RESEARCH ARTICLE

Motivation-focused Treatment for Eating Disorders: A Sequential Trial of Enhanced Cognitive Behaviour Therapy with and without Preceding Motivation-Focused Therapy

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Abstract

Objective: To evaluate the effectiveness of a motivation-focused intervention prior to individual cognitive behavioural eating disorder treatment.

Method: Enhanced cognitive–behavioural therapy (CBT-E) in its usual form was compared with CBT-E preceded by four sessions of motivation-focused therapy (MFT) (MFT + CBT-E). Participants were adult outpatients seen at a specialist eating disorder clinic in Western Australia, who met criteria for a Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition eating disorder. A sequential trial of CBT-E as usual ($n = 43$) and MFT + CBT-E ($n = 52$) was conducted over a 40-month period.

Results: The MFT phase was associated with significant increases in readiness to change. There were no significant between-group differences in treatment completion rates, and treatment completers in both conditions reported comparable reductions in eating disorder symptoms over time.

Conclusion: In this sample, MFT + CBT-E was not associated with superior treatment outcome when compared with CBT-E as usual.

Keywords

eating disorders; treatment outcome; cognitive–behavioural therapy; motivation-focused therapy

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Motivational approaches to the conceptualisation and treatment of eating disorders have gained momentum over the past 10 years (Feld, Woodside, Kaplan, Olmsted, & Carter, 2001; Geller, Cassin, Brown, & Srikameswaran, 2009; Hasler, Delsignore, Milos, Buddeberg, & Schnyder, 2004; Rieger et al., 2000; Vitousek, Watson, & Wilson, 1998). Ambivalence about recovery is well documented amongst eating disordered individuals (Geller, Zaitsoff, & Srikameswaran, 2005; Serpell, Treasure, Teasdale, & Sullivan, 1999), and low levels of motivation or readiness to change have been linked to treatment refusal and poor treatment outcome (Geller, Cockell, & Drab, 2001; Geller et al., 2005). Readiness to change at the commencement of treatment has also been found to predict treatment engagement and outcome (Geller, Drab-Hudson, Whisenhunt, & Srikameswaran, 2004). Incorporating motivational work in treatment has, therefore, been identified as one possible means of improving treatment efficacy (Adshead, 2009).

The transtheoretical model (Prochaska, 1979) is a commonly used framework for conceptualising motivation and readiness to change. The model divides change into five stages described as *Pre-Contemplation* (being unwilling to change or unaware of a problem), *Contemplation* (thinking about change), *Preparation* for action (intending to change soon), *Action* (actively working to bring about change) and *Maintenance* (working to prevent relapse). In the eating disorder field, it is recognised that readiness to change varies across different categories of eating disorder symptoms, with higher change ratings typically being found for binge eating and cognitive symptoms (e.g. over-evaluation of weight and shape) than for dietary restraint and compensatory behaviours (Geller et al., 2001). It has been suggested that readiness to change dietary restraint may be most important in predicting treatment outcome (Geller et al., 2005).

Several studies have evaluated the effects of a brief number of motivation-focused sessions on (i) readiness-to-change eating disorder symptoms and/or (ii) actual change in eating disorder symptoms. Some results suggest that one to four sessions of motivation-focused therapy (MFT) may be effective in increasing ratings of readiness to change (Dunn, Neighbors, & Larimer, 2006; Feld et al., 2001; Wade, Frayne, Edwards, Robertson, & Gilchrist, 2009), reducing dropout from inpatient treatment for anorexia nervosa (AN) (Wade et al., 2009) and increasing binge abstinence following self-help treatment for bulimia nervosa (BN) (Dunn et al., 2006) and binge eating disorder (Cassin, von

Ranson, Heng, Brar, & Wojtowicz, 2008). Others, however, have found no beneficial effects of MFT over treatment-as-usual conditions. In a comparison of four sessions of outpatient MFT ($n = 152$) and four sessions of outpatient cognitive–behavioural therapy (CBT) ($n = 73$), for BN-like disorders, comparable increases in readiness to change and comparable decreases in eating pathology were found for the two conditions over the 4-week period (Katzman et al., 2010; Treasure et al., 1999). These sessions were offered prior to a further eight sessions of CBT, and there were no significant between-group differences in treatment completion rates over the initial 4 weeks or the full treatment period (Katzman et al., 2010). A sequential evaluation of four sessions of MFT as an adjunct to inpatient treatment ($n = 23$), compared with inpatient treatment as usual ($n = 19$), also found no beneficial effects of MFT over the treatment-as-usual condition (Dean, Touyz, Rieger, & Thornton, 2008). Patients in the two groups experienced comparable increases in readiness to change and comparable decreases in eating disorder and general psychopathology between pretreatment and both post-treatment and 6-week follow-up. Finally, a randomized controlled trial found that improvements in readiness to change and decreases in eating disorder symptoms were comparable for participants who received 5 weeks of MFT ($n = 57$) and those who were randomised to a wait list control condition ($n = 56$), both at 6-week (post-MFT) and 3-month follow-ups (Geller, Brown, & Srikameswaran, 2010). Interestingly, despite these null effects, significantly more participants in the control condition than the MFT condition were classified as highly ambivalent at 6 weeks and 3 months. The authors suggested that highly ambivalent individuals may be more likely to benefit from MFT than those who are relatively motivated to change (Geller et al., 2010), a possibility that has not yet been comprehensively examined.

