Enhancing DBT effectiveness with a mindfulness-based body image group in the treatment for eating disorders

Andrea Lanier Erb
George Fox University

1-1-2010

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Enhancing DBT Effectiveness with a Mindfulness-Based Body Image Group in the Treatment for Eating Disorders

by

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Presented to the Faculty of the Graduate Department of Clinical Psychology at George Fox University in partial fulfillment of the requirements for the degree Doctor of Psychology in Clinical Psychology

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Abstract

Research suggests that body dissatisfaction contributes significantly to onset, maintenance and relapse of eating disorders. Dialectical behavior therapy (DBT) has recently been applied to the treatment of eating disorders, with promising results. However, the effectiveness of focused body image work for patients in DBT has not been studied. This study examines the effectiveness of a 10-week mindfulness-based body image group in a later phase of DBT treatment for eating disorders. The curriculum was based on an empirically validated cognitive-behavioral treatment for body image, and was modified to reflect DBT concepts and to include greater emphasis on mindfulness. Three groups of women ($N = 12$) participated in the treatment; all participants completed assessments of body image, overall psychiatric functioning, and eating disorder symptoms at pre- and post-intervention. It was hypothesized that participants in the body image group would show statistically significant improvements in body image distress, overall psychiatric functioning, and eating disorder symptoms, and that reductions in
body image disturbance would be positively correlated with reductions in eating disorder symptoms and overall psychological distress. Participants showed significant improvements in the importance of appearance to self-esteem as well as anxiety around fat, weight, and dieting. Large effect sizes were found for these variables, as well as for overall appearance evaluation, eating concern, and global eating pathology. There was no significant reduction in overall psychological distress. Improvements on some measures of body image disturbance showed large correlations with improvements in eating disorder symptoms, though not with overall distress. Mindfulness-based body image therapy appears to be effective for eating-disordered clients enrolled in DBT; however, research with larger sample sizes is necessary to further delineate factors contributing to a successful treatment. In addition, participant feedback indicated that a longer period of treatment would be beneficial in addressing long-term body image distress.
Acknowledgements

This project would not be complete without thanking those who have made it—and the rest of my graduate career—possible. I especially want to thank Dr. Clark Campbell, my advisor and committee chair. Despite being many miles away during the last year, he has continued to support this project and has remained interested and involved in my academic career. His advice and confidence in my capabilities has proved invaluable.

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Chapter 1

Introduction

Western culture, with its twin themes of abundance and fixation on appearance, has increasingly proved to be fertile ground for the development of eating disorders. According to the DSM-IV-TR, the lifetime prevalence rates in females for anorexia nervosa (AN) and bulimia nervosa (BN) are 0.5% and 1-3%, respectively, with additional cases meeting criteria for eating disorders not otherwise specified (American Psychiatric Association, 2000). These statistics do not necessarily include those young women who may have developed binge-eating disorder (BED), which is not yet a DSM-IV-TR diagnosis. Eating disorders have numerous medical and psychological consequences, leading to poor quality of life, increased service seeking, and increased health care costs among afflicted individuals (Agras, 2001). In addition, AN has one of the highest mortality rates for any psychiatric disorder, with one long-term follow up study finding a death rate of 15.6% (Zipfel, Lowe, Deter, & Herzog, 2000).

Research has not been able to definitively identify causal factors of eating disorders, due to methodological problems and a preponderance of confounding variables (Field, 2004; Stice, 2001). However, body dissatisfaction and overvaluation of shape and weight concerns appears to play an important role in the development and maintenance of disordered eating (Farrell, Shafran, & Lee, 2006; Stice, 2001), especially when this dissatisfaction interacts with additional variables such as negative affect, perfectionism, low self-esteem, and thin-ideal internalization.
Enhancing Effectiveness of DBT with Body Image Group Treatment

(Brannan & Petrie, 2008; Polivy & Herman, 2002; Stice, 2001; Stice & Shaw, 2002; Striegel-Moore & Bulik, 2007). In addition, body image disturbance and appearance investment are key components of DSM-IV-TR diagnoses for AN and BN. Given these findings, it follows that body image treatment may need to be an important part of treatment for eating disorders. In the following pages, the potential effectiveness of group body image treatment for patients in a later phase of dialectical behavior therapy (DBT) for eating disorders will be examined in light of current research on body image and DBT treatment. In addition, the concept of mindfulness (a key DBT concept) will be applied to body image treatment.

Dialectical Behavior Therapy for Eating Disorders

Linehan (1993a, 1993b) originally developed DBT as a treatment for patients with borderline personality disorder; these patients often exhibit chronic suicidality and/or parasuicidality, and tend to have difficulties regulating negative affect. The main treatment components of traditional DBT include group skills training, individual therapy, telephone consultation, and team consultation meetings. DBT has recently emerged as a potential treatment for eating disorders for several reasons. First, although cognitive-behavioral therapy (CBT) and interpersonal therapy (IPT) have had success in reducing binge eating and purging episodes in those with bulimia, 50% or more of treated patients continue to have difficulties with eating disorder symptoms. Those with greater negative mood, co-occurring disorders, and more severe eating pathology may require a different type of treatment (Chen, Matthews, Allen, Kuo, & Linehan, 2008). DBT addresses some of these concerns through group skills training, which focuses on emotional regulation, distress tolerance, and interpersonal effectiveness. Individual therapy and between-session telephone consultation provide additional support to help patients
balance thoughts and feelings, practice skills and stay motivated for change (McCabe, LaVia, & Marcus, 2004; Wisniewski & Kelly, 2003).

Eating disorder patients often present with ego-syntonic behaviors; despite psychological distress related to these behaviors, treatment resistance is a common obstacle to recovery. DBT provides a template for working with patients who manifest resistance to treatment. The main dialectic, or dynamic paradox, in DBT involves balancing acceptance with change by validating a patient’s distress and the inherent difficulty of change while simultaneously insisting on behavior change (Linehan 1993a). Additional dialectics have been proposed for eating disorders, including overcontrolled eating versus the absence of an eating plan, and wanting to give up the eating disorder but being afraid of getting fat (Wisniewski & Kelly, 2003). Balanced eating as well as a nonjudgmental approach to food, eating, and body image represent the main goals, along with helping clients to decrease judgments about weight, shape, or appearance.

A central feature of DBT is mindfulness training. Though traditional DBT uses mindfulness as a route for acceptance of thoughts, feelings, and circumstances, as well as a way to regulate emotion, mindfulness training may also benefit eating disorder patients by encouraging a neutral and accepting stance toward the body as well as gratitude for its capabilities (Wisniewski & Kelly, 2003). In addition, mindfulness to the body may act as an exposure technique for clients who often seek to avoid experiences of the body (Wisniewski & Kelly, 2003). The curriculum adopted for this study was modified in order to extend the DBT concept of mindfulness to interactions with the body.

