In Review

Extending Motivational Interviewing to the Treatment of Major Mental Health Problems: Current Directions and Evidence

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Motivational interviewing (MI) was originally developed for the treatment of substance abuse but is rapidly expanding to other major mental health populations beyond addictions. This brief review considers the use of MI and related motivational enhancement therapies (METs) in the treatment of anxiety, depression, and eating disorders, and concurrent psychosis and substance use disorders. MI–MET has been added and (or) integrated into treatment for these problems in a wide variety of ways, most commonly as a pretreatment to other therapies (psychosocial treatments and pharmacotherapy) or integrated into standard assessment procedures. In each problem domain, the bulk of the current evidence supports the value of adding MI to existing therapies in increasing engagement with treatment and in improving clinical outcomes. This is particularly encouraging in that many of the populations included in these investigations represent severe and treatment-recalcitrant populations. However, research on the application of MI to other major mental health problems beyond addictions is in the early stages, with existing studies having numerous limitations (for example, small uncontrolled studies or lack of adequate control groups, and failure to establish both MI treatment integrity and the unique contribution of MI in integrated treatments). In short, the substantial body of promising preliminary findings strongly support the continued investigation of MI and related methods for these populations in well-designed clinical trials that examine not only the additive value of MI but also mechanisms underlying these effects and individual differences (moderators) indicating the need for MI.

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Clinical Implications

- Preliminary research supports adding MI to existing treatments for most major mental health problems, especially as a pretreatment or integrated into standard assessment procedures.
- With concurrent psychosis and substance abuse, adding MI can increase engagement in treatment, reduce substance use, and increase medication compliance.

Limitations

- While preliminary findings are promising in supporting the addition of MI to existing therapies for many major mental health problems, research is in the early stages, with existing studies having numerous methodological limitations.
- The evidence for MI is currently the strongest in the area of concurrent psychosis and substance abuse where numerous well-controlled studies have supported MI-enhanced intake procedures and the use of MI to reduce substance use and increase medication compliance.

Key Words: *motivational interviewing, anxiety, depression, eating disorders, dual diagnosis*

Since its original inception and development as a treatment for problem drinking,[1] MI[2] has diffused rapidly. MI has become an established, empirically supported treatment for substance abuse,[3] has been extended to health behaviours,[4] and is more recently being applied to the treatment of other major mental health problems.[5] In our paper, we briefly consider the application of MI to the treatment of 4 major mental health problems: anxiety disorders, depression, eating disorders, and dual diagnosis (concurrent psychosis and substance abuse). We start by outlining the need for MI in these populations, then consider both how MI has been adapted and integrated into treatment, and the current state of the evidence in each problem domain. Finally, we suggest numerous future directions for evaluating the extension of MI to the treatment of major mental health problems beyond substance abuse.

Why Is MI Needed?

While effective treatments have been developed for many mental health problems, limited patient engagement and noncompliance remains a major factor limiting the efficacy of existing treatments. For example, homework assignments are frequently recommended across various types of psychotherapy[6] and are regarded as essential to benefit from existing major treatments, such as CBT. However, homework noncompliance is a common problem, with surveys of practising therapists indicating noncompliance or partial compliance for most clients.[7] To illustrate, in a recent survey of practitioner-identified obstacles to the implementation of empirically supported treatments for panic disorder, client unwillingness to engage in treatment was reported by 61% of therapists, and minimal client motivation at the outset of therapy was identified as a problem by 67% of the therapists surveyed.[8] Further, resistance, treatment refusal, and noncompliance are often the norm in the treatment of eating disorders[9] and psychotic disorders (for example, medication compliance[10]).

Much of what is thought of as resistance or noncompliance in therapy may be a reflection of ambivalence about change and (or) treatment,[11] which can begin to appear even in the very early stages of help seeking[12] and persist throughout therapy.[13] Research suggests that many people with major mental health problems enter treatment with reservations, fears, or concerns about treatment and change.[14–16] As patients' active involvement in, and receptivity to, the treatment process has been consistently shown to predict positive outcomes,[17] the specific focus of MI on increasing intrinsic motivation and facilitating treatment engagement may hold particular promise in enhancing response rates to treatment.

Abbreviations

BED	binge eating disorder
CBT	cognitive-behavioural therapy
GAD	generalized anxiety disorder
MET	motivational enhancement therapy
MI	motivational interviewing
OCD	obsessive–compulsive disorder
PTSD	posttraumatic stress disorder
RCT	randomized controlled trial

Where and How Has MI Been Used?

