

The Development and Evaluation of a 5-Week Readiness for Change  
Precursor to Group Cognitive-Behavioral Therapy for Individuals with  
Eating Disorders

by

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## Abstract

The purpose of this research was to develop and evaluate a 5-week readiness for change precursor to group cognitive-behavioral therapy for individuals with eating disorders. Group content was based on the theories of the Transtheoretical Model of Change and Motivational Interviewing, and also included an experiential pretraining component. Forty-six medically stable individuals with anorexia nervosa, bulimia nervosa or eating disorder not otherwise specified (EDNOS) were recruited from the Adult Eating Disorders Program at the Health Sciences Centre in Winnipeg, Canada. Participants completed measures of readiness for change, eating disorder symptomatology, and treatment outcome at three time points: pre- and post-readiness precursor, and post-cognitive-behavioral group. One-way repeated measures analysis of variance, regression analysis, and Cochran's Q analysis were used to investigate hypotheses. Results revealed that participants' readiness for change increased significantly following the readiness group. However, despite changes in readiness, stage of change awareness and cognitive-behavioral treatment drop-out rates were not significantly improved. It was concluded that motivational interventions appear to be an effective way to increase readiness for change in the eating disorders, however more research is needed to determine whether increases in readiness have a significant impact on treatment outcome.

## The Development and Evaluation of a 5-week Readiness for Change Precursor to Group Cognitive-Behavioral Therapy for Individuals with Eating Disorders

Eating disorders have a devastating impact on the lives of sufferers. This impact is experienced both physically and psychologically. For example, high mortality rates are reported for anorexia nervosa (AN) which are consequent to both malnutrition and suicide (Agras et al., 2004). AN can lead to a number of severe medical conditions such as osteoporosis, cardiovascular complications, electrolyte irregularities, and disturbances in immune functioning. Further, individuals with AN often experience serious comorbid psychopathology including depression, anxiety disorders, and substance use disorders (Agras et al., 2004). Individuals with bulimia nervosa (BN) also experience severe medical and psychological problems. Health consequences of BN include amenorrhea, disturbances in bowel functioning, electrolyte irregularities, and permanent loss of dental enamel. Potentially fatal complications include gastric rupture, esophageal tears and cardiac arrhythmias. BN is also often comorbid with mood, anxiety and substance use disorders (American Psychiatric Association, 1994).

Despite the devastating health consequences of these conditions, individuals with eating disorders are notoriously ambivalent about change. This lack of motivation for treatment is one of the most striking phenomena in this population (Hasler, Delsignore, Milos, Buddeberg, & Schnyder, 2004). It has been found that treatment refusal, nonadherence, and dropout commonly occur in the treatment of individuals with eating disorders (Eckert, Halmi, Marchi, Grove, & Crosby, 1995; Geller, Cockell, & Drab, 2001; Mahon, 2000). In fact, the dropout rate from treatment for individuals with BN has been reported as ranging from 15% to 65%, with a median of approximately 30%



(Mahon, 2000), while the dropout rate for individuals with AN has been as much as 50% over the first year of treatment (Vandereycken & Pierloot, 1983). As a result, researchers are investigating the assessment and enhancement of readiness and motivation for change in this population (e.g., Casasnovas et al., 2007; Geller, Cassin, Brown, & Srikameswaran, 2009; Touyz, Thornton, Rieger, George, & Beaumont, 2003; Treasure, Gavan, Todd, & Ulrike, 2003; Wolk & Devlin, 2001).

### *The Transtheoretical Model of Change*

The Transtheoretical Model of Change (TTM; Prochaska, 1979; Prochaska, DiClemente, & Norcross, 1992) was initially developed for substance use populations, but has since been applied to other health issues such as safe sex practices (Prochaska, Redding, Harlow, Rossi, & Velicer, 1994), exercise adoption (Marcus et al., 1998), mammography screening (Rakowski et al., 1998) and eating disorders (Geller & Drab, 1999). The model describes three dimensions of change: stages of change (i.e., when change occurs), processes of change (i.e., how change occurs), and level of change (i.e., what change occurs). Stage of change, which is the central organizing construct of the model, reflects the motivational and temporal dimensions of the change process (Levesque et al., 2001). It has been found that individuals move through five stages of change when attempting to modify their behaviour, either on their own or with the help of a formal intervention (Prochaska & DiClemente, 1983). In the first stage, *precontemplation*, individuals have no intention of changing their behaviour in the foreseeable future. They deny they have a problem and believe the negative consequences of their behaviour to be insignificant. Items endorsed by precontemplators on a continuous stage of change measure include “As far as I’m concerned, I don’t have

any problems that need changing” and “I guess I have faults, but there’s nothing that I really need to change” (Prochaska et al., 1992). *Contemplation*, the second stage, is the stage in which individuals become aware that a problem exists, and are seriously thinking about making changes. In this stage, individuals begin to recognize the benefits of changing, but continue to overestimate the costs, and therefore remain ambivalent (Levesque et al., 2001). Individuals in the contemplation stage endorse such items as “I have a problem and I really think I should work on it” (Prochaska, et al., 1992). The third stage is *preparation*. In this stage, individuals are intending to make changes and take action within the next month, and have unsuccessfully taken action in the past year. Some investigators prefer to conceptualize this stage as the beginning of the action stage. The *action* stage occurs when individuals change their behaviour, experiences, or environment in an effort to overcome their problem. Individuals in this stage endorse items such as “I am really working hard to change” and “Anyone can talk about changing; I am actually doing something about it.” Lastly, individuals will enter the *maintenance* stage. In this stage, people attempt to prevent relapse and maintain the changes and gains they have already made. It is important to note that the maintenance stage is viewed as a continuation of change, and not the absence of change. Therefore, for some behaviours, this stage can last a lifetime. Individuals in the maintenance stage endorse items such as “I’m here to prevent myself from having a relapse of my problem” (Prochaska et al., 1992).

Although it may seem that the TTM describes a linear model of change, Prochaska et al. (1992) explain that linear progression, while possible, is a rare occurrence with addictive behaviours. In fact, relapse and recycling through the stages

occurs frequently. As a result, the model is best described as a spiral pattern of change. The spiral model predicts that relapsers do not revolve in circles, or regress all the way back to where they began. Rather, as they cycle through the stages, relapsers apply lessons learned from past mistakes (DiClemente et al., 1991).

*Assessing Stage of Change in the Eating Disorders: The Readiness and Motivation Interview*

A number of researchers have attempted to assess stage of change in the eating disorders. Both measures used previously with other populations, as well as measures designed specifically for individuals with eating disorders have been investigated (e.g., Stage of Change Questionnaire; Blake, Turnbull, & Treasure, 1997; The Anorexia Nervosa Stages of Change Questionnaire; Rieger, Touyz, & Beumont, 2002). While these measures have been successful in assessing stage of change, difficulties remain with regard to predicting treatment outcome. It has been hypothesized that this may be due to the fact that original stage of change measures were developed to assess single symptom problems, such as alcohol or drug use (Geller and Drab, 1999; Treasure et al., 1999). Eating disorders, in contrast, are characterized by a number of cognitive, behavioural and affective features (e.g., fear of fatness, importance of shape and weight, restriction, bingeing, purging), and individuals often feel differently about each symptom. For example, individuals with BN may wish to reduce their bingeing, but may be ambivalent about reducing their restriction.

Given the multidimensionality of eating disorder symptoms, Geller and Drab (1999) developed the *Readiness and Motivation Interview* (RMI), which is a symptom-specific, semi-structured interview measure of readiness for change in the eating

disorders. The RMI is used in conjunction with the diagnostic questions from the Eating Disorders Examination (EDE; Cooper & Fairburn, 1987), such that both diagnostic and motivational status can be ascertained for each symptom of an eating disorder. The EDE is considered the gold standard for diagnosis of AN and BN, and assesses thirteen eating disorder symptoms: fear of weight gain, feelings of fatness, restraint over eating, maintenance of low weight, menstruation, importance of shape, importance of weight, objective bulimic episodes, dietary restriction outside bulimic episodes, self-induced vomiting, laxative misuse, diuretic misuse, and exercise. For each symptom, the RMI elicits three readiness ratings, as well as one internality rating. That is, clients are asked to what extent they are in precontemplation, contemplation, and action/maintenance for each symptom. In the RMI, the preparation stage was omitted, and the action and maintenance stages are conceptualized as the same category. Geller and Drab (1999) contend that a clear distinction between action and maintenance occurs only rarely in the eating disorders, since both involve active work. RMI stage scores are given in percentages and can range from 0 to 100% (estimated to the nearest 10% increment), with precontemplation, contemplation, and action/maintenance adding up to 100% for each symptom. By giving a rating for each of the three stages, clients explore their experiences of precontemplation, contemplation and action/maintenance relative to one another. The internality rating captures the locus of control for each symptom in which action is occurring. Therefore, for each symptom, clients are also asked to indicate (by percentage) the extent to which the individual is making changes for themselves versus for others. It is thought that individuals in action who have an internal locus of control will be more successful at maintaining changes (Geller & Drab, 1999).

It has been found that the RMI has good inter-rater reliability, ranging from 95.6 to 97.4% agreement for the stages of change, and internal consistency, ranging from .63 to .84. RMI scores also have good convergent validity with questionnaire measures of readiness. Research has also shown RMI scores to predict both analogue and clinical measures of outcome, including anticipated difficulty of recovery activities, completion of recovery activities, and the decision to enroll in and dropout from intensive treatment (Geller et al., 2001). To date, the RMI is the only stage of change assessment tool for the eating disorders that has successfully predicted these outcome variables.

### *Motivational Interviewing*

Motivational Interviewing (MI; Miller & Rollnick, 2002) is a therapeutic intervention originally developed for addictions counseling. Over the past 20 years, MI has gained increasing popularity and has been applied to a number of areas including smoking cessation, physical activity and healthy diet promotion, medical adherence, and HIV-risk behavior prevention (Carey et al., 1997; Emmons & Rollnick, 2001; Resnicow et al., 2002). The purpose of MI is to increase motivation for change while maintaining a client-centered, non-judgmental stance. Although the MI therapist directs the client via open-ended questioning and exercises, ideally it is the client who does most of the talking and who makes the arguments for change (Miller & Rollnick, 2002). Although MI was originally developed to be conducted on an individual basis, a number of studies have successfully applied MI to a group format (e.g., Carey et al., 1997; Feld, Woodside, Kaplan, Olmstead, & Carter, 2001; Murphy et al., 2004).

An essential component of MI is its “spirit” or clinician stance. In fact, when originally developed, it was described more as a therapeutic style, rather than a set of

specific techniques (Miller, 1996; Miller, 1983). Because MI is rooted in the Rogerian client-centered approach to therapy, empathy, open-mindedness, and non-judgmental curiosity are considered essential components of the therapeutic stance. Reflective listening is also an integral component of the intervention. MI differs from the Rogerian approach, however, in its directive nature. Unlike the Rogerian therapist, the MI therapist typically has a specific goal (i.e., increasing motivation for change) and gently directs the client through a series of exercises designed to help them work through ambivalence. The therapist is never aggressive or confrontational, but rather “rolls with resistance.” Resistance from the client is interpreted by the therapist as a cue to change strategies. Although directive, the goal of MI is to have the client explore their feelings about making changes to their behavior so that they become the main advocate for change (Miller & Rollnick, 2002).

In their book, *Motivational Interviewing: Preparing People for Change*, Miller and Rollnick (2002) describe MI as having two phases. The goal of the first phase is to build motivation for change, while the goal of the second is to build confidence and increase commitment to change. Miller and Rollnick suggest a number of techniques and exercises that can help build motivation for change. These include asking evocative questions, discussing the pros and cons of behavior change, and exploring the client’s life goals and values in order to determine if they are consistent (or inconsistent) with their current behavior. An important tool during this phase is what Miller and Rollnick term ‘eliciting change talk’. Change talk occurs when the client begins to discuss the disadvantages of their behavior and why/how they plan to change. Change talk can be elicited a number of ways. For example, the therapist might ask a question such as “If

you do decide to make a change, what do you hope might be different in the future?” (p. 82). Alternately, the therapist might ask the client to elaborate about one of the disadvantages of their behavior. Regardless of the method, the goal of change talk is to have clients think and talk about their own reasons for change (Miller & Rollnick, 2002).

During the second phase of MI, the therapist attempts to strengthen the commitment to change and build the client’s confidence in their ability to change. Again, Miller and Rollnick suggest several techniques and strategies to accomplish this, such as discussing personal strengths and supports, and reviewing past successes. At the end of this phase, therapist and client work together to set realistic goals and outline a plan for change (Miller & Rollnick, 2002). A recent meta-analysis conducted by Burke, Arkowitz and Menchola (2003) concluded that adaptations of MI (AMI; the use of MI techniques adapted for different populations) were equivalent to other active treatments and that treatment effects were achieved in considerably less time. It was concluded that AMIs are both clinically and cost effective.

#### *Enhancing Readiness for Change in the Eating Disorders: Motivational Enhancement Therapy*

Although MI can be considered an intervention on its own, the theoretical framework of the TTM and the therapeutic style and techniques of MI have been combined to produce a type of therapy called *motivational enhancement therapy* (MET; Miller, Zweben, DiClemente, & Rychtarik, 1992; Treasure et al., 1999). Although there has been limited research in the area of eating disorders, several studies have investigated the use of MET in this population. For example, Treasure and colleagues (1999) were first to investigate MET in a group of individuals with BN. In this study, participants

were randomly assigned to four sessions of either cognitive-behavioral therapy (CBT) or MET. No differences were found between CBT and MET in reducing bulimic symptoms or in developing a therapeutic alliance. Interestingly, there were also no differences between the two conditions in increasing readiness for change, as measured by the University of Rhode Island Change Assessment Scale (URICA; McConaughy, Prochaska, & Velicer, 1983). The URICA is a stage of change measure that can be used with any problem and is therefore not specific to eating disorders. The authors theorized that the readiness finding may be due to the fact that the URICA was not sophisticated enough to determine motivation for all behaviors of the eating disorder (Treasure et al., 1999).

In 2001, Feld and colleagues conducted a pilot study investigating the effectiveness of an MET group for individuals with eating disorders. Nineteen individuals took part in 4 hour-long sessions which took place over 4 consecutive weeks. Following the intervention, researchers reported an increase in motivation for change and self-esteem, as well as a decrease in depressive symptoms. In 2004, Gowers and Smyth conducted a study investigating the impact of a motivational assessment interview on initial response to treatment in adolescents with AN. Forty-two adolescents rated their own motivation for change before and after the assessment interview. It was found that the motivational assessment interview significantly improved motivation for change. Further, motivational category predicted both engagement in treatment, as well as weight gain. The authors reported that 80% of participants began a CBT-based outpatient program following the interview, and concluded that motivational enhancement may improve treatment engagement, as well as behavioral change.



In 2006, Dunn, Neighbors and Larimer (2006) investigated whether a single session of MET would increase readiness for change, improve efficacy of self-help, and improve treatment compliance in individuals with BN or binge eating disorder. Ninety participants were randomly assigned to one of two conditions: MET + self-help manual or self-help manual only. It was found that the MET intervention increased readiness for change compared to the self-help only condition. Although both conditions reduced the frequency of bingeing and compensatory behaviors, significantly more participants in the MET condition were abstinent from bingeing at follow-up. No significant results were found with regard to treatment compliance.

Finally, Cassin, von Ranson, Heng, Brar, and Wojtowicz (2008) conducted a randomized controlled trial investigating the use of AMI in the treatment of women with binge eating disorder. In this study, 108 women were assigned to one of two conditions (1 individual AMI session plus self-help handbook or self-help handbook only) and assessed at baseline, 4 weeks, 8 weeks, and 16 weeks post-baseline assessment. Results revealed that although both groups showed improvements in binge frequency, mood, self-esteem, and quality of life at the 16-week assessment, individuals in the AMI condition showed greater improvements overall. Although more research must be conducted, these studies provide preliminary support for the utility of MI and its adaptations for the treatment of individuals with eating disorders.

### *Cognitive-Behavioral Therapy for the Eating Disorders*

CBT is highly recommended as an evidence-based intervention for treating eating disorders (Wilson & Fairburn, 1993). For BN, CBT is the most comprehensively studied treatment and is widely viewed as the treatment of choice (Vitousek, 1996; Whittal,

Agras, & Gould, 1999; Wilson & Fairburn, 1998). The cognitive model of BN suggests that negative self-evaluation or low self-esteem interact with extreme concerns about body shape and weight. This interaction leads individuals with BN to engage in high levels of dietary restriction, which in turn has physiological and psychological effects that lead to binge eating. Binge-eating is then followed by compensatory behavior (e.g., vomiting, laxative use, excessive exercise) in order to eliminate the ingested food and avoid weight gain (Wilson & Fairburn, 1993). CBT for BN begins by teaching patients about the binge-purge cycle and providing strategies to help reduce dietary restriction and normalize eating. Cognitive restructuring techniques are used to address issues such as dietary restraint, shape and weight concern, body image concern, assertiveness, and self-esteem issues (Wilson & Fairburn, 1993).

A cognitive model for AN suggests that an extreme need for control is the central feature of the disorder and that dietary restriction enhances this sense of control. Dietary restriction is also facilitated by certain effects of starvation (e.g., impaired concentration, narrowing of interests) and by extreme concern about body shape and weight, which is perpetuated by the Western culture (Fairburn, Shafran, & Cooper, 1998). Although fewer studies have investigated the efficacy of CBT for individuals with AN, research indicates that CBT is also an effective treatment for individuals in this population (Bowers, 2001; Garner, Vitousek, & Pike, 1997). With regards to group treatment, the research literature suggests that group CBT is an effective method of reducing eating disorder symptomatology (e.g., Chen et al., 2003).

Although CBT is considered the treatment of choice for individuals with eating disorders, adherence, drop-out and poor outcome remain significant problems. In fact,

less than 50% of individuals with BN make a full recovery following a course of CBT. It has been suggested that this may be the result of low motivation for change (Treasure & Schmidt, 2008).

### *Combining Cognitive-Behavioral Therapy and Motivational Interviewing*

Given that poor adherence and dropout from CBT is a significant problem in a number of treatment populations (e.g., Westen & Morrison, 2001), recent research has begun to investigate the efficacy of integrating MI with CBT. Though few studies have been conducted, it has been suggested that MI can be combined with CBT in three ways: 1) using MI as a prelude to CBT, 2) using MI on its own with CBT non-responders, or 3) integrating MI techniques throughout the course of CBT (Arkowitz & Westra, 2004). Westra and Dozois (2006) recently investigated the use of MI as a prelude to CBT for individuals with anxiety. In this study, fifty-five individuals with an anxiety disorder were randomly assigned to either three sessions of MI or no pretreatment. Both groups then completed group CBT. Results revealed that participants who received MI showed significantly higher expectancy for anxiety control and greater homework compliance during the CBT group. Further, the MI condition resulted in a significantly higher number of CBT responders compared to the control group. It was found that both groups showed anxiety symptom improvements following CBT.