To date, research studies involving the effectiveness of DBT with eating disorders have been limited but promising. Chen et al. (2008) obtained a large effect size for reduction in vomiting among eight clients who participated in six months of DBT treatment; all were
diagnosed with borderline personality disorder and either bulimia nervosa or binge-eating disorder. In a randomized controlled study of DBT for BN, significant treatment effects were found for the frequency of binge eating and purging behaviors, and effect sizes greater than .5 were found for decreases in emotional eating (Safer, Telch, & Agras, 2001a). Additional uncontrolled studies, including a case report, indicate that DBT may prove helpful in treating both BN and BED (Palmer et al., 2003; Safer et al., 2001b; Telch, Agras, & Linehan, 2001). Though DBT has not been formally researched with AN patients, it is believed that DBT techniques such as working with ambivalence, teaching emotion regulation and other skills, and emphasizing behavior change may also be applied successfully with this population (McCabe & Marcus, 2002). A qualitative study of four anorexic patients found that these clients were able to gradually replace dietary restraint behaviors with DBT skills, resulting in an improved ability to assert themselves, accept emotions, and tolerate distress (Hailey, 2009). However, despite the significant contribution of body dissatisfaction to eating disorders, DBT treatment up to this point has not included a treatment directly targeted to body image.

DBT has traditionally been divided into four stages, including a pretreatment phase (Linehan, 1993a); McCabe et al. (2004) further explain these stages for use in DBT with eating disorders. The pretreatment phase attempts to establish a commitment to change, while the first treatment stage represents the main focus of work and involves focusing on clearly identified behavioral targets (including eating disorder symptoms and self-harm behaviors). The second stage typically focuses on posttraumatic stress and identity issues, including issues surrounding body and self-image. Finally, the third treatment stage emphasizes helping the client to achieve personal goals. Because body image work fits into the second and third treatment phases,
participants in these later phases of treatment were referred to the group body image treatment offered in the present study.

**Overview of Body Image**

**Definition and measurement.** Researchers describe “body image” as a multifaceted construct, with multiple methods of measurement. For instance, a definition of attitudes derived from social psychology assumes that body image attitudes are comprised of cognitive, affective, and behavioral variables, including perceptions of the body and bodily experience (Rosen, 1990). Early research on body image suggests a further division into two independent factors: perceptual size distortion (overestimating one’s size) and cognitive-evaluative disparagement/dissatisfaction (Cash & Deagle, 1997). Cognitive factors may include obsessive thoughts, inaccurate judgments, and rigid thinking patterns (Polivy & Herman, 2002). A person’s body image also affects information processing, so that the individual selectively attends to information that validates the body image schema (Fairburn, 2008; Rosen, 1990). An early meta-analytic review of the contribution of these two facets of body-image disturbance to AN and BN concluded that strong evidence exists for the distinction between attitudinal variables and perceptual size distortion, and that greater effect sizes emerge for the body dissatisfaction-attitudinal modality. Furthermore, global body image attitudes had a larger effect than evaluations of weight and shape alone (Cash & Deagle, 1997).

Measurements for body image also differ according to the aspect being measured. Self-report questionnaires and interviews generally measure the cognitive-attitudinal aspect; researchers have generally focused on this type of body dissatisfaction, with assessments ranging from inventories of body image thoughts to satisfaction ratings of body parts or the body as a whole. Perceptual size distortion has usually been measured in two ways: by comparing an
individual’s estimate of the size of specific body parts to actual measurements and by using adjustable mirrors or videographic techniques to estimate body size as a whole (Cash & Deagle, 1997). Cash et al. (2004) have also developed a questionnaire to assess level of body image investment, an important contributor to distress resulting from body dissatisfaction.

**Role in onset, maintenance and relapse in eating disorders.** Following an early review of the literature, Rosen (1990) concluded that consistent evidence supports the ability of negative body image to predict severity of eating and dieting disturbance; body image also emerged as an important prognostic factor in treatment success when measured at baseline and during treatment for the eating disorder. A longitudinal study of girls found that those who developed eating disorders reported greater body dissatisfaction beginning the year before onset of the disorder and continuing through the last measurement of two years after onset (Striegel-Moore et al., 2004). In adolescent samples, body dissatisfaction appears to be the strongest predictor of eating disorders (Phelps, Johnston, & Augustyniak, 1999).

However, despite the contribution of body dissatisfaction to eating disorder symptoms, other variables moderate the body dissatisfaction-eating disorder relationship; after all, many people experience body dissatisfaction without developing an eating disorder. A study of 398 female undergraduates determined that though body dissatisfaction was the single strongest predictor of eating pathology, additional moderators included self-prescribed perfectionism (AN), socially prescribed perfectionism (BN), body surveillance, and neuroticism (Brannan & Petrie, 2008). Phelps et al. (1999) found that the combined effects of physical self-esteem, personal competence, and drive for thinness accounted for 57% of the variance in body dissatisfaction. Two related studies performed by Tylka (2004) found that body surveillance was the strongest predictor of the body dissatisfaction-eating disorder symptom connection, with
smaller effects coming from neuroticism and presence of a family member with an eating disorder.

Body image dissatisfaction also appears to play a role in the maintenance of eating disorders. In their critical review and synthesis of research findings, Stice and Shaw (2002) supported the body dissatisfaction-eating disorder connection, with possible moderators being an increased risk of dieting due to body dissatisfaction and/or increased negative affect leading to eating disorder symptoms. For instance, more than one study found that initial elevations in either body dissatisfaction or weight or shape concerns predicted persistence of bulimic symptoms as opposed to remission over time. The researchers also acknowledged conceptual limitations due to the possibility that a third variable explains the relationship of body dissatisfaction to eating pathology and drive for thinness (Stice & Shaw, 2002). In addition, longitudinal studies have consistently shown that body dissatisfaction, along with thin-ideal internalization, elevated body weight, and dieting predict risk for both onset and worsening of eating disorder behaviors (Striegel-Moore & Bulik, 2007).

Continuing body image dissatisfaction may contribute to risk of relapse in eating disorders. Relapse rates range from 22-55%, making relapse prevention a necessary component of treatment. In a prospective, longitudinal study that explored postremission predictors of relapse in both AN and BN, overconcern with weight or shape emerged as significant predictors for relapse in both disorders, and misperception of body weight and shape functioned as a predictor for relapse in AN. The authors concluded that focused body image work may reduce risk for relapse, while also noting that body image disturbance can also occur without the presence of relapse (Keel, Dorer, Franko, Jackson, & Herzog, 2005). In a study of body image changes in patients with either AN or BN during inpatient treatment, perceptual size distortion
and body dissatisfaction remained relatively unchanged for the AN patients, but decreased significantly for the BN patients; these results led the researchers to conclude that body focused therapy after weight restoration may be necessary, especially with AN patients (Benninghoven et al., 2006). Another study interviewed patients with AN 7.5 years after initial presentation, and found that distress about weight and shape continued even when eating disorder symptoms were reduced; continued body dissatisfaction, low self-esteem, and relationship problems suggest a vulnerability to relapse in times of stress (Button & Warren, 2002).