The diversity in the ways that MI (and [or] related procedures that include elements of MI, often known as MET) has been used across mental health populations is striking. Within this growing body of literature, the 2 most common uses of MI have been either as a prelude or pretreatment to other therapies,[18–21] or as an approach that is integrated into standard assessment and intake procedures designed to increase motivation and engagement in treatment.[22–25] MI has also been commonly added or integrated throughout treatment as one part of a larger multi-component treatment package.[26,27] Beyond these uses, MI has also been applied to increase treatment seeking among those who are either not seeking[28] or refuse treatment.[29] MI has also been used to increase antidepressant[30] and antipsychotic[31] medication compliance. Other recommended possibilities for the use of MI include early prevention among people deemed at risk for developing mental health problems,[19,32] training significant others in MI to facilitate client recovery,[33] and the use of MI as a foundational framework into which other treatments can be integrated.[34,35] MI is also being developed as a brief treatment for suicidal ideation.[36]

Arguably, the application of MI to major mental health populations beyond addictions is more complex and requires greater flexibility. For example, when compared with substance use, where the target behaviour is relatively clear (for example, reducing drinking or drug use), the selection of target behaviours for the application of MI in many major mental health populations is typically more complicated. In many of these populations, there are often multiple treatment targets owing to the highly comorbid and multi-faceted nature of these disorders. For example, beyond difficulties with disordered eating and weight regulation, people with eating disorders are typically also struggling with issues of anxiety, depression, self-esteem, assertiveness, and other interpersonal problems. In addition, in the domains of anxiety and depression, the treatment targets are often not predominantly or exclusively behavioural or observable (for example, avoidance and behavioural withdrawal), but rather tend to involve more opaque, less definable targets, such as self-criticism, guilt, rumination, poor self-acceptance or emotion regulation, and experiential avoidance (for example, avoiding the experience of anxiety or low negative affect tolerance). Moreover, the treatment targets often take time to emerge

and (or) can shift during treatment depending on the primary focus of the client's concerns and the evolution of the therapy and (or) treatment conceptualization.

What Is the Evidence to Date?

MI for Anxiety

Case study data supporting the adjunctive use of MI and MET have been reported across a range of anxiety disorders, including OCD,[22] GAD,[37] social anxiety disorder,[38] panic disorder,[39] health anxiety,[40] PTSD,[41] and mixed anxiety and depression.[42] In small RCTs comparing MI to psychoeducational or no treatment control subjects, MI is demonstrating promise in increasing treatment seeking among people with social anxiety who are not yet seeking care,[28] and increasing problem-recognition and treatment attendance for those with PTSD.[43] There is also evidence that adding MI increases receptivity[44] and treatment response to exposure and response prevention for OCD,[45] to CBT for anxiety disorders more broadly,[46] and for GAD in particular.[18] While several studies have compared adjunctive MI use to treatment as usual (with either wait-list or no control for the additional therapist contact time), only a single study has examined adjunctive MI relative to a control group that received equivalent additional therapist contact. Here, McCabe et al[47] reported that a 3-session motivational enhancement pretreatment for OCD clients ($n = 32$) was associated with significantly reduced symptoms of OCD during the course of subsequent CBT, compared with a 3-session relaxation pretreatment control group.

In nearly all studies, MI was not consistently associated with higher self-reported motivation relative to control subjects. However, MI was consistently associated with a specific behaviour change (for example, entry into treatment, attendance, and decreased symptoms). It may be that self-report measures do not adequately capture client motivation, or changes in motivation, for anxiety relief. That is, clients may be understandably reluctant to report themselves as less than optimally interested in reducing highly aversive affective states, such as anxiety (and depression). As such, self-report measures tend to exhibit ceiling effects. In contrast, observed in-session opposition, and (or) resistant behaviour, tends to be a more accurate and clinically meaningful measure of motivation for change in anxiety.[48] In general, these findings speak to the promise of MI in the treatment of people with anxiety disorders, who often clinically present as highly motivated for change and yet demonstrate difficulty engaging with treatment and completing therapeutic tasks that require them to confront their fears and to give up avoidance and safety behaviours.