These diverse findings make it difficult to draw conclusions regarding the possible benefits of specific motivation-focused sessions in the treatment of eating disorders. Small group sizes (e.g. <20 participants per condition) and short treatment and/or follow-up periods (e.g. <3 months) also limit the conclusions that can be drawn from some of the research conducted to date. In addition, the routine inclusion of motivational work in a number of psychotherapy approaches, including CBT, makes it important to delineate 'treatment-as-usual' conditions.

This study aimed to extend the work on motivational approaches to eating disorder treatment by comparing Fairburn's (2008) Enhanced CBT for eating disorders (CBT-E as-usual condition) with four sessions of MFT followed by CBT-E (MFT + CBT-E condition) in a transdiagnostic, outpatient sample. CBT-E has demonstrated effectiveness in treating the full range of the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (*DSM-IV*) eating disorders (Byrne, Fursland, Allen, & Watson, 2011; Fairburn et al., 2009). However, as with other forms of CBT for eating disorders (e.g. Katzman et al., 2010), treatment noncompletion rates can be unacceptably high outside of formal research settings (Byrne et al., 2011). Motivational sessions may be one way of addressing this problem.

It was predicted that:

(1) MFT + CBT-E would be associated with lower rates of dropout from treatment than CBT-E as usual.

(2) For participants who completed treatment, MFT + CBT-E and CBT-E as usual would be associated with comparable reductions in eating disorder psychopathology.

Although Katzman et al. (2010) found no significant between-group differences in treatment completion rates across their MFT and CBT-E groups, differences in our study population (individuals with all forms of eating disorders versus BN-like disorders only) and contrasting results in other study populations (e.g. Wade et al., 2009) contributed to the formulation of Hypothesis 1.

Method

Design and participants

Participants were adult outpatients (≥16 years) attending a statewide, government-funded eating disorder service in Western Australia. Details regarding the service and the patient population have been described previously (Byrne et al., 2011; Raykos, Byrne, & Watson, 2009). All participants provided written informed consent for their treatment data to be used for research purposes.

A sequential trial of four MFT sessions as a precursor to CBT-E was introduced at the end of 2007. Between December 2007 and July 2009, 52 patients commenced treatment in the MFT + CBT-E condition. An additional seven patients commenced treatment over this 20-month time frame but were not offered MFT because of prior commencement of behaviour change. These individuals were excluded from the current study.

The comparison group (CBT-E as usual) consisted of the 43 patients who commenced individual CBT-E in the 20-month period prior to MFT being introduced (i.e. April 2006 to November 2007). Baseline characteristics for the two groups were comparable in all key regards and are summarised in the Results section.

Treatments

Therapists were clinical psychologists or clinical psychologist registrars trained in the treatments by the second and final authors. For participants in the MFT + CBT-E condition, both treatment phases were delivered by the same therapist.

The MFT protocol was developed by the second author and is similar to other motivational approaches described in the literature (e.g. Feld et al., 2001; Katzman et al., 2010; Wade et al., 2009). Sessions were based on motivational interviewing principles, and therapists were instructed to maintain a style that was collaborative, calm and caring, whilst showing genuine concern, avoiding confrontation and being guided by patients' responses (Miller & Rollnick, 2002; Treasure & Schmidt, 2001). Within this framework, the sessions incorporated psychoeducation about eating disorders and the stages of change model; detailed consideration of the pros and cons of change; consideration of possible obstacles to change and treatment completion; letter writing exercises (i.e. to the eating disorder as a friend and as an enemy and to a friend in 5 years with and without an eating disorder); and short-term and long-term goal setting. Values at work was not included. The material was covered for over four sessions.

