), p. 1161–1169.

197 Martino S. *et al*. "Motivational interviewing with psychiatrically ill substance abusing patients." *American Journal on Addictions*: 2000, 9(1), p. 88–91.

198 Bien T. *et al*. "Motivational interviewing with alcohol outpatients." *Behavioural and Cognitive Psychotherapy*: 1993, 21, p. 347–356.

199 Brown J.M. *et al*. "Impact of motivational interviewing on participation and outcome in residential alcoholism treatment." *Psychology of Addictive Behaviors*: 1993, 7(4), p. 211–218.

200 Martino S. *et al*. "Motivational interviewing with psychiatrically ill substance abusing patients." *American Journal on Addictions*: 2000, 9(1), p. 88–91.

201 Secades-Villa R. *et al*. "Motivational interviewing and treatment retention among drug user patients: a pilot study." *Substance Use and Misuse*: 2004, 39(9), p. 1369–1378.

202 Connors G.J. *et al*. "Preparing clients for alcoholism treatment: effects on treatment participation and outcomes." *Journal of Consulting and Clinical Psychology*: 2002, 70(5), p. 1161–1169.

203 Secades-Villa R. *et al*. "Motivational interviewing and treatment retention among drug user patients: a pilot study." *Substance Use and Misuse*: 2004, 39(9), p. 1369–1378.

204 Stotts A.L. *et al*. "Motivational interviewing with cocaine-dependent patients: a pilot study." *Journal of Consulting and Clinical Psychology*: 2001, 69(5), p. 858–862.

205 Rohsenow D.J. *et al*. "Motivational enhancement and coping skills training for cocaine abusers: effects on substance use outcomes." *Addiction*: 2004, 99, p. 862–874. 4726

206 Stotts A.L. *et al*. "Motivational interviewing with cocaine-dependent patients: a pilot study." *Journal of Consulting and Clinical Psychology*: 2001, 69(5), p. 858–862.

207 Moyers T.B. "History and happenstance: how motivational interviewing got its start." *Journal of Cognitive Psychotherapy*: 2004, 18(4).

208 Westen D. *et al*. "Empirical status of empirically supported psychotherapies: assumptions, findings, and reporting in controlled clinical trials." *Psychological Bulletin*: 2004, 130(4), p. 631–663.

209 Heather N. "Motivational interviewing: is it all our clients need?" *Addiction Research and Theory*: 2005, 13(1), p. 1–18.

210 Reimer B. *Strengthening evidence-based addictions programs: a policy discussion paper*. Alberta Alcohol and Drug Abuse Commission, Canadian Centre on Substance Abuse, and the National Policy Working Group, 2003.

211 Moyers T.B. "History and happenstance: how motivational interviewing got its start." *Journal of Cognitive Psychotherapy*: 2004, 18(4).

212 Bien T. *et al*. "Motivational interviewing with alcohol outpatients." *Behavioural and Cognitive Psychotherapy*: 1993, 21, p. 347–356.

213 Brown J.M. *et al*. "Impact of motivational interviewing on participation and outcome in residential alcoholism treatment." *Psychology of Addictive Behaviors*: 1993, 7(4), p. 211–218.

214 Cunningham J.A. *et al*. "Using self-help materials to motivate change at assessment for alcohol treatment." *Journal of Substance Abuse Treatment*: 2001, 20, p. 301–304. 1588

215 Stotts A.L. *et al*. "Motivational interviewing with cocaine-dependent patients: a pilot study." *Journal of Consulting and Clinical Psychology*: 2001, 69(5), p. 858–862.

216 Rohsenow D.J. *et al*. "Motivational enhancement and coping skills training for cocaine abusers: effects on substance use outcomes." *Addiction*: 2004, 99, p. 862–874.

217 Miller W.R. (Consensus Panel Chair). "Integrating motivational approaches into treatment programs." In: *Enhancing motivation for change in substance abuse treatment*. Treatment Improvement Protocol (TIP) Series 35. US Department of Health and Human Services etc, 1999.

