THE Motivational hallo

MANNERS MATTER • PART 3

With its empathic style, motivational interviewing seems the ideal way to engage new clients in treatment, a psychological handshake which 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 of FINDINGS

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THE MANNERS MATTER SERIES is about how services can encourage clients to stay and do well by the manner in which they offer treatment. Parts one and two dealt with practical issues like reminders, transport and childcare. Even at this level, more is involved: respect; treating people as individuals; conveying concern and caring.

From here on, relationship issues take centre stage. Relegated by medicine to the 'bedside manners' which lubricate the interaction while technical treatments do the curing, in psychological therapies, bedside manners *are* the treatment, or a large part of it.[1 2 3] We start with how to 'say hello', and specifically with motivational interviewing's role in preparing clients for treatment ('induction'), the role for which Bill Miller created it.[4]

MOTIVATION CAN BE MOVED

Induction strategies aim to prime the client for treatment by telling them what to expect, addressing concerns, enlisting support, and strengthening psychological resources. But most of all, the focus has been on reinforcing 'motivation', an amalgam of acknowledging a problem, wanting help, and resolving that treatment is the help you need.[5]

Once thought of as something the patient either did or did not have, motivation is now seen as a fluid state of mind susceptible to influence. Of the ways to exert this influence, motivational interviewing is by far the best known.[6] It qualifies for this review because it is more about *how* to relate to the client than *what* to say or do.[8]

We can see where it fits in through a model which encapsulates research on the processes underlying effective treatment and the points where these could be promoted by interventions ▶ *A model of treatment*, p. 24.[9] Motivational interviewing is among the "Readiness interventions" in the top left hand corner. Its importance is that the more motivated the patient is, the deeper their initial participation. This is linked to staying longer which in turn is linked to better outcomes.[10 11 12] Via this chain, if motivational interviewing does boost motivation, it should increase the effectiveness of subsequent treatment.

MM3 Positive verdict from aggregated research

Before analysing individual studies (numbered from **1** to **19**[i]), we'll take what we can from analyses which have amalgamated these studies. Conclusively, these tell us there is something here worth investigating. From diabetes to problem drinking, high blood pressure and poor diet, motivational approaches help patients adhere to treatment and change their lifestyles more effectively than usual clinical advice.[13] For drinking in particular, it has a better research record than practically any other treatment.[14 15 16]

But these omnibus verdicts conflate very different scenarios. For current purposes, the ideal analysis would focus on people seeking treatment rather than identified through screening, and then on induction studies rather than studies of motivational interviewing as a treatment in its own right. It would then assess whether treatment participation was productively deepened by motivational preparation. None precisely fit the bill, but some come close.

STRONGEST RECORD IN INDUCTION STUDIES

Two analyses take us part way there.[14 17] Among drinkers known or presumed to be seeking treatment, these ranked motivational approaches seventh and tenth in their league tables of evidence of effectiveness, outranking many treatments which take longer and cost more. Other analyses have confirmed this conclusion, and added that the benefits were significantly greater when motivational approaches were an induction to substance misuse treatment rather than a standalone therapy.[15 16 18 19]

A later analysis added two further observations.[20] First, that the gains from motivational induction are greater because they persist over at least the next 12 months while those from standalone therapies decay. Second, and contrary to expectations, therapists had *less* impact when they followed a manual. This finding's far-reaching implications are explored later ▶ *Is it dangerous to follow the manual?*, p. 28.

The final analysis focused on turning up for and sticking with treatment or aftercare.[21] Most of the studies it pooled were of substance misuse. On the basis that 12 found significant advantages for motivational interviewing, five that it was as effective as other approaches, and just four found no benefits, the authors declared themselves "cautiously optimistic". Though the weight of the evidence was positive, in three of the substance misuse studies (**3**, **6** & **10**)

and in another not in the review,[25] motivational induction had no impact on starting or sticking with treatment. The reviewers argued that retention was already so good that there was little room for improvement, but in two studies (6 & 10) this does not seem to have been the case.

LOOSE ENDS

Of the loose ends left by these analyses, loosest of all was whether some other induction approach would do as well or better, including feedback in another style. Then there were the negative studies and, for some, no convincing explanations why motivational interviewing failed in these but not in others. Finally, we have greater confidence that one thing causes another when we can see the levers connecting the two, yet the reviewers found little evidence that motivational interviewing actually did stimulate motivation more than alternative approaches,[19] or that it improved outcomes by enhancing engagement with treatment.

To get more of a grip on these loose ends, the individual studies in these analyses and several later studies were analysed in depth ▶ *Get the full story*, p. 26. What follows focuses on the patterns which emerged. Rather than definitive conclusions, the interpretations offered here are an attempt to make sense of these patterns and to reconcile seemingly inconsistent results

MM3 Albuquerque air: the first studies of drinkers

The earliest trials of motivational interviewing were conducted by Bill Miller's team at Albuquerque in New Mexico. While therapists had the benefit of expert tuition and oversight from the approach's originator, as yet there was no manual for them to follow.

