

Motivational interviewing in health settings: a review

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Received 4 January 2002; received in revised form 10 February 2003; accepted 16 February 2003

Abstract

There is evidence that patient-centred approaches to health care consultations may have better outcomes than traditional advice giving, especially when lifestyle change is involved. Motivational interviewing (MI) is a patient-centred approach that is gathering increased interest in health settings. It provides a way of working with patients who may not seem ready to make the behaviour changes that are considered necessary by the health practitioner. The current paper provides an overview of MI, with particular reference to its application to health problems.

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Keywords: Motivational interviewing; Motivational enhancement therapy; Brief motivational interviewing

1. Introduction

Many health problems are related to lifestyle factors such as diet, exercise, and smoking. Changing such behaviours is difficult, requiring time, considerable effort and motivation. Furthermore, ambivalence about behaviour change is a common problem in health care consultations [1].

Traditionally, health practitioners have encouraged patients to make such changes through the provision of advice (i.e. information giving with direct persuasion) about behaviour change [2]. While this works with some patients [3], the evidence of the effectiveness of advice giving about lifestyle change is not strong [4], with success rates of only 5–10% [5,6].

Furthermore, there is evidence that patients do not necessarily want advice if it is provided in a style that is perceived as being “told what to do” [7]. Additionally, advice giving can develop into non-constructive disagreement, with the health practitioner placing emphasis on the benefits of change while undervaluing the personal costs, and the patient looking closely at the personal implications of change and the immediate costs while minimising future benefits [2]. The risk of such an encounter is that the patient becomes resistant to change or resistance, if already present, is increased [8].

In contrast, there is evidence that more patient-centred approaches produce better outcomes [9–11]. The essential features of these patient-centred approaches are that the patient does most of the talking, and that there is a ‘meeting between experts’ [2], with the concept of reciprocity in the consultation [12]. However, patient-centred counselling has not been developed into a replicable method specifically geared towards negotiating behaviour change in health consultations [13].

Motivational interviewing (MI), which evolved from Miller’s experience with the treatment of problem drinkers [14], and was later elaborated by Miller and Rollnick [8], is a patient-centred approach that has been gathering increased interest in health settings [13]. Miller conceptualises motivation as a state of readiness for change, rather than a personality trait [14]. As a state, motivation may fluctuate over time or from one situation to another, and can be influenced to change in a particular direction [15]. Thus, lack of motivation (or resistance to change) is not seen as inherent within the patient but rather something that is open to change. The main focus of MI is facilitating behaviour change by helping patients to explore and resolve their ambivalence about the behaviour change [16].

This conceptualisation of motivation as a state which is open to change is a sharp contrast to traditional approaches which view motivation as an attribute of personality, and denial or resistance as something to be dealt with through aggressive confrontation [17–20]. In fact, Miller and Rollnick suggest that adopting an aggressive and/or confrontational style (as in traditional approaches) is likely to produce

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responses from the patient (such as arguing) which may then be interpreted by the practitioner as denial or resistance [8], thus creating a “self-fulfilling prophecy” (p. 10).

While MI is patient-centred in that it focuses on the patient's wants, thinks and feels, and it is the patient that does most of the talking, MI differs from other patient-centred approaches in that it is directive. That is, in MI there is the clear goal of exploring the patient's ambivalence in such a way that the patient is more likely to choose to change his or her behaviour in the desired direction, and systematic strategies are used in order to achieve this [8].

2. MI principles and techniques

Rollnick and Miller distinguish between the “spirit” (p. 326) of MI and specific MI techniques [16]. Within the spirit of MI, readiness to change is not seen as a patient trait, but a “fluctuating product of interpersonal interaction” (p. 327), and motivation to change is viewed as something which is evoked in the patient, rather than imposed [16]. It is the patient's task (not the practitioner's) to articulate and resolve his or her own ambivalence. It is the practitioner's task to expect and recognise ambivalence, and to be directive in helping the patient to examine and resolve the ambivalence.

Miller and Rollnick suggest the following clinical principles upon which MI is based: express empathy, develop discrepancy, avoid argumentation, roll with resistance, and support self-efficacy [8].

An empathic style is seen as fundamental to MI. The underlying attitude must be one of acceptance, and belief that ambivalence is normal. Within this empathic style it is the practitioner's task to create and amplify any discrepancy between the patient's present behaviour and important goals, so that the patient presents the argument(s) for change.