Another study, conducted by McKee et al. (2007), investigated the combination of CBT and MET in the treatment of cocaine dependence. In this study, participants were assigned to either three sessions of CBT or three sessions of CBT + MET. The CBT + MET group received an initial session of MET followed by two sessions of CBT which also incorporated the stance and techniques of MI throughout the sessions. Researchers

found that participants who received MET attended more drug treatment sessions following the study, reported greater desire for abstinence, had higher expectation for success, and expected greater difficulty in maintaining abstinence compared to the CBT-only condition. Despite the benefits of the MET condition, there were no significant differences between the groups for cocaine use. As a result, the authors concluded that their study provided mixed support for the addition of MET to CBT for cocaine users.

A pilot study conducted by Parsons, Rosof, Punzalan and Di Maria (2005) also found mixed results when investigating the integration of MI with CBT for HIV-positive drug users. This study sought to investigate whether MI combined with CBT would improve HIV medication adherence and reduce substance use among participants. Twelve adults attended eight individual sessions which included two sessions of MI followed by six sessions of CBT. Despite the small sample size, results revealed significant reduction in substance use from pre- to post-intervention. Although no significant differences were found for medication adherence pre- and post-treatment, the authors felt that trends in their data suggested the possibility of significant differences using a larger sample.

With regard to group treatment, Carey et al. (1997) investigated the efficacy of a motivation-based treatment group in reducing the risk of HIV infection for economically disadvantaged urban women. In this group, both MI and CBT techniques were incorporated throughout group sessions, which occurred once a week for four weeks. Participants were randomly assigned to either the treatment group or a wait-list control group. Results indicated that women in the treatment group demonstrated increased knowledge and risk awareness, showed strengthened intentions to practice safer sex,

reduced their substance use proximal to sexual activity, and engaged in fewer acts of unprotected vaginal intercourse.

Because few studies have investigated the use of MI and MET in the eating disorders, there is also a paucity of research on the combination of MI and CBT in this population. Several researchers, however, have begun to investigate the efficacy of combining these treatments. In 2004, George, Thornton, Touyz, Waller and Beumont investigated the use of motivational enhancement combined with schema-focused CBT in the treatment of individuals with chronic AN. In this study, eight participants attended a day hospital 2 days a week (5 hours each day) for 6 months. Participants attended multiple groups, the contents of which incorporated both MI and schema-focused CBT. Preliminary outcome data revealed that participants' motivation for change increased upon completion of the program. Despite increases in readiness, however, no significant changes were observed on the subscales of the Young Schema Questionnaire (Young, 1994). With regards to behavioral changes, results showed no significant difference between pre- and post- body mass index, as well as no difference in laxative abuse and exercise levels (bingeing and vomiting data were excluded due to the low sample size for these behaviors).

More recently, Dean, Touyz, Rieger and Thornton (2008) investigated the efficacy of group MET as an adjunct to cognitive-behaviorally-based inpatient treatment for individuals with eating disorders. Forty-two inpatients were assigned to either four sessions of MET + routine hospital treatment or hospital treatment as usual, and were assessed at three time points. Results revealed few differences between groups on physical, behavioral, and psychological outcome measures, however investigators

reported increasing levels of motivation across the three time points for individuals in the MET condition. Further, investigators reported that, at the follow-up assessment, almost all participants in the MET condition were engaged in intensive eating disorder treatment programs compared to less than half of participants in the control condition. Researchers posited that this finding suggests that MET participants were more engaged in the recovery process compared to participants in the control condition. It was concluded that MET may be a valuable adjunct to traditional inpatient treatment and that further studies investigating the combination of MET and CBT in the treatment of eating disorders is warranted.

#### *Preparing Clients for Treatment: Experiential Pretraining*

Prelude interventions are therapeutic techniques conducted prior to therapy which are designed to reduce attrition and enhance treatment participation (Walitzer, Dermen, & Connors, 1999; Westra & Dozois, 2006). Although preparatory interventions were introduced over forty years ago (e.g., Hoehn-Saric, Frank, & Imber, 1964), very little research has been conducted on their utility. In 1999, Walitzer et al. completed a comprehensive literature review of preparatory interventions. The authors suggested that preparatory techniques can facilitate the therapeutic process in a number of ways. For example, pretreatment can educate the client about the nature and rationale of the treatment. Also, it can help align the client's expectations for treatment with those of the therapist. Further, preparatory interventions can work to promote what Walitzer et al. (1999) call "good client behaviors," such as attendance and self-disclosure. They can also help prepare clients for any negative reactions to treatment (e.g., resistance, unpleasant emotions, frustration). It is thought that preparatory interventions may be particularly

useful in populations that often have poor prognoses. Although Walitzer and colleagues (1999) found mixed results in their examination of the literature on preparatory interventions, they concluded that pretreatment preparation has beneficial effects on process and treatment outcomes, as well as on attendance.

There are several kinds of pretreatment techniques (e.g., role induction, vicarious therapy pretraining; Walitzer et al., 1999), one of which may be extremely useful in the treatment of eating disorders. Experiential pretraining (EP) is a technique in which the client is asked to actively attempt, practice and experience aspects of therapy in order to prepare for further therapy down the road. EP is typically conducted within the context of group therapy and allows clients to get an experiential sense of the how the therapy will be conducted, as well as what barriers they may encounter during the recovery process (Walitzer et al., 1999). Recent research on this technique has not been conducted, however the limited research to date suggests that EP may result in higher attendance rates (e.g., Piper et al., 1979; Warren & Rice, 1972 as cited in Walitzer et al., 1999). In contrast, results have not been positive for EP in facilitating treatment process and outcome (Hilkey, Wilhelm, & Horne, 1982; Wogan, Getter, Amdur, Nichols, & Okman, 1977 as cited in Walitzer et al., 1999). This finding suggests that much more research must be conducted in order to make meaningful judgments about EP techniques.

In a previous study (Bates, LeBow, Vincent, & Fergusson, 2008), we investigated how readiness for change affected treatment group preference at intake in women with eating disorders. In this study, participants were assessed for readiness for change and were asked to choose from a list of hypothetical treatment groups, each tailored to a different stage of change. The study hypotheses were not confirmed. That is, participants'

readiness scores (as measured by the RMI) were unable to predict treatment group preference. Study results, as well as clinical experience and observation, suggest that participants may have been overestimating their readiness for change. Specifically, it appeared that many participants believed they were more ready for intensive treatment than their RMI scores indicated. Based on these findings, it is theorized that individuals with eating disorders have difficulty assessing their readiness for change prior to beginning treatment. It can be argued that it is not until they are actually *required* (in treatment) to make behavioral changes that clients realize they are not yet ready to do so. As a result, individuals with eating disorders frequently enter into treatment programs before they are ready. This can lead to drop-out and poor treatment outcomes.

In order to address this problem, EP may be a particularly useful tool in preparing individuals with eating disorders for treatment. EP would allow clients to practice and experience key components of the therapeutic process, which would help to facilitate their assessment of their readiness for change. Further, EP would help clients and clinicians accurately gauge what level and intensity of treatment is best for the client, which in turn would lead to better allocation of hospital/treatment center resources, as well as better treatment outcomes.

#### *Readiness for Change as a Precursor to Group CBT: The Current Study*

To date, the utility of a pre-CBT group that incorporates the theoretical framework of the TTM, aspects of MI, and an EP component has not been investigated in individuals with eating disorders. Based on the research literature, it appears that a readiness precursor to group CBT (R-CBT) which incorporates these three components may be beneficial in a number of ways. First, by learning about the TTM and completing



MI and EP exercises, clients will be better equipped to accurately assess their own level of readiness for change (stage of change awareness). This will help clients decide whether they should continue with the CBT group, or wait until they are more ready to begin the recovery process. Second, R-CBT will work as a readiness intervention, preparing clients for treatment and increasing motivation for change (motivational enhancement). Third, R-CBT may act as a treatment intervention in itself, thereby reducing eating disorder symptomatology (symptom reduction). Lastly, R-CBT will improve attendance and homework completion rates (adherence) and reduce drop-out from the CBT group (drop-out).

#### *Purpose of the Research*

1. To develop a 5-week readiness for change treatment component as a precursor to group CBT for individuals with eating disorders.
2. To evaluate this component based on the following outcomes:
  - a. Stage of Change Awareness
  - b. Motivational Enhancement
  - c. Symptom Reduction
  - d. Adherence and Drop-out from the CBT group
3. To further investigate the predictive utility of the RMI

#### *Hypotheses*

1. It was hypothesized that upon completion of R-CBT, participants' self-reported stage of change score (as measured by the MSCARED) would be more likely to match their RMI stage of change score compared to before they began R-CBT.

2. It was hypothesized that participants' RMI action scores would increase and RMI precontemplation scores would decrease upon completion of R-CBT.
3. It was hypothesized that R-CBT would reduce eating disorder symptomatology, as measured by the Shape and Weight Based Self-Esteem Inventory, the Eating Disorders Quality of Life Scale, and the Eating Disorders Inventory-3.
4. It was hypothesized that R-CBT would result in increased adherence rates and decreased drop-out rates from the CBT group, as compared to statistics currently found in the eating disorder treatment literature.
5. It was hypothesized that RMI scores would successfully predict which clients continue in the CBT group, as well as attendance, adherence, group climate and drop-out from the CBT group.

## Method

### *Participants*

Forty-eight individuals with anorexia nervosa, bulimia nervosa or eating disorder not otherwise specified (EDNOS) were recruited from the Adult Eating Disorders Program (AEDP) at the Health Sciences Centre in Winnipeg, Manitoba, Canada. These individuals were consecutive referrals to outpatient group cognitive-behavioral therapy who consented to participate in research. Two individuals did not meet inclusion criteria for the CBT group and were therefore excluded from the research. As a result, 46 individuals (43 women and 3 men) participated in this research. Diagnoses were made by the research assessor using the diagnostic questions from the Eating Disorders Examination (Cooper & Fairburn, 1987). Ten (21.7%) participants were diagnosed with

anorexia nervosa, 11 (23.9%) with bulimia nervosa and 25 (54.3%) with eating disorder not otherwise specified (EDNOS).

The mean age of participants was 27.11 (SD = 9.0) years, while the mean age of eating disorder onset was 19.11 (SD = 8.09) years. The mean body mass index was 20.85 (SD = 3.3) and mean socioeconomic status was 2.2 (SD = 1.0) on the Hollingshead Index (Hollingshead, 1979), indicating upper-middle class. Forty-two (91%) participants described themselves as Caucasian and 4 (9%) described their ethnicity as “Other,” indicating mixed ethnicity. Thirty-two (69.6%) participants reported receiving some type of prior treatment for their eating disorder, with 27 (58.7%) reporting prior individual therapy, 12 (26.1%) prior group therapy, 7 (15.2%) prior inpatient treatment, 8 (17.4%) prior family therapy, 18 (39.1%) prior contact with a dietician, and 3 (6.5%) prior contact with a social worker.

### *Measures*

#### *Demographic Information (Appendix A)*

A demographic questionnaire asked participants to provide their age, height, weight, ethnicity, age of onset of their eating disorder, and the highest education and occupation of their parents (or themselves, depending upon their living arrangement).

#### *Readiness and Motivation Interview (RMI; Geller & Drab, 1999; Geller et al., 2001; Appendix B)*

The RMI is a semi-structured interview that elicits information about individuals' readiness and motivation to change their eating disorder symptoms. RMI questions are used in conjunction with diagnostic questions from the Eating Disorders Examination (Cooper & Fairburn, 1987), in order to determine diagnostic information and

motivational status for each symptom. The RMI provides motivational stage scores (precontemplation, contemplation, action/maintenance, and internality) for each of four symptom domains: Cognitive, Restriction, Bingeing, and Compensatory Behaviors. RMI stage scores range from 0 to 100% (estimated to the nearest 10% increment), with precontemplation, contemplation, and action adding up to 100% for each symptom. The RMI has demonstrated good reliability and construct validity, as described above.

*Eating Disorders Inventory-3 (EDI-3; Garner, 2004; Appendix C)*

The EDI-3 is a 91-item self-report measure of psychological traits and symptoms that are relevant to the development and maintenance of eating disorders. The measure includes 12 subscales and 6 composite scores, as well as 3 response style indicators. The EDI-3 has shown good internal consistency (Cronbach's alpha = .80), excellent test re-test reliability ( $r = .93$ ) in clinical samples, and good construct validity.

*Motivational Stages of Change for Adolescents Recovering from an Eating Disorder (MSCARED; Gusella, Butler, Nichols, & Bird, 2003; Appendix D)*

The MSCARED is a self-report measure of readiness to change eating disorder symptoms, and has been used with both adolescents and adults. Respondents indicate what stage of change they are at, as well as to what extent they are changing for others versus themselves (internality score). Participants are also asked to list the pros and cons of "taking action" against their eating disorder and to indicate which is stronger. The MSCARED has demonstrated good test re-test reliability ( $r = .92$ ) and concurrent validity with clinician ratings ( $r = .79$ ).

*Shape and Weight Based Self-Esteem Inventory* (SAWBS; Geller, Johnston, & Madsen, 1997; Appendix E)

The SAWBS is a questionnaire measure of shape- and weight-based self-esteem for individuals with eating disorders. Participants choose from a list of attributes (e.g., personality, competence at school and work, body shape and weight) those they consider most important to how they have felt about themselves over the past month. Chosen attributes are then rank ordered according to their importance. Finally, ranked attributes are drawn into a pie chart, such that the size of each piece is representative of the importance of each attribute. A SAWBS score is then calculated by measuring the angle size of the pie piece which represents body shape and weight. This measure shows high test re-test reliability ( $r = .77$ ), and good concurrent validity.

*Eating Disorders Quality of Life Scale* (EDQLS; Adair et al., 2007; Appendix F)

The EDQLS is a questionnaire measure of quality of life (QoL) for individuals with eating disorders and assesses twelve domains of QoL: cognitive functioning, education/vocation, family and close relationships, relationships with others, future/outlook, appearance, leisure, psychological health, emotional health, values and beliefs, physical health and eating issues. The EDQLS elicits a score out of 200, with higher scores indicating better quality of life. This measure has shown excellent internal consistency (Cronbach's alpha = .96) and good construct validity.

*Treatment History Questionnaire* (Appendix G)

A treatment history questionnaire asked participants to provide a detailed account of any past treatment they have received for their eating disorder. Participants were asked

to describe the type of treatment (e.g. individual, group, inpatient), as well as the duration of the treatment received.

*Group Climate Questionnaire – Short Form (GCQ-S; MacKenzie, 1983; Appendix H)*

The GCQ-S is a questionnaire measure of treatment group process and climate. Participants rate 12 statements describing group process on a scale of 1-7, representing “not at all” to “extremely”. Three group climate dimensions can then be calculated: Engaged, Avoiding, and Conflict. There is also a measure of anxiety and tension. For the purposes of this study, only the Engaged subscale was used. The GCQ-S has been found to have good internal consistency (Cronbach’s alpha = .88 - .94) and construct validity.

*Medical Outcomes Study General Adherence Scale (MOS-A; Kravitz et al., 1993; Appendix I)*

The MOS-A is a 5-item questionnaire measure of treatment compliance. Participants rate on a scale from 1 (none of the time) to 6 (all of the time) statements such as “I followed my psychologist’s suggestions exactly” and “I had a hard time doing what the psychologist suggested I do.” Item responses are averaged and transformed linearly to a 0-100 distribution. This measure has been found to have acceptable internal consistency (Cronbach’s alpha = .78) and construct validity.

*Food Diaries (Handout # 7 of Appendix K)*

Food diaries completed by CBT group participants were coded at week 1, 8 and 16 for number of times the participant goes 3 or more hours without eating. This was used as a measure of treatment adherence.

*Attendance, Homework Completion and Drop-out Record Sheet (Appendix J)*

A record sheet was completed weekly by group facilitators in order to record attendance and homework completion for each participant. This sheet also recorded if/when participants dropped out of group and the reason for drop-out.

*Readiness for Change Precursor to Group CBT (R-CBT; Appendix K)*

This component followed a treatment manual designed specifically for this study. It consisted of 5 2-hour outpatient group sessions which occurred over 5 consecutive weeks, prior to participants beginning group CBT. The content of these sessions was based upon the theoretical framework of the Transtheoretical Model of Change and Motivational Interviewing, and also included experiential pretraining. Therefore, the purpose of R-CBT was twofold: 1) build motivation for change and 2) facilitate realistic expectations about what change entails through experiential learning. The precursor was co-facilitated by a clinical psychologist and a nurse therapist. Sections of the readiness precursor were piloted twice at the AEDP. The complete, manualized version of the precursor was piloted once at the AEDP prior to beginning this research.

*Procedure*

After providing informed consent, participants were scheduled for three two-hour research assessments. Research assessments occurred at the following time points: pre- and post- R-CBT and post-CBT group (i.e., Time 1 = baseline, Time 2 = 5 weeks, and Time 3 = 21 weeks). During the research assessments, the RMI was administered and participants completed all other measures (except the Attendance, Homework Completion and Drop-out Record Sheet, which was completed each week by group facilitators). For half of the participants the RMI was administered first, while for the

other half the other measures were completed first. In order to ensure that participants felt comfortable discussing ambivalence about recovery, they were informed that information gathered from the research assessment would be kept confidential from the CBT group facilitators and the rest of the AEDP treatment team.

### *Statistical Analyses*

One-way repeated measures analysis of variance (ANOVA), regression analysis, and Cochran's Q analysis were used to investigate hypotheses. Data was analyzed using SPSS 15.0 for Windows. Statistical significance was determined using an alpha level of 0.05, unless otherwise indicated. Missing data was addressed using the intent-to-treat approach (i.e., last observation carried forward method). Regression analyses were also re-run using the multiple imputation method and the results were found to be the same.

## Results

### *Preliminary Analyses*

#### *Check of Assumptions*

Assumptions pertaining to ANOVA (e.g., normality, sphericity), regression (e.g., normality, residual outliers, multicollinearity) and Cochran's Q (e.g., random selection, common binary responses) were evaluated as per the recommendations of Tabachnick and Fidell (2007) and Pallant (2006). Violations of sphericity when using ANOVA were corrected using the Huynh-Feldt estimate of sphericity, and are indicated below. An evaluation of the assumptions pertaining to regression analysis revealed multivariate multicollinearity among the three RMI readiness scores (Tolerance = .000). This issue was corrected by eliminating the RMI contemplation variable from relevant regression analyses. The contemplation variable was selected for elimination because past research



has shown that it has the lowest predictive utility among the three readiness scores elicited by the RMI (Geller et al., 2001).

### *Descriptive Statistics*

Descriptive statistics were used to investigate RMI and MSCARED stage of change scores across the 3 time points. RMI stage of change score was defined as the highest of the three mean total readiness scores elicited by the RMI. At Time 1, RMI results revealed that 18 (39.1%) participants were in the precontemplation stage, 12 (26.1%) were in the contemplation stage, and 16 (34.8%) were in the action stage. MSCARED results revealed that, according to participants' self-assessments, 0 (0%) participants were in the precontemplation stage, 21 (45.7%) were in the contemplation stage, and 25 (54.3%) were in the action stage.