PROMISING STANDALONE INTERVENTION

First it was tried as a standalone brief intervention combined with feedback from the Drinker's Check-up, a battery of tests of alcohol use and related physical and social problems. Though concerned enough to respond to ads for the check-up, participants were not the highly dependent 'alcoholics' normally seen at treatment services.

1 Comparing immediate against delayed motivational feedback suggested that this approach could motivate reduced drinking and treatment entry among this type of client.[27] The non-stigmatising offer of a check-up seemed to enable many to take a first (if often incomplete) step towards cutting down or 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.[28] One was the empathic motivational style, the other the supposedly counterproductive style it aimed to improve on: explicitly directive, confrontational, and (when the cap fitted) dubbing patients 'alcoholics'. As expected, the empathic style did result in greater reductions in drinking, but the differences were small and fell short of statistical significance.

The reason may have been that in practice the therapists did not implement radically distinct approaches. Only when the focus was shifted to how they and their clients *actually* behaved did clear and significant relationships emerge. The more the therapist had confronted (arguing, showing disbelief, being negative about the client), the more the client drank a year later. The same was true of 'resistant' client behaviours like interrupting, arguing, or being negative about their need to or prospects for change.

These client and therapist behaviours were closely related. For motivational interviewing, the favoured interpretation is that when therapists departed from its non-confrontational style, clients were provoked in to hitting back or withdrawing. The pattern of results suggests this was at least part of what was happening. An alternative explanation is that resistant clients provoked *the therapists* into non-motivational responses related to poorer outcomes with this kind of client.[29] It certainly can happen,[30] but other studies with similar findings have been able to eliminate this possibility.[29 31 32 33]

Conceivably, both processes were in play. Whatever the truth, the study heightened the profile of the therapist's interpersonal style, seeming to confirm that the style mandated by motivational interviewing was preferable to confrontation. The stage was set for trials of the approach in its intended role – as a prelude to further treatment.

STARTLING IMPACT IN INDUCTION STUDIES

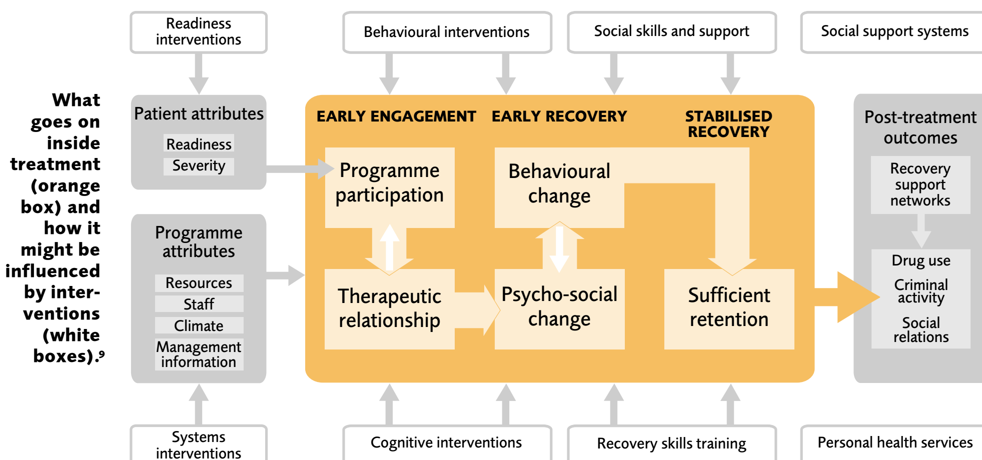
In 1993 results were published from the first trials of motivational interviewing as a prelude to respectively in- and out-patient treatment. In contrast to the check-up studies, patients had arrived for treatment via normal referral routes and were much heavier drinkers and more severely dependent.

In both trials, a non-directive, one-on-one motivational session preceded considerably more directive 12-step based group therapy.[21] There was a real chance one would undermine the other, but the opposite happened. Given that it was a brief prelude to more extended treatment, motivational feedback caused startlingly large reductions in post-treatment drinking.

3 The outpatient trial compared it with a typical 'You are an alcoholic and must return for treatment' induction.[22] During the succeeding months, the interview led to virtual 100% remission, perhaps partly because it avoided solidifying patients' identities as 'hopeless alcoholics'. Without it, a substantial minority of patients continued to drink at alcoholic levels, fulfilling the identity they had been given during induction and later treatment.

4 The inpatient trial was run on similar lines, except that the comparison group simply progressed through normal procedures.[26] From before treatment consuming about 20 UK units[ii] a day, the motivational patients cut down to on average four units; controls were still drinking 13 units a day. A new finding was that these benefits seemed to be due to motivational induction deepening engagement with the programme, an effect revealed by staff ratings of compliance with therapy. Here were some of the expected levers in action: motivational preparation leads to deepened engagement leads to less post-treatment drinking.

A MODEL OF TREATMENT



What goes on inside treatment (orange box) and how it might be influenced by interventions (white boxes).[9]

MM3 Leaving home: attempts to replicate early findings with drinkers

Attempts elsewhere to replicate the early induction findings had mixed results, perhaps partly for technical reasons (eg, which results were measured) and partly because the therapy, by now often hardened into manual form, failed to adapt to the patients.