The CBT-E protocol is described in Fairburn (2008). Sessions covered the following: formulation of the eating problem; real-time

self-monitoring; psychoeducation and guided self-reading; regular eating; behavioural and mood regulation strategies (to manage binge eating, purging, excessive exercise and/or feelings of fullness as applicable); and strategies for addressing body checking, weight and shape over-evaluation, 'feeling fat', dietary restraint and dietary rules and the eating disorder mindset. As recommended by erv1131-bib-0009Fairburn, the broad form of CBT-E was utilised if core low self-esteem, clinical perfectionism or marked interpersonal problems were pronounced and judged to be maintaining the eating disorder. Overall, 28% of the sample ($n = 27$) received the broad version. This percentage was comparable across the MFT + CBT-E (27%) and CBT-E as-usual (30%) groups. The remaining participants received focused CBT-E.

Fairburn (2008) recommends 20 treatment sessions for individuals in the healthy weight range and 40 treatment sessions for individuals who are underweight. This was treated as standard procedure in the current study. However, as the study was conducted under routine clinical conditions, treatment duration was adapted if clinical need required this. Treatment completers who were underweight at pretreatment received an average of 39 sessions (SD 24.83), with a range of 15 to 100 sessions, and those who were not underweight received an average of 22 sessions (SD 10.88), with a range of 10 to 51 sessions. There were no significant differences in the number of sessions received across the MFT + CBT-E and CBT-E as-usual groups (details are provided in Table 3).

Overlap between the MFT and CBT-E phases occurred in two main areas: (1) psychoeducation and (2) a general motivational stance. Psychoeducation in MFT focused on the nature of eating disorders and the stages of change model. Minimal information was provided on specific topics such as self-induced vomiting or binge eating and the effects thereof. This information was provided in CBT-E. Psychoeducation in CBT-E was also guided by chapters from the Overcoming Binge Eating (Fairburn & Cooper, 1993), which were provided for at home between session reading (as recommended in Fairburn, 2008). A general motivational stance on the other hand, underpins CBT-E as well as MFT. However, in the MFT phase, patients were not asked to change their behaviour. Any changes that were made were fully initiated by the patient. Further, no agenda was set for each session, and the content was primarily guided by patients' responses to introduced exercises or topics. In the CBT-E phase, an agenda was set collaboratively, and behavioural strategies (such as self-monitoring, regular eating) were introduced early in therapy. Therapists also adopted an empathic but firm stance, combining a collaborative, motivational approach with expectations around slow but steady behaviour change.

All therapists attended individual weekly supervision sessions with the second author, which included review of selected videotaped sessions and weekly team meetings that incorporated peer supervision and discussion of treatment progress.

Measures

Eating disorder symptoms

The Eating Disorder Examination Questionnaire (EDE-Q) (Fairburn & Beglin, 1994) was used to assess cognitive and behavioural eating disorder symptoms at pretreatment, during treatment and post-treatment. The questionnaire is a self-report version of the interview-based Eating Disorder Examination (EDE) (Fairburn & Cooper, 1993) and has been found to demonstrate satisfactory convergence with the EDE interview (e.g. Binford, Le Grange, & Jellar, 2005; Black & Wilson, 1996; Fairburn & Beglin, 1994). Both measures generate four subscale scores (a Global score) and estimates of binge eating and purging frequency. Global EDE-Q scores and estimates of binge eating and purging were used for this research.

- Eating disorder diagnoses at pre-treatment were determined using the EDE.
- Body mass index (BMI; kg/m^2) scores were calculated at pre-treatment and at each treatment session.

Ratings of readiness to change

For participants in the MFT + CBT-E group, semi-structured questions adapted from the Readiness and Motivation Interview (Geller et al., 2001) were used to assess readiness to change and the degree to which participants were engaged in treatment for Internal (self-driven) versus External (other-driven) reasons. Specifically, clinicians asked participants to rate the degree to which they were (i) taking action to make changes related to their eating disorder or maintaining changes already made (*Action* rating); (ii) thinking seriously about making changes (*Contemplation* rating); or (iii) not wanting to make changes or

Table 1 Pretreatment characteristics [mean (standard deviation) unless otherwise stated] for the MFT + CBT-E and CBT-E as-usual groups