Argumentation or direct persuasion is considered counterproductive and is to be avoided, as it is likely to produce defensiveness or resistance. Instead, the style is generally quiet and facilitative, and the relationship is more like a partnership or companionship than an expert/recipient one.

Resistance, on the other hand, is seen as a signal to change strategy. It is not opposed, but rather acknowledged and explored, with the view to shifting the patient's perceptions.

In supporting self-efficacy, the patient is seen as a valuable resource in finding solutions to problems. The patient is seen as responsible for choosing and carrying out personal change, but at the same time he or she must have a belief in his or her ability to change.

Rollnick and Miller describe specific, trainable techniques, which are characteristic of a MI style [16]. Seeking to understand the patient's frame of reference, particularly via reflective listening, and expressing acceptance and affirmation are techniques of MI borrowed from Rogers' non-directive patient-centred therapy [21,22]. MI techniques of evoking and selectively reinforcing the patient's

own self-motivational statements, monitoring the patient's readiness to change, ensuring that resistance is not generated by jumping ahead of the patient, and affirming the patient's freedom of choice and self-determination, are techniques which distinguish MI from other patient-centred approaches [8].

The techniques of MI are applied within the context of the ingredients for effective brief interventions, using the acronym FRAMES [8,23], namely Feedback, Responsibility for change lies within the individual, Advice giving, Menu of change options, Empathic style, and Self-efficacy is enhanced. In MI, however, advice is not given without the patient's permission, and when given, is accompanied by actively encouraging the patient to make his or her own choices.

MI therefore is not being practised when the practitioner argues that the patient has a problem and needs to change, or offers direct advice, or prescribes solutions to the problem without the patient's permission or without actively encouraging the patient to make their his or her choices. MI is also not being offered if the practitioner takes an authoritative/expert stance, leaving the patient in a passive role, or functions as a unidirectional information delivery system. The MI practitioner should not do most of the talking, impose a diagnostic label, or behave in a punitive or coercive manner towards the patient.

Within MI, there are a number of strategies that may be used to help build and strengthen motivation for change. They should be used flexibly to fit with each patient's situation and state of change and are discussed in order according to degree of readiness to change.

The patient is encouraged to talk about their typical day, and thereby talk about their current behaviour in detail within a non-pathological framework. For example, “can we spend the next 5–10 min going through a typical day from beginning to end. What happened, how did you feel, and where did your diabetes fit in?”

The patient is encouraged to make decisions about where to take the consultation by the use of agenda setting, used to structure the initial discussion. This may take the form of an agenda setting chart, with diagrams or words representing key areas which may be useful to explore (e.g. smoking exercise, alcohol, weight, etc.), and can be introduced as: “These are some of the things which we could talk about. What about you today? Would you like to talk about any of these, or do you have something else (pointing to the blank spaces) you would prefer to talk about?”

The personal dissonance strategy aims to create dissonance between the patients' positive image of themselves as a person on the one hand and a negative image of themselves on the other. A suggested line of questioning is: “Give me some words that describe your positive points as a person. Now give me some words that describe you as you have been with your drinking. How do these two fit together?”

The patient is invited to outline the positive things about continuing as they are and then conversely the negative

things. Some suggested questions are: “What are the good things about smoking. Let’s flip the coin. Tell me about the not so good things about smoking.”

The patient is encouraged to talk about specific individualised problems and concerns they have about their behaviour. A suggested line of questioning is: “What problems are you experiencing because of your weight? What concerns do you have about your weight? What else, what other concerns, do you have?” This strategy ends with a summary which highlights not only these problems and concerns, but also the positive benefits of continuing as they are currently (i.e. not changing).

Patients are encouraged to think about their current satisfaction with life and what the future looks like both if they continue as they are and if they change their behaviour. Suggested questions are: “How have things changed for you because of your high blood pressure? What will happen if you continue as you are now? If things are to improve, what needs to be different?”

The patient is invited to weigh up the pros and cons of changing his or her behaviour. Suggested questions are: “What would be some of the costs of changing? What would be the benefits of changing?”

The patient is encouraged to construct decisional balances, which involves generating the pros and cons of change options generated as a result of earlier questioning. These may be written down in the form of balance sheets and given to the patient, and should include: reasons to continue as before and reasons to change; short- and long-term positive and negative consequences of changing or staying the same; positive and negative consequences for self and for others, and self-approval rating for self and from others. In each of these balances the factors which support change are to be emphasised over those that may maintain the status quo.