Additional evidence supporting the importance of body dissatisfaction for relapse comes from an early study assessing outcome at 4-month intervals after CBT, interpersonal therapy (IPT), or behavioral treatment for bulimia. Results indicated that those with the highest level of attitudinal disturbance at post-treatment were the most likely to relapse. Interestingly, the same was not true for pretreatment outcomes; those with the highest level of attitudinal disturbance at the beginning of treatment showed the most progress by the end of treatment. These results suggest the importance of addressing attitudinal concern with shape and weight in order to reduce risk of relapse (Fairburn, Peveler, Jones, Hope, & Doll, 1993). A more recent five-year prospective study confirmed this conclusion with its findings that overvaluation of shape and weight lead to increased frequency of binge eating in patients with BN; this overvaluation may function to maintain bulimic symptoms over time through its effect on dietary restraint (Fairburn, Stice, et al., 2003). These conclusions have also led some researchers to embrace a “transdiagnostic” theory of EDs, which suggests that overvaluation of shape and weight function as a “core psychopathology” in the initiation and maintenance of all EDs (Fairburn et al., 1993).
Cognitive-Behavioral Treatment for Body Image Disturbance

Cognitive-behavioral interventions for body image generally involve disputing maladaptive body image thoughts and the thin ideal, size perception training, and/or behavioral “experiments” designed to challenge entrenched beliefs. A meta-analytic review of CBT for body image concluded that treatments with attitudinal, behavioral and perceptual components are more effective than those without a perceptual component (Jarry & Ip, 2005). Thomas Cash’s CBT-based treatment, *The Body Image Workbook* (Cash, 2008), has garnered empirical support for reducing overall body image dissatisfaction; his work includes cognitive restructuring, mirror exposure, decreasing avoidant and checking behaviors, and increasing mastery and pleasure activities. Small effect sizes were found for reduction of body image dissatisfaction in non-eating disordered populations (Cash & Hrabosky, 2003; Butters & Cash, 1987). This program also appears to be somewhat effective in reducing body dissatisfaction when used with minimal therapist contact (Cash & Hrabosky, 2003; Cash & Lavallee, 1997; Grant & Cash, 1995). Fairburn (2008) detailed an extensive CBT-based program for treating eating disorders; an important component of the treatment involves addressing the overvaluation and control of shape, weight, eating. In particular, six main elements are addressed: identifying overvaluation and its consequences, increasing the importance of other areas for self-evaluation, addressing body checking and avoidance, addressing “feeling fat”, investigating the origins of overvaluation, and learning to control the eating disorder “mindset”.

However, few studies have examined the use of CBT for body image in clinical populations. Nye and Cash (2006) used a group format to examine the effectiveness of CBT with eating-disordered patients. They found medium effect sizes for reduction in negative body image emotions, for greater satisfaction with body areas, and for an improved ratio of positive to
negative thoughts. However, the researchers noted that after eight weekly treatments, the eating-disordered patients still demonstrated greater body dissatisfaction than normal controls. Stewart and Williamson (2003) treated four partially recovered eating-disorder patients with another CBT-based body image treatment, Body Positive. All of the clients showed significant reductions in body image distress; three of the patients also showed reduced depression, while one client with state/trait anxiety reported improvement in anxiety symptoms. The authors concluded that body image therapy may be especially useful for patients who have partially recovered, versus patients who are still actively using their eating disorder. However, due to the small sample involved in this study, further research involving body image therapy with partially recovered eating-disorder patients is needed before firm conclusions can be drawn. The proposed study implements body image group therapy with patients who have partially recovered, as evidenced by progression past the initial stage of DBT treatment.

**Mindfulness and Body Image**

Mindfulness can be defined as a state of present-moment awareness; it involves a purposeful attention to the experience of the present moment, without evaluation or judgment. Mindfulness practice cultivates openness and acceptance, as well as an ability to experience thoughts and feelings as passing events rather than the sum of reality (Williams, Teasdale, Segal, & Kabat-Zinn, 2007). Mindfulness-based therapies have shown promise in treating chronic pain, depression, and anxiety; DBT also includes mindfulness as a core skill (Allen et al., 2006). Though there has been no controlled research of mindfulness-based treatment for negative body image, the construct of mindfulness holds promise for ameliorating body image distress. For instance, in a phenomenological study of clients with BN enrolled in a mindfulness-based stress
reduction group, clients reported fewer judgmental thoughts, less extreme thoughts, and increased bodily and self-awareness following treatment (Proulx, 2008).

As previously mentioned, approximately 50% of ED patients fail to improve with CBT or IPT. Wilson (2004) suggests that because challenging weight and shape beliefs is less helpful, a more flexible approach is needed. Mindfulness encourages acceptance, which requires flexibility, balance, and ability to tolerate ambiguity (Wilson, 2004). By increasing present-moment awareness, mindfulness may also decrease body surveillance, a strong moderator of the body dissatisfaction-eating disorder connection (Tylka, 2004). In an article devoted to the exploration of mindfulness as a treatment for body image disturbance, Stewart (2004) asserts that mindfulness may allow clients to participate in a wider range of bodily experiences, thus challenging the individual’s dichotomous thinking and emotional reactions to body image. In social interactions, mindfulness discourages automatic responding and increases one’s ability to consider alternate explanations for experience before integrating negative thoughts and beliefs into the self schema. She also discusses how mindfulness may thwart resistance to treatment by enhancing an individual’s perceived control over her emotional and cognitive state. Mindfulness may also help eating disorder patients to more accurately estimate body size both by entertaining multiple alternatives over time and by decreasing physiological arousal resulting from stressful situations (Stewart, 2004).

Finally, mindful mirror exposure, a component of the treatment offered in the proposed study, seeks to help patients decrease judgment by maintaining a neutral, accepting stance while viewing the body. In a study that compared mindful mirror exposure to nondirective body image therapy, those in the mindful mirror exposure condition showed a decrease in body checking behaviors, dieting behaviors, shape and weight concern, and depression (Delinsky & Wilson,
The foundation of mindfulness is nonjudgmental awareness; this attitude fosters increased compassion toward the body and self (Stewart, 2004). The treatment proposed for the present study includes mindfulness-based mirror exposure.

**Hypotheses**

As previously described, body image treatment has had some success in ameliorating body dissatisfaction and distress in those patients who have undergone CBT and exposure-based treatment. In addition, mindfulness practices show promise for helping patients relate to their bodies in a more neutral and adaptive manner. Given the importance of body dissatisfaction and negative body image to the maintenance of eating-disordered behavior, eating disorder patients who undergo mindfulness-based cognitive behavioral treatment for body image distress should experience a reduction in body image distress as well as a reduction in overall psychiatric distress and eating disorder symptoms. Based on these assumptions, the following hypotheses are offered:

1. Patients in later phase DBT treatment who participate in the 10-week mindfulness-based CBT body image group will show a reduction in overall body image distress.

2. Patients in later phase DBT treatment who participate in the 10-week mindfulness-based CBT body image group will show a reduction in overall eating pathology and overall psychological distress.

3. Reductions in body image distress will correlate positively with reductions in overall psychiatric distress and eating disorder symptoms for the participants of the body image group.
Chapter 2

Methods

Participants

All participants were currently being treated for an eating disorder diagnosis at a DBT therapy center, and had completed the initial phase of DBT treatment at the time of enrollment in the study. Three groups participated in the study, each comprised of four to seven women each. All clients were enrolled in the 10-week body image group concurrent with ongoing DBT treatment, which consisted of weekly skills training groups, individual therapy, or both. A total of 12 women completed the group as well as all of the assessments relevant to the study; two of these women also participated in the group a second time, though they only completed the assessment instruments for the first group. One woman dropped out of the first group, due to feeling “not ready” to confront body image issues. Participants ranged in age from 26 to 56, with a mean age of 39.3 years ($sd = 10.2$). Eleven women identified themselves as European-American, while one woman identified herself as Hispanic. At the time of beginning the group, all of the women were diagnosed with EDNOS; this diagnosis partially reflects the resolution of acute ED symptoms by the time of study enrollment. At the beginning of DBT treatment, two women carried a diagnosis of AN, two women the diagnosis of BN, and eight women the diagnosis of EDNOS. In addition, the participants were classified as EDNOS-I (predominantly impulsive characteristics) and EDNOS-R (predominantly restrictive characteristics). Table 1
contains a description of participants in terms of age, current ED diagnosis, past ED diagnosis, and additional current psychiatric diagnoses.