	MFT + CBT-E ($n = 52$)	CBT-E ($n = 43$)
Age	26.52 (8.98)	26.44 (8.98)
BMI	19.18 (3.78)	20.38 (5.52)
Diagnosis [% (n)]		
AN	17.3 (9)	27.9 (12)
BN	34.6 (18)	30.2 (13)
Eating disorder not otherwise specified		
AN-like	40.4 (21)	30.2 (13)
BN-like	3.8 (2)	9.3 (4)
Purging disorder	1.9 (1)	2.3 (1)
Unspecified	1.9 (1)	0.0 (0)
Total AN/AN-like	*57.7 (30)*	*58.1 (25)*
Total BN/BN-like	*38.5 (20)*	*39.5 (17)*
Comorbid difficulties		
DASS Depression	17.71 (10.66)	17.96 (12.72)
DASS Anxiety	10.53 (7.99)	11.98 (9.99)
DASS Stress	20.59 (8.97)	20.54 (9.94)
Rosenberg Self-Esteem Scale	21.74 (5.26)	22.98 (5.08)
Additional Axis I disorder/s [% (n)]	50.0 (25)	34.0 (17)
Taking psychiatric medication [% (n)]	54.0 (27)	50.0 (25)
Previous psychiatric treatment [% (n)]	82.0 (41)	88.0 (44)
Previous hospital admission/s [% (n)]	44.0 (22)	44.0 (22)

Note: MFT, motivation-focused therapy; CBT-E, enhanced cognitive–behavioural therapy; BMI, body mass index; AN, anorexia nervosa; BN, bulimia nervosa; DASS, Depression Anxiety Stress Scale.

not currently viewing their eating disorder as a problem (*Pre-Contemplation* rating). Each rating was made as a percentage, with the three ratings adding to 100% (Geller et al., 2001). Ratings were made for the eating disorder overall and for efforts at dietary restraint more specifically.

Participants were also asked to rate the degree to which they were attending treatment for themselves (*Internal* rating) versus attending treatment for others (*External* rating). Again, these ratings were made as percentages, with the two ratings adding to 100% (Geller et al., 2001).

Procedure

Participants completed the EDE-Q prior to attending their first assessment session and at 5-weekly intervals thereafter. The EDE was administered during the first assessment session. Readiness-to-change questions were administered to participants in the MFT + CBT-E group at the start and end of the MFT phase. This process is summarised in Figure 1.

Analyses

To determine if MFT was associated with increases in motivation over time, paired sample *t*-tests were used to compare mean readiness-to-change ratings in pre-MFT and post-MFT. Paired sample *t*-tests were also used to examine changes in eating disorder symptoms (mean Global EDE-Q scores, binge eating per week, purging per week) and BMI over the MFT phase.

To evaluate Hypothesis 1, chi-squared tests were used to compare the proportion of treatment completers in the MFT + CBT-E and CBT-E as-usual groups.

To evaluate Hypothesis 2, repeated measure analysis of variance was used to assess the effects of time and treatment condition on eating disorder symptoms (Global EDE-Q scores, binge eating per week and purging per week) and BMI. Time was considered at four levels: (i) pretreatment; (ii) week 5 of treatment (post-MFT for the MFT + CBT-E group, week 5 of CBT-E for the CBT-E as-usual group; see Figure 1); (iii) week 10 of treatment (week 5 of CBT-E or week 10 of CBT-E; see Figure 1); and (iv) post-treatment. Analyses were conducted using treatment completer and intention-to-treat (ITT) data. Pretreatment data were carried forward for participants who did not complete treatment.

Chi-squared tests were used to compare the proportion of treatment completers in full or partial remission from their eating disorder at post-treatment, across the MFT + CBT-E and CBT-E as-usual groups. Full remission was defined as not meeting full criteria for a *DSM-IV* eating disorder; the complete absence of binge eating and purging over the past 28 days; a BMI ≥18.5; and post-treatment Global EDE-Q scores within 1 standard deviation of Australian community norms (i.e. <2.46; Mond, Hay, Rodgers, & Owen, 2006). Partial remission was defined as not meeting full criteria for a *DSM-IV* eating disorder whilst still reporting occasional residual behavioural (binge eating or purging), cognitive (EDE-Q scores