MORE IMPACT THAN ROLE INDUCTION

5 One uniquely important study not only tested whether motivational interviewing led to less drinking than normal procedures, but whether it led to less than 'role induction' – the most popular alternative induction method – and if it did, whether this was because it truly did deepen engagement with treatment.[34] On all counts, the answers seemed 'Yes', though effects were neither large nor could they be securely attributed to motivational induction.

Compared to other induction samples, the 126 alcohol abusers (no diagnosis of dependence was required) who joined the study at an outpatient unit in Buffalo drank less heavily and more had retained employment and intimate relationships. Those randomly assigned to the motivational interview went on to attend 12 out of 24 therapy sessions compared to eight for the controls. This partly accounted for the fact that during treatment and the 12-month follow-up, motivational patients drank heavily on fewer days and used other drugs less often – again, the elusive 'levers' in action. Retention itself may have been aided by the fact motivational induction helped patients quickly curb their drinking.

Important ingredients may have been an emphasis on motivational principles rather than a pre-set agenda, skilled and perhaps motivated exponents, and a caseload which embraced those with relatively moderate problems who could have needed some priming to commit to treatment. Together with earlier work, the study provides strong (but not incontrovertible) evidence that in these circumstances, assessment plus motivational feedback can aid treatment.

SET AGENDA MANDATES WRONG FOCUS?

6 In contrast, a British study failed to confirm the promise of the early US work, possibly because for these patients its version of motivational interviewing mandated an inappropriate focus.[23]

Subjects were 60 dependent drinkers randomly allocated to one of two extra interventions when starting a day programme in Bournemouth. One was a pre-structured motivational intervention focused on eliciting from the patient the pros and cons of drinking and amplifying the salience of the cons. It was compared to education on the effects of drinking, using feedback of the client's answers to a "quiz".

Motivational induction had no impact on retention. This could have been because the patients already recognised their alcohol problems and said they were working hard to resolve them – and understandably so. Nearly all had lost whatever jobs they'd had, most had lost husbands or wives through divorce, 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.

For those who left early, the problem was unlikely to have been a failure to recognise the debit side of drinking. Given the stage they had reached, leading them to reflect on the *positives* of their drinking may also have seemed a disconcerting backward step.

DIFFERENT DRINKERS, DIFFERENT FORMAT

Remaining studies either involved special types of clients or departed from a mainstream motivational intervention.

DUAL DIAGNOSIS PATIENTS

8 One involved substance (mainly alcohol) abusing psychiatric patients with quite severe life problems starting a 12-week US day hospital programme.[35] Compared to a standard psychiatric induction, an initial motivational interview extended average retention from 22 to 31 days. Despite retaining people who would otherwise have left, it also improved their punctuality and halved the number of days of substance use while in treatment.

The interview incorporated feedback from prior assessments and a decisional balance exercise, but seemingly followed no set programme or manual.

HOW BRIEF CAN YOU CAN GET?

Among the loose ends left by the early US work was whether some other non-confrontational feedback approach might work as well. One possibility is simply providing new patients written materials – not as unlikely as it may seem.[36,37]

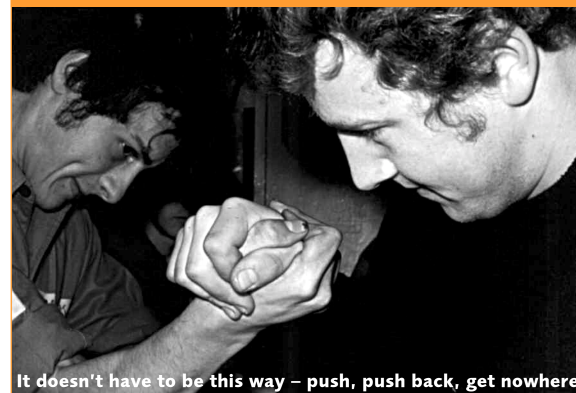
9 For induction purposes, the most relevant study was conducted at a

ROOTED IN RESISTANCE: THE ORIGINS OF MOTIVATIONAL INTERVIEWING

RESISTANCE TO TREATMENT is the central reality addressed by motivational induction.[56] In his first account of motivational interviewing,[57] Bill Miller noted that many clients resist because they reject stigmatisation through a process which entails being pigeon-holed as an 'addict' or 'alcoholic' no longer in control their lives.[58] Others may accept this yet be unconvinced that treatment will help.[59,60] Coerced patients may not think they have a problem at all and resent being forced to get 'it' treated. Others doubt the relevance of drug-focused treatment to what they see as their most urgent priorities.[61,62]

They encountered treatment services which demanded immediate abstinence, treated their patients as the embodiment of an addiction, and rarely offered effective help with the family, housing, employment, financial or other issues heading their list of concerns.[63,64] This mismatch can still be seen in British drug services.[65]

US researchers and clinicians observed the results: most dependent substance users avoided treatment or quickly left.[57] One interpretation of the genesis of motivational interviewing is that rather than realigning treatment, a way was found to get the patient to realign themselves via a roundabout route which gave them less to react against.[66] But the spirit of the approach demands that treatment too must adjust to the patient.