Table 1

<table>
<thead>
<tr>
<th>ID#</th>
<th>Age</th>
<th>Current ED Diagnosis</th>
<th>Past ED Diagnosis</th>
<th>Current Other Psychiatric Diagnoses</th>
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<td>EDNOS-I</td>
<td>BN</td>
<td>Dysthymia</td>
</tr>
<tr>
<td>2</td>
<td>47</td>
<td>EDNOS-I</td>
<td>EDNOS</td>
<td>Dysthymia</td>
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<tr>
<td>3</td>
<td>26</td>
<td>EDNOS-R</td>
<td>EDNOS</td>
<td>Depression NOS; GAD</td>
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<td>28</td>
<td>EDNOS-R</td>
<td>AN</td>
<td>None</td>
</tr>
<tr>
<td>5</td>
<td>47</td>
<td>EDNOS-R</td>
<td>EDNOS</td>
<td>None</td>
</tr>
<tr>
<td>6</td>
<td>39</td>
<td>EDNOS-I</td>
<td>EDNOS</td>
<td>MDD; Anxiety NOS</td>
</tr>
<tr>
<td>7</td>
<td>28</td>
<td>EDNOS-I</td>
<td>BN</td>
<td>MDD; SU</td>
</tr>
<tr>
<td>8</td>
<td>39</td>
<td>EDNOS-I</td>
<td>EDNOS</td>
<td>BPD; PTSD; MDD; SU; AU</td>
</tr>
<tr>
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<td>EDNOS-I</td>
<td>EDNOS</td>
<td>Depression NOS</td>
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<td>41</td>
<td>EDNOS-R</td>
<td>AN</td>
<td>Depression NOS</td>
</tr>
</tbody>
</table>

Note: The following key is given for abbreviations in Table 1: EDNOS-I = Eating Disorder Not Otherwise Specified, with impulsive characteristics; EDNOS-R = Eating Disorder Not Otherwise Specified, with restrictive characteristics; Depression NOS = Depressive Disorder Not Otherwise Specified; GAD = Generalized Anxiety Disorder; MDD = Major Depressive Disorder; Anxiety NOS = Anxiety Disorder Not Otherwise Specified; SU = Substance Abuse Other Than Alcohol, in Early Full Remission; BPD = Borderline Personality Disorder; PTSD = Post-traumatic Stress Disorder; AU = Alcohol Dependence, Early Full Remission
Materials

Participants in the three body image groups were assessed during Week 1 and Week 10 of the study. In addition to the assessment instruments described below, a qualitative assessment and a measure of self-concept were given in order to collect data for an additional research study. Group members were also asked to fill out a qualitative feedback form at the end of the group in order to determine which components of the group participants found most and least helpful in addressing body image concerns.

Eating Disorder Examination-Questionnaire (EDE-Q). (Fairburn & Beglin, 1994) The EDE-Q, a self-report version of the Eating Disorder Examination interview, has been widely used in research and clinical practice to assess the major features of eating disorders. It has four subscales: Restraint, Eating Concern, Weight Concern, and Shape Concern, though at least one psychometric study of the EDE-Q suggested that the Weight and Shape Concern subscales could be combined into one subscale (Peterson et al., 2007). The EDE-Q has shown validity across eating disorder diagnoses, as well as in varying populations of eating disordered clients. The EDE-Q contains 28 items based on a 7-point forced choice format that assess the frequency of specific behaviors and thoughts over the past 28 days, as well as three open-ended questions that ask for an estimate of height, weight, and missed menstrual periods (if female). Internal consistencies for the EDE-Q have been measured at around .90 (Cronbach’s alpha) for the global score, .70 for the Restraint subscale, .73 for the Eating Concern subscale, .83 for the Shape Concern subscale, and .72 for the Weight Control subscale.

Outcome Questionnaire-45 (OQ-45). The OQ-45 (Lambert, Morton, Hatfield, Harmon, & Hamilton, et al., 2004) is a self-report measure originally developed in 1994 to assess change during the process of therapy. Each of the 45 items is scored on a 5-point scale, with possible
total scores falling between 0-180; higher scores indicate a higher level of distress and pathology. The instrument measures perceived distress in three domains of the client’s life over the past week: subjective discomfort and symptoms, interpersonal problems, and problems with social functioning. The OQ-45 has reasonable internal reliability ($r = .93$) and three-week test-retest reliability ($r = .84$). Concurrent validity has been established across numerous studies with other measures of psychological functioning, with $r$ values falling between 0.50 and 0.85 (Lambert et al.). This instrument also appears to be sensitive to change over short periods of time (Lambert et al.)

**Multidimensional Body-Self Relations Questionnaire-Appearance Scales (MBSRQ-AS).** The MBSRQ-AS (Brown, Cash, & Mikulka, 1990; Cash, 2000) is a 34-item version of the original 69-item MBRSQ, an instrument designed to assess the behavioral, cognitive, and evaluate components of body image attitudes. This self-report measure omits the Fitness and Health subscales of the original version, but retains the following five subscales: Appearance Evaluation, Appearance Orientation, Overweight Preoccupation, Self-Classified Weight, and the Body Areas Satisfaction Scale (BASS). Internal consistencies for the subscales range from .73-.88 (Cronbach’s alpha) for females. The MBRSQ and the MBRSQ-AS have been used extensively in research; both versions have demonstrated convergent validity with several measures of body image evaluation and investment.

**Appearance Schemas Inventory-Revised (ASI-R).** (Cash, Melnyk, & Hrabosky, 2004). The ASI-R contains 20 items rated on a 5-point Likert scale. It measures body image investment as it appears in the form of beliefs and assumptions about appearance, and yields two subscales, Self-Esteem Salience (12 items) and Motivational Salience (8 items). Higher scores on Self-Esteem Salience indicate a greater contribution of appearance beliefs to self-esteem, with
convergent validity indices suggesting a greater thin-ideal internalization, more body image dysphoria, and greater negative body image evaluation. Scores on this subscale were also responsive to a body image intervention (Cash & Hrabosky, 2003). High scores on Motivational Salience are not necessarily indicative of pathology, and in fact do not correlate with negative body image quality of life. Internal consistencies for the ASI-R were .88 for the full scale, and .82 and .90, respectively, for Self-Esteem Salience and Motivational Salience (Cash et al., 2004).

**Procedure**

Clients for the body image group were recruited by a flyer given to them by their individual or skills group therapist. All clients who had completed the initial phase of the DBT eating disorder program at the center were informed of the new group, and participation in the group was voluntary.

Clients who chose to participate in the body image groups were given a welcome letter; an informed consent was obtained in the first session (See Appendix A). Approval for the study was obtained from the George Fox University Internal Review Board. A licensed psychologist and two clinical psychology doctoral students served as co-leaders for two of the body image groups; a licensed master’s level counselor led Group 3. The leaders also administered the assessment instruments, and identifying information was removed before data entry and analysis. Data from 12 participants from three separate body image groups were analyzed for this study.