At Time 2, RMI results revealed that 12 (26.1%) participants were in the precontemplation stage, 11 (23.9%) were in the contemplation stage, and 23 (50.0%) were in the action stage. MSCARED results revealed that 0 (0%) participants described themselves as in the precontemplation stage, 12 (26.1%) as in the contemplation stage, and 34 (73.9%) as in the action stage.

Lastly, at Time 3, RMI results revealed that 11 (23.9%) participants were in the precontemplation stage, 6 (13.0%) were in the contemplation stage, and 29 (63.0%) were in the action stage. MSCARED results revealed that 0 (0%) participants described themselves as in the precontemplation stage, 10 (21.7%) as in the contemplation stage, and 36 (78.3%) as in the action stage.

*Treatment Fidelity for Cognitive-Behavioral Group*

The mean amount of homework completed during the CBT group was 71.41% (SD = 28.44). The mean MOS-A score was 57.84% (SD = 12.98). Lastly, the mean food diary score at week 1 of the CBT group was 8.38 (SD = 3.83), while the mean food diary score at week 16 was 3.75 (SD = .95).

*Main Analyses**Hypothesis #1: Stage of Change Awareness*

For each time point, participants were given a stage of change “Match” score based on whether their RMI stage of change score and MSCARED stage of change scores matched (i.e., score was coded 1 for a match, and 0 for no match). Consistent with RMI scoring, the MSCARED Preparation stage was coded as Contemplation and the Maintenance stage was coded as Action. A Cochran’s Q analysis was conducted to compare Match scores across the 3 time points. Results revealed a significant overall effect [Cochran’s Q (2,  $n = 46$ ) = 10.13,  $p = .006$ ]. Follow-up McNemar tests revealed a significant difference between Match scores at Time 1 and Time 3 ( $p = .006$ ), indicating that more matches were found at Time 3 compared to Time 1. No significant differences were found between Time 1 and Time 2 Match scores and Time 2 and Time 3 Match scores. Match score frequencies are shown in Table 1.

*Hypothesis #2: Motivational Enhancement*

A one-way repeated measures ANOVA was conducted to compare RMI precontemplation scores across the 3 time points. Results revealed a significant effect for time [Wilks’ Lambda = .68,  $F(2, 44) = 10.33$ ,  $p = .000$ ]. Post-hoc comparisons using a

Bonferroni correction revealed that the mean precontemplation score was significantly smaller at Time 2 ( $M = 30.00$ ,  $SD = 19.27$ ) and Time 3 ( $M = 26.25$ ,  $SD = 21.02$ ) compared to Time 1 ( $M = 36.61$ ,  $SD = 17.75$ ;  $p = .030$  and  $.000$ , respectively). No significant differences were found between mean precontemplation scores at Time 2 and Time 3.

A one-way repeated measures ANOVA was conducted to compare RMI contemplation scores across the 3 time points. Results revealed a significant effect for time [Wilks' Lambda = .81,  $F(2, 44) = 5.08$ ,  $p = .010$ ]. Post-hoc comparisons using a Bonferroni correction revealed that mean contemplation score was significantly smaller at Time 3 ( $M = 24.19$ ,  $SD = 18.70$ ) compared to Time 1 ( $M = 31.19$ ,  $SD = 17.35$ ) and Time 2 ( $M = 29.90$ ,  $SD = 17.50$ ;  $p = .034$  and  $.020$ , respectively). No significant differences were found between mean contemplation scores at Time 1 and Time 2.

A third one-way repeated measures ANOVA was conducted to compare RMI action scores across the 3 time points. Results again revealed a significant effect for time [Wilks' Lambda = .68,  $F(2, 44) = 10.32$ ,  $p = .000$ ]. Post-hoc comparisons using a Bonferroni correction revealed that mean action score was significantly larger at Time 2 ( $M = 40.08$ ,  $SD = 25.22$ ) and Time 3 ( $M = 49.55$ ,  $SD = 31.00$ ) compared to Time 1 ( $M = 32.21$ ,  $SD = 21.63$ ;  $p = .038$  and  $.000$ , respectively). Further, the mean action score was significantly larger at Time 3 compared to Time 2 ( $p = .011$ ).

### *Hypothesis #3: Symptom Reduction*

A one-way repeated measures ANOVA was conducted to compare SAWBS scores across the 3 time points. Results revealed a significant effect for time [Huynh-Feldt = .87,  $F(1.74, 76.93) = 4.61$ ,  $p = .016$ ]. Post-hoc comparisons using a Bonferroni

correction revealed that mean SAWBS score (i.e., angle size) was significantly smaller at Time 3 ( $M = 73.46$ ,  $SD = 55.50$ ) compared to Time 1 ( $M = 93.60$ ,  $SD = 54.79$ ;  $p = .017$ ), indicating less emphasis on the importance of shape and weight. No significant differences were found between mean SAWBS scores at Time 1 and Time 2 ( $M = 78.64$ ,  $SD = 58.75$ ) and Time 2 and Time 3.

A one-way repeated measures ANOVA was conducted to compare EDQLS scores across the 3 time points. Results revealed a significant effect for time [Wilks' Lambda = .65,  $F(2, 44) = 11.45$ ,  $p = .000$ ]. Post-hoc comparisons using a Bonferroni correction revealed that mean EDQLS score was significantly larger at Time 3 ( $M = 130.69$ ,  $SD = 25.48$ ) compared to Time 1 ( $M = 117.67$ ,  $SD = 21.30$ ) and Time 2 ( $M = 120.21$ ,  $SD = 22.95$ ;  $p = .000$  for both comparisons). No significant differences were found between EDQLS scores at Time 1 and Time 2.

A series of one-way repeated measures ANOVAs were conducted to investigate EDI-3 subscale scores across the 3 time points. In order to control for the number of ANOVAs conducted, a more conservative alpha of .01 was used when determining significance. Results revealed a significant effect for time for the following subscales: Drive for Thinness [Huynh-Feldt = .78,  $F(1.56, 70.42) = 5.90$ ,  $p = .008$ ], Bulimia [Wilks' Lambda = .69,  $F(2, 42) = 9.25$ ,  $p = .000$ ], Perfectionism [Huynh-Feldt = .85,  $F(1.71, 77.03) = 6.44$ ,  $p = .004$ ], and Asceticism [Huynh-Feldt = .75,  $F(1.50, 64.69) = 6.87$ ,  $p = .004$ ]. Post-hoc comparisons using a Bonferroni correction revealed that all four of these subscale scores were significantly lower at Time 3 compared to Time 1 and Time 2. No significant differences were found between scores at Time 1 and Time 2 for these subscales. No significant results were found for the Body Dissatisfaction, Low Self-

Esteem, Personal Alienation, Interpersonal Insecurity, Interpersonal Alienation, Interoceptive Deficits, Emotional Dysregulation, and Maturity Fears subscales, however some trends were observed. These results, including means and standard deviations, are shown in Table 2.

*Hypothesis #4: Adherence and Drop-out from CBT Group*

Adherence for the CBT group was measured using homework completion rates, MOS-A scores, and food diary scores. Descriptive statistics were used to determine adherence scores and drop-out rates from R-CBT and the CBT group. With regards to adherence, the mean amount of homework completed during the CBT group was 71.41% (SD = 28.44). The mean MOS-A score was 57.84% (SD = 12.98). Lastly, the mean food diary score at week 1 of the CBT group was 8.38 (SD = 3.83), while the mean food diary score at week 16 was 3.75 (SD = .95). Unfortunately, further analyses on food diary scores at week 16 were not feasible given the low number of diaries collected (N = 4). With regards to drop-out, results revealed that the drop-out rate from R-CBT was 15.2%, while the drop-out rate from the CBT group was 39.5%.

*Hypothesis #5: Predictive Utility of the RMI*

Hierarchical logistic or multiple regressions were conducted in order to determine whether RMI scores predict CBT dropout, group climate, attendance, and adherence. Because all but three R-CBT participants entered the CBT group, CBT engagement was not included in the analysis, as originally planned. For each regression, mean RMI precontemplation and action scores at Time 1 and Time 2 were entered as independent variables, and CBT drop-out (coded yes/no), group climate (CCQ-S score), attendance (number of sessions attended), or adherence (number of homework assignments

completed, MOS-A scores, or week 8 food diary scores) were entered as the dependent variable. Time 1 RMI scores were entered into the model first, followed by Time 2 RMI scores. No significant results were found ( $p > 0.05$ ). These results are shown in Tables 3-8.

In order to investigate the predictive utility of the RMI further, a post-hoc analysis of the data was conducted in order to determine whether RMI scores predict symptom scores at Time 3 among CBT group participants. Three hierarchical multiple regressions were conducted with mean RMI precontemplation and action scores at Time 1 and Time 2 entered as independent variables and SAWBS, EDQLS, and EDI-3 Eating Disorder Risk Composite (EDRC; a composite score that combines the Drive for Thinness, Bulimia and Body Dissatisfaction subscales) scores at Time 3 entered as dependent variables. Results revealed that for each symptom variable, the overall model was significant ( $p < 0.05$ ). Specifically, it was found that higher RMI action scores at Time 2 were associated with lower SAWBS scores, higher EDQLS scores, and lower EDI-3 EDRC scores. These results are shown in Tables 9-11.

## Discussion

Low readiness and motivation for change has been identified as one of the largest barriers to recovery for individuals with eating disorders (Geller & Drab, 1999; Peake, Limbert, & Whitehead, 2005). As a result, researchers are investigating the effectiveness of motivational interventions for individuals within this population. In addition to standalone interventions, some researchers have begun to investigate the effectiveness of combining motivational interventions with traditional cognitive-behavioral therapy. The main findings of this study suggest that readiness interventions may be an effective tool

in the treatment of eating disorders, however stage of change awareness and treatment dropout remain significant challenges in this population.

### *Interpretation of the Results*

#### *Stage of Change Awareness*

The results of this study were not consistent with the first hypothesis. That is, no significant differences were found between Match scores at Time 1 and Time 2, indicating that stage of change awareness did not increase following R-CBT. In addition, an examination of the descriptive statistics seems to indicate that, consistent our previous findings (Bates et al., 2008), participants appeared to be overestimating their readiness for change at the time of intake. For example, while RMI scores revealed that 39.1% of participants were in the precontemplation stage of change at Time 1, no participants described themselves as precontemplative during their initial assessment. Instead, participants described themselves as contemplative (45.7%) or in the action stage (54.3%), which differs markedly from the RMI scores which found that only 26.1% of participants were in the contemplation stage and 34.8% of participants were in the action stage. A similar discrepancy between RMI and MSCARED scores was found at Time 2. Again, participants appeared to be overestimating their readiness for change, despite the fact that one of R-CBT's intended objectives was to increase stage of change awareness.

The finding that clients are poor assessors of their readiness for change is consistent with a study conducted by Geller (2002), which is the only other study that has compared RMI scores with self-report measures of readiness. In her study, Geller investigated the relative ability of clients, clinicians and RMI assessors (i.e., research assistants administering the RMI) in estimating readiness for change in individuals with

anorexia nervosa. Results revealed that while RMI assessor and client ratings predicted self-reported cognitive and behavioral change, only RMI assessor ratings predicted completion of recovery activities one week following the research assessment and the decision to enroll in an intensive treatment program. Similar to the current study's findings, these results suggest that clients are not the most accurate assessors of their own readiness.

Although no significant differences were found between Match scores at Times 1 and 2, results revealed a significant difference between Match scores at Time 1 and Time 3, indicating that stage of change awareness did increase by the end of the CBT group. Specifically, based on the descriptive statistics, it appears that as more participants moved into the action stage of change, according to the RMI, MSCARED scores were more likely to match RMI scores. This finding is not surprising, however, given that CBT requires participants to make behavioral changes (i.e., to be "in action") and many participants seemed to rate themselves as in the action stage prior to beginning treatment anyway.

These findings raise an obvious question: Why did study participants overestimate their readiness for change, even after completing R-CBT? Recent research conducted by Marcos, Cantero, Escobar, and Acosta (2007) may shed some light on this query. In their study, Marcos and colleagues investigated illness perceptions in individuals with eating disorders using the Self-Regulation Model (SRM; Leventhal, Meyer, & Nerenz, 1980). The SRM posits that individuals form ideas about the cause, consequence, identity, timeline, and controllability of their illness, and that these ideas influence coping and health behaviors in response to their illness. Researchers assessed 98 female inpatients



with eating disorders and reported that while participants perceived their illness to be controllable and treatable, they also perceived it to be highly distressing, chronic, and having serious consequences. Perhaps individuals in the current study overestimated their readiness because they confused a high level of distress with readiness for change. A study by Stockford, Turner, and Cooper (2007) appears to provide support for this theory. In this study, illness perception and its relationship to readiness for change was investigated in 69 individuals with eating disorders. Results revealed that low levels of illness distress were associated with the precontemplation stage of change on a *self-report* measure of readiness and that higher levels of distress were associated with higher stages of change (i.e., contemplation). Although these studies provide interesting findings regarding illness perceptions among individuals with eating disorders, very few studies have focused on this topic, and more research must be conducted in order to determine why individuals with eating disorders are poor assessors of their readiness and motivation for change.

#### *Motivational Enhancement*

The results of this study were consistent with the second hypothesis. That is, results revealed that RMI action scores were significantly higher and RMI precontemplation scores were significantly lower following R-CBT. Further, it was found that RMI action scores were significantly higher and RMI contemplation scores were significantly lower at Time 3 compared to Time 2. These findings suggest that participants' readiness for change increased over time. Though it is not possible to determine whether R-CBT caused the increase in readiness scores given the current study

design, these findings provide further support for the use of readiness interventions in the treatment of eating disorders.

These results are consistent with previous studies of motivational interventions for individuals with eating disorders, which have all found increases in readiness for change following an MI or MET intervention (i.e., Cassin et al., 2008; Dean et al., 2008; Dunn et al., 2006; Feld et al., 2001; Gowers & Smyth, 2004; Treasure et al., 1999). Treatment components that are common among these studies include education about the stages of change, exploration of the pros and cons of change, discussion of personal values, and exercises pertaining to self-efficacy and confidence in one's ability to change. It is yet to be determined which (if any) of these components contributes most in increasing individuals' readiness for change.

It is interesting to note that of the existing studies evaluating motivational interventions for individuals with eating disorders, only Treasure et al. (1999) compared MET with another form of therapy (in that case, CBT). Treasure and colleagues found that participants in both conditions experienced an increase in readiness for change and that the increase did not differ between groups. Given that the current study found that readiness scores continued to improve during the course of the CBT group, perhaps therapy alone, regardless of type, will result in an increase in readiness for change. Indeed, a study conducted by Geller, Zaitsoff, and Srikaneswaran (2005) provides some support for this theory. In this study, Geller and colleagues tracked readiness for change over time in individuals who were undergoing intensive residential eating disorders treatment. Results revealed that readiness scores increased during the course of treatment, beginning with readiness to change behavioral symptoms, followed by readiness to

change cognitive symptoms. It was noted, however, that readiness shifts were smaller in individuals with AN compared to those with BN or EDNOS.

Further research will need to be conducted in order to determine the cause and mechanisms involved in readiness shifts over time. Regardless of why or when readiness shifts occur, however, research to date has found that motivational interventions, when combined with other treatments, result in better treatment outcomes compared to conventional treatment alone (e.g., Cassin et al., 2008; Dean et al., 2008; Dunn et al., 2006), and therefore appear to provide utility above and beyond traditional forms of treatment.

### *Symptom Reduction*

With regards to symptom reduction, it was hypothesized that participants would demonstrate a reduction in eating disorder symptomatology following completion of R-CBT. Results were not consistent with this hypothesis. No significant differences were found between Time 1 and Time 2 SAWBS, EDQLS, or EDI-3 scores. A significant improvement was found, however, for SAWBS scores, EDQLS scores, and EDI-3 Drive for Thinness, Bulimia, Perfectionism, and Asceticism scores at Time 3 compared to Time 1. Further, significant improvements were also found for EDQLS and EDI-3 Drive for Thinness, Bulimia, Perfectionism, and Asceticism scores at Time 3 compared to Time 2.

The fact that symptom improvement was not found following R-CBT is not entirely surprising given that the group's primary objective was to increase awareness and readiness for change, not improve symptoms. Although R-CBT did require participants to experiment with treatment recommendations (e.g., keep a food diary for a week, make a recovery-related goal), it did not require a significant amount of behavioral

change, and it was made clear to participants that the purpose of R-CBT was to explore their feelings about recovery and determine if they were ready to attend the CBT group.

Only two other studies have reported specifically on eating disorder symptom reduction following motivational interventions. The first study found that 4 weeks of MET was as effective as 4 weeks of CBT in reducing binge eating, vomiting, and laxative abuse in individuals with BN (Treasure et al., 1999). In contrast, Feld and colleagues (2001) found no reduction in eating disorder symptomatology following their 4-week MET intervention, but did report some psychological symptom reduction, including an increase in self-esteem and a decrease in both depressive symptoms and interpersonal distrust. Given the small number of studies, as well as the conflicting results, it is clear that more research will need to be conducted in order to determine whether motivational interventions alone will result in symptom reduction in individuals with eating disorders.

The fact that significant symptom reduction was found following the CBT group is an expected outcome and lends further support to the plethora of research suggesting that CBT is an effective treatment for individuals with eating disorders (e.g., Vitousek, 1996; Whittal, Agras, & Gould, 1999; Wilson & Fairburn, 1998). Because a control group was not used in this study, it is not possible to say whether R-CBT aided in symptom improvement during the course of the CBT group.

#### *Adherence and Dropout from the CBT Group*

It was hypothesized that R-CBT would result in increased adherence rates and decreased drop-out rates from the CBT group, as compared to statistics currently found in the treatment literature. Results revealed that the homework completion rate during the

CBT group was 71.41%. In terms of how this compares to other studies, a review of recent psychological studies which collected data about percentage of homework completed during the course of therapy produced an average homework completion rate of 66.7% (Coon & Thompson, 2003; Gonzalez, Schmitz, & DeLaune, 2006; Mausbach, Moore, Roesch, Cardenas, & Patterson, 2010; Schmidt & Woolaway-Bickel, 2000). As such, homework rates from the current study appear to be equivalent or better than those currently found in the psychological literature. This is a positive finding given that greater homework compliance is associated with improved treatment outcomes across a variety of treatment populations, including anxiety, mood, and substance use disorders (Kazantzis, Deane, & Ronan, 2000; Mausbach et al., 2010). Given these results, it is possible that R-CBT influenced homework compliance during the CBT group, and several potential mechanisms for this could be suggested. First, some researchers have posited that homework compliance can be enhanced by beginning with small assignments and then gradually building up to more demanding/complicated assignments (Shelton & Levy, 1981). During the EP component of R-CBT, participants would have had the opportunity to practice small homework assignments in order to determine if they were ready for more complex therapeutic work. A second potential way that R-CBT could have influenced homework compliance is by increasing readiness generally. A study conducted by Sutton and Dixon (1986) investigated a social-learning-based treatment for parenting skills and found that participants with a high perceived need for change and a high level of commitment at the beginning of treatment completed significantly more homework assignments than those that did not meet this criteria. Future studies will need

to be conducted to determine whether motivational interventions, such as R-CBT, have a direct effect on homework compliance.