It doesn't have to be this way – push, push back, get nowhere

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.[57,67] From this perspective, resistance is neither the manifestation of a character flaw nor a symptom of disease, but a product of interactions with therapists who impose their views of who/what the patient is and what they need, telling the client what they 'must' do, implying they are powerless, arguing, and confronting.

Dr Miller developed an approach which sidestepped these and other deterrent interactions.The result was motivational interviewing. 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 as a communication medium across which influence can flow without disrupting the connection.[21,42] The 'crystallisation' consists of principles common to many therapies like 'expressing empathy', and specific tools like 'reflective listening'. Its main engine for change is the amplification of conflicts between the client's goals and values and their substance use.[67,68]

Directive in intention if not in words

Even if the client envisaged by motivational interviewing is at least to some degree ambivalent about their goals, the therapist typically knows where they want to get to and systematically seeks to get there.[67] In this sense, like more up-front tactics, motivational interviewing *is* 'directive'; the difference is that it seeks to generate momentum by *not* being explicitly directive with the client.[15]

Ethical issues raised by this more covert approach have been addressed by Bill Miller,[69] who accepted that it could be used to pursue goals which were not those of the client,[57] departing from its client-centred ethos.[67] He argued for the client's goals to be respected – but from a position where the therapist had their own ideas of what their problem was and what would constitute "unwise" and what "healthful" paths forward. The aim was get the patient *themselves* to come to a matching conclusion.

SECOND SIGHT

A message from Albuquerque

by Bill Miller

Motivatonal interviewing's founder, University of New Mexico

I got interested in this field on an internship 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. Knowing nothing, 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, etc. I mostly listened with accurate empathy.

There was an immediate chemistry – I loved talking to them, and they seemed to enjoy talking to me. 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.

Crash – and I wrote the manual!

To me our drug abuse study was a clear example of manuals failing to adapt to the patients study 13. I am now working on a paper which collapses the two 'poor outcome' groups (strugglers and discrepants) and the two 'good outcome' groups (changers and maintainers).[44] 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

I BEGAN READING ABOUT ALCOHOLICS AS LYING AND DEFENSIVE. "GEE, THESE AREN'T THE SAME PATIENTS I'VE BEEN TALKING TO."

were doing pure motivational interviewing. Around decile 3, we started assessment feedback. 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 therapists went back to pure motivational interviewing.

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

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. 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.

Carl Rogers
What happened when he let a troubled mother tell her own story convinced him that the therapist's task is to rely on the client for direction – the person-centred approach which inspired motivational interviewing.

GET THE FULL STORY
This analysis is distilled from an extended review available free on request from editor@drugandalcoholfindings.org.uk. Note that the aim is to investigate motivational interviewing as a preparation for patients seeking treatment without being legally coerced to do so, rather than as a treatment in its own right or a way of encouraging take-up of aftercare.

Toronto addiction treatment centre.[38] On alternate months each new alcohol patient was handed the *Alcohol and You* booklet at the end of their intake assessment. Written by Bill Miller,[4] this combined motivational elements and individualised assessment feedback comparing the drinker to national norms. It invited readers to reconsider their drinking but did *not* advocate return for treatment, an attempt to avoid its rejection by people who had decided not to come back.

Despite this, patients given the booklet were slightly *more* likely to return, but the biggest effect was to substantially reduce drinking over the next six months, especially among the minority who did not come back. These findings underline the twin arguments for motivational induction: not only may it promote engagement with treatment, but it also constitutes a potentially effective brief intervention for those who drop out.

MM3 Beyond drinkers: pluses and minuses

For users of drugs including heroin, cocaine and cannabis, motivational interviewing has now been tried during the waiting period for treatment and the initial stages. 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 where they could benefit from one.

BRIEF RESPITE VERSUS INTENSIVE MARATHON

Two studies have trialed motivational interviewing to tide people over while waiting for treatment to start. Though really *pre*-induction, the results are relevant. In one there was no impact, in the other, long-lasting benefits. The difference may have been down to the degree to which motivation was the issue.

10 In Washington, the unsuccessful trial inserted measures including a manual-guided motivational interview between the time drug (mainly cocaine) abusing patients had been referred for treatment and their first appointment.[24] A relatively full-featured attempt to bridge this gap, it made no difference to how many patients started or completed treatment (a commendable 71% in both cases) or how well they did.

The 654 who joined the study typically suffered severe and multiple problems (including poor housing), and were overwhelmingly committed to the treatment on offer. For 85%, this was a short stay in hospital – conceivably an attractive respite from the streets, especially since most did not face opiate withdrawal. Those who nevertheless failed to turn up were probably less in need of a motivational boost than of intensive support.

11 A Spanish trial provides an instructive contrast. The marathon *Proyecto Hombre* rehabilitation programme attracted mainly heroin users living with their parents or in their own family home.[39 40] It started with roughly a year-long day programme during which the families came with the clients. Before this phase was half way through, four out of five had dropped out.