When the patient indicates some desire to make a decision to change, the practitioner can help with decision making by the following: “Where does that leave you now?”, which can then be followed up by questions which elicit, rather than impose, possible solutions/targets for behaviour change, such as: “There is no one solution to this problem, but many. I can tell you about what has worked for others, but in the end, you will be the best guide of what is going to work for you. Shall we look at some of the options together? What might work for you?”

These strategies should not be used in isolation. Rather, they should be used within the context of the ingredients for effective brief intervention and alongside the MI techniques mentioned earlier, with particular reference to the patient’s readiness for change.

3. Theoretical basis

MI was not based on any specific theory. Rather, Miller drew from social psychology [14], applying processes such as attribution [24], cognitive dissonance [25], and

self-efficacy [26,27], and empathic processes from the methods of Rogers [21,22].

Despite the lack of empirical data, considerable interest in MI was shown, mostly within the addictions field, after Miller’s initial article [14]. Because of this interest, Miller began to research the processes and outcomes of MI, and as result, his initial model was elaborated and further developed by Miller and Rollnick [8,16].

A major development was to link MI to the transtheoretical model of change [28,29], with the transtheoretical model providing a framework for understanding the change process itself, and MI providing a means of facilitating this change process [30]. Within this framework readiness for change is seen as the extent to which the patient has contemplated the need for change, having considered the pros and cons of change. Lack of motivation can therefore be viewed as a “perceptual” (p. 115) problem, in which the patient sees no (or insufficient) need to change, whereas others (e.g. health professionals) do perceive a problem and a need for change [14].

MI aims to alter how the patient sees, feels about, and means to respond to the problematic behaviour. Ambivalence is seen as the key to this. It is resolved by focusing on the patient’s wants, expectations, beliefs, fears and hopes, with particular emphasis on the inconsistencies between these and the problematic behaviour.

The concept of readiness to change might help explain why simple advice giving is limited in effectiveness [4], as the patient may not be ready to change, and so any advice given is unlikely to be acted upon. Concrete behaviour change should not be the only goal. Instead, the practitioner might aim to increase the patient’s readiness for change through the use of MI. The concept of readiness to change also provides the possibility of tailoring interventions to suit the degree of readiness for change of the patient, which should ensure greater parity between the agendas of the practitioner and the patient, and therefore minimise resistance and improve the effectiveness of intervention.

The principles of MI have been related to the principles of cognitive dissonance [31]. That is, MI’s emphasis on resolving ambivalence by focusing on inconsistencies is creating dissonance. The techniques of MI (e.g. reflections, summarising) function to arouse cognitive dissonance. MI, then, is seen as producing a dissonant state (by focusing on ambivalence or inconsistencies) and then controlling the direction chosen for the dissonance resolution through the skilful use of MI techniques.

MI appears consistent with a number of models of health behaviour, such as Locus of Control [32], Theory of Reasoned Action [33], Social Cognitive Theory [34], Decisional Balance [35], Health Belief Model (HBM) [36], Health Action Process Model [37], Self-determination Theory [38] and Self-regulatory Model [39]. All of these models, despite differences in their terms and emphasis, share three common constructs [40], which are the focus of MI. These are the patient’s expectations about the consequences of engaging

in the behaviour, the influence of the patient's perception of, or beliefs about, personal control over the behaviour, and the social context of the behaviour.

The Health Belief Model, for example, suggests that health behaviour change depends on the simultaneous occurrence of: first, the belief that one is susceptible to a health threat or the medical or social consequences of the health threat; second, sufficient health concern to make the issues relevant; and third, the belief that a particular health recommendation would be beneficial in reducing the perceived threat at an acceptable cost [41]. MI appears to be a process by which the preceding three factors for health behaviour change, as postulated by the HBM, can be created or enhanced in the patient by the health practitioner.

Additionally, it has been suggested that the HBM could be improved by drawing upon Bandura's self-efficacy theory [26,42]. According to this theory, the degree to which an individual develops the expectancy that they will be able to perform desired behaviours (i.e. self-efficacy) is an important factor in behaviour change [26].

Self-efficacy has been used to predict health behaviours such as smoking cessation, weight reduction, exercise, and cardiac rehabilitation [43]. As mentioned earlier, self-efficacy is an important aspect to MI, with MI attempting to increase the patient's belief in his or her ability to change his or her behaviour (self-efficacy).

4. Specific interventions

The principles of MI have been incorporated into a brief intervention (called the Drinker's Check-up or DCU) for problem drinkers [44,45]. This is an assessment based strategy, involving a comprehensive assessment of the patient's drinking and related behaviours, followed by systematic feedback to the patient of findings using a MI communication style.