The group body image treatment took place at a DBT therapy center and consisted of semi-structured 2-hour sessions occurring weekly for 10 weeks. The sessions were based on *The Body Image Workbook* (2008) by Thomas Cash, PhD, with modifications including DBT techniques and concepts such as mindfulness, behavioral chain analysis, and use of DBT skills such as Wise Mind and distress tolerance. Clients were expected to purchase Cash’s *The Body*
Image Workbook. Key concepts from Fairburn (2008) were also introduced, namely increasing awareness of the underlying triggers to “feeling fat”, and helping clients evaluate the amount that body image concerns contributed to overall self-evaluation. Handouts reflecting the content of each session were distributed to the participants in the first session (See Appendix B). In the first session, the purposes of the group were introduced and participants engaged in an introductory mindfulness exercise. Following a brief group process focused on goals, expectations, and the mindfulness exercise, participants completed all assessments and were given a homework assignment for the next week. In Weeks 2 to 8, the group followed a similar format: the first 45 minutes were devoted to a mindfulness exercise and check-in followed by a homework check-in and process. The remainder of the time was allotted to teaching new material and going over homework assignments for the upcoming week. The ninth week included a presentation by a registered dietitian focusing on healthy living regardless of size. The final week involved processing goals and outcomes as well as completion of the assessment instruments.

Data Analysis

One hypothesis of the study postulated that patients in later phase DBT treatment who participate in the 10-week mindfulness-based CBT body image group would show a reduction in overall body image distress. In order to test this hypothesis, global pre- and post-test scores for the specific body image instruments were compared using paired sample t tests. A Bonferroni correction was applied to reduce the chance of erroneously rejecting the null hypothesis. Effect sizes (Cohen’s d) were calculated using the mean and standard deviation of difference scores.

Next, it was hypothesized that patients in phase II of DBT who participate in the 10-week mindfulness-based CBT body image group would show a reduction in eating disorder symptoms and overall psychological distress. In order to test this hypothesis, global pre- and post-test scores
for the EDE-Q and the OQ-45 were compared using paired sample $t$ tests. A Bonferroni correction was applied to reduce the chance of erroneously rejecting the null hypothesis. Effect sizes (Cohen’s $d$) were calculated using the mean and standard deviation of difference scores.

Finally, it was hypothesized that reductions in body image distress would correlate positively with reductions in overall psychiatric distress (OQ-45) and eating disorder symptoms (EDE-Q) for the participants of the body image group when assessed at pre- and post-intervention. In order to examine this hypothesis, Pearson correlation coefficients were calculated for the relationship between body image distress scores (MBSRQ-S and ASI-R) and overall psychiatric functioning (OQ-45), and for the relationship between body image distress scores and eating disorder symptoms (EDE-Q).
Chapter 3

Results

Planned Analytic Strategy

Statistical analyses for this study were performed using SPSS for Windows, Version 16. Descriptive analyses were performed on all variables used in the study. Paired samples $t$-tests were used to analyze differences between pre- and post-measures for the body image measures (MBRSQ-AS and ASI-R), the measure of eating pathology (EDE-Q), and the measure of overall psychological functioning (OQ-45). A Bonferroni correction was performed on the results of these tests to decrease the risk of a Type I error. Effect sizes (Cohen’s $d$) were calculated using the mean and standard deviation of difference scores. Pearson correlations were calculated for the changes in body image measures and the changes in overall psychological functioning and eating pathology.

Comparison of the Participants to Other Eating-Disordered Clients

In order to aid interpretation of results for the relatively small sample used in this study, participants’ mean scores on assessment measures were compared to means for eating-disordered clients available in recent literature. A comparison with means found in the Nye and Cash study (2006), revealed that the patients enrolled in the current study likely exhibited greater body image distress at the beginning of treatment. In the Nye and Cash study, pre-test means were 2.43 ($sd = 2.43$) for the MBRSQ and 2.13 ($sd = .76$) for the MBRSQ-AE. Likewise, a comparison with the sample used in Berardi’s (2008) study showed that means for the
participants in the current study indicated greater initial body image distress. Pre-treatment means for the Berardi study were 2.47 ($sd = .38$) for the MBRSQ-AE, 2.9 ($sd = .70$) for the MBRSQ-BASS, 3.54 ($sd = .60$) for the MBRSQ-SCW, and 2.8 ($sd = .93$) for the MBRSQ-OP. In addition, the Berardi sample exhibited less overall distress on the ASI, as shown by a mean pre-treatment score of 3.68 ($sd = .62$) on the ASI-SE and 3.73 ($sd = .54$) on the ASI-Total. Eating disorder psychopathology as measured by the EDE-Q-Global also indicated relatively greater eating pathology in the current study as compared to the Berardi study ($m = 2.80$, $sd = 1.50$). Pre-treatment means for the current study may be found in Tables 2 and 3. Given the severe nature of the body image and eating problems seen in the current study, the large effect sizes described below are of particular clinical significance.

**Description and Scoring for the Study Measures**

**Measures of body image distress.** Five subscales can be derived from the Multidimensional Body Image Questionnaire-Appearance Scales (MBRSQ-AS): MBRSQ-Appearance Evaluation (MBRSQ-AE), MBRSQ-Appearance Orientation (MBRSQ-AO), MBRSQ-Body Areas Satisfaction Scale (MBRSQ-BASS), MBRSQ-Overweight Preoccupation (MBRSQ-OP), and MBRSQ-Self Classified Weight (MBRSQ-SCW). The subscales were scored by reverse scoring appropriate items, summing the items, and dividing by the number of items to find the average subscale score for each participant. Scale scores may range from 1-5, and a higher score indicates a higher level of the quality measured by the scale (See Table 2 for means and standard deviations for all MBRSQ subscales). For instance, high scores on the MBSRQ-AE, MBRSQ-AO, and the MBRSQ-BASS indicate greater satisfaction with overall appearance, greater investment in one’s appearance, and higher satisfaction with specific body areas,
respectively. High scores on the MBRSQ-OP indicate higher levels of fat anxiety, weight vigilance, dieting, and eating restraint.

Table 2

Descriptive Data for Body Image Pre- and Post-Assessment Measures (N = 12)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Range</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBRSQ-AE-Pre</td>
<td>1.00-2.57</td>
<td>1.571</td>
<td>.618</td>
</tr>
<tr>
<td>MBRSQ-AE-Post</td>
<td>1.00-3.57</td>
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<td>.802</td>
</tr>
<tr>
<td>MBRSQ-AO-Pre</td>
<td>2.08-5.42</td>
<td>3.833</td>
<td>.889</td>
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<tr>
<td>MBRSQ-AO-Post</td>
<td>2.17-5.33</td>
<td>3.882</td>
<td>.940</td>
</tr>
<tr>
<td>MBRSQ-BASS-Pre</td>
<td>1.33-3.11</td>
<td>2.046</td>
<td>.496</td>
</tr>
<tr>
<td>MBRSQ-BASS-Post</td>
<td>1.67-3.56</td>
<td>2.490</td>
<td>.642</td>
</tr>
<tr>
<td>MBRSQ-OP-Pre</td>
<td>2.75-5.00</td>
<td>3.917</td>
<td>.677</td>
</tr>
<tr>
<td>MBRSQ-OP-Post</td>
<td>2.00-4.50</td>
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<td>.873</td>
</tr>
<tr>
<td>MBRSQ-SCW-Pre</td>
<td>2.50-5.00</td>
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<td>.722</td>
</tr>
<tr>
<td>MBRSQ-SCW-Post</td>
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<td>1.00</td>
</tr>
<tr>
<td>ASI-Total-Pre</td>
<td>3.00-4.60</td>
<td>3.969</td>
<td>.415</td>
</tr>
<tr>
<td>ASI-Total-Post</td>
<td>2.40-4.65</td>
<td>3.620</td>
<td>.639</td>
</tr>
<tr>
<td>ASI-SE-Pre</td>
<td>3.42-5.00</td>
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<td>.418</td>
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<tr>
<td>ASI-SE-Post</td>
<td>2.58-4.75</td>
<td>3.760</td>
<td>.682</td>
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<tr>
<td>ASI-MS-Pre</td>
<td>1.88-4.50</td>
<td>3.562</td>
<td>.773</td>
</tr>
<tr>
<td>ASI-MS-Post</td>
<td>2.38-5.00</td>
<td>3.630</td>
<td>.842</td>
</tr>
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</table>
Table 3