With regards to the MOS-A, results revealed that the mean score following the CBT group was 57.84%. General adherence rates in the scientific literature vary depending on the medical condition, as well as the course of treatment. However, estimates range from 80% for short-term, acute conditions, to 50% for longer-term chronic conditions, to 30% or less for long-term asymptomatic conditions, such as hypertension (Sherbourne, Hays, Ordway, DiMatteo, & Kravitz, 1992). Given that eating disorders tend to be a longer-term, chronic condition, it would appear that the MOS-A scores found in the current study are equivalent or better than rates typically found in the literature. Again, this finding is encouraging given that patient adherence is associated with improved health outcomes (Hays et al., 1994). There are several ways in which R-CBT could have contributed to MOS-A scores, including increasing readiness for change, familiarizing participants with group leader recommendations and expectations, and fostering therapeutic alliance.

Analysis of the study participants' food diaries revealed that the mean number of times participants went 3 or more hours without eating during week 1 of the CBT group was 8.38. In contrast, the mean number of times participants went 3 or more hours without eating during the last week (i.e., week 16) of CBT was 3.75. However, although food diary completion rates appeared to be quite good overall, there were a number of problems with food diary data collection, including participants not writing times on their diaries and a very low rate of return at week 16 (N = 4). These issues made coding difficult. As a result, the food diary data was not very reliable and should be evaluated

cautiously. Difficulties notwithstanding, the food diary data suggest a trend towards normal eating for individuals who completed the CBT group. It is possible that R-CBT served to increase readiness to make behavioral changes and better prepared participants to keep weekly food diaries via the EP component.

With regards to treatment drop-out, results showed that the drop-out rate from R-CBT was 15.2%, while the drop-out rate from the CBT group was 39.5%. These results are in comparison to eating disorders research which place the dropout rate for individuals with BN at between 15% and 65%, with a median of approximately 30%, and the dropout rate for individuals with AN at as much as 50% (Mahon, 2000; Vandereycken & Pierloot, 1983). Based on these figures, it appears that the drop-out rate for R-CBT was relatively good, falling 15% below the median for individuals with BN, and at the low end of the average range. The CBT group drop-out rate, in contrast, fell approximately 10% above the median and well within the average range.

It is encouraging that the R-CBT drop-out rate was relatively low in comparison to other figures in the research literature. There are several possible reasons for this. First, the expectations for R-CBT were very different from traditional therapy, in that participants were encouraged to explore their feelings about recovery, but were not asked to make any commitments towards future treatment. In theory, this created a low-pressure environment where participants could explore feelings about their eating disorder without feeling threatened or scared of possible change. A second, related reason for the low drop-out rate could be the fact that although participants were asked to experiment with behavioral changes, such as food diaries and goal setting, they were not *required* to make any changes to their eating disorder symptoms (e.g., gain weight, reduce purging). Again,

this likely reduced pressure on participants and made the group less threatening and easier to attend. Lastly, participants were told at the beginning of R-CBT that factors such as their attendance, homework completion, and readiness for change would influence the group facilitators' recommendations about whether or not group members should continue with the CBT group. Although participants were also informed that, ultimately, the decision to start CBT would be up to them, participants may have felt compelled to please group facilitators by maintaining regular attendance in the hope that they would receive a positive recommendation following R-CBT.

The drop-out rate from the CBT group is disappointing given that one of R-CBT's intended objectives was to reduce drop-out. Indeed, drop-out reduction seems to be an elusive goal among eating disorders researchers to date. Several possible reasons for the drop-out finding could be suggested. First, although RMI action scores increased significantly following R-CBT, results showed that 50% of participants were still in either the precontemplation or contemplation stage at Time 2. As such, perhaps readiness for change did not increase enough among study participants to have a significant impact on drop-out. Another theory relates to participants' apparent overestimation of readiness. It has been theorized that individuals with eating disorders do not become aware of their true readiness for change until *after* they begin an active treatment program (Bates et al., 2008). Although R-CBT attempted to address this possibility by including an EP component, perhaps this component was insufficient in giving participants an accurate sense of what treatment might be like. Perhaps adding more EP to R-CBT would have resulted in a significant impact on drop-out rates.



In terms of the treatment literature, research on eating disorders treatment drop-out has produced mixed results. For example, a number of client factors have been associated with treatment drop-out, including weight, age, diagnosis, symptom severity, impulsivity, interpersonal distrust, anger, anxiety, depression, family environment, and childhood trauma (Blouin et al., 1995; Mahon, 2000; Surgenor, Maguire, & Beumont, 2004; Ute, Backmund, & Gerlinghoff, 2004; Waller, 1997). Despite the plethora of research on this topic, however, no one factor has consistently been shown to predict treatment drop-out. In fact, Mahon (2000) has proposed that the pursuit of “the drop-out” characteristic profile is futile and that every client has the potential to drop-out, given the right circumstances. Instead, she suggests that researchers re-focus their efforts on learning more about treatment drop-out and the types of circumstances that lead to it. Though it is not clear why the drop-out rate was not reduced in the current study, it is clear that more research must be conducted in order to determine the relationship between treatment drop-out and readiness for change.

#### *Predictive Utility of the RMI*

Results revealed that RMI scores were unable to predict CBT group dropout, climate, attendance, or adherence. However, it was found that RMI scores predicted symptom scores following the CBT group. Specifically, higher action scores at Time 2 predicted less eating disorder symptomatology, as evidenced by lower SAWBS scores, higher EDQLS scores, and lower EDI-3 EDRC scores.

The finding that RMI scores were unable to predict treatment outcomes such as attendance, group climate, adherence, and drop-out is surprising given that RMI scores have predicted a number of treatment outcomes in the past. For example, Geller et al.

(2001) found that RMI scores predicted anticipated difficulty of recovery activities, completion of recovery activities, decision to enroll in an intensive symptom-reduction program, and treatment dropout in a sample of 99 individuals with eating disorders. As such, perhaps a larger sample size would have resulted in significant findings in the current study. However, these findings are consistent with Treasure et al., (1999) who found that pretreatment stage of change did not predict drop-out when comparing MET and CBT in a sample of 125 women with eating disorders. A study conducted by Wolk and Devlin (2001) reported similar results, finding that stage of change was not related to treatment drop-out in a sample of 110 individuals with BN. It should be noted, however, that both of these studies used different stage of change measures, which are not symptom specific.

In terms of other outcome factors, very little research has investigated the relationship between readiness for change and attendance, group climate, or adherence (i.e., homework, MOS-A scores, and food diaries) in individuals with eating disorders, however, McHugh (2007) evaluated the relationship between hospital length of stay and readiness for change in women with AN. Results indicated that participants with low readiness for change required longer hospital stays (in order to attain favorable symptom change) compared to those with high readiness for change. More research must be conducted in order to understand the relationship between readiness for change and eating disorder treatment outcome.

Although RMI scores were unable to predict most of the study's outcome variables, they were able to predict symptom scores following the CBT group, with higher Time 2 action scores being associated with reduced eating disorder

symptomatology. This finding is consistent with a number of studies which have found that higher readiness for change is associated with favorable symptom change in individuals with eating disorders (e.g., Franko, 1997; McHugh, 2007; Wolk & Devlin, 2001). Overall, it appears that although increased readiness for change is associated with improved symptom change in individuals with eating disorders, most of the research to date does not support a relationship between readiness for change and other outcome variables, such as treatment drop-out.

### *Strengths and Limitations*

This research contained a number of strengths. First, the use of a clinical sample greatly increases the external validity of the study. Second, several methodological checks were incorporated into the design to reduce confounding variables, including counterbalancing administration of the RMI and the questionnaires, piloting R-CBT prior to beginning the research, and keeping group leaders blind to research assessment results. Third, the use of the RMI, which is the only symptom-specific measure of readiness in the eating disorders, as well as the only measure to predict a number of outcome variables, is a strength of the research and increases the internal validity of the study.

The main limitation of this research is its quasi-experimental design. Unfortunately, due to resource constraints, it was not possible to conduct a randomized controlled trial at the AEDP. As such, it is not known whether the study's findings can be attributed to R-CBT. This research is therefore intended to be an introductory study within a larger program of research. Further R-CBT studies will need to be conducted to control for confounding variables that have not been addressed in this study. However, given that there is very limited research on MET and EP within the eating disorders

literature, a study of this nature nevertheless provides clinically useful information for practitioners and researchers. Another limitation of the study is that no treatment fidelity checks were completed during R-CBT, such as video or audio recording of sessions. This limits the internal validity of the study, as there is no way to be sure that group facilitators followed the treatment manual or delivered services in a consistent way. However, it should be noted that the same psychologist acted as the primary group facilitator for all R-CBT groups, which presumably provided some level of consistency between groups. A third limitation of the study relates to the generalizability of the data. Participants in this study had a relatively high mean socioeconomic status, they participated in 6 hours of research assessment (which may have had a clinical impact of its own), and were referred by a physician to a tertiary care program. As such, the study findings provide limited generalizability to populations within other treatment settings, such as a community clinic. Lastly, although the sample size used in this study is consistent with published clinical research, regression analyses could have benefited from a larger sample size. The recommendations of Tabachnick and Fidell (2007), for example, suggest that a sample size of 50 or more is ideal.

#### *Future Research*

Based on this study's findings, several areas of future research can be suggested. First, a replication of the study using a randomized controlled design needs to be conducted in order to determine whether the increases in readiness observed can be attributed to R-CBT. In such a study, it would be beneficial to include an attention placebo control condition in lieu of a wait-list control group in order to control for confounding variables such as attention from facilitators and time spent in a treatment

setting. Second, a study which investigates illness perceptions in individuals with eating disorders at the time of intake would be very useful in determining why individuals with eating disorders may misjudge their readiness for change prior to beginning treatment. Thus far, very little research has been conducted on illness perceptions in this population and, of the studies conducted, all have investigated illness perceptions during the course of treatment, as opposed to before treatment begins. Third, although a number of studies have investigated treatment adherence among individuals with eating disorders, adherence tends to be measured/defined differently for each study. As such, it was difficult to make comparisons between adherence rates in the current study and others in the eating disorders literature. A systematic way of measuring adherence, such as an adapted version of the MOS-A, would be very beneficial to eating disorders research. Indeed, a number of researchers appear to have done this for other medical conditions (e.g., Kravitz et al., 1993; DiMatteo et al., 1993). Fourth, because it has been theorized that individuals with eating disorders may not become aware of their readiness for change until after beginning treatment, it would be interesting to investigate the use of readiness interventions at different stages of treatment (e.g., mid-treatment if motivational issues arise). Indeed, Geller and Dunn (2011) have recently written an article on the integration of MI and CBT in the treatment of eating disorders, and suggest, via patient scenarios, that the use of motivational strategies is effective at all stages of treatment. Finally, a fifth area of future research relates to the investigation of MI and CBT integration generally. The journal *Cognitive and Behavioral Practice* has recently published a series of articles discussing the integration of motivational interventions with CBT, including the article by Geller and Dunn (2011). Vignettes and patient scenarios are used to explore the utility

of MI and CBT integration within a number of treatment populations, including generalized anxiety disorder (Kertes, Westra, Angus, & Marcus, 2011), depression (Flynn, 2011), substance use (Moyers & Houck, 2011), obsessive-compulsive disorder (Simpson, 2011), and suicidality (Britton, Patrick, Wenzel, & Williams, 2011). This line of exploration has been promising thus far and further research is needed to determine whether incorporating motivational interventions with CBT will result in a more effective treatment strategy than CBT alone.

#### *Concluding Comments and Clinical Implications*

Despite devastating health consequences, individuals with eating disorders are notoriously ambivalent about recovery (Hasler et al., 2004). Although CBT is widely accepted as the treatment of choice for individuals with eating disorders, treatment non-adherence, drop-out, and relapse remain significant challenges within this population (Treasure & Schmidt, 2008). This study investigated the efficacy of a readiness for change precursor to group CBT for the eating disorders. Results suggest that motivational interventions, such as R-CBT, may be an effective way to increase client readiness for change and better prepare individuals for treatment. However, study findings also suggest that stage of change awareness and treatment drop-out remain significant challenges. Further research must be conducted in order to investigate the relationship between readiness for change and treatment outcome in individuals with eating disorders. In addition, more research is needed to determine the utility of combining motivational interventions with CBT in the treatment of psychological disorders.

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## Appendix A

## Demographic Information Sheet

Age: \_\_\_\_\_ Date of Birth (dd/mm/yr): \_\_\_\_\_  
 Your height: \_\_\_\_\_ Your weight: \_\_\_\_\_  
 Age at eating disorder onset: \_\_\_\_\_

Please indicate the occupation of your mother and father (or other person that provides for you financially)

Mother: \_\_\_\_\_

Father: \_\_\_\_\_

What level of education did your mother and father (or other person that provides for you financially) complete? (check one):

Mother Father

- less than seventh grade  
  junior high school (grade 9)  
  partial high school (grade 10 or 11)  
  high school graduate  
  partial college (min. 1 yr) or specialized training (e.g., RN diploma)  
  standard college/ university graduation (e.g., B.A., B.Ed., M.D., L.L.B.)  
  graduate professional training (e.g., M.A., Ph.D., M.Sc., M.B.A.)

Please describe your ethnic background:

- a)  Caucasian/White (e.g., European)  
 b)  Chinese  
 c)  South Asian (e.g., East Indian, Pakistani, Punjabi)  
 d)  South East Asian (e.g., Cambodian, Indonesian, Vietnamese)  
 e)  Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese)  
 f)  Other Asian (e.g., Filipino, Japanese, Korean)  
 g)  Latin American (e.g., Mexican, Spanish)  
 h)  Black (e.g., African, Jamaican, Haitian)  
 i)  Other. Please Describe: \_\_\_\_\_

## Appendix B

## RMI Coding Sheet

Name: \_\_\_\_\_

Date: \_\_\_\_\_

ID: \_\_\_\_\_

Initial Interview 

**Notes on General Eating Habits** To get a sense of your general eating habits over the past few months, could you describe a typical day of eating? Do your eating habits varied much from day to day? Have weekdays (or work/school days) differed from weekends? Have there been any days in the past 3 months when you haven't eaten anything at all?

### **Fear of Weight Gain**

\* Over the past 4 weeks have you been **afraid** that you might gain weight or become fat?

Last 4 Weeks [ ]

Month 2 [ ]

Month 3 [ ]

Problem: yes no

Notes:

Precontemplation \_\_\_\_\_%

Contemplation \_\_\_\_\_%

Action/Maintenance \_\_\_\_\_%

Internality \_\_\_\_\_%

Notes (if yes to action: what are you doing to reduce your fear of weight gain?):

### **Feelings of Fatness**

\* Over the past 4 weeks have you felt fat?

Last 4 Weeks [ ]

Month 2 [ ]

Month 3 [ ]

Problem: yes no

Notes:

Precontemplation \_\_\_\_\_%

Contemplation \_\_\_\_\_%

Action/Maintenance \_\_\_\_\_%

Internality \_\_\_\_\_%

Notes: (If yes to action: what are you doing to work on reducing feelings of fatness?)

**Restraint Over Eating**

\* Over the past 4 weeks have you consciously tried to restrict what you eat whether or not you have succeeded? How do you restrict your eating?  
 Are there any foods you avoid? Do you watch your portion sizes? (must be for reasons concerning shape and/or weight).

Last 4 Weeks	[ ]	
Month 2	[ ]	Problem: yes no
Month 3	[ ]	Notes:
Precontemplation	____%	
Contemplation	____%	
Action/Maintenance	____%	
Internality	____%	

Notes: (If yes to action: what are you doing to not restrict?):

**Weight Loss/ Weight Maintenance (choose applicable inappropriate weight control behaviour for your client)**

\*What's been going on with your weight over the last year? (establish pattern of gain/loss/maintenance)

\* Over the past 3 months have you been trying to lose weight?

*If no:* Have you been trying to make sure that you do not gain weight?

Over Past 3 Months	[ ]	Problem: yes no
Precontemplation	____%	Notes:
Contemplation	____%	
Action/Maintenance	____%	
Internality	____%	

Notes: (Summary of weight over last year/what are you doing to stop your weight loss/or what are you doing to gain weight? Action = changes in a healthy direction for that person):

**Menstruation**



**\* Have you missed any menstrual periods over the past three months?**

**\* How many periods have you had?**

**Number of Periods**  
 over the past **3 Months**      [   ]  
 Precontemplation                    \_\_\_\_\_%  
 Contemplation                        \_\_\_\_\_%  
 Action/Maintenance                \_\_\_\_\_%  
 Internality                              \_\_\_\_\_%

On Pill:    yes    no

Problem:    yes    no

Notes:

Notes: (If yes to action: what are you doing to try to get your periods back?):

**Importance of Shape**

**\* Over the past 4 weeks has your shape been important in influencing how you feel about (judge, think, evaluate) yourself as a person?**

Last 4 Weeks                            [   ]  
*Month 2*                                    [   ]  
*Month 3*                                    [   ]

**Importance of Weight**

**\* Over the past 4 weeks has your weight been important in influencing how you feel about (judge, think, evaluate) yourself as a person?**

Last 4 Weeks                            [   ]  
*Month 2*                                    [   ]  
*Month 3*                                    [   ]  
 Precontemplation                    \_\_\_\_\_%  
 Contemplation                        \_\_\_\_\_%  
 Action/Maintenance                \_\_\_\_\_%  
 Internality                              \_\_\_\_\_%

Problem:    yes    no

Notes:

Notes: (If yes to action: what are you doing to work on reducing the amount of influence that shape and weight have on your self-evaluation?):

**Objective Bulimic Episodes**

**\* In the past 4 weeks have there been any times when you felt that you have eaten too much in one go, and others would agree it's an objectively large amount of food?**

**\*Did you have a sense of loss of control at the time?**

Number of Days	[ ]	
Number of Episodes/Month	[ ]	
Month 2 - Days	[ ]	Problem: yes no
Month 3 - Days	[ ]	Notes:
Precontemplation	_____%	
Contemplation	_____%	
Action/Maintenance	_____%	
Internality	_____%	

Notes (If yes to action: what are you doing to reduce bingeing?):

**Longest Continuous Period Free from Objective Episodes Over Past 3 Months**

**\* Were there ever 2 or more weeks that passed in the last 3 months when you didn't binge?**

Must be more than 2 weeks [ ]

**Dietary Restriction Outside of Bulimic Episodes**

**\* Outside the times when you have lost control over eating, have you been restricting the amount you eat? Immediately before or after? To compensate for the binge?**

This should be the average degree of dietary restriction:

- 0 - No extreme restriction outside of binge
- 1 - Extreme restriction outside of binge (less than 1200 calories)
- 2 - No eating outside of binge

Month 1	[ ]	
Month 2	[ ]	Problem: yes no
Month 3	[ ]	Notes:
Precontemplation	_____%	
Contemplation	_____%	
Action/Maintenance	_____%	
Internality	_____%	

Notes (If yes to action: what are you doing to reduce restricting in between binges?):