MI for Depression

As with anxiety, the application of MI to depression is still in the early stages of investigation. Numerous supportive uncontrolled case studies using MI for depression,[42,49] suicidal ideation,[36,50] and compliance with antidepressants[30] have been reported. Beyond this, Swartz et al[51] and Grote et al[23] have evaluated MI-enhanced interviewing to facilitate entry into treatment among people unlikely to seek care for mental health problems. Promising findings demonstrating high rates of treatment entry and completion among mothers of children with psychiatric illness requiring treatment for depression (open-label study[51]), and pregnant, depressed, and economically disadvantaged women (compared with treatment as usual[23]) have been reported. Response rates to MI were also very favourable in an RCT comparing brief primary care physician-administered MI (10 to 15 minutes) with brief physician advice, for engaging adolescents at risk for depression with an Internet-based prevention intervention.[19] In this study, people receiving MI showed significantly higher levels of engagement with the intervention, and the MI group was 4 times less likely than the brief advice group to experience a depressive episode (5%, compared with 23%) in the 12-week follow-up period.

MI for Eating Disorders

RCTs comparing pretreatment MI-augmented therapy with treatment as usual have supported the use of MI to increase treatment completion rates in inpatient therapies for anorexia and bulimia.[52,53] Some support has also been reported from uncontrolled[54,55] and nonrandomized[56] studies for group MI as a means of enhancing motivation before more intensive treatment for eating disorders. Two randomized studies have compared brief MET (1 session) plus self-help with self-help alone for BED,[20] and people with subthreshold bulimia and BED.[57] Both studies[20,57] found an increase in self-reported motivation for the MET-enhanced group. Dunn et al[57] found few differences between groups on symptom measures, although the MET group showed significantly greater abstinence from binge episodes at 4-month follow-up. Moreover, Cassin et al[20] reported consistent improvements in the MET-enhanced group over self-help alone on various eating disorders and related symptoms of psychopathology. However, a well-controlled randomized study by Treasure et al[58] compared 4 sessions of either MET or CBT in the first phase of treatment for bulimia nervosa and found that while self-reported motivation predicted symptom outcomes, no significant between-group differences were obtained on any outcome measure.

Beyond the use of MI as a pretreatment, in a randomized study, Pung[32] demonstrated that a single session of MI was more effective than a nutritional education intervention in improving eating disorder pathology and body image dissatisfaction in people at risk for developing eating disorders. Interestingly, in addition to behavioural markers of engagement in some studies (for example, treatment attendance), MI–MET has also been quite consistently found to increase self-reported motivation for change among people with eating disorders (for example, see Cassin et al,[20] Feld et al,[55] and Dean et al[56]). This is quite different from the findings for anxiety, where MI is generally not accompanied by changes in self-reported motivation. Self-report measures in eating disorders may be able to more

adequately capture differences in levels of client motivation for change, as it may be easier for clients to appreciate that behaviours, such as dieting and exercising, have benefits (and therefore one may be reluctant to relinquish them); while the so-called benefits of inherently aversive affective states, such as anxiety (or depression), are much more difficult to identify. In general, the clinical relevance of these findings is very apparent when one considers that low motivation for change is a hallmark feature of eating disorders, including both resistance to gaining weight in people suffering with anorexia, and reluctance about changing eating behaviours in people suffering with bulimia.

MI for Dual Diagnosis

Among the populations included in our review, the most research on MI, to date, has been conducted in the area of dual diagnosis (people with comorbid psychosis and substance use disorders) and the results are again encouraging. In well-controlled RCTs, MI-based assessment interviews, compared with standard psychiatric interviews, are associated with significantly improved attendance and engagement in subsequent treatment[59] and reduced drug use.[25] Similarly, Steinberg et al[60] found that a greater proportion of patients with schizophrenia or schizoaffective disorder, who were randomized to receive a single MI session, sought and attended tobacco-dependence treatment than those receiving standard psychoeducational counselling.

Studies have also supported the use of MI-based, stand-alone interventions in the treatment of substance abuse in dually diagnosed patients. RCTs comparing adapted MI interventions with educational treatments (with equivalent or nearly equivalent therapist contact) for patients with dual diagnosis have demonstrated significant reductions in favour of MI for illicit drug and (or) alcohol use, as well as measures of psychopathology both in individual and in group treatment settings.[61–63]

However, most commonly in the area of dual diagnosis, studies have added or integrated MI with other interventions (for example, CBT, family and [or] caregiver intervention, and contingency management) throughout the treatment process and compared this to treatment as usual. Here, mixed results have been reported. Some studies have found results favouring the MI-enhanced treatments relative to standard care for substance abstinence rates,[27,63] reduction in substance use,[21,64] and psychiatric symptom improvement,[27,65] whereas others have reported no significant group differences on these indices.[31,66]