Descriptive Data for Pre- and Post-Assessment Measure-EDE-Q and OQ-45 (N = 12)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Range</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDE-Q-Global-Pre</td>
<td>2-5</td>
<td>4.03</td>
<td>.992</td>
</tr>
<tr>
<td>EDE-Q-Global-Post</td>
<td>1-6</td>
<td>3.41</td>
<td>1.424</td>
</tr>
<tr>
<td>EDE-Q-Restraint-Pre</td>
<td>0-5</td>
<td>2.87</td>
<td>1.964</td>
</tr>
<tr>
<td>EDE-Q-Restraint-Post</td>
<td>0-6</td>
<td>3.15</td>
<td>1.949</td>
</tr>
<tr>
<td>EDE-Q-Shape Concern-Pre</td>
<td>2-13</td>
<td>5.66</td>
<td>2.601</td>
</tr>
<tr>
<td>EDE-Q-Shape Concern-Post</td>
<td>1-6</td>
<td>4.23</td>
<td>1.578</td>
</tr>
<tr>
<td>EDE-Q-Weight Concern-Pre</td>
<td>2-6</td>
<td>4.58</td>
<td>1.094</td>
</tr>
<tr>
<td>EDE-Q-Weight Concern-Post</td>
<td>1-6</td>
<td>3.97</td>
<td>1.615</td>
</tr>
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<td>EDE-Q-Eating Concern-Pre</td>
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<td>EDE-Q-Eating Concern-Post</td>
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<td>2.55</td>
<td>1.754</td>
</tr>
<tr>
<td>OQ-45-Total-Pre</td>
<td>59-118</td>
<td>89.17</td>
<td>19.669</td>
</tr>
<tr>
<td>OQ-45-Total-Post</td>
<td>54-116</td>
<td>85.92</td>
<td>20.633</td>
</tr>
<tr>
<td>OQ-45-SR-Pre</td>
<td>9-19</td>
<td>13.67</td>
<td>3.200</td>
</tr>
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<td>OQ-45-SR-Post</td>
<td>8-21</td>
<td>14.17</td>
<td>3.927</td>
</tr>
<tr>
<td>OQ-45-IR-Pre</td>
<td>12-36</td>
<td>19.67</td>
<td>7.924</td>
</tr>
<tr>
<td>OQ-45-IR-Post</td>
<td>10-34</td>
<td>18.67</td>
<td>6.624</td>
</tr>
<tr>
<td>OQ-45-SD-Pre</td>
<td>28-72</td>
<td>55.83</td>
<td>12.995</td>
</tr>
<tr>
<td>OQ-45-SD-Post</td>
<td>31-71</td>
<td>53.08</td>
<td>15.096</td>
</tr>
</tbody>
</table>
The Appearance Schema Inventory-Revised (ASI-R) yields a Total Composite score, as well as two subscales: Self-Evaluative Salience (ASI-SE) and Motivational Salience (ASI-MS). The subscales are scored by reverse scoring appropriate items, and then summing and averaging the items belonging to each subscale. The Total score arises from summing all items (reverse scored where appropriate) and averaging the items. Scores may range from 1-5, and a higher total score indicates a higher level of appearance investment. Higher SE scores suggest a greater involvement of appearance evaluation on self-esteem, while higher MS scores indicate greater motivation to engage in appearance-related behaviors. It should be noted that higher MS scores alone are not necessarily indicative of maladaptive body image distress, as it encompasses health-seeking behaviors such as exercise (See Table 2 for means and standard deviations for the ASI-R and subscales).

**Measures of eating-disordered behavior.** The Eating Disorder Examination Questionnaire (EDE-Q) Global Score was derived from summing the items contained in the four subscales-Eating Concern, Shape Concern, Weight Concern, and Restraint- and dividing by four. Items within the subscales were summed and averaged to yield an average subscale score. Scores range from 1 to 5. Higher Global scores indicate an overall higher amount of reported eating disorder pathology, while higher scores on the subscales indicate higher levels of the characteristic measured by the scale. See Table 3 for means and standard deviations for pre- and post-measures for the EDE-Q and subscales.

**Measure of overall psychological functioning.** The Outcome Questionnaire-45 (OQ-45) yields a Total score, as well as three subscale scores (SD = Subjective Distress, IR = Interpersonal Relationships, and SR = Social Roles). Summing the items, which range from 0 to 4, yields the Total score; the highest possible score is 180. Subscale scores are derived from the
sum of individual items contained within the subscale. Higher Total scores suggest higher levels of overall distress, especially related to anxiety and depression. Higher subscale scores indicate higher levels of distress in the area evaluated by the subscale (See Table 3 for means and standard deviations for the OQ-45). For the purposes of this study, the Total score was of primary interest, though the subscale scores were included in the analyses.

**Hypothesis 1: Effects of Mindfulness-Based Body Image Therapy on Body Image Distress:**

**Paired Samples T-Test (Pre- and Post-Measures)**

In order to examine the hypothesis that mindfulness-based body image group therapy for eating-disordered clients would improve body image distress, paired-samples t tests were calculated to compare the mean pre-test score with the mean post-test score on the following measures of body image distress: MBRSQ-AE, MBRSQ-AO, MBRSQ-BASS, MBRSQ-OP, MBRSQ-SCW, ASI-Total, ASI-SE, and ASI-MS. A Bonferroni correction to the desired alpha level of .05 yielded a new standard for the alpha level such that results for this analysis were considered significant if \( p < .006 \). Means and standard deviations of pre- and post-test scores for all body image assessment measures are reported in Table 2; means and standard deviations for significant findings are also reported below. See Table 4 for full results of this analysis.

Before Bonferroni correction, significant differences were found between pre- and post-test means for the ASI-R-Total, the MBRSQ-AE, and the MBRSQ-BASS. The mean pre-test score for the ASI-R-Total was 3.97 (\( sd = .42 \)) and the mean post-test score was 3.62 (\( sd = .64 \)), such that \( t = 3.079, p < .05 \), and \( d = .89 \). This large effect size suggests notable improvements in overall schematic appearance investment. Similarly, improvements and a large effect size were found for overall evaluation of appearance; pre-test mean for the MBRSQ-AE was 1.57 (\( sd = .62 \)) and the post-test mean was 2.2 (\( sd = .80 \)), with \( t = -2.717, p < .05 \), \( d = .78 \). Participants also
showed an improvement (large effect size) in their satisfaction with specific body areas (MBRSQ-BASS). The pre-test mean was 2.05 \((sd = .50)\) and the post-test mean was 2.49 \((sd = .64)\), so that \(t = -2.364, p < .05, d = .68\).