**Self Induced Vomiting**

**\* Over the past 4 weeks have you made yourself sick as a means of controlling your shape or weight?**

Number of Days	[ ]	
Number of Episodes/Month	[ ]	
<i>Month 2</i> - Days	[ ]	Problem: yes no
<i>Month 3</i> - Days	[ ]	Notes:
Precontemplation	_____%	
Contemplation	_____%	
Action/Maintenance	_____%	
Internality	_____%	

Notes (If yes to action: what are you doing to reduce vomiting?):

**Laxative Misuse**

**\* Over the past 4 weeks have you taken laxatives as a means of controlling your shape or weight?**

Number of Days	[ ]	
Number of Episodes/Month	[ ]	
<i>Month 2</i> - Days	[ ]	
<i>Month 3</i> - Days	[ ]	Problem: yes no
Type of Laxative	_____	Notes:
Precontemplation	_____%	
Contemplation	_____%	
Action/Maintenance	_____%	
Internality	_____%	

Notes (If yes to action: what are you doing to reduce your use of laxatives?):

**Diuretic Misuse**

**\* Over the past 4 weeks have you taken diuretics as a means of controlling your shape or weight?**

Number of Days	[ ]	
Number of Episodes/Month	[ ]	
<i>Month 2</i> - Days	[ ]	Problem:    yes    no
<i>Month 3</i> - Days	[ ]	Notes:
Type of Diuretic	_____	
Precontemplation	_____%	
Contemplation	_____%	
Action/Maintenance	_____%	
Internality	_____%	

Notes (If yes to action: what are you doing to reduce your use of diuretics?):

**Intense Exercising**

**\* Over the past 4 weeks have you exercised as a means of controlling your weight, altering your shape or amount of fat, or burning off calories?**

Number of Days	[ ]	
Time/Day	[ ]	Problem: yes no
<i>Month 2</i> - Days	[ ]	Notes:
<i>Month 3</i> - Days	[ ]	
Precontemplation	_____%	
Contemplation	_____%	
Action/Maintenance	_____%	
Internality	_____%	

Notes:

**Abstinence from All Weight Control Behaviour**

(Only ask this if at least one compensatory behaviour has been rated as present, more than twice a week, for the past 3 months)

**Have there been two or more weeks where you engaged in none of the following behaviours?** (i.e. restriction, self-induced vomiting, laxative misuse, diuretic misuse, excessive exercise)

Must be more than 2 weeks [ ] [ ]

**Denial of Seriousness**

(If BMI is less than 17.5)

**In the past 3 months have you felt that being at your current weight presents any serious health risks?**

Yes            No

**READINESS AND MOTIVATION INTERVIEW PROFILE SHEET**

<b>DIMENSION</b>	<b>PRECON</b>	<b>CONT</b>	<b>ACTION</b>	<b>INTERN</b>
1. Fear of Weight Gain				
2. Feelings of fatness				
3. Restraint over eating				
4A. Weight loss				
4B. Maintained low weight				
5. Menstruation				
6. Importance of shape & weight				
7. Objective Bulimic Episodes				
8. Restriction outside OBEs				
9. Self-induced vomiting				
10. Laxative misuse				
11. Diuretic misuse				
12. Exercise				
Totals (sum of all scores)				
Number of applicable items				
Mean Totals (sum scores/number items)				

**Cognitive**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 6. \_\_\_\_\_

**Restriction**

- 3. \_\_\_\_\_
- 4. \_\_\_\_\_

**Bingeing**

- 7. \_\_\_\_\_

**Compensatory strategies**

- 8. \_\_\_\_\_
- 9. \_\_\_\_\_
- 10. \_\_\_\_\_
- 11. \_\_\_\_\_
- 12. \_\_\_\_\_

*Symptom Ratings*

**Cognitive**

*P C A I*  
 \_\_\_\_\_

**Restriction**

*P C A I*  
 \_\_\_\_\_

**Bingeing**

*P C A I*  
 \_\_\_\_\_

**Compensatory Strategies**

*P C A I*  
 \_\_\_\_\_

## Appendix C

## The Eating Disorders Inventory – 3

**INSTRUCTIONS:**

First, write your name and the date on the EDI-3 Answer Sheet. Your ratings on the items below should be circled on the Answer Sheet. The items ask about your attitudes, feelings, and behaviors. Some of the items relate to food or eating; other items ask about your feelings about yourself.

For each item, decide if the item is true about you **ALWAYS (A)**, **USUALLY (U)**, **OFTEN (O)**, **SOMETIMES (S)**, **RARELY (R)**, or **NEVER (N)**. Circle the letter that corresponds to your rating on the Answer Sheet. For example, if your rating for an item is **OFTEN**, you would circle the “**O**” for that item on the Answer Sheet.

Respond to *all* of the items, making sure that you circle the letter for the rating that is true about you. **DO NOT ERASE!** If you need to change an answer, mark an “X” through the incorrect letter, and then circle the correct one.

---

1. I eat sweets and carbohydrates without feeling nervous.
2. I think that my stomach is too big.
3. I wish that I could return to the security of childhood.
4. I eat when I am upset.
5. I stuff myself with food.
6. I wish that I could be younger.
7. I think about dieting.
8. I get frightened when my feelings are too strong.
9. I think that my thighs are too large.
10. I feel ineffective as a person.
11. I feel extremely guilty after overeating.
12. I think that my stomach is just the right size.
13. Only outstanding performance is good enough in my family.
14. The happiest time in life is when you are a child.
15. I am open about my feelings.
16. I am terrified of gaining weight.
17. I trust others.
18. I feel alone in the world.

19. I feel satisfied with the shape of my body.
20. I feel generally in control of things in my life.
21. I get confused about what emotion I am feeling.
22. I would rather be an adult than a child.
23. I can communicate with others easily.
24. I wish I were someone else.
25. I exaggerate or magnify the importance of weight.
26. I can clearly identify what emotion I am feeling.
27. I feel inadequate.
28. I have gone on eating binges where I felt that I could not stop.
29. As a child, I tried very hard to avoid disappointing my parents and teachers.
30. I have close relationships.
31. I like the shape of my buttocks.
32. I am preoccupied with the desire to be thinner.
33. I don't know what's going on inside me.
34. I have trouble expressing my emotions to others.
35. The demands of adulthood are too great.
36. I hate being less than best at things.
37. I feel secure about myself.
38. I think about bingeing (overeating).
39. I feel happy that I am not a child anymore.
40. I get confused as to whether or not I am hungry.
41. I have a low opinion of myself.
42. I feel that I can achieve my standards.
43. My parents have expected excellence of me.
44. I worry that my feelings will get out of control.
45. I think my hips are too big.
46. I eat moderately in front of others and stuff myself when they're gone.
47. I feel bloated after eating a normal meal.
48. I feel that people are happiest when they are children.
49. If I gain a pound, I worry that I will keep gaining.



50. I feel that I am a worthwhile person.
51. When I am upset, I don't know if I am sad, frightened, or angry.
52. I feel that I must do things perfectly or not do them at all.
53. I have the thought of trying to vomit in order to lose weight.
54. I need to keep people at a certain distance (feel uncomfortable if someone tries to get too close).
55. I think that my thighs are just the right size.
56. I feel empty inside (emotionally).
57. I can talk about personal thoughts or feelings.
58. The best years of your life are when you become an adult.
59. I think my buttocks are too large.
60. I have feelings I can't quite identify.
61. I eat or drink in secrecy.
62. I think that my hips are just the right size.
63. I have extremely high goals.
64. When I am upset, I worry that I will start eating.
65. People I really like end up disappointing me.
66. I am ashamed of my human weaknesses.
67. Other people would say that I am emotionally stable.
68. I would like to be in total control of my bodily urges.
69. I feel relaxed in most group situations.
70. I say things impulsively that I regret having said.
71. I go out of my way to experience pleasure.
72. I have to be careful of my tendency to abuse drugs.
73. I am outgoing with most people.
74. I feel trapped in relationships.
75. Self-denial makes me feel stronger spiritually.
76. People understand my real problems.
77. I can't get strange thoughts out of my head.
78. Eating for pleasure is a sign of moral weakness.
79. I am prone to outburst of anger or rage.

80. I feel that people give me the credit I deserve.
81. I have to be careful of my tendency to abuse alcohol.
82. I believe that relaxing is simply a waste of time.
83. Others would say that I get irritated easily.
84. I feel like I am losing out everywhere.
85. I experience marked mood shifts.
86. I am embarrassed by my bodily urges.
87. I would rather spend time by myself than with others.
88. Suffering makes you a better person.
89. I know that people love me.
90. I feel like I must hurt myself or others.
91. I feel that I really know who I am.

## EDI-3 Answer Sheet

Fill in your name and the date. Follow the instructions in the EDI-3 Item Booklet and enter your ratings on this sheet.

Name \_\_\_\_\_ Date \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

A = ALWAYS U = USUALLY O = OFTEN S = SOMETIMES R = RARELY N = NEVER

- |            |            |            |            |            |
|------------|------------|------------|------------|------------|
| 1. AUOSRN  | 19. AUOSRN | 37. AUOSRN | 55. AUOSRN | 73. AUOSRN |
| 2. AUOSRN  | 20. AUOSRN | 38. AUOSRN | 56. AUOSRN | 74. AUOSRN |
| 3. AUOSRN  | 21. AUOSRN | 39. AUOSRN | 57. AUOSRN | 75. AUOSRN |
| 4. AUOSRN  | 22. AUOSRN | 40. AUOSRN | 58. AUOSRN | 76. AUOSRN |
| 5. AUOSRN  | 23. AUOSRN | 41. AUOSRN | 59. AUOSRN | 77. AUOSRN |
| 6. AUOSRN  | 24. AUOSRN | 42. AUOSRN | 60. AUOSRN | 78. AUOSRN |
| 7. AUOSRN  | 25. AUOSRN | 43. AUOSRN | 61. AUOSRN | 79. AUOSRN |
| 8. AUOSRN  | 26. AUOSRN | 44. AUOSRN | 62. AUOSRN | 80. AUOSRN |
| 9. AUOSRN  | 27. AUOSRN | 45. AUOSRN | 63. AUOSRN | 81. AUOSRN |
| 10. AUOSRN | 28. AUOSRN | 46. AUOSRN | 64. AUOSRN | 82. AUOSRN |
| 11. AUOSRN | 29. AUOSRN | 47. AUOSRN | 65. AUOSRN | 83. AUOSRN |
| 12. AUOSRN | 30. AUOSRN | 48. AUOSRN | 66. AUOSRN | 84. AUOSRN |
| 13. AUOSRN | 31. AUOSRN | 49. AUOSRN | 67. AUOSRN | 85. AUOSRN |
| 14. AUOSRN | 32. AUOSRN | 50. AUOSRN | 68. AUOSRN | 86. AUOSRN |
| 15. AUOSRN | 33. AUOSRN | 51. AUOSRN | 69. AUOSRN | 87. AUOSRN |
| 16. AUOSRN | 34. AUOSRN | 52. AUOSRN | 70. AUOSRN | 88. AUOSRN |
| 17. AUOSRN | 35. AUOSRN | 53. AUOSRN | 71. AUOSRN | 89. AUOSRN |
| 18. AUOSRN | 36. AUOSRN | 54. AUOSRN | 72. AUOSRN | 90. AUOSRN |
|            |            |            |            | 91. AUOSRN |

Appendix D

Motivational Stages of Change for Adolescents Recovering from an Eating Disorder

*Taking Action against an Eating Disorder involves starting to:*

- A. give up dieting (not dieting, means eating regular meals and snacks to meet your body's needs)
- B. give up excessive exercising
- C. give up bingeing
- D. give up vomiting
- E. give up laxative abuse
- F. recognize, express, and deal with emotions
- G. other (Is there anything else that it would mean to you? \_\_\_\_\_)

**1a. Where are you in the process of taking action against an eating disorders?**

***Check the box with the stage that best describes you.***

- Other people think I have an eating disorder, but I don't, or I don't want to change **Precontemplation**
- I realize I have an eating disorder but I'm not sure I'm ready to change **Contemplation**
- I'm planning to "take action" against the eating disorder in the next 1 to 6 months **Preparation**
- I have taken definite actions against the eating disorder within the past 6 months. **Which actions? (please note here the letters of the actions that apply from the list above):** \_\_\_\_\_ **Action**
- I am working to maintain the changes I have made to "take action" against the eating disorder. **Which actions? (please note here the letters of the actions that apply from the list above):** \_\_\_\_\_ **Maintenance**
- I have taken action against the eating disorder and am now fully recovered. **What was the approx. date of your recovery? Month/Year** \_\_\_\_\_ **Recovery**  
**Describe how you know you have recovered:**  
 \_\_\_\_\_  
 \_\_\_\_\_

**1b. How sure are you that this is the stage you are at? (Circle your rating)**

1	2	3	4	5	6	7
Not sure at all			Sure			Very Sure

**2. Estimate how much of your daily life revolves around that eating disorder? (circle one):**

1. None of my day
2. ¼ of my day
3. ½ of my day
4. All of my day
5. Does not apply

**3. If you are “taking action” against the eating disorder, are you doing so (circle one):**

1. Mostly for yourself
2. Mostly for others
3. Equally for yourself and for others
4. Just to get out of hospital
5. Does not apply

**4a. At this time, what do you see as the PROs (or benefits) of “taking action” against the eating disorder? What do you see as the CONs (or costs) of “taking action”? Please list below.**

**PROs of Changing**

**CONs of Changing**

**4b. Overall, which are stronger for you at this time, the PROs or the CONs of changing? Circle the statement that best describes you.**

PROs are much stronger	PROs are stronger	PROs are a little stronger	They are the same strength	CONS are a little stronger	CONS are stronger	CONS are much stronger
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Appendix E: Shape and Weight Based Self-Esteem Inventory

**OUR OPINION OF OURSELVES IS BASED ON HOW WE FEEL ABOUT OUR DIFFERENT PERSONAL ATTRIBUTES**

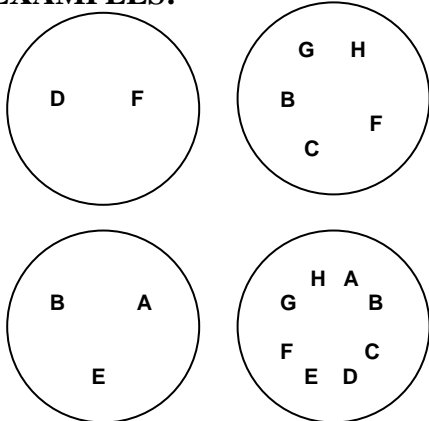
**STEP 1:** Please read through the list below and PLACE AN “X” on the line next to each attribute that is important to how you have felt about yourself in the past four weeks.

**STEP 2:** Now, look over the attributes you have selected, and RANK ORDER them in terms of how much your opinion in the past four weeks has been based on each attribute. The numbers should not necessarily reflect how satisfied you have been with the attribute, but rather how important the attribute has been to how you feel about yourself.

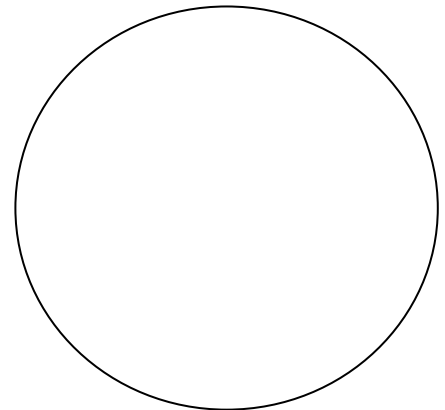
**STEP 3:** Using the attributes you selected, DIVIDE THE CIRCLE below so that the size of each section is a reflection of how much your opinion of yourself in the past four weeks has been based on the attribute (larger pieces should indicate that a greater part of yourself has been based on that attribute, for example). Place the letters corresponding to the attributes inside the pieces of the circle.

- \_\_\_\_\_ **A: Your intimate or romantic relationships**  
e.g., as reflected in the level of closeness you feel in close relationships
- \_\_\_\_\_ **B: Your body shape and weight**  
e.g., your actual current shape and weight
- \_\_\_\_\_ **C: Your competence at school/work**  
e.g., as reflected by grades or work evaluation
- \_\_\_\_\_ **D: Your Personality**  
e.g., warmth, level-headedness, openness, self-control
- \_\_\_\_\_ **E: Your Friendships**  
e.g., as reflected by the number or quality of friendships
- \_\_\_\_\_ **F: Your Face**  
e.g., how “good looking” you are
- \_\_\_\_\_ **G: Your Personal Development**  
e.g., your sense of morality, ethics, or spirituality
- \_\_\_\_\_ **H: Your competence at activities other than school/work**  
e.g., your competence in music, sports, hobbies
- \_\_\_\_\_ **I: OTHER**  
Please describe: \_\_\_\_\_

**EXAMPLES:**



**YOUR CIRCLE:**



## Appendix F

## Eating Disorders Quality of Life Scale

Quality of life is the sense of satisfaction that a person has with his/her life and how much she or he enjoys various parts of it

Instructions:

- Inside are 40 questions about how you feel about the quality of your life.
- Please rate the items according to your feelings, not how you think others might expect you to answer.
- Responses will be different for different people; there are no right or wrong answers.
- Answer based on your first impression. Even if you think an item doesn't apply to you, give it your best guess.

Here is an example item:

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1. I enjoy going to the movies	1	2	3	4	5

Think about how you've felt in the LAST WEEK, and then circle the response that best fits for you.

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1. I have fun with others	1	2	3	4	5
2. I feel I don't have a life	1	2	3	4	5
3. I have an honest open relationship with someone outside my family	1	2	3	4	5
4. I have trouble concentrating	1	2	3	4	5
5. My health is more important to me than my physical appearance	1	2	3	4	5
6. I hardly ever worry	1	2	3	4	5
7. I show my true self to others	1	2	3	4	5
8. I have lots of rules about food	1	2	3	4	5
9. I have lots of energy	1	2	3	4	5
10. I feel connected to others	1	2	3	4	5
11. I get satisfaction from my main activity (e.g., school, work)	1	2	3	4	5

12. I think about food constantly throughout the day	1	2	3	4	5
13. I see positive things in my appearance	1	2	3	4	5
14. I enjoy relaxing in my free time	1	2	3	4	5
15. I skip meals on purpose	1	2	3	4	5
16. I have fights with my family members about food or eating	1	2	3	4	5
17. Every day is a struggle	1	2	3	4	5
18. The number on the bathroom scale is very important to me	1	2	3	4	5
19. I turn down opportunities to go out with friends	1	2	3	4	5
20. I can focus on things other than food	1	2	3	4	5
21. I feel hopeful about the future	1	2	3	4	5
22. People don't understand me	1	2	3	4	5
23. I don't go out with friends if I feel bad about my body	1	2	3	4	5
24. I enjoy participating in different activities, not just exercise	1	2	3	4	5
25. I'm constantly trying to fix my body	1	2	3	4	5
26. I am able to see good qualities in myself	1	2	3	4	5
27. I think about what I would like to do in my life	1	2	3	4	5
28. I have to be in a relationship (e.g., boyfriend, girlfriend) to feel good about myself	1	2	3	4	5
29. Thoughts about food and eating dominate my life	1	2	3	4	5
30. I put myself down a lot	1	2	3	4	5
31. I feel self-conscious about my body around others	1	2	3	4	5
32. My sleep is restful	1	2	3	4	5
33. I feel comfortable eating in front of people	1	2	3	4	5
34. Long term effects of the eating disorder don't concern me	1	2	3	4	5
35. I do things I normally wouldn't do because of my eating disorder	1	2	3	4	5
36. I can consider my own happiness when making choices	1	2	3	4	5
37. I feel like nothing I ever do is quite good enough	1	2	3	4	5
38. I'm obsessed with my weight or my body shape	1	2	3	4	5



40. I feel physically cold 1 2 3 4 5

In this last section please rate how IMPORTANT the following areas of life are to you.