Seeking ways to stem the outflow, detoxified patients awaiting entry were randomly allocated to normal procedures or to a three-session motivational intervention, structured according to a broad outline rather than a detailed manual. Three months into treatment, the motivational group showed improved retention. The gap grew until by six months half were left compared to

just 1 in 5 after normal procedures.

These Spanish addicts had the home support lacking in Washington, potentially leaving their commitment to the programme as the main influence on whether they stayed. No respite from the streets, this was 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.

MIXED RECORD AS INDUCTION METHOD

The few direct tests of motivational induction for heroin or cocaine users confirm that it is most beneficial for those ambivalent about treatment and go further, showing that it can actually be counter-productive for more committed patients.

12 The first such study took place at an Australian methadone clinic.[41 42] There researchers had structured the motivational style into a one-hour 'bolt-on' module (plus a brief review session a week later) consisting of a seven-point agenda.

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. Then the focus is on eliciting and amplifying the client's account of the debit side of heroin use, featuring a balance sheet of the pros and cons completed at home for review at the follow-up session.

Compared with educational sessions on opiate use, on average motivational induction extended retention from about 18 to 22 weeks and delayed relapse to heroin use, consistent with an impact on outcomes via retention. However, improved retention may itself (as in study 5) have been due to the interviews helping patients rapidly curtail substance use.[iii]

How can we account for these findings, when adaptations of the same model for drinkers and cocaine users failed to improve on normal procedures ▸ studies 6 & 10? First, in contrast to these studies, many of the Australian patients were ambivalent about ending substance use. After all, patients starting *methadone* treatment clearly are not yet ready to see use of opiate-type drugs as an unambiguously bad thing.

Another key may have been the holding power of the intervention over the week between the sessions. Patients appreciated the chance to explore their experiences with a "highly skilled" therapist who rapidly established rapport. To return for 'closure' of this valued intervention, they had to stay on methadone for at least the first week after being stabilised, a vulnerable period. More did so than after the alternative induction, accounting for better long-term retention.

Underneath it all may have been the 'developer effect': the intervention was being trialed its creators, presumably enthusiastic exponents. Perhaps also, as its 'owners', the Australian team had the licence to adapt it. Where they stressed skilful flexibility, the other two papers suggest a more prescriptive implementation. The initial focus on the positives of substance use may need particular care unless, as with methadone patients, it simply acknowledges an undeniable and current reality for the client.

"PUZZLING" FAILURE WITH DRUG USERS

13 A 'developer effect' was notably lacking when Bill Miller's team extended their work to drug users. The study took place in Albuquerque at his university's outpatient centre and at an inpatient detoxification unit.[43] For most of the 208 patients, cocaine (especially crack) was their primary problem, and for nearly one in three, heroin.

Half were randomly allocated to continue as normal and half to a motivational interview conducted by therapists trained and supervised to follow a manual. On practically every measure taken and no matter how the sample was divided up, the interview made no difference to motivation for change, retention, or drug and alcohol use outcomes over the next 12 months.

Among the possible explanations are that, according to paper-and-pen tests, nearly all the patients were in no need of a motivational boost, but an analysis of what they actually said in counselling sessions seems to belie this interpretation.[44] Several other explanations are feasible. For one, the same analysis provided empirical confirmation: the study's inflexible, manualised approach to motivational induction had left insufficient room for therapists to adjust and provoked counterproductive reactions when its instructions clashed with the client's state of mind ▸ *Care too with the unconvinced*, p. 38.

DEPENDS ON INITIAL COMMITMENT

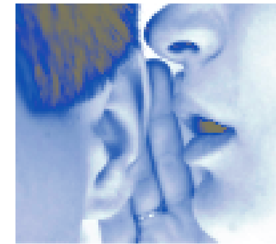
The next two studies found that motivational induction had no *overall* impact on retention, but also that this masked positive impacts among patients who saw themselves as still thinking about curbing drug use rather than having started the process. Less expected was a *negative* effect among the latter. These findings are explored later ▸ *More committed react badly*, p. 28.

AMONG INDIGENT POOR

14 In Houston, 105 cocaine users started a ten-day outpatient 'detoxification'.[45] Most were black and unemployed and smoking crack. Patients who achieved abstinence could transfer to relapse prevention aftercare. The issue was whether starting detoxification with a motivational interview would improve transfer rates.

Patients were randomly allocated to normal procedures or additionally to a two-session motivational interview on days one and four, conducted by therapists trained and supervised to follow a detailed manual. There was no overall effect on transfer rates, but the interviews did help less motivated patients complete detoxification and transfer to aftercare. By doing so, they might have been expected to lead to a higher relapse rate during aftercare. The opposite occurred. More motivational patients started aftercare cocaine-free and over the next 12 weeks they continued in the same vein.

Drug use reductions seen in this study and the extra impact on less motivated patients were both absent in Albuquerque ▸ study 13. A possible reason is the way the patients entered treatment, in Albuquerque via normal routes, in Houston, via ads for the study. Judging from their motivational profiles, many in Houston would not have sought treatment unless prompted by the ads; motivational interviewing had something to bite on.