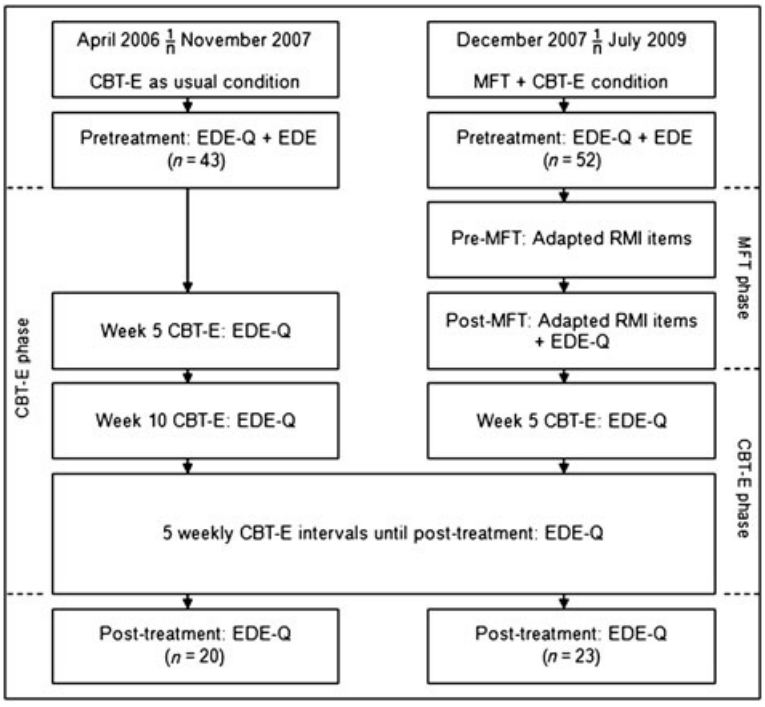

Figure 1 Summary of the assessment and treatment process for participants in each of the enhanced cognitive–behavioural therapy and motivation-focused therapy + enhanced cognitive–behavioural therapy conditions. CBT-E, enhanced cognitive–behavioural therapy; MFT, motivation-focused therapy; EDE-Q, Eating Disorder Examination Questionnaire; EDE, Eating Disorder Examination; RMI, Readiness and Motivation Interview

>2.46) or weight-related (BMI <18.5) eating disorder symptoms. This classification process is described in Byrne et al. (2011).

Results

Participant characteristics

Table 1 summarises pretreatment characteristics for participants in each of the treatment conditions. There were no significant between-group differences for any of the variables considered, although there was a trend for the MFT + CBT-E group to have a longer duration of illness and a greater prevalence of comorbid Axis I disorders than the CBT-E as-usual group, and for the CBT-E as-usual group to have a greater number of mean purging episodes per week at pretreatment than the MFT + CBT-E group.

Effects of motivation-focused therapy on ratings of readiness to change

The effects of the MFT sessions on ratings of readiness to change are summarised in Table 2 at an overall level and by diagnostic subgroup (AN/AN-like versus BN/BN-like). As two participants dropped out of treatment during MFT, analyses were conducted using 50 participants.

When analyses were conducted for all participants combined, Pre-Contemplation ratings reduced significantly over the 4 weeks for readiness to change overall, and Action ratings increased significantly for readiness to change dietary restraint. Significant increases were observed in Internal ratings (i.e. the degree to which participants reported attending treatment for themselves) (see Table 2).

When analyses were conducted for the AN and BN subgroups separately, reductions in Pre-Contemplation were only significant for the AN group, although a trend remained in the BN sample. Increases in Action ratings to change dietary restraint remained significant in the BN group, as did increases in Internal ratings but were not observed for the AN-like participants (see Table 2).

At an overall level, the MFT phase was associated with significant reductions in Global EDE-Q scores and the mean number of binge eating and purging episodes per week. When considering AN-like and BN-like participants separately, both groups showed significant reductions in eating pathology, but decreases in purging were not significant for the AN group. Neither group experienced significant changes in BMI.

Hypothesis 1: Effects of treatment condition on dropout from treatment

Contrary to predictions, treatment completion rates did not differ significantly across the MFT + CBT-E and CBT-E as-usual groups, χ^2 (1) = 0.40, p = .53. Indeed, as shown in Table 3, dropout rates were high in both conditions. There was a trend for treatment noncompleters in the MFT + CBT-E group to attend more treatment sessions before dropping out, compared with those in the CBT-E as-usual group, but this difference was not significant.

Lower treatment completion rates were better observed for AN-like patients than for BN-like patients. Again, however, rates were comparable across the two treatment conditions. For the AN group, treatment completion rates were 33% for MFT + CBT-E and 36% for CBT-E as usual; for the BN group, the equivalent values were 55% and 59%.