In addition, RCTs have generally supported the use of integrated MI interventions in enhancing adherence to antipsychotics among patients with schizophrenia spectrum disorders. Kemp et al[67,68] reported that compliance therapy (a combination of MI and CBT), compared with routine care, in acutely psychotic inpatients was associated with improved attitudes toward treatment and gains in medication adherence during 18 months after hospital discharge. In other studies, Kemp's compliance therapy has been found to be associated with greater improvements in psychiatric symptoms, compared with treatment as usual.[69,70] Moreover, in a qualitative study, Rogers et al[71] interviewed patients with schizophrenia or schizoaffective disorder who participated in a medication management trial comparing treatment as usual, psychoeducation, and an MI-based intervention. Qualitative analyses revealed accounts of improved therapeutic alliance, increased sense of agency and self-efficacy, as well as more positive attitudes toward antipsychotics in the narratives of patients who received either the MI-based or psychoeducational interventions, while such accounts were absent among those who received routine care only. In general, the significance of findings that support the use of MI with people suffering from psychotic spectrum disorders is highlighted when one considers the high rates of comorbid substance abuse and medication noncompliance that are commonly found in these populations.

Conclusions and Future Directions

Extending MI to the treatment of major mental health problems beyond substance abuse is clearly appealing to clinicians and researchers, and conceptual and empirical work in these areas is advancing quickly. MI is likely appealing as it addresses important clinical problems (that is, resistance, ambivalence, and lack of engagement in treatment), and can complement rather than replace existing treatments. The diversity in the ways MI has been applied across the treatment process is striking, reflecting the flexibility and potential of the approach to be integrated in multiple ways and at multiple points throughout the treatment process. Most applications of MI in the populations included in our review have used MI as an adjunct to other treatments, either before or during other therapies (both psychosocial treatments and pharmacotherapy). This is likely because MI is conceived of as an adjunct to, rather than a replacement, for existing treatments, to build or sustain motivation. While MI has not been evaluated as a stand-alone treatment for many major mental health problems (except for substance abuse in the case of dual diagnosis), there is some evidence to suggest that some degree of symptom change is observed with MI alone.[18] Moreover, MI has been adapted to meet the unique needs and challenges of particular populations (for example, cognitive deficits that accompany psychosis necessitate simplified reflections, repetition, and increased MI structure and duration[16]). Other adaptations to specific contextual demands are indicated as well, such as systemic considerations in eating disorders, where significant others can play a major role in influencing the illness and course of recovery.

Although most research on the application of MI to the treatment of major mental health problems, such as anxiety, depression, eating disorders, and dual diagnosis, is in the early stages, existing findings strongly support the continued

evaluation of the potential of MI to enhance engagement with, and response to, treatment. In general, positive findings for enhancing engagement with, and response to, treatment have been reported in each domain under consideration, especially for MI as a prelude to other therapies (the most common use of MI to date). This is especially impressive given that many of the populations included in these studies are quite severe and difficult to engage (for example, those refusing treatment or unwilling to seek therapy, severe eating disorders, severe anxiety disorders, and comorbid psychosis and substance abuse). Even modest success in improving engagement and outcomes with treatment among these people is a significant accomplishment, and merits further exploration.

In considering future directions for research on MI for major mental health problems beyond addictions, numerous recommendations are offered. First, there is a very clear need for controlled, rigorous clinical trials of MI for most major mental health problems. This is especially important given that MI is widely recommended by clinical researchers for inclusion in existing treatments for many major mental health problems, but very few well-controlled studies (randomly assigning clients to MI or an equivalent therapist contact or therapy control) have been conducted to date. Although well-controlled studies have been conducted in the area of dual diagnosis, such studies are relatively absent in the areas of anxiety, eating disorders, and depression. While showing that MI has strong promise and potential to complement existing treatments for many major mental health problems, existing studies often have numerous shortcomings (for example, small samples, inadequate or absent control groups, MI treatment fidelity not clearly specified or demonstrated, use of 1 or 2 therapists, and allegiance effects not controlled). Further, when MI has been used as a component of a larger treatment package, the specific contribution of MI is not isolated or evaluated, rendering the additive value of MI to treatment response unknown. Moreover, ensuring adequate proficiency in MI is important in future studies, particularly as learning MI and shifting between very different clinical styles (client-centred and action-oriented) is far from simple.[72] Accordingly, rigorous clinical trials are imperative (and strongly indicated) at this stage to more clearly and convincingly isolate and evaluate the value of adding and (or) integrating MI into existing treatments for major mental health problems.