Table 4

*Hypothesis 1: Paired-Samples T-Test for Body Image Measures (ASI-R and MBRSQ)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>(t)</th>
<th>(df)</th>
<th>Significance (2-tailed)</th>
<th>Cohen’s (d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASI-R-Total</td>
<td>.349</td>
<td>.392</td>
<td>3.079</td>
<td>11</td>
<td>.010*</td>
<td>.89</td>
</tr>
<tr>
<td>ASI-SE</td>
<td>.563</td>
<td>.509</td>
<td>3.829</td>
<td>11</td>
<td>.003**</td>
<td>1.1</td>
</tr>
<tr>
<td>ASI-MS</td>
<td>-.070</td>
<td>.468</td>
<td>-0.496</td>
<td>11</td>
<td>.630</td>
<td>.14</td>
</tr>
<tr>
<td>MBRSQ-AE</td>
<td>-.631</td>
<td>.805</td>
<td>-2.717</td>
<td>11</td>
<td>.020*</td>
<td>.78</td>
</tr>
<tr>
<td>MBRSQ-AO</td>
<td>-.049</td>
<td>.383</td>
<td>-0.439</td>
<td>11</td>
<td>.669</td>
<td>.13</td>
</tr>
<tr>
<td>MBRSQ-OP</td>
<td>.417</td>
<td>.364</td>
<td>3.855</td>
<td>11</td>
<td>.003**</td>
<td>1.1</td>
</tr>
<tr>
<td>MBRSQ-SCW</td>
<td>.333</td>
<td>.577</td>
<td>2.000</td>
<td>11</td>
<td>.071</td>
<td>.58</td>
</tr>
<tr>
<td>MBRSQ-BASS</td>
<td>-.444</td>
<td>.651</td>
<td>-2.364</td>
<td>11</td>
<td>.038*</td>
<td>.68</td>
</tr>
</tbody>
</table>

Note. *Significant at the \(p < .05\) level. **Significant after Bonferroni correction, \(p < .006\).

After Bonferroni correction, there was a significant difference between means for the ASI-SE and the MBRSQ-OP. The mean pre-test score for the ASI-SE was 4.32 \((sd = .42)\) and the mean post-test score was 3.76 \((sd = .68)\). A significant increase from pre- to post-test was found, \(t(11) = 3.829, p < .006, d = 1.1\); this was a large effect size. These results suggest that
mindfulness-based body image group therapy may have helped clients to decrease the involvement of appearance in their overall self-esteem.

In addition, the mean pre-test score for the MBRSQ-OP was 3.92 (\(sd = .68\)), and the mean post-test score was 3.50 (\(sd = .87\)). A significant increase from pre- to post-test was found, \(t(11) = 3.86, p < .006, d = 1.1\); this was also a large effect size. These results suggest that the mindfulness-based body image group may have enabled clients to decrease anxiety around fat, eating, dieting, and weight vigilance.

Paired-samples \(t\) tests failed to show noteworthy improvements in body image distress as measured by the client’s investment in appearance (MBRSQ-AO), evaluation of appearance (MBRSQ-AE), and self-perception of weight (MBRSQ-SCW).

**Hypothesis 2: Effects of Mindfulness-Based Body Image Therapy on Eating-Disordered Pathology and Overall Psychological Functioning: Paired Samples \(t\)-Test**

In order to examine the hypothesis that mindfulness-based body image group therapy for eating-disordered clients would improve overall eating disorder pathology and/or overall psychological functioning, paired-samples \(t\) tests were calculated to compare the mean pre-test scores with mean post-test scores on the following measures of eating pathology: EDE-Q Global, EDE-Q-Restraint, EDE-Q-Shape Concern, EDE-Q-Weight Concern, EDE-Q-Eating Concern. Paired-samples \(t\) tests were also calculated to compare mean pre-test and post-test scores on following measures of overall psychological functioning: OQ-45-Total, OQ-45-IR, OQ-45-SR, and OQ-45-SD. A Bonferroni correction to the desired alpha level of .05 yielded a new standard for the alpha level such that results from this analysis were considered significant if \(p < .005\).

Before Bonferroni correction, a near-significant result was found for the EDE-Q-Eating Concern, where the mean pre-test score was 3.50 (\(sd = 1.18\)) and the mean post-test score was
2.55 (sd = 1.75), with \( t(11) = 2.85, p < .02 \). There was also a large effect size (\( d = .82 \)), indicating improvement in the level of anxiety and control around food and eating. After Bonferroni correction, results indicated that there was no statistically significant difference between the means for the EDE-Q (Total and subscales) or for the OQ-45 (Total and subscales). See Table 5 for full results of this analysis. Despite lack of significant results, large effect sizes suggest that mindfulness-based body image group treatment for eating-disordered clients enrolled in DBT treatment resulted in a decrease in self-reported eating-disordered behavior; however, no significant improvement was found for overall psychological distress.

Table 5

| Hypothesis 2: Paired Samples t-tests for EDE-Q and OQ-45 |
|-----------------|-----|-----|-----|-----|-----|-----|
| Variable        | Mean | SD  | \( t \) | df | Sig. | Cohen’s \( d \) |
| EDE-Q-Global    | .615 | 1.200 | 1.765 | 11 | .105 | .51 |
| EDE-Q-Restraint | -.283 | 0.731 | -1.343 | 11 | .206 | .39 |
| EDE-Q-Shape Concern | 1.429 | 2.979 | 1.662 | 11 | .125 | .48 |
| EDE-Q-Weight Concern | .617 | 1.519 | 1.406 | 11 | .187 | .41 |
| EDE-Q-Eating Concern | .950 | 1.154 | 2.852 | 11 | .016* | .82 |
| OQ-45-Total     | 3.250 | 18.621 | .605 | 11 | .558 | .17 |
| OQ-45-SR        | -.500 | 4.602 | -.376 | 11 | .714 | .11 |
| OQ-45-IR        | 1.000 | 4.285 | .808 | 11 | .436 | .17 |
| OQ-45-SD        | 2.750 | 12.452 | .765 | 11 | .460 | .22 |

Note. *Significant at the \( p < .05 \) level.
Hypothesis 3: Correlations of Improvement in Body Image Distress and Eating Disordered Behavior with Overall Psychological Functioning

In order to test the hypothesis that improvements in body image distress would correlate positively with changes in overall psychological functioning as well as eating disorder pathology, change scores were calculated for all assessment instruments (the difference in means from pre-to post-test). These scores were then correlated using a Pearson correlation coefficient. Relevant significant results are described below; full reporting of results can be found in Table 6.

Pearson correlation coefficients calculated for the relationship between the MBSRQ-BASS and the EDE-Q-Restraint found a significant negative correlation, $r(11) = -0.607, p < .05$, indicating that dietary restraint behaviors decrease as satisfaction with specific body parts increases. A strong negative relationship was also found between the MBRSQ-BASS and the EDE-Q-Weight Concern, $r(11) = -0.735, p < .01$, indicating that weight concern decreases as satisfaction with specific body areas increases.