Like a whisper in the ear, a motivational interview can have a dramatic impact, but just what that is depends on the relationship, the situation, what's said, and how it fits into what went before and what is yet to come.

AND EMPLOYED PRIVATE PATIENTS

15 A similar study which used a similar measure of motivation also found that this determined how patients would react.[46] The programme was a day-hospital regime in Rhode Island with an abstinence and 12-step orientation. Over 7 in 10 of the cocaine-dependent patients who joined the study smoked crack, but at this private facility they were not the poor minority caseload seen in Houston ▸ study 14.

Half were randomly allocated to a motivational interview planned for day two and half to meditation and relaxation. Therapists were trained and supervised and motivational sessions recorded to ensure they competently followed a manual. Though the emphasis could vary,[47] 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 assessment of their drug use and its consequences, and the formulation of a change plan.

At issue was whether this would improve on the inactive and it was thought ineffective relaxation approach. The answer was a surprising 'No'. Patients as a whole did well, but on none of the measures of retention or outcomes up to 12 months did the motivational interview further improve things. As in Houston, this was not because the interview itself was inactive, but because it had opposing impacts on different patients.

MM3 Is it dangerous to follow the manual?

Manual-guided programmes have become seen as essential for any treatment which claims to be evidence-based.[48] The research rationale is to standardise 'inputs' so these can be related to outcomes, the clinical justification, that they enable clinicians to "replicate" proven treatments.[49]

An alternative view is that such detailed programming cramps client participation and clinical judgement[3] and focuses attention on techniques rather than ways of relating which cut across therapies.[2] If these are what matters, then the baby could be exiting with the bath water. Such prescriptiveness seems particularly risky for motivational interviewing, whose essence is to respond to clues from across the table, and whose mantra is that the "responsibility and capability for change lie within the client".[50]

Support for this view comes from a recent meta-analysis.[20] The studies it analysed differed in how they implemented motivational approaches. Of all the variations 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: manualised therapy had *less* impact.

MORE COMMITTED REACT BADLY

This result could have been due to differences between the studies other than whether they used a manual. But signs of the same effect can be seen *within* studies. In three, motivational induction helped 'low motivation' patients but retarded those more committed to action ▸ *charts*. Each time, therapists were supervised to ensure they adhered to a detailed manual which prescribed 'decisional balance' exercises, leading the patient to review the pros and cons of changing substance use or engaging in treatment or aftercare.

Two of the studies have already featured in this article. Both involved mainly cocaine users attending a short-term day detoxification programme, and divided patients into those typified more by 'taking action' to tackle their substance use as opposed to 'still thinking' about it.

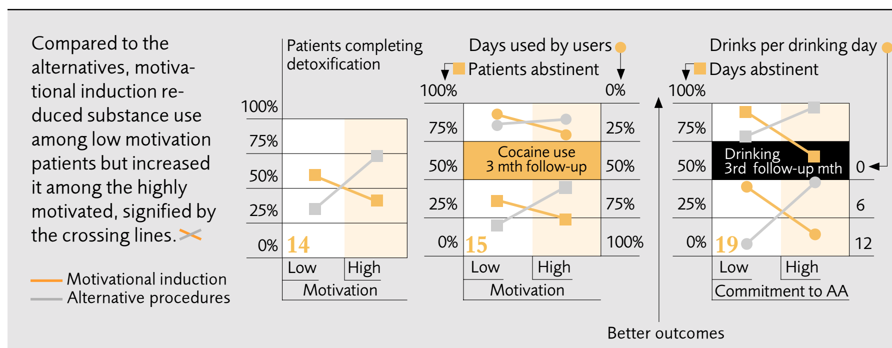
In Houston (**14**), motivational induction improved completion rates among 'still thinking' patients, counterbalanced by the *opposite* effect in those who saw themselves as having already started this process – they did worse after the interviews. These effects were substantial and statistically significant.

In Rhode Island (**15**), consistently the interviews worsened cocaine use outcomes among 'taking action' patients while (to a lesser and non-significant extent) improving outcomes among those 'still thinking'. Seemingly no fluke, there was a similar pattern with drinking.

ALSO IN AFTERCARE STUDY

19 The third study concerned alcohol patients admitted for on average five days of inpatient detoxification in Rhode Island.[51] It has not featured so far because the aim was to motivate take-up of aftercare.

After settling in for at least a day, randomly selected patient intakes were allocated to one of two types of induction. The first was five minutes of advice which comprehensively contravened motivational interviewing's code. Patients were told they had a significant drink problem, that abstinence was very important, and to get as involved as possible in AA aftercare groups.



The second type of session was a one-hour motivational interview. It also advised abstinence and AA, but not in the unambiguous manner of the more abrupt intervention. Instead, patients were led through exercises weighing the pros and cons of abstinence and AA and exploring how drinking conflicted with longer-term goals. Finally, they were asked to choose their own goals for attending AA groups or were informed of alternative sources of support.