Hypothesis 2: Effects of treatment condition on changes in eating disorder psychopathology

In light of the trend towards a longer duration of illness in the MFT + CBT-E group than the CBT-E as-usual group, and the

Table 2 Changes in readiness to change and eating disorder symptoms across MFT, for participants who completed the MFT sessions

Readiness to change variables	Full sample (n = 50)		AN/AN-like (n = 28)		BN/BN-like (n = 20)	
	Pre	Post	Pre	Post	Pre	Post
Readiness to change — Overall						
% Pre-Contemplation	23.91	10.88**	26.47	10.41*	21.93	11.47
	(21.51)	(11.43)	(21.85)	(8.43)	(22.05)	(14.72)
% Contemplation	38.97	38.79	39.59	40.41	35.53	34.53
	(24.30)	(23.15)	(26.19)	(24.77)	(20.80)	(20.19)
% Action	37.42	48.58	34.53	43.65	42.53	54.00
	(28.39)	(24.71)	(30.37)	(26.77)	(26.37)	(22.69)
Readiness to change — Restriction						
% Pre-Contemplation	25.34	18.81	23.76	14.24	29.00	22.86
	(27.94)	(21.01)	(24.18)	(12.89)	(32.85)	(27.72)
% Contemplation	43.52	40.30	43.59	45.41	43.00	33.87
	(24.65)	(27.68)	(25.38)	(29.52)	(25.48)	(25.94)
% Action	20.88	35.82*	27.00	29.53	14.67	44.67**
	(22.22)	(30.52)	(26.97)	(30.08)	(14.20)	(30.26)
Internal versus External reasons for attendance						
% Internal	71.06	75.15*	66.47	66.29	77.67	86.20*
	(23.61)	(25.02)	(26.38)	(29.12)	(19.35)	(14.81)

Note: MFT, motivation-focused therapy; AN, anorexia nervosa; BN, bulimia nervosa.
*p < .05. **p < .01.

Table 3 Treatment completion rates and the mean number of treatment sessions attended for the MFT + CBT-E and CBT-E as-usual groups

	MFT + CBT-E ($n = 52$)	CBT-E ($n = 43$)
Treatment completion [% (n)]		
Completed treatment	44.2 (23)	46.5 (20)
Dropped out during MFT	3.8 (2)	–
Dropped out during CBT-E	44.2 (23)	46.5 (20)
Withdrawn (e.g. because of moving away)	3.8 (2)	4.6 (2)
Transferred to another service	3.8 (2)	2.3 (1)
Number of sessions attended [M (SD)]		
Assessment	2.75 (0.64)	2.98 (0.34)
MFT	3.75 (0.80)	–
CBT-E	19.84 (15.58)	17.93 (18.07)
Treatment completers	26.75 (10.91)	28.20 (21.58)
Treatment noncompleters	13.84 (14.69)	9.30 (6.87)

Note: MFT, motivation-focused therapy; CBT-E, enhanced cognitive–behavioural therapy. No between-group differences were significant at a $p < .05$ level.

possibility of a time cohort effect stemming from the sequential nature of this trial, illness duration was controlled for in repeated measure analyses.

Treatment completers

Significant main effects of time (pretreatment to post-treatment) were identified for Global EDE-Q scores, $F(3, 33) = 6.80$, $p = .002$, $\eta^2 = .49$; binge eating, $F(3, 33) = 4.91$, $p = .008$, $\eta^2 = .38$; and purging, $F(3, 31) = 7.45$, $p = .001$, $\eta^2 = .48$. There was no significant main effect of time on BMI, $F(3, 28) = 0.45$, $p = .72$, $\eta^2 = .05$. There were no significant interaction effects between time and treatment condition for any of the dependent variables, suggesting that the degree of symptom change over treatment did not differ significantly across the two groups. Means and standard errors for each variable at each assessment point are shown in Table 4.

At post-treatment, 61% of those who completed treatment in the MFT + CBT-E group were in full (44%) or partial (17%) remission from their eating disorder. The equivalent value for the CBT-E group was 70% (55% full remission, 15% partial remission), a nonsignificant difference, χ^2 (1) = 0.26, $p = 0.33$.

Intention to treat

As treatment noncompletion rates were comparable across the two treatment conditions, the pattern of results was similar across the treatment completer and ITT data (with lower rates of improvement in the ITT sample). Significant main effects of time were observed for Global EDE-Q scores, $F(3, 92) = 3.49$, $p = .022$, $\eta^2 = .17$; binge eating, $F(3, 92) = 3.20$, $p = .030$, $\eta^2 = .15$; and purging, $F(3, 92) = 4.79$, $p = .005$, $\eta^2 = .20$ but not for BMI, $F(3, 92) = 0.51$, $p = .68$, $\eta^2 = .03$. No significant interaction effects were observed between time and treatment condition. Means and standard errors for each variable at each assessment point are shown in Table 4.

Intention-to-treat analyses were also conducted for the AN-like and BN-like groups separately. There were no significant interaction effects between time and treatment condition for either subgroup for any of the eating disorder outcome variables.