Motivational Enhancement Therapy or MET [46] is a four session adaptation of the Drinker's Check-up, which was developed as one of three interventions for alcohol abuse and dependence evaluated in Project MATCH [47]. It aims to motivate patients to make changes rather than provide detailed step-by-step advice about behaviour change, using a MI style.

Brief motivational interviewing (BMI) [1] consists of a set (or menu) of techniques, which follow the spirit and practice of motivational interviewing. It was designed for use in a single 40 min session in primary health care settings, with non-help-seeking problem drinkers.

Studies are evaluating whether the spirit of MI can be captured in even briefer (e.g. 5–10 min) encounters [48]. Rollnick et al. present a method focused on behaviour change in health settings, designed for brief consultations [49]. This comprises readily teachable brief strategies that follow the main goals of MI, but are more suited to health care practitioners, who have less time to acquire listening skills re-

quired for MI and who often have limited time with patients. While Rollnick et al. caution that the method they present should not be equated with MI [49], the method draws heavily from MI and the transtheoretical model of change.

MI has been provided by telephone consultation [50] and in a group format [51–53]. However, a group format, while more efficient, may compromise the effectiveness of MI as the intervention will not be able to be targeted at each individual's specific need as it is likely that different members of the group will be at different stages of change, at different times during the group. Studies are also currently underway exploring other formats for MI, such as computerised or paper self-help manuals.

MI in its various forms (MI style, DCU, MET, and BMI) has been applied both as a stand-alone intervention and as a preparation for treatment, and in a range of settings. This includes health settings such as the general hospital ward [54], emergency department [55], and general medical practice [48,56,57].

5. Efficacy of MI

Many studies reporting on the outcome of MI do not provide adequate information on what the intervention involved, or how it may have been modified for the particular target problem or client population, which makes it difficult to draw conclusions or make comparisons. However, there have been studies, particularly within the alcohol abuse field, which have utilised a specific MI intervention, such as the DCU or MET, and which have made attempts to ensure that the therapists adhere to the intervention protocol by evaluating the therapist's behaviour as well as client outcome.

The greatest support for MI comes from the treatment of problem drinkers, particularly Project MATCH [47]. This study represented the first test of MI as a stand-alone treatment for alcohol problems in a clinical population. In this comprehensive randomised controlled trial (RCT), 1726 alcohol-dependent participants were randomly assigned to one of three outpatient treatments: MET, Twelve Step Facilitation, or Cognitive Behavioural Coping Skills Training. On all measures (self-report, collateral, and biochemistry) MET was found to be more effective than the two longer (12 sessions) outpatient treatments.

Similarly, Sellman et al. compared MET with a similar brief intervention, Person Centred Therapy (PCT), and found MET to be more effective [58]. In this study, 122 participants with mild to moderate alcohol dependence were randomly assigned to one of three groups: MET, PCT, or a control group who received no further counselling. The MET group showed significantly less heavy drinking at 6 weeks and 6 months follow-up than the other two groups.

Furthermore, in a re-analysis of the Project MATCH data, MET was found to be most effective for those individuals with a higher level of anger [59]. Additionally, Heather et al., in a study of 123 heavy drinkers randomly assigned to one of

three groups: brief MI, skills-based brief counselling, or no intervention, found that MI was most effective for individuals who were least motivated, as measured by self-report and collateral measures of alcohol consumption [54]. These findings, then, provide evidence that MET may be most effective for patients who may be perceived as most resistant to change.

In a slightly different study, Handmaker et al. [57] evaluated the efficacy of MI as an intervention for pregnant drinkers in order to reduce the risk of fetal alcohol effects. In this pilot study, 42 pregnant drinkers were randomly assigned to receive written information about the effects of drinking during pregnancy (control group) or a 1 h MI session. Results indicate that women who reported the highest blood alcohol concentration (BAC) levels in early pregnancy showed significantly greater reduction in their estimated BAC later in pregnancy if assigned to the MI group rather than the control group.

Pilot studies suggest that MI can be successfully used with other substance abuse problems, such as heroin [60–62], cocaine [63] and marijuana [64], as well as with substance abusers with dual diagnoses [65]. However, the conclusions that can be drawn about the generalisability of MI from alcohol abuse to other substance abuse problems, or substance abusers with dual diagnoses, are limited as these studies are either single case reports, have combined MI with some other intervention, or the exact nature of the MI intervention utilised is unclear.