"THE PARADOX OF MANUALIZATION IS THAT THE PATIENT'S ACTIVE INVOLVEMENT IS LIKELY TO BE ESSENTIAL TO GOOD OUTCOME BUT DESTRUCTIVE OF EXPERIMENTAL CONTROL"[3]

Among patients whose current plans and past records of attending AA/NA indicated less commitment to AA, the interviews had the expected effects. They abstained more often, and when they drank, drank less than patients given brief advice. But this was counterbalanced by an even greater *negative* effect on more committed patients.

Over a six-month follow-up, as long as patients *most* committed to AA had been directed to abstain and attend the groups, and those *least* committed had been through the motivational exercises, on average each sustained near 100% abstinence and drank little when they did. When this matching was reversed, outcomes were far worse.

TWO STEPS BACK?

In all three studies, the puzzle is not why the least committed benefited (this is expected), but why the most committed reacted badly. It seems that motivational interviewing of this kind is as capable of knocking back more motivated patients as it is of helping those in need of convincing.

The explanation might be what to the patient could have seemed an undermining backward step to re-examine 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. Other unsuccessful induction trials might also be explained by the relatively high commitment of the clients allied with an insufficiently flexible approach ▸ studies **6**, **10** & **13**.

CARE TOO WITH THE UNCONVINCED

One of these trials (**13**) uncovered another hazard of prescriptive therapy – 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.

Despite considerable experience supplemented by 16 hours' training and feedback on their videoed performances from Bill Miller, who personally certified their competence, the study's motivational therapists failed to improve retention or outcomes.

In this study, so tightly was the interview 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. It enabled what clients and therapists said to be matched to the topics addressed in each succeeding tenth of each session.[44 52]

Analysis of the videotapes suggested that it was not (as previously believed[20 53]) the frequency of 'change talk' which related to outcomes, 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) was more important than how many times either was said.

WRONG MOVES AND PREMATURE CALLS

During the first five to ten minutes of each session clients were asked what had led them to seek treatment. Here the strength of their commitment to reduce drug use

simply reflected how far they had already done so. From then on, commitment strength started to respond to what the therapist was doing, and instead of reflecting where the client had come from, 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 an assessment of their drug use and related problems. As intended, about 70% expressed sustained or increased commitment to tackle these problems. Over the following year, they largely remained abstinent from their primary drug.

But faced with this almost unremittingly negative feedback, a minority retrenched towards a commitment to continued drug use, especially the ones who from the start had been less convinced that their drug use really had been all bad. Over the next year, they struggled to control their drug use.

The same patients tended to be among[iv] the ones who at the end of the interview backpedalled in their commitment to change. At this stage therapists tried to get their clients to tie up all the ends – no matter how loose – into a plan for tackling drug use, one concrete enough to have explicit criteria of success, and sufficiently well grounded to withstand the anticipated pressures of life beyond treatment.

Despite being tested in these ways, most sustained the strength of their commitment and went on to express this in reduced drug use. But a minority sharply backed down; 'I wills' or equivalent rapidly became 'I'm not sure'. The strength of this final, concrete, public and verifiable commitment was the single most reliable harbinger of whether clients would later control their drug use.[v]

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

It seemed that some clients reacted badly to these attempts to push them forward. Instead of firming up their expressed commitment to curtailing drug use, they reversed, a setback followed by the predictable outcomes in terms of actual drug use. As far as could be determined, this was not just a case of people who had a poor prognosis anyhow reacting poorly to counselling.

The analysts 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." Leading the client to review the good side of their drug use is, they thought, particularly risky; by fostering an 'It wasn't all bad' perception it might pave the way for resistant reactions to assessment feedback.

What caused these reversals was, for motivational interviewing, an atypical degree of directiveness by the therapist. If this can be seen in motivational therapy, it should also be apparent elsewhere.

This is territory to be covered later in the *Manners Matter* series. Here it's relevant to note the key finding: patients who like to feel in control of their lives, who react against being directed, and resist therapy, do best when therapists are less directive (as in true-to-type motivational interviewing), while those willing to accept direction do better when this is what they get.[29 31 32 33]

ACCEPTANCE ELICITS HONESTY

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

As required by motivational interviewing, the therapists had created a non-judgemental social space within which what the client said was a valid reflection of their state of mind and determination to change, rather than acting as a way to placate, save face, or terminate the encounter. The problem was that therapists were so constrained that they could not respond to these clues.

MM3 Interchange; time to reflect

Still to come are the implications of these findings for training, research with legally coerced populations, and studies of linkage to aftercare. But in true motivational interviewing style, now is a good time to summarise and reflect.

First, clearly there is something here which works most of the time and more consistently and at less cost than the usual alternatives. What that 'something' is remains to be clearly defined. In every induction study in which motivational interviewing has apparently had a positive overall impact, this can be explained by 'non-specific' factors common to other therapies rather than the specific approach.