218 Miller W.R. "Motivational interviewing with problem drinkers." *Behavioural Psychotherapy*: 1983, 11, p.147–172.

219 Klingemann H. *et al*. *Promoting self change from problem substance use. Practical implications for policy, prevention and treatment*. Kluwer Academic Publishers, 2001. 2060 lf

220 Marlatt A. *et al*. "Help-seeking by substance abusers: the role of harm reduction and behavioral-economic approaches to facilitate treatment entry and retention" In: Onken L.S. *et al, eds*. *Beyond the therapeutic alliance: keeping the drug-dependent individual in treatment*. NIDA Research Monograph 165, 1997.

221 Marlatt G. *et al*. "Harm reduction approaches to alcohol use: health promotion, prevention, and treatment." *Addictive Behaviors*: 2002, 27, p. 867–886.

222 Tucker J.A. *et al*. "Resolving alcohol and drug problems: influences on addictive behavior change and help-seeking processes." In: Tucker J.A. *et al*, *eds*. *Changing addictive behavior*. Guilford Press, 1999, p. 97–126.

223 Tucker J.A. "Resolving problems associated with alcohol and drug misuse: understanding relations between addictive behavior change and the use of services." *Substance Use and Misuse*: 2001, 36(11), p. 1501–1518.

224 Hardwick L. *et al*. "The needs of crack-cocaine users: lessons to be learnt from a study into the needs of crack-cocaine users." *Drugs: Education, Prevention & Policy*: 2003, 10(2), p. 121–134.

225 *Drug misuse 2004. Reducing the local impact*. London: Audit Commission, 2004.

226 *Service user views of drug treatment: research conducted for the Audit Commission*. EATA, 2004.

227 Miller W.R. "Motivational interviewing with problem drinkers." *Behavioural Psychotherapy*: 1983, 11, p.147–172.

228 Woody G.E. "Research findings on psychotherapy of addictive disorders." *American Journal on Addictions*: 2003 12 (Suppl), S19-S26.

229 Miller W.R. "Motivational interviewing with problem drinkers." *Behavioural Psychotherapy*: 1983, 11, p.147–172.

230 Miller W.R. *et al. Motivational interviewing: preparing people to change addictive behaviour*. New York: Guilford Press, 1991.

231 Miller W.R. *Motivational enhancement therapy with drug abusers*. 1995.

232 Heather N. "Motivational interviewing: is it all our clients need?" *Addiction Research and Theory*: 2005, 13(1), p. 1–18.

233 Czuchry M. *et al*. "Using motivational activities to facilitate treatment involvement and reduce risk." *Journal of Psychoactive Drugs*: 2005, 37(1), p. 7–13.

234 Czuchry M. *et al*. "A model of the effects of node-link mapping on drug abuse counseling." Addictive Behaviors: 2003, 28(3), p. 537–549.

235 Miller W.R. *et al. Motivational interviewing: preparing people to change addictive behaviour*. New York: Guilford Press, 1991.

236 Burke B.L. *et al*. "The efficacy of motivational interviewing: a meta-analysis of controlled clinical trials." *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 843–861.

237 Miller W.R. *et al. Motivational interviewing: preparing people to change addictive behaviour*. Guilford Press, 1991.

238 Miller W.R. "Motivational interviewing: III. On the ethics of motivational intervention." *BehavioraI and Cognitive Psychotherapy*: 1994, 22, p. 111–123.

239 Miller W.R. “Motivational interviewing with problem drinkers.” *Behavioural Psychotherapy*: 1983, 11, p.147–172.

240 Miller W.R. *et al. Motivational interviewing: preparing people to change addictive behaviour*. New York: Guilford Press, 1991.

241 Hettema J. *et al*. “Motivational interviewing." *Annual Review of Clinical Psychology*: 2005, 1, p. 91–111.

242 Project MATCH Research Group. “Therapist effects in three treatments for alcohol problems.” *Psychotherapy Research*: 1998 8, p. 455–474.

243 Miller W.R. *et al*. “Motivational interviewing in drug abuse services: a randomized trial.” *Journal of Consulting and Clinical Psychology*: 2003, 71(4), p. 754–763.

244 Amrhein P.C. *et al*. “Client commitment language during motivational interviewing predicts drug use outcomes.” *Journal of Consulting and Clinical Psychology*: 2003, 71(5), p. 862–878.