It has been suggested that MI could usefully be applied to health problems [66] and health promotion [67]. Furthermore, it has been suggested that MI might be particularly useful in the management of chronic illness [68] such as pain management [69], cardiac rehabilitation [70], diabetes [71], weight loss [72], and HIV risk behaviour [73,74]. However, there are few studies investigating the efficacy of MI applied to health problems.

The greatest support for the efficacy of MI applied to health behaviour change is from smoking cessation studies. For example, Stotts et al. examined the efficacy of MI as a late pregnancy smoking cessation intervention for resistant pregnant smokers [75]. In this study, 269 women who were still smoking at 28 weeks gestation were randomised to either an experimental group who received MI adapted from MET, or to a control group who received no further intervention apart from usual pregnancy care. MI was conducted in two sessions over the telephone, with a personalised feedback letter mailed following the first call. The results suggest that 43% of the women who received the full MI intervention ($n = 175$) were not smoking (i.e. no cotinine in urine samples) at the 34th week of gestation compared to 34% of the control group, and that 6 weeks post-partum 27.1% of the full intervention group reported to be either abstinent or light smokers, compared to only 14.6% of the control group. Similar support for the efficacy of MI in maternal smoking cessation is provided by Valanis et al. [76] using a quasi-experimental prospective cohort

design, with regression analysis showing statistically significant quit rates during pregnancy and smoking abstinence 6–12 months post-partum for the intervention women, although they relied entirely on self-reported smoking.

In another RCT ($n = 291$), Emmons et al. [77] evaluated the efficacy of MI (based on MET) for smoking parents of young children (under 3 years of age) in reducing household passive smoke exposure. Participants in the MI condition received one MI session in their home, followed by four follow-up telephone calls, whereas participants in the self-help group received information on quitting smoking in the mail. The results again lend support to the efficacy of MI, with 6-month nicotine levels significantly lower in the MI households compared to the self-help households.

There has also been increasing interest in the use of MI in the treatment of anorexia nervosa and bulimia nervosa, with the recognition that ambivalence about treatment is common with eating disorders [77–82]. However, there are few studies evaluating the efficacy of MI applied to the treatment of eating disorders.

Treasure et al. [83] in an RCT, in which 125 female patients with bulimia nervosa received four sessions of either MET or cognitive behavioural therapy (CBT), found MET to be as effective in the short-term (i.e. over 4 weeks) as CBT in reducing symptoms of binge eating, vomiting and laxative abuse. However, because patients were randomised to treatment blind of stage of change, some of the power of MET may have been lost, as MET might be expected to be particularly effective with patients in the precontemplation and contemplation stages of change.

Further, preliminary evidence that MET could be a useful treatment for eating disorders comes from a pilot study in which 19 patients with eating disorders received a group form of MET [84], with results suggesting that the participants' motivation to change increased following the intervention, along with decreases in depressive symptomatology and an increase in self-esteem. The results of these two studies suggest that further research into MET applied to the treatment of eating disorders is warranted.

MI has been receiving increased interest as a means of promoting treatment adherence in diabetes [48,71,85]. Smith et al. [72], in a pilot study, investigated whether the addition of three motivational interviewing sessions (conducted by psychologists) to a standard (16 weeks) behavioural weight reduction program for 22 obese women with Type 2 diabetes would increase adherence to treatment and improve glucose control. The MI group demonstrated better adherence to the program, as evidenced by higher attendance, more diaries turned in, and more frequent monitoring of their blood glucose levels. Furthermore, both groups reduced their average weight to a significant degree, but the MI group also achieved better glucose control. While the relatively short follow-up (4 months) and small sample size limit the conclusions that can be drawn, the results suggest that MI may contribute to increased efficacy of behavioural weight control programs.

Stott et al. [71] in an RCT with 200 patients with Type 2 diabetes with general practice doctors and nurses being trained in MI report that the general practice doctors and nurses were keen to learn new techniques, and found the MI techniques acceptable and useful, particularly the agenda setting chart, with over 70% of the health care practitioners reporting to frequently use it. However, patient outcome data were not reported.

Another area of treatment adherence in which it has been suggested that MI may be useful is psychiatric patient compliance with treatment [86], given that one of the main barriers to effective care of the long-term mentally ill is the poor compliance of many patients with recommended treatment, including compliance with prescribed medication regimes [87]. However, again, there are few empirical studies investigating this application of MI.