Most common, and potentially most powerful, is the enthusiasm and faith of the therapists, often newly trained and/or associated with the approach's developers ▸ studies 3, 4, 5, 8 & 12. Then there is extra assessment and/or feedback of assessment results (studies 3, 4, 5 & 8) and in some cases perhaps, simply spending time with a sympathetic listener ▸ studies 3, 4, 8 & 11. Finally, in two studies patients may have perceived the interviews as an earlier start to treatment ▸ studies 5 & 11.

Ironically, studies in which some patients did *worse* after a motivational interview show 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.

SKILL AND SENSITIVITY NOT TRICKERY

Rather than some psychological trickery,[20] motivational interviewing's strength may be that it provides a platform for these generic, relationship-building behaviours: empathy, respect, optimism, enthusiasm, confidence. At a minimum, it seeks to avoid behaviours which erode these qualities; at best, discovering motivational interviewing helps to generate them. One of the approach's virtues is that it instills optimism and demands sustained respect even in the face what would otherwise be demoralising clients.[70]

Though trickery is not required, social skills and judgement are, because a 'one size fits all' programme risks negative interactions. The truer therapists stay to motivational interviewing's 'It's up to you' stance, the less they will provoke 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 or who feel unable to self-initiate change.

Other hazards await therapists who forego sensitivity in favour of programmes which mandate a review of the good things about drug use, even if clients have moved beyond needing this as a way of establishing empathy, which land damningly negative assessments of drug use on people who may not be ready to see it that way, or seek commitment regardless of whether the ground has been firmed up sufficiently to support it. Done in this way, motivational interviewing is not always the safe, 'at least it can't hurt' option it once seemed.[6]

Managers also need to exercise judgement. Since 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[54] to base practice on evidence may then transfer over-prescriptive research programmes in to practice, valuing adherence to protocol above interpersonal skills.[3]

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 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 over-stretched life and inadequate resources, no feasible amount of motivational enhancement will provide all the answers.

When motivational interviewing does fit the bill, the research argues for a return to the modus operandi of the successful early studies, when absorbing principles took precedence over a set agenda, and to the client originally envisaged – not one already convinced they must change or determined on a way to get there, but unsure whether they want to. These are the conditions in which motivational interviewing has been most successful at improving retention and substance use outcomes. The effect is often to even out response to treatment by preventing initial low commitment becoming expressed in extremely poor outcomes ▸ studies 3, 4, 9, 14 & 15.

But even in the most conducive of circumstances, the approach requires sensitivity and social skills.[55] That perhaps understates it. True-to-type motivational interviewing *is* the application of sensitivity and social skills. The bad news is that this is not a packageable 'programme' to be lifted off the shelf – or is that the good news? MM3

NOTES

i To preserve compatibility with the extended review some studies have been omitted without renumbering the rest.

ii Each unit is about 8gm or 10ml of pure alcohol.

iii Compared to control patients, over the first week motivational patients significantly hardened their intention to abstain from heroin or cut down.

iv The relationship was significant but not one-to-one: patients who had not reacted badly to feedback may still have backpedalled.

v Whether this would also be the case in normal practice may depend on the context. In this study, the motivational therapists were independent from the treatment programme – they had no power over the client. 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 and perhaps also through continuing contacts with the main treatment service.

REFERENCES

1 Hubble M.A. *et al*. *The heart and soul of change: what works in therapy*. American Psychological Association, 1999.

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

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

4 Personal communication from William Miller, May 2005.

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

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

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

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

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

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

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

12 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.

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

14 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.

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

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

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

18 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*. Guilford Press, 2002, p. 217-250.

19 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.

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

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

22 Bien T. *et al*. "Motivational interviewing with alcohol outpatients." *Behav. & Cognitive Psychotherapy*: 1993, 21, p. 347–356.

23 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.

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

25 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.

26 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.

27 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.

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

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

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

31 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.

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

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

34 Connors G.J. *et al*. "Preparing clients for alcoholism treatment: effects on treatment participation and outcomes." *J. Consulting and Clin. Psychol.*: 2002, 70(5), p. 1161–1169.

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

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

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

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

39 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.

40 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.

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

42 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*. Guilford Press, 1991, p. 279–292.

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

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

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

46 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.

47 Personal communication from Damaris Rohsenow, 2005.

48 Chambless D.L. *et al*. "Update on empirically validated therapies, II." *The Clinical Psychologist*: 1998, 51(1), p. 3–16.

49 Woody S.R. *et al, eds*. "Manuals for empirically supported treatments: 1998 update." *The Clinical Psychologist*: 1998, 51(1), p. 17–21.

50 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.

51 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.

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

53 Miller W.R. *et al*. *Manual for the Motivational Interviewing Skill Code (MISC). Version 2.0*. University of New Mexico, 2003.

54 Reimer B. *Strengthening evidence-based addictions programs: a policy discussion paper*. Alberta Alcohol and Drug Abuse Commission [etc], 2003.

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

56 Miller W.R. "Integrating motivational approaches into treatment programs." In: *Enhancing motivation for change in substance abuse treatment*. US Dept. Health and Human Services etc, 1999.

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

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

59 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, 1997.

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

61 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.

62 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.

63 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.

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

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

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

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

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

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

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