Impact of readiness to change on subsequent treatment outcome

Post hoc analyses were conducted with the MFT sample to determine if readiness to change at baseline or post-MFT was related to subsequent treatment outcome. As Pre-Contemplation scores ≥67 have previously been identified as predictive of treatment noncompletion (Geller et al., 2010), this cut point was used for categorical comparisons.

There were no significant differences in mean Pre-Contemplation, Contemplation or Action scores (for dietary restraint or overall), or in mean Internal scores, across MFT participants who did and did not go on to complete CBT-E. However, participants with an overall Pre-Contemplation score of ≥67 at the end of MFT ($n = 12$) were significantly less likely to complete CBT-E than those with a score <67 ($n = 38$), χ^2 (1) = 7.75, $p = .005$. This pattern also held when considering Pre-Contemplation in relation to dietary restraint, χ^2 (1) = 6.55, $p = .010$.

For treatment completers, post-MFT Action scores were significantly associated with lower post-treatment Global EDE-Q scores after controlling for pretreatment Global EDE-Q scores. Again, this pattern held for readiness to change overall ($r = -.48$, $p = .043$) and readiness to change dietary restraint ($r = -.63$, $p = .005$). The correlation between post-MFT Internal scores and post-treatment Global EDE-Q scores approached significance ($r = -.45$, $p = .060$), and higher Internal scores at the start of MFT were associated with lower rates of purging post-treatment ($r = -.48$, $p = .047$). There were no significant associations between readiness to change and cessation of binge eating.

When using ITT data, post-MFT Action scores correlated significantly with post-treatment Global EDE-Q scores after controlling pretreatment scores for readiness to change dietary restraint only ($r = -.34$, $p = .049$).

Discussion

This study aimed to provide data on the effectiveness, or otherwise, of specific motivational sessions as an adjunct to CBT-E for eating disorders. Contrary to Hypothesis 1, MFT + CBT-E was not associated with lower rates of dropout from treatment when compared with CBT-E as usual. Consistent with Hypothesis 2, treatment completers in both conditions reported comparable reductions in eating disorder symptoms over time.

Preliminary analyses confirmed that the MFT sessions were associated with increases in reported readiness to change. At a whole sample level, Pre-Contemplation scores decreased, Action scores for changing dietary restraint increased and Internal scores (attending treatment for oneself) increased. These effects were not fully replicated in the AN-like group, where only the reduction in Pre-Contemplation was significant. The tendency for MFT effects to be greater for BN-like participants than AN-like participants has been documented previously (e.g. Geller et al., 2005) and suggests that diagnostic differences in the effects of motivational sessions need to be considered when evaluating the effectiveness of MFT more broadly (Geller et al., 2009).

Although the MFT phase did not focus on initiating behavioural change, it was associated with significant decreases in eating disorder symptoms. These were comparable in magnitude to those observed in the CBT-E as-usual condition.

Table 4 Means (standard errors) for eating disorder outcome variables at each assessment point, for the MFT + CBT-E and CBT-E as-usual conditions

	Pretreatment	Week 5	Week 10	Post-treatment	Pretreatment	Week 5	Week 10	Post-treatment
	MFT + CBT-E				CBT-E as usual			
Treatment completer data:								
EDE-Q Global score†	4.16 (0.23)	3.21 (0.34)	2.70 (0.38)	1.72 (0.36)	3.90 (0.26)	3.50 (0.39)	2.72 (0.43)	2.22 (0.40)
Binge eating/week†	3.78 (0.74)	0.63 (0.41)	0.32 (0.25)	0.22 (0.18)	3.01 (0.70)	1.29 (0.39)	0.71 (0.24)	0.45 (0.17)
Purging/week†	2.80 (0.81)	1.10 (1.08)	0.58 (0.59)	0.51 (0.32)	4.40 (0.79)	3.80 (1.05)	2.60 (0.58)	0.62 (0.32)
BMI	22.36 (0.88)	22.14 (0.87)	22.17 (0.84)	22.16 (1.04)	20.73 (0.73)	20.76 (0.73)	20.79 (0.70)	20.32 (0.87)
ITT data:								
EDE-Q Global score†	4.22 (0.18)	3.84 (0.22)	3.64 (0.25)	3.26 (0.27)	4.10 (0.22)	3.92 (0.26)	3.56 (0.30)	3.33 (0.33)
Binge eating/week†	3.51 (0.58)	2.27 (0.55)	2.14 (0.54)	2.10 (0.54)	2.90 (0.66)	1.94 (0.61)	1.62 (0.60)	1.48 (0.60)
Purging/week†	3.51 (0.75)	2.84 (0.82)	2.63 (0.74)	2.60 (0.73)	4.73 (0.85)	4.41 (0.93)	3.76 (0.84)	2.69 (0.84)
BMI	20.26 (0.59)	20.18 (0.59)	20.19 (0.58)	20.19 (0.63)	19.72 (0.59)	19.74 (0.61)	19.76 (0.60)	19.48 (0.66)