Swanson et al. in a study that randomised 121 psychiatric inpatients to either standard treatment (ST), which included pharmacotherapy, individual and group psychotherapy, activities therapy, milieu therapy and discharge planning, or to ST plus MI, found that significantly more patients who received ST plus MI attended their first outpatient appointment [87]. In another pilot study, Hayward et al. compared MI focused on medication self-management, for 21 patients with non-organic psychotic illnesses, to a control group, and found that the MI group showed positive changes in their attitude towards medication and insight into their illness, but the difference between the two groups was not statistically significant [87].

There are isolated studies which apply MI to other health behaviour, such as physical activity and dietary change. An RCT in which patients with hypertension were randomised to one of three groups: control, or low level or high level (MI) counselling conducted by nurse counsellors in a general practice setting, found that the MI group produced significant decreases in both weight and blood pressure over 18 weeks [88].

In another RCT, Harland et al. [89] examined the effectiveness of MI in promoting physical activity among adults aged 40–64 years attending a general medical practice. Participants ($n = 523$) were randomised to one of four groups or a control group: brief (one session) or intensive (six sessions over 12 weeks) MI, with or without financial incentive (vouchers for free access to leisure facilities). Although the results rely on self-report (exercise in the previous 4 weeks) they indicate that the intensive MI intervention (six sessions plus vouchers) was the most effective for promoting the adoption of exercise at 12 weeks, but that no intervention promoted long-term (12 months) adherence to exercise.

A form of BMI (three telephone counselling calls) was used to promote fruit and vegetable intake among African American church goers after they received an educational package focused on the 5 A Day message [90]. Participants receiving the MI calls had the largest increase in fruit and vegetable intake, with group \times time effects significantly different from group 1 who received the educational package

alone or group 2 who received the educational pack, plus one telephone call to cue the use of the material presented. However, in addition to the study relying solely on self-reported fruit and vegetable intake, it is unclear whether the MI per se resulted in the dietary changes, or whether the effect was simply due to the increased number of telephone calls.

One of the main issues when considering MI for use in health settings is the amount of training that might be required for health professionals to use MI and whether MI can fit within the demands of busy health settings. As mentioned earlier, Rollnick et al. [49] have begun to address this issue through the development of readily teachable brief strategies that follow the main goals of MI, which are suited to health care practitioners, who may have less time to acquire the skills required for MI and who often have limited time with patients. Additionally, there are reports of MI applied to health settings, which suggest that it may be feasible and relevant to health behaviour change [91–94], and that the techniques may be considered acceptable by health practitioners [71]. However, it is unclear how much training is required for competent use of MI. It seems that developing the attitude and knowledge necessary may not be too time consuming, but that the skills required for effective MI may take longer to develop, depending on the type of MI to be practised (e.g. BMI or MET) [92,95].

6. Conclusions

MI appears to hold substantial promise for health behaviour change. It is consistent with the call (from patients, and health researchers and practitioners) for more patient-centred approaches in health care in which the health practitioner–patient relationship is seen as a partnership, rather than an expert–recipient one. MI also provides health practitioners with a means of tailoring their interventions to suit the patient's degree of readiness for change. In particular, it provides practitioners with an effective means of working with patients who are ambivalent about, or not ready for, change.

Despite the promise which MI holds for promoting health behaviour change, there are few controlled studies evaluating the efficacy of MI with health problems, with clinical innovation remaining ahead of scientific evaluation [13]. Continued outcome research into MI applied to health behaviour change is required.

Additionally, it remains unclear as to how MI has its effect and what elements of MI are essential [96]. Further research needs to establish the process of MI and its key components. For example, little is known about what is the best way to structure sessions, or which are the optimal methods for responding to resistance.

It is also unclear which patients would benefit most from MI and which specific motivational intervention (i.e. DCU, MET, BMI or even briefer motivational consultations) would be of most benefit for which patients. For example, it is

unclear how a patient's level of motivation and other characteristics may influence the effectiveness of MI.

The challenge is to develop MI interventions that are useable in health consultations (which tend to be brief), are teachable, and are sufficiently specific to enable proper evaluation [4]. With such interventions, patients are likely to feel listened to and understood by their health practitioner. Health practitioners, on the other hand, are likely to gain a greater sense of achievement from recognising change in patients' readiness as important progress, rather than seeing concrete behaviour change as the only goal. Thus, MI interventions are likely to contribute to a greater sense of satisfaction for patients and practitioners, as well as helping promote health behaviour change.

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