	Very Unimportant	Unimportant	Neither Important or Unimportant	Important	Very Important
School/Work	1	2	3	4	5
Family and Close Relationships	1	2	3	4	5
Relationships with Others	1	2	3	4	5
Your Future	1	2	3	4	5
Your Feelings	1	2	3	4	5
Your Appearance (How you look)	1	2	3	4	5
Your Leisure (Free time activities)	1	2	3	4	5
Your Values and Beliefs	1	2	3	4	5
Thinking and Concentrating	1	2	3	4	5
Your General Physical Health	1	2	3	4	5
Your Psychological Health	1	2	3	4	5
Your Health Related to Food and Weight	1	2	3	4	5

If there are any other areas of your life that are not listed in these 12 above please specify and rate

_____	1	2	3	4	5
_____	1	2	3	4	5

Finally, please rate your overall quality of life in the last week on a scale of 1 to 10, where 1 is **Poor** and 10 is **Excellent**

1 2 3 4 5 6 7 8 9 10

## Appendix G

**Treatment History Questionnaire**

Please indicate what type of treatment you have received for your eating disorder in the past, as well as how long you received this treatment:

<b>Type of Treatment</b>	<b>Yes/No</b>	<b>How long did you attend this treatment?</b>
<b>Individual Therapy</b> (e.g. psychologist, nurse therapist, counselor)		
<b>Group Therapy</b>		
<b>Inpatient Treatment</b> (i.e. hospital stay)		
<b>Family Therapy</b>		
<b>Dietician</b>		
<b>Social Worker</b>		
<b>Other</b> (please describe):		

## Appendix H

## Group Climate Questionnaire – Short Form

Please answer the following items using the following scale (circle your answer):

	<b>not at all</b>	<b>extremely</b>
1. The members liked and cared about each other	<b>1 2 3 4 5 6 7</b>	
2. The members tried to understand why they do the things they do, tried to reason it out	<b>1 2 3 4 5 6 7</b>	
3. The members avoided looking at important issues going on between themselves	<b>1 2 3 4 5 6 7</b>	
4. The members felt what was happening was important and there was a sense of participation	<b>1 2 3 4 5 6 7</b>	
5. The members depended on the group leader for direction	<b>1 2 3 4 5 6 7</b>	
6. There was friction and anger between members	<b>1 2 3 4 5 6 7</b>	
7. The members were distant and withdrawn from each other	<b>1 2 3 4 5 6 7</b>	
8. The members challenged and confronted each other in their efforts to sort things out	<b>1 2 3 4 5 6 7</b>	
9. The members appeared to do things the way they thought would be acceptable to the group	<b>1 2 3 4 5 6 7</b>	
10. The members distrusted and rejected each other	<b>1 2 3 4 5 6 7</b>	
11. The members revealed sensitive personal information or feelings	<b>1 2 3 4 5 6 7</b>	
12. The members appeared tense and anxious	<b>1 2 3 4 5 6 7</b>	

Appendix I

Medical Outcomes Study General Adherence Scale

Please use the following scale to indicate your responses:

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>none of the time</b>					<b>all of the time</b>

1. I had a hard time doing what the psychologist suggested I do\_\_\_\_\_
2. I found it easy to do the things my psychologist suggested I do\_\_\_\_\_
3. I was unable to do what was necessary to follow my psychologist's treatment plans\_\_\_\_
4. I followed my psychologist's suggestions exactly\_\_\_\_\_
5. Generally speaking, how often during the past 7 weeks were you able to do what the psychologist told you?\_\_\_\_\_

Appendix J

Attendance, Homework Completion and Dropout Record Sheet (Example)

Name	January 7		January 14		January 21		January 28	
	Present	Homework	Present	Homework	Present	Homework	Present	Homework
Jane	yes	2/2	yes	2/2	yes	1/1	yes	2/2
Andrea	yes	2/2	yes	1/2	no	0/1	Dropped out (not ready)	
Carly	yes	2/2	yes	1/2	yes	1/1	yes	2/2

\*Note: The homework column will indicate how many assignments were given as well as how many were completed. For example, “1/2” means that 2 homework assignments were given, but only 1 was completed. Partially completed homework will be coded as incomplete.

Appendix K

Readiness for Change Precursor to Group Cognitive-Behavioral  
Therapy for Individuals with Eating Disorders  
(R-CBT)

**TREATMENT MANUAL**

## **General Instructions for Facilitators:**

### *Purpose*

The overall purpose of R-CBT is to prepare clients for the CBT group. Specifically, the precursor will work to enhance readiness to begin treatment and give clients a “feel” for what the CBT group is like. This allows clients to make an informed decision as to whether or not they would like to continue with the CBT group. A further purpose of R-CBT, therefore, is to help clients who are not yet ready for treatment determine this fact before they begin the CBT group. This will prevent clients from entering treatment before they are ready, and feeling as though they have failed when they drop-out or are not successful in treatment. Clients who do not continue with the CBT group will be able to begin treatment at the Adult Eating Disorder Program at a later time, when they feel they are ready to make changes to their disordered eating. This will greatly increase their probability of success.

### *Stance*

One of the most important elements of R-CBT is clinician stance. Because R-CBT is based upon the theoretical framework of the Transtheoretical Model of Change and Motivational Interviewing, it is important to maintain a curious, open, empathic, and non-judgmental stance throughout each session. Reflective listening is an important part of this process. Do not challenge or push clients, but rather gently encourage them to explore their feelings about their eating disorder and about each exercise given during the group. Be curious, and encourage clients to be curious also.

### *Timing*

The components of R-CBT are set in a specific order and given specific time allotments (see session outlines), which are designed to facilitate the progression through each exercise. It is important to maintain the order of the exercises. Although there can be some flexibility with regards to the timing of each section, it is important to allow sufficient time to complete each component.

### *Handouts*

Participants should be informed to keep all handouts together in a binder or folder which they bring with them to group each week. Binders may be provided by facilitators for this purpose.

### *Record Keeping*

Attendance and homework completion should be recorded by facilitators at the beginning of each session. Date of drop-out should also be recorded.

## WEEK 1: Learning about Readiness and Motivation for Change

### Outline

1. Go over group guidelines (see handout #1) 4:00 – 4:10
2. Introductions: Facilitators and clients 4:10 – 4:30
  - clients give name and why you are here
  - facilitators give name and brief background
3. Rationale for the group 4:30 – 4:40
  - explore and understand the eating disorder
  - explore any feelings of ambivalence
  - evaluate participants' readiness for change and determine the best treatment option for them
  - prepare participants continuing in the group
4. Stages of Change 4:40 – 5:20
  - explain the Transtheoretical Model of Change
  - describe each stage (see handout #2)
  - complete 1<sup>st</sup> side of MSCARED (see Appendix D)
5. Function of the Eating Disorder 5:20 – 6:00
  - Iceberg exercise
  - complete handout and discuss the function of the eating disorder (see handout #3)

### Instructions for facilitators

#### Purpose

The overall purpose of this session is to provide clients with a rationale for the readiness precursor, educate clients about readiness for change and the Transtheoretical Model of Change, and help clients begin to explore the function of their eating disorder (e.g., what purpose does the eating disorder serve in their life? Why is the eating disorder helpful?)

#### Group Guidelines

After handing out handout #1, one or both facilitators read the group guidelines aloud, allowing clients to ask questions as they go. After the guidelines are read, clients are given another opportunity to ask questions in order to ensure that the guidelines are clear.



## Introductions

One by one (e.g., going around the table), clients are asked to give their name and a brief explanation as to why they have come to group. Facilitators then give their name and a brief background (e.g., professional affiliation, experience in the eating disorders)

## Rationale for the group

During this section, it is important to let clients know why they are completing the 5-week readiness component as opposed to beginning the CBT group right away. Also, clients need to know how the readiness component is different from the CBT group. Facilitators can give an explanation that is similar to the one below:

“Individuals with eating disorders often have mixed feelings about making changes to their eating disorder. You may feel that there are parts of your eating disorder that you would like to change and other parts of your eating disorder that you would not like to change. The readiness group is designed to help you explore and understand your eating disorder, and to explore any feelings of ambivalence that you may have about making changes to your eating. The group is also designed to help you get a “feel” for what the CBT group will be like. By doing this, we will help you to figure out whether you are ready to continue with the CBT group. Some of you will decide to continue with the CBT group and some of you will decide that you are not ready. Both decisions are totally ok. There are no right or wrong answers. Our purpose is to make sure that you are making the decision that is best for you. Some of you may feel ready already, and that’s ok. These next five weeks will still be very informative and helpful for you.

During our last group, you will meet with one of the facilitators in order to determine whether you will continue with the CBT group. You may also decide that you need more intensive treatment such as the inpatient program or the outpatient day program. This decision will be up to you. However, the facilitators will help you make this decision and will give you a recommendation about what they feel will be most helpful for you. Ultimately, however, the decision will be yours. The readiness group will help you understand how you feel about your eating disorder and help you figure out which treatment option is best for you. Remember, there are no right or wrong answers.”

## Stages of Change

Facilitators explain that researchers have found that people move through five different stages when trying to make changes to their behavior and that this is known as the Transtheoretical Model Change. After passing out handout #2, facilitators can either read through each stage of change, or have different group members read the stages aloud. Clients are asked if they understand the stages and whether they have any questions. Clients are then given the MSCARED and asked to complete the first side. Clients can then be asked to share what stage of change they feel they are at.

## Function of the Eating Disorder

First facilitators lead the group in the “Iceberg Exercise”. This exercise is designed help clients think about the function of their eating disorder. One facilitator draws an iceberg on the board (see handout # 4) and asks clients “if someone is observing you when you are engaging in your eating disorder, what do they see?” Clients can then raise their hands to give answers, or call them out. These responses are then written on the board, in the space “above water”. Examples of these responses may be “avoiding meals” or “moodiness”. The facilitator then asks “what are the aspects of your eating disorder that people don’t see?” These responses are then written on the board, in the space “below the water”. Examples of these responses are “low self-esteem” or “fear of being alone”. By completing this exercise, clients are exploring the underlying reasons for their eating disorder, which can then help determine the function their eating disorder serves in their life. Following the Iceberg exercise, clients are asked to fill out handout #3. Once everyone has completed the handout, clients are asked to share their answers with the group. Facilitators may choose to “go around the circle” and have each member share their answers, or they may choose to have clients volunteer to speak. Either way, the goal is to engage as many group members as possible, and to encourage discussion among members. Ideally, each client would have a chance to share.

## WEEK 2: Developing Discrepancy and Eliciting Change Talk

### Outline

1. Presentation by Dr. Louis Ludwig 4:00 – 5:00
  - discussion about the health risks associated with eating disorders
  
2. Pros and Cons 5:00 – 5:30
  - Iceberg exercise con't (see handout #4)
  - Pros and Cons exercise (2<sup>nd</sup> side of MSCARED; Appendix D)
  - Group discussion of pros/cons
  
3. Goals and Values 5:30 – 6:00
  - give out values handout (#5) and complete values exercise (handout #6)
  - Group discussion about goals and values

### Instructions for facilitators

#### Purpose

The purpose of this session is to develop discrepancy and elicit change talk. Developing discrepancy means educating clients about the consequences of eating disorders (both physical and psychological) and exploring how these consequences fit with their goals and values. It is anticipated that if clients find a large disconnect between their behavior and their goals/values, they will begin to feel motivated to change. Eliciting change talk means getting clients to talk about what they dislike about their eating disorder as well as reasons why they may want to make changes.

#### Presentation by Dr. Louis Ludwig

This presentation is given by Dr. Ludwig and focuses on the health risks associated with eating disorders. Clients are encouraged to ask questions throughout the presentation. The discussion will include topics such as tooth decay, amenorrhea, electrolyte imbalance, osteoporosis and cardiac abnormalities.

#### Pros and Cons

Facilitators will hand out a copy of the Iceberg exercise completed the previous week so that clients have a copy for their binder (handout # 4). Clients will then be asked to complete the second side of the MSCARED, which asks clients to list the pros and cons of their eating disorder. Once clients have filled out the MSCARED, facilitators will lead a group discussion about pros and cons. Begin by asking clients about the pros of the

eating disorder. Facilitators must resist the urge to challenge clients during this discussion, and instead listen reflectively and empathically. It is important to acknowledge and validate the pros of the eating disorder. Next, facilitators ask clients about the cons of the eating disorder. Although it is important to discuss the pros, try to spend more time discussing the cons. This is consistent with Motivational Interviewing, and with eliciting change talk. During discussion of the cons, it is important to have every member share (i.e., talk) at least once.

### Goals and Values

This section further helps clients develop discrepancy, which will then lead to more change talk. Facilitators ask clients to complete the values exercise (handout #6) and provide them with the values handout (#5). The values handout is used to provide examples and help clients figure out their values, however, they should be instructed that they are not limited to the values listed on the handout. Once the values exercise is completed, facilitators lead the group in a discussion about goals and values. Clients are asked to share their answers from the exercise. Again, facilitators may lead discussion several different ways, however, the goal is to get each group member talking. This may be done by going around the circle, or it may be done by asking clients to share and then calling on specific members who have not yet shared. Discussion between members and within the group is also encouraged, and is an efficient way of getting multiple group members talking and involved in the discussion.

## WEEK 3: Introduction to Food Diaries and Normal Eating

### Outline

1. Presentation by Beth Sugimoto, Registered Dietitian 4:00 – 5:00
  - presentation and discussion about normal eating
2. Discussion of Normal Eating Presentation 5:00 – 5:20
  - Answer questions
  - Discuss barriers and fears
3. Food Diaries 5:20 – 6:00
  - discuss rationale for diaries and how to complete them (handout #7)
  - Have each participant choose a food-related goal for the following week (handout #8)

### Instructions for facilitators

#### Purpose

The purpose of this session is to educate clients about normal eating and to introduce food diaries. This session begins to incorporate experiential pretraining, which is designed to help clients *experientially* understand what will be required of them if they continue with the CBT group. This will help them determine their readiness for treatment. Food diaries are a very large part of the CBT treatment and are essential to treatment success, therefore it is important to have clients practice maintaining food diaries during the readiness precursor. Clients who are unable to complete food diaries will be unable to successfully complete the CBT group.

#### Presentation by Beth Sugimoto, Registered Dietitian

This presentation is given by the AEDP’s dietician, Ms. Sugimoto, and answers the question “what is normal eating?” Given that normal eating is one of the goals of the CBT group, it is important to educate clients about what normal eating entails (e.g., variety of foods, amount of food etc). Clients are given the opportunity to ask questions throughout the presentation.

#### Discussion of Normal Eating Presentation

After a presentation on normal eating, clients often have many questions. During this section facilitators will answer questions and clarify issues that came up during the normal eating presentation. Clients may also feel fearful or overwhelmed after a discussion of normal eating, therefore facilitators also use this time to have a group

discussion about food fears and barriers to normal eating. Again, facilitators must resist the urge to confront or challenge clients. Rather, they engage in reflective listening and show empathy for client concerns. Facilitators can also remind clients that although normal eating is a long-term goal and requirement of the CBT group, they will be engaging in normal eating progressively and gradually over time (and not all at once).

### Food Diaries

Facilitators pass out the food diary handout (#7) which includes a food diary as well as the rationale for food diaries. Facilitators explain that, during the CBT group, food diaries must be completed every day and that they are essential for success in the group. Facilitators read the rationale for food diaries handout aloud and encourage clients to ask questions as they go. Clients are instructed that they must complete food diaries during the following week and bring them to group the next week. Clients are then asked to fill out handout #8, which asks them to set a specific and realistic food-related goal for the following week (e.g., add one glass of milk to their lunch). Facilitators go around the group and have each member share their goal. Facilitators can use this time to help clients refine their goals if they are too large, unrealistic, or not specific enough.

## WEEK 4: Clarifying Feelings and Goal Setting

### Outline

- |    |   |             |
|----|---|-------------|
| 1. | Willingness and Ability   | 4:00 – 4:45 |
|    | <ul style="list-style-type: none"> <li>▪ Distribute and discuss the Willingness and Ability to Change Grid</li> <li>▪ Have participants complete handout (#9; includes grid plus willingness and ability ruler)</li> <li>▪ Group discussion of handout</li> </ul> |             |
| 2. | Food Diaries  | 4:45 – 5:15 |
|    | <ul style="list-style-type: none"> <li>▪ group discussion of how previous week went</li> <li>▪ answer questions and explore barriers to maintaining diaries</li> <li>▪ collect completed diaries and hand out new ones</li> </ul>                                 |             |
| 3. | Goal Setting  | 5:15 – 5:45 |
|    | <ul style="list-style-type: none"> <li>▪ discuss previous week's goals</li> <li>▪ have each participant make another food-related goal for the following week (handout #8)</li> </ul>   |             |
| 4. | Treatment Decisions   | 5:45 – 6:00 |
|    | <ul style="list-style-type: none"> <li>▪ remind clients that treatment decisions will be made next week</li> <li>▪ give overview of CBT group</li> </ul>  |             |

### Instructions for facilitators

#### Purpose

The purpose of this session is to continue clarifying feelings about recovery and working on food diaries and goal setting. The Willingness and Ability exercise helps clients distinguish between their willingness and perceived abilities to change their symptoms. The food diary and goal setting sections continue the experiential pretraining and prepare clients for their treatment decisions.

#### Willingness and Ability

Facilitators begin by distributing handout #9 and reading the description and instructions aloud. Clients are given an opportunity to ask questions about the handout, and are then asked to complete it. When clarifying feelings about treatment, it can be helpful to

distinguish between willingness and ability. Willingness speaks to the individual's motivation for change, while ability speaks to their perceived ability to carry out the tasks that are needed to make changes. Once the handout is complete, facilitators lead a group discussion about the exercise. Start by asking each client about their ratings on the willingness and ability ruler. In order to elicit change talk, facilitators can ask questions such as "Sarah, you said that you rated your ability as a 4. Why didn't you rate it a 2 or 3?" or "Megan, your willingness rating is a 2, why not a 1?" For clients with higher ratings, you can ask them to discuss the reasons for their ratings also. The important thing is to place emphasis on the willingness and ability that clients *do* have, and to get them talking about this. This is consistent with the change talk strategy of MI

### Food Diaries

Facilitators ask clients to refer to their food diaries from the previous week, and lead a group discussion about how the week went. It is not important to ask each individual at this point, but rather ask for questions or volunteers from the group to share. Facilitators can then answer questions about food diaries and explore barriers to completing them. This may include helping clients come up with strategies to complete their diaries (e.g., keep a folded copy in their pocket throughout the day or schedule time at the end of each day to fill them out). At the end of the discussion, facilitators will collect completed diaries and hand out new ones for the following week. Clients are informed that facilitators will look over their diaries and prepare helpful feedback for the next session.