Note. Although repeated measure analyses were conducted using duration of eating disorder as a covariate, unadjusted means are reported for ease of interpretation. BMI, body mass index; CBT-E, enhanced cognitive–behavioural therapy; EDE-Q, Eating Disorder Examination Questionnaire; ITT, intention to treat; MFT, motivation-focused therapy.

†Significant main effect of time.

This finding appears to provide support for the possible utility of MFT. However, results from repeated measure analyses suggest that benefits do not exceed those associated with CBT-E as usual. Participants in both treatment conditions experienced similar rates of symptom change, similar pretreatment to post-treatment changes overall, similar treatment completion rates and a similar number of CBT-E sessions. Accordingly, the only notable between-group difference was that participants in the MFT + CBT-E group received four motivation-focused sessions, whereas those in the CBT-E as-usual group did not.

These results are consistent with those of Katzman et al. (2010) and provide support for the use of CBT-E in its original form. They are also consistent with the idea that motivational approaches to eating disorder treatment may need to be integrated within an overall treatment approach, rather than delivered as a discrete, stand alone set of sessions (Geller, 2002; Vitousek et al., 1998; Wilson & Schlam, 2004). Further to this point, the stages of change model have been criticised for not sufficiently reflecting the fluid nature of change and the inconsistency with which people engage and disengage in change over time (De Nooijer, Van Assema, De Vet, & Brug, 2005; McEvoy & Nathan, 2007; West, 2005; Wilson & Schlam, 2004). From these perspectives, specific motivation-focused sessions provided early in treatment are unlikely to have long-lasting benefits (Fairburn, 2008; Vitousek et al., 1998; Wilson & Schlam, 2004).

An alternative interpretation of the findings is that early motivation *does* relate to long-term treatment outcome, but CBT-E is comparable to MFT in achieving motivational increases. This possibility is supported by the significant correlation between post-MFT readiness to change and post-treatment Global EDE-Q scores, and the finding of high levels of ambivalence at the end of MFT were associated with subsequent dropout from treatment. It would be beneficial for future studies to consider the effectiveness of MFT as an adjunct to other forms of eating disorder treatment, where motivation may not be considered (e.g. interpersonal psychotherapy or pharmacotherapy in the treatment of BN, family-based therapy for adolescent AN). Research is also needed to identify alternative ways of increasing treatment completion, as dropout rates were unacceptably high in both conditions examined here.

Compared with some previous studies (e.g. Geller et al., 2009; Treasure et al., 1999), pretreatment Contemplation and Action scores were relatively high in our MFT sample. As noted elsewhere (Geller et al., 2010) and consistent with our finding that high ambivalence was associated with treatment noncompletion, motivation-focused work may be more beneficial for individuals who are highly ambivalent and reluctant to change. It is possible that this subgroup is not adequately represented in voluntary outpatient settings, such as the one utilised in this study. Delineation of the effects of MFT across different treatment settings is important.

There are several limitations associated with this study. First, the design was sequential rather than randomised, and participants in the CBT-E as-usual condition did not complete ratings of readiness or motivation to change. Accordingly, it was not possible to determine if MFT was more effective than CBT-E at increasing readiness to change early in treatment, or to determine if participants in the two treatment conditions differed on readiness to change at the time of commencing CBT-E. Future studies should consider this issue. Second, and as with other research conducted under routine clinical conditions (e.g. Katzman et al., 2010; Wade et al., 2009), we did not utilise formal measures of treatment fidelity or therapist competence. Third, group sizes for the treatment completer sample were not sufficient to allow for the differentiation of AN-like and BN-like participants in the repeated measure analyses. The absence of post-treatment data in the noncompleter sample also precludes comment on any differences in the effectiveness of MFT + CBT-E and CBT-E as usual for participants who did *not* complete treatment. Fourth, and as noted, the results only relate to the effectiveness of MFT as an adjunct to CBT-E.

In summary, this research provides initial data on the relative effectiveness of CBT-E with and without preceding motivation-focused sessions. The results did not support the addition of an MFT phase, and instead add to the body of evidence for CBT-E in its usual form. Replication in different settings and with different comparison treatments is now important.

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