Moreover, process research on mechanisms of MI is virtually absent in the existing literature. While MI is associated with increased attendance and engagement with treatment, more research from well-controlled studies is required to identify whether such effects (or others) account for, or mediate the impact of, adding MI on clinical outcomes. Additionally, quantitative and qualitative research methods are needed to identify the major active ingredients within MI. For example, Marcus et al[73] reported that client accounts of their experiences of MI as a pretreatment for GAD reflected increased motivation, the importance of therapist empathy, and the creation of a safe climate to explore feelings about change. The delineation of these mechanisms has important implications, both for understanding how MI works and for effective training in MI.[74,75]

Relatedly, more research is needed to identify those for whom MI is particularly indicated (that is, moderators of treatment effects). MI may not be necessary or useful for all clients. Similarly, not all clients may need the same dose of MI. For example, Westra et al[18] found that only clients with high worry severity exhibited augmented treatment response when MI was added to existing treatment, compared with those with moderate worry severity. Identifying the characteristics of people who are particularly likely to require and respond to MI (for example, individual differences in motivation, resistance, interpersonal problems, and expectations) will assist in tailoring treatment and identifying markers of the need to shift between MI and more action-oriented treatments during therapy. At this early stage of the migration of MI into the treatment of major mental health problems beyond addictions, it is not possible to identify populations, or subsets of populations, for whom MI is not indicated or does not work. Relatedly, given the heavy reliance on empathy and relationship development in MI, it will be useful to evaluate whether MI can be effectively delivered for these populations in group formats. As research on MI evolves in these mental health domains, identifying individual differences in treatment response, and critically evaluating the formats of MI delivery, will represent important research goals.

Finally, greater attention to measurement of important constructs and outcomes of MI is indicated. For example, while the existing research suggests that MI impacts important behavioural indices (for example, treatment attendance, and engagement in therapy) and clinical outcomes, self-report measures do not always capture or demonstrate changes in motivation with MI across major mental health populations (especially anxiety and depression[48]). The development of adequate measures (both self-report and therapy process measures, such as resistance or client active engagement in actual therapy sessions) will help facilitate a clearer delineation of the impact and mechanisms of MI.

In summary, interest in, and research on, MI for major mental health problems beyond addictions is rapidly evolving. Existing early studies, while having many methodological limitations, consistently support the promise of adding MI in enhancing engagement in, and response to, existing treatments for a wide range of difficult and pernicious mental health problems, such as anxiety, depression, and eating disorders, and concurrent psychosis and substance abuse. Well-controlled and -designed studies are currently required (and strongly indicated, based on existing early research) to more convincingly evaluate the additive benefits of MI, and to isolate how and why adding MI, and (or) integrating MI into existing treatments, improves outcomes in these populations.

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Résumé : Utiliser la technique d’entrevue motivationnelle dans le traitement des principaux problèmes de santé mentale : orientations et données probantes actuelles

La technique d’entrevue motivationnelle (TEM) a été mise au point à l’origine pour le traitement de la toxicomanie, mais elle s’étend rapidement à d’autres grandes populations de la santé mentale au-delà de la toxicomanie. Cette brève revue examine l’utilisation de la TEM et de thérapies d’amélioration motivationnelle (TAM) connexes dans le traitement de l’anxiété, la dépression et les troubles alimentaires, et les psychoses et troubles co-occurrents liés à l’utilisation d’une substance co-occurrents. Les TEM-TAM ont été ajoutées et (ou) intégrées au traitement de ces problèmes de façons très variées, le plus souvent comme prétraitement à d’autres thérapies (traitements psychosociaux et pharmacothérapie) ou elles ont été intégrées à des procédures d’évaluation régulières. Dans chaque domaine de problème, la majeure partie des données probantes actuelles soutient qu’il est valable d’ajouter la TEM aux thérapies existantes en ce qu’elle accroît l’engagement au traitement et qu’elle améliore les résultats cliniques. Il est particulièrement encourageant que de nombreuses populations incluses dans ces recherches représentent des populations gravement malades et réfractaires au traitement. Toutefois, la recherche sur l’application des TEM aux principaux problèmes de santé mentale autres que la toxicomanie en est encore à ses débuts, et les études existantes comportent nombre de limitations (par exemple, de modestes études non contrôlées ou qui manquent de groupes témoins adéquats, et l’incapacité d’établir à la fois l’intégrité du traitement par TEM et la contribution distincte de la TEM aux traitements intégrés). Bref, l’ensemble considérable de résultats préliminaires prometteurs soutient fermement la recherche continue sur la TEM et les méthodes connexes pour ces populations, dans des essais cliniques bien conçus qui examinent non seulement la valeur additive de la TEM, mais aussi les mécanismes qui sous-tendent ces effets et les différences individuelles (modérateurs) indiquant le besoin de la TEM.

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