### Goal Setting

Facilitators go around the room and ask each client to discuss how their previous week's goal went and set a new goal for the coming week. Facilitators and group members can encourage and offer suggestions and strategies to members about how to successfully complete goals. This often creates bonding among group members and facilitates group cohesion, which will continue to be important during the CBT group. It is the facilitators' job to ensure that each client has a realistic plan for attaining the next week's goal.

### Treatment Decisions

At the end of this session, facilitators remind clients that treatment decisions will be made the following week and that they will meet individually with one of the facilitators to discuss their decisions. In order to assist with this facilitators will provide a brief Power Point overview of the CBT group (i.e., what topics are covered). Clients are reminded that facilitators will assist with treatment decisions and make recommendations, however, the choice will be up to the client. Clients will be reminded of the treatment options: CBT group, inpatient treatment, outpatient treatment, or no treatment



## WEEK 5: Building Confidence and Treatment Decisions

### Outline

1. Group evaluation 4:00 – 4:15
  - distribute and complete group evaluation (handout #10)
2. MSCARED 4:15 – 4:30
  - have participants complete the MSCARED again (Appendix D)
  - Group discussion of MSCARED
3. Confidence Building 4:30 – 5:15
  - distribute and complete confidence building handout (#11)
  - group discussion of handout
4. Barriers to Recovery 5:15 – 6:00
  - Group discussion of barriers to recovery
5. Treatment Decisions 4:00 – 6:00
  - Throughout the group, clients will take turns meeting with one of the facilitators individually in order to determine which treatment option is best for them
  - Treatment decisions will be made collaboratively between client and facilitators and will be based upon data collected during the group (including food diary and goal completion, stage of change scores, and attendance record)
  - Treatment options include:
    - continuing in the CBT group
    - inpatient treatment
    - outpatient intensive day treatment
    - returning to treatment at a later date when the client is ready and has the best chance for a successful outcome

### Instructions for facilitators

#### Purpose

The purpose of this session is to build clients' confidence in their ability to make changes to their eating disorder, and to make treatment decisions. Confidence building is an

important part of the motivational process and will help prepare clients who are continuing in the CBT group. During this session, one facilitator will remain with the group and lead each of the activities. Concurrently, group members will leave the group one at a time to meet with the other facilitator. During this meeting, client and facilitator will discuss the client's progress thus far. The facilitator will give a recommendation about treatment options as well as a rationale for their recommendation. Clients will be able to ask questions and make an informed decision about which treatment option is best for them.

### Group Evaluation

Facilitators distribute the evaluation (handout #10) and ask clients to complete it. Facilitators will collect evaluations once they are completed.

### MSCARED

Facilitators ask clients to fill out the MSCARED once again and then lead a group discussion about this exercise. Clients will be asked to discuss whether or not their stage of change has changed and how they feel about their answers on the MSCARED at this point in the group. Facilitators can choose to "go around the room" or simply ask for volunteers to share.

### Confidence Building

The facilitator distributes handout #11 and asks clients to complete it. Following this, the facilitator leads a group discussion about clients' answers during this exercise. Facilitators should ask clients to share, as well as call on clients who have yet to speak. In order to elicit change talk and build confidence, the facilitator's aim is to encourage and elicit as much discussion as possible.

### Barriers to Recovery

This section consists of an informal group discussion about barriers to recovery. Clients are asked to discuss any concerns they have about treatment and recovery. This will provide further opportunity for clients to ask questions about the CBT group as well as other treatment options.

### Treatment Decisions

Treatment decision meetings may be very fast (e.g., 1 or 2 minutes) if the decision is clear for both facilitator and client, or may be longer (e.g., 5-10 minutes). Decisions will be made collaboratively between client and facilitators, with the final decision remaining with the client. Facilitator recommendations will be based upon observation and information and data collected during the group, including food diary and goal completion, stage of change, and attendance. Client decisions and facilitator

recommendations will be recorded by the facilitator (see handout #12) and filed for research purposes.

**HANDOUT #1****GUIDELINES FOR GROUP THERAPY**

**Confidentiality:** Please respect the privacy of group members. You may wish to talk to people outside the group about your own experiences, or about what you are learning, but do not reveal information about other group members, including their identities.

**Attendance:** All participants are valued group members. Groups work best when everyone gives their best effort to attend each meeting and arrive on time. We understand that, on occasion, you may need to miss a group due to illness or some emergency. However, these are the only circumstances under which you should miss a group. Please contact one of the group leaders in advance if you are going to be absent.

**Participation:** We want to hear from everyone. Let's work together to support opportunities for everyone to share their ideas.

Participation also means completing all homework tasks. The effort you put into the group will help you learn as much about yourself as possible so that you can make choices that are right for you.

**Mutual Support:** Communication between group members is important for support and constructive feedback. If you have any concerns about the group, let's talk about it so that we can work it out.

**Take Care Of Yourself:** Over the course of the group you may struggle with strong emotions or difficult events in your life. You may be experiencing physical symptoms. Be sure to let the leaders physician know if you are concerned or in need of extra support.

**HANDOUT #2****THE STAGES OF CHANGE**

Research shows that individuals move through 5 stages of change when attempting to modify behavior:

**1. Precontemplation:**

- Individuals have no intention of changing their behavior in the foreseeable future
- They do not believe they have a problem, or may believe they have a problem but do not wish to make any changes to their behavior

**2. Contemplation:**

- Individuals become aware that a problem exists, and are seriously thinking about making changes

**3. Preparation:**

- Individuals are intending to make changes and take action within the next month

**4. Action:**

- Individuals change their behavior, experiences, or environment in an effort to overcome their problem

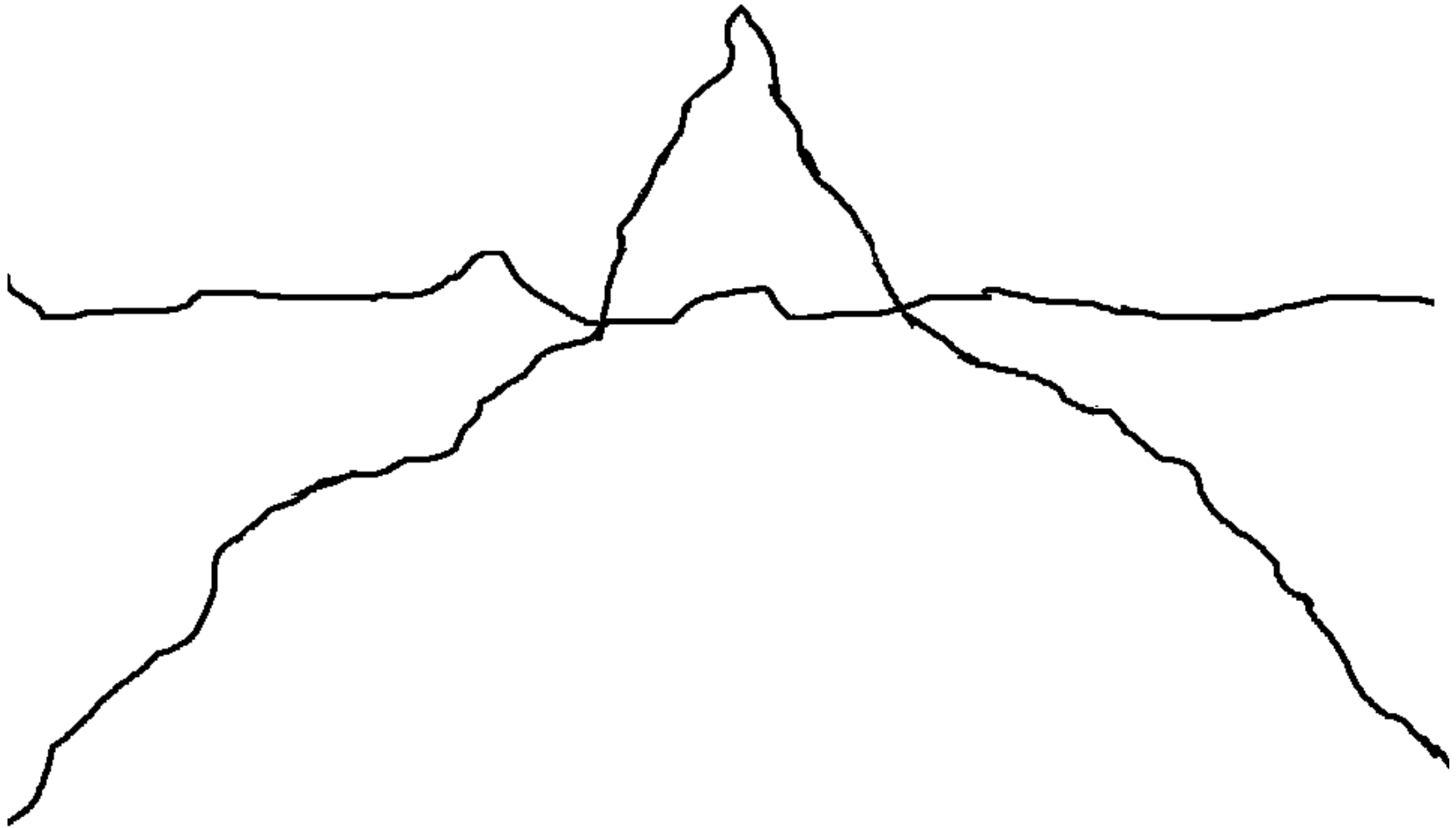
**5. Maintenance:**

- Individuals attempt to prevent relapse and maintain the changes and gains they have already made



HANDOUT #4

## The Tip of the Iceberg and What Lies Beneath



Zraly & Swift, 1990; Gusella, 1999

**HANDOUT #5**  
**Higher Values**

<p><b>ACCEPTANCE</b></p> <p>to be accepted as I am</p>	<p><b>ACCURACY</b></p> <p>to be accurate in my opinions and beliefs</p>
<p><b>ACHIEVEMENT</b></p> <p>to have important accomplishments</p>	<p><b>ADVENTURE</b></p> <p>to have new and exciting experiences</p>
<p><b>ATTRACTIVENESS</b></p> <p>to be physically attractive</p>	<p><b>AUTHORITY</b></p> <p>to be in charge of and responsible for others</p>
<p><b>AUTONOMY</b></p> <p>to be self-determined and independent</p>	<p><b>BEAUTY</b></p> <p>to appreciate beauty around me</p>
<p><b>CARING</b></p> <p>to take care of others</p>	<p><b>CHALLENGE</b></p> <p>to take on difficult tasks and problems</p>
<p><b>CHANGE</b></p> <p>to have a life full of change and variety</p>	<p><b>COMFORT</b></p> <p>to have a pleasant and comfortable life</p>
<p><b>COMMITMENT</b></p> <p>to make enduring, meaningful commitments</p>	<p><b>COMPASSION</b></p> <p>to feel and act on concern for others</p>
<p><b>CONTRIBUTION</b></p> <p>to make a lasting contribution in the world</p>	<p><b>COOPERATION</b></p> <p>to work collaboratively with others</p>
<p><b>COURTESY</b></p> <p>to be considerate and polite toward others</p>	<p><b>CREATIVITY</b></p> <p>to have new and original ideas</p>
<p><b>DEPENDABILITY</b></p> <p>to be reliable and trustworthy</p>	<p><b>DUTY</b></p> <p>to carry out my duties and obligations</p>



<p><b>ECOLOGY</b></p> <p>to live in harmony with the environment</p>	<p><b>EXCITEMENT</b></p> <p>to have a life full of thrills and stimulation</p>
<p><b>FAITHFULNESS</b></p> <p>to be loyal and true in relationships</p>	<p><b>FAME</b></p> <p>to be known and recognized</p>
<p><b>FAMILY</b></p> <p>to have a happy, loving family</p>	<p><b>FITNESS</b></p> <p>to be physically fit and strong</p>
<p><b>FLEXIBILITY</b></p> <p>to adjust to new circumstances easily</p>	<p><b>FORGIVENESS</b></p> <p>to be forgiving of others</p>
<p><b>FRIENDSHIP</b></p> <p>to have close, supportive friends</p>	<p><b>FUN</b></p> <p>to play and have fun</p>
<p><b>GENEROSITY</b></p> <p>to give what I have to others</p>	<p><b>GENUINENESS</b></p> <p>to act in a manner that is true to who I am</p>
<p><b>GROWTH</b></p> <p>to keep changing and growing</p>	<p><b>HEALTH</b></p> <p>to be physically and mentally well and healthy</p>
<p><b>HELPFULNESS</b></p> <p>to be helpful to others</p>	<p><b>HONESTY</b></p> <p>to be honest and truthful</p>
<p><b>HOPE</b></p> <p>to maintain a positive</p>	<p><b>HUMILITY</b></p> <p>to be modest and unassuming</p>
<p><b>HUMOR</b></p> <p>to see the humorous side of myself and the world</p>	<p><b>INDEPENDENCE</b></p> <p>to be free from dependence on others</p>

<b>INDUSTRY</b> to work hard and well at my life tasks	<b>INNER PEACE</b> to experience personal peace
<b>INTIMACY</b> to share my innermost experience with others	<b>JUSTICE</b> to promote fair and equal treatment for all
<b>KNOWLEDGE</b> to learn and contribute valuable knowledge	<b>LEISURE</b> to take time to relax and enjoy
<b>LOVED</b> to be loved by those close to me	<b>LOVING</b> to give love to others
<b>MASTERY</b> to be competent in my everyday activities	<b>MINDFULNESS</b> to live conscious and mindful of the present moment
<b>MODERATION</b> to avoid excesses and find a middle ground	<b>MONOGAMY</b> to have one close, loving relationship
<b>NON-CONFORMITY</b> to question and challenge authority and norms	<b>NURTURANCE</b> to take care of and nurture others
<b>OPENNESS</b> to be open to new experiences, ideas, and options	<b>ORDER</b> to have a life that is well-ordered and organized
<b>PASSION</b> to have deep feelings about ideas, activities, or people	<b>PLEASURE</b> to feel good
<b>POPULARITY</b> to be well-liked by many people	<b>POWER</b> to have control over others

<p><b>PURPOSE</b></p> <p>to have meaning and direction in my life</p>	<p><b>RATIONALITY</b></p> <p>to be guided by reason and logic</p>
<p><b>REALISM</b></p> <p>to see and act realistically and practically</p>	<p><b>RESPONSIBILITY</b></p> <p>to make and carry out responsible decisions</p>
<p><b>RISK</b></p> <p>to take risks and chances</p>	<p><b>ROMANCE</b></p> <p>to have intense, exciting love in my life</p>
<p><b>SAFETY</b></p> <p>to be safe and secure</p>	<p><b>SELF-ACCEPTANCE</b></p> <p>to accept myself as I am</p>
<p><b>SELF-KNOWLEDGE</b></p> <p>to have a deep and honest understanding of myself</p>	<p><b>SERVICE</b></p> <p>to be of service to others</p>
<p><b>SEXUALITY</b></p> <p>to have an active and satisfying sex life</p>	<p><b>SIMPLICITY</b></p> <p>to live life simply, with minimal needs</p>
<p><b>SOLITUDE</b></p> <p>to have time and space where I can be apart from others</p>	<p><b>SPIRITUALITY</b></p> <p>to grow and mature spiritually</p>
<p><b>STABILITY</b></p> <p>to have a life that stays fairly consistent</p>	<p><b>TOLERANCE</b></p> <p>to accept and respect those who differ from me</p>
<p><b>TRADITION</b></p> <p>to follow respected patterns of the past</p>	<p><b>VIRTUE</b></p> <p>to live a morally pure and excellent life</p>
<p><b>WEALTH</b></p> <p>to have plenty of money</p>	<p><b>WORLD PEACE</b></p> <p>to work to promote peace in the world</p>

Adapted from Bill Miller

**HANDOUT #6**

**Your Values and Your Life**

1. What are your higher values? What do you consider most important in your life? Write down 5-10 higher values that you consider important in your life (you can look at the values handout for ideas, but you don't have to limit yourself to the ones on the handout)

1. \_\_\_\_\_

6. \_\_\_\_\_

2. \_\_\_\_\_

7. \_\_\_\_\_

3. \_\_\_\_\_

8. \_\_\_\_\_

4. \_\_\_\_\_

9. \_\_\_\_\_

5. \_\_\_\_\_

10. \_\_\_\_\_

2. How is your eating disorder consistent with your values? How is your eating disorder inconsistent with you values?

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3. How do you currently live your life? How much time in your day do you devote to weight, eating, etc? Is this consistent with your values?

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4. Thinking about your life so far, what would you want people to say or know about you?

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5. If you were to live your life in a way that is more consistent with your values, what changes would you make?

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**HANDOUT #7**

## Questions about Food Records

**Why is it important to keep daily food records?**

- Daily food diaries represent your main tool for change because they provide a lot of detailed information about your eating patterns. To recover and develop normal eating habits, you will need to discover things like:
  - am I eating enough food... am I overeating?
  - am I eating regularly?
  - what kinds of foods am I most like to avoid eating... or binge on?
  - what are my triggers to bingeing or purging?
  - what are the situations that lead to bingeing or purging?
  - what are the thoughts and feelings that can lead to overeating, purging, or perhaps avoiding food altogether?
- Once you identify patterns and triggers, you can begin to anticipate problems and generate solutions to deal with them before they happen
- Food diaries will be discussed in the group each week, and reviewed by the group leaders. In this way you can benefit from others' ideas about:
  - your eating patterns
  - whether you are eating normally
  - strategies that you might try
- When you keep regular food diaries, you can keep track of how things are going. You will have opportunities to:
  - learn from past problems and successes
  - refine your strategies
  - share your helpful strategies with other group members

Turn over --&gt;

**What if I can't seem to find the time to keep food records?**

- Most people have busy lives. It may be helpful to spend some time thinking about your own reasons for making recovery a priority in your life.
- Whenever we begin a new habit (like keeping food records) it can feel quite effortful. In time, once this becomes part of your daily routine, it will seem a lot easier.
- It may be helpful to remind yourself that right now your current eating habits occupy your mind quite a bit, and probably take up a lot of time in your already busy day. By putting effort into recovery now, you can look forward to a lot of freedom down the road. In other words, your hard work will pay off!

**I already think about food all the time. What if keeping food diaries make my eating patterns worse?**

- You are probably thinking about food in a way that leaves you feeling worried and out of control. Keeping food diaries are designed to help you begin to think about food in a *different* way - in a problem-solving way. Once you begin to try out some solutions and experience some successes, you will feel greater control over your eating habits.
- By thinking about food a lot now, we hope you will worry about it a lot less later. After all, you have better things to do!

<i>Time</i>	Foods and Drinks Consumed. Describe any exercise. (What and How Much)	B	V L O	People/Place	Thoughts, Feelings. What did you <u>think</u> , <u>feel</u> and <u>do</u> BEFORE, DURING and AFTER?	<i>Talkback !</i>



**HANDOUT #8**

**SMART GOALS**

**Goals this week: Write down your specific, realistic goals for the week, including your plan or strategy for how to achieve them (what will you try?)**

**Goals:**

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**Plan or strategy:**

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### Observations

What goals were you able to meet?

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What strategies worked? What strategies did not work?

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What did you learn about your eating patterns (e.g., triggers to restricting, bingeing, purging)?

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What did you discover about yourself?

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I wonder?

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**HANDOUT #9****Willingness & Ability to Change**

Adapted from: Dunn, Srikameswaran, &amp; Cockell

**Definitions:**

- **Willingness** to change reflects the extent to which you feel open to change; this involves becoming aware of reasons to change.
- **Ability** to change reflects the extent to which you have the skills you need to change; this includes specific cognitive, behavioral, and interpersonal skills, as well as trust and confidence in these skills.

Consider the concepts that have been presented above in the definition box. Take a few moments to think about the thoughts and behaviors that you are trying to change. We will refer to these as “symptoms”. Examples include: restricting, over exercising, purging, obsessive cleaning, etc.

List these symptoms in the grid on the following page. Rate on a scale from 0 to 10 the degree to which you are **willing** to change and the degree to which you have the **ability** to change each of these symptoms.

**Tips on how to rate willingness and ability**

- In order to determine your **willingness score**, it may be helpful to identify the pros and cons of the symptom. Write these down in the appropriate columns. Your willingness score will likely reflect the degree to which you want to identify new ways to meet the function of your eating disorder (the “pros”), without as many negative consequences (the “cons”).

Your **ability score** requires some knowledge about what skills you need to develop. What are your thoughts about this? Consider the function of your eating disorder, and then write down skills that you think you would need to use, instead of using your eating disorder, in order to cope. Then rate your ability to use these particular skills.

**Willingness and Ability Grid (Example)**

Symptoms	Pros of symptom	Cons of symptom	Willingness scores*	Skills needed to change symptom (ability score)
<b>Restrict eating</b>	<b>Lose weight Feel accomplished Feel in control</b>	<b>Never good enough Fatigue Interferes with social life</b>	<b>5</b>	<b>Accept shape/weight (6) Feel okay about self, regardless of achievements (4) Tolerate not being in control (5)</b>
<b>Not assertive about personal boundaries</b>	<b>Avoid conflict Keep peace</b>	<b>Feel resentful Not authentic</b>	<b>8</b>	<b>Assertiveness (8) Managing own emotions (5) Tolerance for other people's emotions (7)</b>
<b>Rigid rules about eating</b>				
<b>Impulsive comments</b>				

**Willingness and Ability Grid**

Symptoms	Pros of symptom	Cons of symptom	Willingness scores*	Skills needed to change symptom (ability score)

**The Importance (Willingness) and Confidence (Ability) Ruler**

Adapted from Miller and Rollnick (2002)

1. Overall, how important would you say it is for you to give up your eating disorder? On a scale from 0 to 10, where 0 is not at all important and 10 is extremely important, where would you say you are?

0	1	2	3	4	5	6	7	8	9	10
Not at all important									Extremely important	

2. Overall, how confident would you say you are, that if you decided to give up your eating disorder, you could do it? On the same scale from 0 to 10, where 0 is not at all confident and 10 is extremely confident, where would you say you are?

0	1	2	3	4	5	6	7	8	9	10
Not at all confident									Extremely confident	

**HANDOUT #10**

**GROUP EVALUATION**

We would like your opinion about your experience in the readiness group.

1. What did you find most helpful about the Readiness group?
2. What did you find least helpful?
3. Do you feel that you have experienced an increase in your readiness to change? If yes, what parts of the group helped you most with this? If no, what prevented you from experiencing an increase in readiness?
4. What improvements or changes should we make to the group?
5. Any other comments?

**HANDOUT #11**

**Preparing for Success**

**1. What are your personal strengths? Make a list of your positive characteristics and qualities. How might these qualities help you overcome your eating disorder?**

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**2. Describe a time in the past where you made up your mind to do something and you succeeded. What skills or strengths did you use to accomplish this?**

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**3. Who can you count on to support you through your recovery? Make a list of the people in your life who will support you and the role that each person will play.**

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Appendix L  
**PARTICIPANT INFORMATION AND CONSENT FORM**

**Research Project Title:** The Development and Evaluation of a 5-week Readiness for Change Precursor to Group Cognitive-Behavioral Therapy for Individuals with Eating Disorders

<b>Researchers:</b>	Mollie Bates B.Sc., M.A. 787-7398	Dr. Michael LeBow Ph.D, C.Psych 474-8719
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You are being invited to participate in this research in order to increase our understanding of readiness and motivation for change in individuals with eating disorders. Participation in this study is entirely voluntary. You may decide to participate or not to participate, or you may withdraw from the study at any time, and these decisions will not affect the care you receive in any way. This study is being conducted by a graduate student at the University of Manitoba, Mollie Bates, as her PhD Thesis in psychology, under the supervision of Dr. Michael LeBow.

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

**PURPOSE**

Previous research has shown that individuals with eating disorders often have mixed feelings about making changes to their eating-related thoughts and behaviors. The purpose of this research is to increase our understanding of individuals' readiness for change in order to assist care providers in determining what kind of treatment will be most helpful.

**PROCEDURE**

If you agree to participate in this research, you will be invited to meet with the study coordinator for three research appointments. The first appointment will take place before you begin the treatment group, the second will take place 5 weeks into the treatment group, and the third will take place at the end of your treatment group (i.e., 21 weeks after the first group).

During each research appointment you will complete a clinical interview and a questionnaire package. The interview addresses your health and feelings about recovery, and the questionnaire package addresses your feelings about change, your eating-related thoughts and behaviors, your feelings about your body shape/weight, your feelings about

your quality of life, your feelings about the treatment group, how well you feel you have adhered to treatment, and asks you to indicate what type of treatment you have had in the past (if any) for your eating disorder. A demographic information sheet will also ask you to provide social-demographic information (e.g., age, date of birth, occupation, ethnicity). Social-demographic information will be used to provide a general description of the study participants (e.g., age range, average socio-economic status, percentage of participants of each ethnicity).

Also, if you agree to participate in this research, certain information from your treatment group will also be collected for research purposes. This information includes your attendance record, your homework completion record, whether or not you drop-out of treatment (as well as the date you dropped out and the reason for drop-out) and your treatment decisions following the first 5 weeks of the group.

Participation in this study will involve approximately 6 hours of your time (i.e., three appointments that are 2 hours each).

### **RISKS/BENEFITS**

During the research appointment, you will be asked personal questions about your eating disorder and your feelings about recovery which may arouse distressing memories or feelings for you. A list of helping services will be made available to you should you require them as a result of your participation in this study. You may also schedule an appointment with your nurse therapist at any time.

The information you provide, combined with information from other participants, will add to the understanding of readiness and motivation for change in individuals with eating disorders, and help care providers develop the best treatments.

### **CONFIDENTIALITY**

Information collected from your appointment will be entered into an electronic database that identifies you by number only. Any identifying information, such as your name or telephone number, will not be included in the database, and will be kept in a locked filing cabinet in a locked office. Access to this information will be restricted to the researchers listed at the top of this consent form. All data gathered will be destroyed two years after completion of the study (i.e., approximately August 2013).

All information gathered is treated as confidential in accordance with the Personal Health Information Act of Manitoba. Despite efforts to keep your personal information confidential, absolute confidentiality cannot be guaranteed. Your personal information may be disclosed under circumstances required by law (e.g., if subpoenaed by court, for safety reasons, or if a child may be in need of protection).

Apart from the research information gathered from your treatment group (e.g., attendance record, drop-out, etc.), all other information gathered will also be kept confidential from

the Adult Eating Disorders Program (AEDP) treatment team. The only exception to this would be if confidentiality had to be broken under circumstances required by law, as described above. Under these circumstances, Dr. Patricia Fergusson, the AEDP psychologist, would be consulted.

### **STUDY FEEDBACK**

Findings from this research will be reported at conferences and published in a scholarly journal. You may request a summary of the results of the study, however individual results will not be provided to participants.

If you would like to receive a summary of the results of this research, please check the appropriate box and provide your mailing address on the next page. The summary will be mailed approximately August 2011.

**PARTICIPANT CONSENT AND SIGNATURES**

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and/or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

Mollie Bates  
B.Sc., M.A.  
787-7398

Dr. Michael LeBow  
Ph.D., C.Psych  
474-8719

This research has been approved by the Psychology/Sociology Research Ethics Board at the University of Manitoba. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Secretariat at 474-7122, or email [margaret\\_bowman@umanitoba.ca](mailto:margaret_bowman@umanitoba.ca). A copy of this consent form has been given to you to keep for your records and reference.

May we contact you about future eating disorders research studies? \_\_\_\_yes \_\_\_\_no

By checking yes, you are only agreeing to be contacted. You may decline if you are not interested.

\_\_\_\_\_  
**Participant's name (please print)**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Participant's signature**

\_\_\_\_\_  
**Researcher's name (please print)**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Researcher's signature**

Yes, I would like to be mailed a summary of the results (please provide address below):

\_\_\_\_\_  
\_\_\_\_\_

Table 1

*Frequency results of Cochran's Q analysis comparing Match scores at Times 1, 2, and 3*

	<i>Time 1</i>	<i>Time 2</i>	<i>Time 3</i>
Match	20 <sup>a</sup>	24	30 <sup>b</sup>
No Match	26 <sup>a</sup>	22	16 <sup>b</sup>

Frequencies followed by a or b indicate significant differences between time points;

$p < 0.01$ ; N = 46

Table 2

*Means, standard deviations and comparison results for EDI-3 subscale scores at Times 1, 2, and 3*

<i>Subscale</i>	<i>Time 1</i>	<i>Time 2</i>	<i>Time 3</i>
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Drive for Thinness*	43.63 (11.53) <sup>a</sup>	42.23 (11.95) <sup>a</sup>	39.30 (13.27) <sup>b</sup>
Bulimia*	48.97 (10.07) <sup>a</sup>	47.27 (7.93) <sup>a</sup>	44.11 (9.13) <sup>b</sup>
Body Dissatisfaction	42.97 (9.51)	41.89 (9.67)	40.30 (9.45)
Low Self-Esteem	45.23 (9.12)	44.28 (9.87)	42.41 (9.89)
Personal Alienation <sup>#</sup>	45.63 (8.99)	44.81 (10.11)	42.54 (9.67)
Interpersonal Insecurity	46.29 (9.15)	45.79 (8.96)	45.15 (9.09)
Interpersonal Alienation	47.84 (8.55)	48.34 (9.10)	46.27 (8.33)
Interoceptive Deficits <sup>#</sup>	46.08 (9.64)	45.41 (10.84)	43.67 (10.88)
Emotional Dysregulation <sup>#</sup>	49.47 (10.96)	48.11 (10.40)	45.95 (9.14)
Perfectionism*	48.10 (10.50) <sup>a</sup>	47.56 (10.60) <sup>a</sup>	45.60 (10.36) <sup>b</sup>
Asceticism*	45.77 (9.90) <sup>a</sup>	44.27 (8.67) <sup>a</sup>	42.11 (9.81) <sup>b</sup>
Maturity Fears	47.23 (9.92)	45.93 (8.96)	45.78 (9.09)

\*  $p < 0.05$  using a Bonferroni adjustment for all comparisons

<sup>#</sup> Showed trends toward significance ( $p < 0.05$  for overall ANOVA)

Means followed by a or b indicate significant differences between time points



Table 3

*Hierarchical logistic regression using CBT group drop-out as the criterion variable and mean RMI precontemplation and action scores at Time 1 and Time 2 as predictors*

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for	
							Lower	Upper
T1Precontemplation	.007	.026	.074	1	.785	1.00	.957	1.06
T1Action	.012	.022	.276	1	.599	1.01	.969	1.05
T2Precontemplation	.001	.027	.003	1	.956	1.00	.950	1.05
T2Action	.008	.021	.144	1	.704	1.00	.967	1.05
Constant	-.573	1.51	.144	1	.705	.564		

Table 4

*Hierarchical multiple regression using group climate as the criterion variable and mean RMI precontemplation and action scores at Time 1 and Time 2 as predictors*

<i>Model</i>	<i>B</i>	<i>S.E.</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>	<i>R</i>	<i>R Square</i>	<i>Adj. R Square</i>	<i>S.E. of Estimate</i>
1 Constant	25.89	3.99		6.47	.00				
T1Precon	-.008	.068	-.028	-.119	.90	.114	.013	-.055	5.246
T1Action	.022	.056	.095	.399	.69				
2 Constant	28.94	4.64		6.23	.00				
T1Precon	.038	.080	.130	.468	.64				
T1Action	.064	.068	.272	.946	.35	.269	.073	-.065	5.270
T2Precon	-.095	.083	-.357	-1.14	.26				
T2Action	-.080	.064	-.397	-1.24	.22				

Table 5

*Hierarchical multiple regression using CBT group attendance as the criterion variable and mean RMI precontemplation and action scores at Time 1 and Time 2 as predictors*

<i>Model</i>	<i>B</i>	<i>S.E.</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>	<i>R</i>	<i>R Square</i>	<i>Adj. R Square</i>	<i>S.E. of Estimate</i>
1 Constant	52.98	26.15		2.0	.04				
T1Precon	-.180	.446	-.079	-.40	.68	.172	.029	-.017	40.87
T1Action	.208	.366	.111	.56	.57				
2 Constant	55.05	30.97		1.70	.08				
T1Precon	-.150	.534	-.066	-.28	.78				
T1Action	.237	.452	.127	.52	.60	.173	.030	-.067	41.86
T2Precon	-.063	.554	-.030	-.11	.91				
T2Action	-.056	.430	-.035	-.13	.89				

Table 6

*Hierarchical multiple regression using CBT group homework as the criterion variable and mean RMI precontemplation and action scores at Time 1 and Time 2 as predictors*

<i>Model</i>	<i>B</i>	<i>S.E.</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>	<i>R</i>	<i>R Square</i>	<i>Adj. R Square</i>	<i>S.E. of Estimate</i>
1 Constant	84.38	22.63		3.72	.00				
T1Precon	-.494	.386	-.308	-1.27	.21	.395	.156	-.086	27.20
T1Action	.158	.317	.120	.500	.62				
2 Constant	91.40	27.09		3.37	.00				
T1Precon	-.343	.467	-.214	-.734	.47				
T1Action	.197	.396	.150	.498	.62	.413	.171	-.020	28.16
T2Precon	-.298	.484	-.202	-.615	.54				
T2Action	-.121	.376	-.107	-.322	.75				

Table 7

*Hierarchical multiple regression using Time 3 MOS-A score as the criterion variable and mean RMI precontemplation and action scores at Time 1 and Time 2 as predictors*

<i>Model</i>	<i>B</i>	<i>S.E.</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>	<i>R</i>	<i>R Square</i>	<i>Adj. R Square</i>	<i>S.E. of Estimate</i>
1 Constant	20.64	3.03		6.81	.00				
T1Precon	-.067	.052	-.305	-1.29	.20	.242	.059	-.008	3.911
T1Action	-.026	.042	-.144	-.612	.54				
2 Constant	21.56	3.59		5.99	.00				
T1Precon	-.044	.062	-.202	-.716	.48				
T1Action	-.025	.053	-.136	-.468	.64	.280	.078	-.063	4.016
T2Precon	-.044	.064	-.218	-.684	.50				
T2Action	-.012	.050	-.076	-.234	.81				

Table 8

*Hierarchical multiple regression using food diary scores (week 8) as the criterion variable and mean RMI precontemplation and action scores at Time 1 and Time 2 as predictors*

<i>Model</i>	<i>B</i>	<i>S.E.</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>	<i>R</i>	<i>R Square</i>	<i>Adj. R Square</i>	<i>S.E. of Estimate</i>
1 Constant	1.53	4.14		.371	.71				
T1Precon	.097	.071	.418	1.37	.18	.333	.111	-.000	4.140
T1Action	.064	.058	.334	1.10	.28				
2 Constant	3.44	5.00		.688	.50				
T1Precon	.123	.086	.528	1.42	.17				
T1Action	.094	.073	.490	1.28	.22	.386	.149	-.094	4.330
T2Precon	-.054	.090	-.252	-.605	.55				
T2Action	-.054	.070	-.332	-.784	.44				

Table 9

*Hierarchical multiple regression using Time 3 SAWBS score as the criterion variable and mean RMI precontemplation and action scores at Time 1 and Time 2 as predictors*

<i>Model</i>	<i>B</i>	<i>S.E.</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>	<i>R</i>	<i>R Square</i>	<i>Adj. R Square</i>	<i>S.E. of Estimate</i>
1 Constant	64.67	33.54		1.92	.06				
T1Precon	.721	.578	.229	1.24	.21	.399	.159	.119	52.19
T1Action	-.537	.467	-.211	-1.1	.25				
2 Constant	86.64	35.90		2.49	.01				
T1Precon	.795	.645	.253	1.23	.22				
T1Action	.237	.532	.093	.44	.65	.543	.295	.224	48.97
T2Precon	-.225	.652	-.079	-.34	.73				
T2Action	-1.14	.502	-.523	-2.2	.02				

Table 10

*Hierarchical multiple regression using Time 3 EDQLS score as the criterion variable and mean RMI precontemplation and action scores at Time 1 and Time 2 as predictors*

<i>Model</i>	<i>B</i>	<i>S.E.</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>	<i>R</i>	<i>R Square</i>	<i>Adj. R Square</i>	<i>S.E. of Estimate</i>
1 Constant	125.01	15.84		7.89	.00				
T1Precon	-.089	.270	-.062	-.33	.74	.279	.078	.035	25.03
T1Action	.278	.222	.236	1.25	.21				
2 Constant	110.63	16.87		6.55	.00				
T1Precon	-.137	.291	-.096	-.47	.64				
T1Action	-.132	.246	-.112	-.53	.59	.504	.254	.181	23.06
T2Precon	.154	.302	.116	.51	.61				
T2Action	.616	.234	.610	2.63	.01				



Table 11

*Hierarchical multiple regression using Time 3 EDI-3 EDRC score as the criterion variable and mean RMI precontemplation and action scores at Time 1 and Time 2 as predictors*

<i>Model</i>	<i>B</i>	<i>S.E.</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>	<i>R</i>	<i>R Square</i>	<i>Adj. R Square</i>	<i>S.E. of Estimate</i>
1 Constant	37.95	7.45		5.09	.00				
T1Precon	.099	.126	.149	.78	.44	.315	.099	.056	11.53
T1Action	-.110	.106	-.198	-1.0	.30				
2 Constant	43.44	8.26		5.25	.00				
T1Precon	.109	.138	.165	.78	.43				
T1Action	.047	.119	.084	.39	.69	.478	.229	.152	10.93
T2Precon	-.047	.145	-.078	-.32	.74				
T2Action	-.238	.112	-.506	-2.1	.03				