Pearson correlation coefficients calculated for the relationship between the MBRSQ-OP and the EDE-Q-Global showed a strong positive correlation, $r(11) = 0.662, p < .05$, suggesting that as overweight preoccupation decreases, overall eating-disordered behavior decreases. A strong positive correlation was also found between the MBRSQ-OP and the EDE-Q-Weight Concern, $r(11) = 0.642, p < .05$, and with the MBRSQ-SC, $r(11) = 0.686, p < .05$, suggesting that overweight preoccupation decreases along with behaviors related to weight concern and shape concern.

The relationship between the MBRSQ-AE and the EDE-Q-Global was also examined using a Pearson correlation coefficient. A strong negative relationship was found ($r(11) = -0.653, p < .05$), indicating that as overall satisfaction with appearance increased, overall eating-disorder
Table 6

Hypothesis 3: Pearson Correlations ($r$) Between Body Image Measures, Eating Pathology, and Overall Psychological Functioning

<table>
<thead>
<tr>
<th></th>
<th>OQ-45-Total</th>
<th>EDE-Q-Global</th>
<th>EDE-Q-Restraint</th>
<th>EDE-Q-Eating Concern</th>
<th>EDE-Q-Wt. Concern</th>
<th>EDE-Q-Shape Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBRSQ-AE</td>
<td>.181</td>
<td>-.653*</td>
<td>-.689*</td>
<td>-.541</td>
<td>-.690*</td>
<td>-.555</td>
</tr>
<tr>
<td>MBRSQ-AO</td>
<td>-.139</td>
<td>-.180</td>
<td>.444</td>
<td>-.413</td>
<td>-.186</td>
<td>.092</td>
</tr>
<tr>
<td>MBRSQ-OP</td>
<td>.049</td>
<td>.662*</td>
<td>.288</td>
<td>.389</td>
<td>.642*</td>
<td>.686*</td>
</tr>
<tr>
<td>MBRSQ-SCW</td>
<td>-.165</td>
<td>.292</td>
<td>.610*</td>
<td>.314</td>
<td>.428</td>
<td>.167</td>
</tr>
<tr>
<td>MBRSQ-BASS</td>
<td>-.016</td>
<td>-.555</td>
<td>-.607*</td>
<td>-.546</td>
<td>-.735**</td>
<td>-.295</td>
</tr>
<tr>
<td>ASI-Total</td>
<td>.101</td>
<td>.521</td>
<td>.500</td>
<td>.339</td>
<td>.543</td>
<td>.524</td>
</tr>
<tr>
<td>ASI-SE</td>
<td>.080</td>
<td>.541</td>
<td>.484</td>
<td>.452</td>
<td>.590*</td>
<td>.491</td>
</tr>
</tbody>
</table>

*Significant at the $p < .05$ level. **Significant at the $p < .01$ level

Enhancing Effectiveness of DBT with Body Image Group Treatment

pathology decreased. A strong positive correlation was found between the MBSRQ-SCW and the EDE-Q-Restraint, $r(11) = .610$, $p < .05$, indicating a significant linear relationship between the two scales, such that dietary restraint behaviors decreased as self-perception of weight decreased.

In addition, a significant linear relationship was established for study participants between the ASI-SE and the EDE-Q-Weight Concern, $r(11) = .590$, $p < .05$, such that weight concern tends to decrease as the importance of appearance to one’s self-esteem decreases.

Additional Pearson correlations also indicated large and nearly large effect sizes, despite lack of statistical significance. The EDE-Q-Global Scale correlated negatively with the MBRSQ-
BASS, \( r(11) = -0.555 \), and positively with the ASI-Total, \( r(11) = 0.521 \), and the ASI-SE, \( r(11) = 0.541 \), suggesting that overall eating pathology decreased as satisfaction with specific body areas increased, and closely followed total schematic investment in appearance and involvement of appearance to self-esteem. The EDE-Q Eating Concern correlated negatively with the MBRSQ-AE, \( r(11) = -0.541 \), and the MBRSQ-BASS, \( r(11) = -0.546 \), while correlating positively with the ASI-SE, \( r(11) = 0.452 \). These results indicate that anxiety and concern about eating decreased as overall appearance evaluation increased and evaluation of specific body areas improved, and that anxiety about eating was linked to importance of appearance to overall self-esteem.

Large effects were also found for correlations between the EDE-Q Shape Concern and MBRSQ-AE, \( r(11) = -0.555 \), and the ASI-Total, \( r(11) = 0.524 \), suggesting that shape concern decreased as overall appearance evaluation increased, and that shape concern was strongly linked to overall schematic investment in appearance. Similarly, the EDE-Q-Weight Concern correlated positively with the MBRSQ-SCW, \( r(11) = 0.428 \) and the ASI-Total, \( r(11) = 0.543 \), indicating that increased weight concern was strongly linked to perception of weight and total schematic investment in appearance.

Moderate to large effects were also found for the correlations between the EDE-Q-Restraint and the MBRSQ-AO, \( r(11) = 0.444 \), the ASI-Total, \( r(11) = 0.500 \), and the ASI-SE, \( r(11) = 0.484 \). These results show a strong positive linear relationship between increased eating disorder pathology and total schematic investment in appearance, including involvement of appearance to self-esteem, while also indicating that eating disorder pathology decreases as satisfaction with specific body areas increases.
Chapter 4

Discussion

Hypothesis 1: Effects of Mindfulness-Based Body Image Therapy on Body Image Distress

The first hypothesis of this study postulated that a mindfulness-based cognitive-behavioral body image group for women with eating disorders concurrently enrolled in DBT treatment would result in a statistically significant decrease in body image distress, as measured by the MBRSQ and the ASI-R. This hypothesis received some support in that the importance of appearance to self-esteem (ASI-SE) as well as anxiety around fat, weight, and dieting appeared to decrease significantly from pre-test to post-test (MBRSQ-OP). In addition, change in these variables showed a large effect size. Other body image variables did not show statistically significant improvement; however, medium to large effect sizes suggest improvement in total schematic investment in appearance (ASI-Total, MBRSQ-AO), evaluation of appearance (MBRSQ-AE), self-perception of weight (MBRSQ-SCW), and evaluation of specific body areas (MBRSQ-BASS).

These results differ somewhat from other studies that have utilized the MBRSQ and ASI. For instance, in her dissertation research, Berardi (2008) found a significant effect of time for both control group and body image group participants on the ASI-Total, MBRSQ-AE and for the MBRSQ-AO; however, no significant differences between groups were found. Nye and Cash (2006) studied group body image therapy using Cash’s workbook with eating-disordered clients in private practice; significant improvements were found for overall evaluation of appearance
(MBRSQ-AE), appearance orientation (MBRSQ-AO) and satisfaction with specific body areas (MBRSQ-BASS). However, Berardi noted that her study also lacked a control group, she may have also assumed significant results for body image group participants. Similar to these results, the current study also saw a statistical trend towards improvement in overall schematic investment in appearance (ASI-Total), overall satisfaction with appearance (MBRSQ-AE), and satisfaction with specific body areas (MBRSQ-BASS).

Results from the current study also show some similarities to body image group treatment used with nonclinical populations. Cash and Hrabosky (2003) observed significant improvements (medium effect size) on overall satisfaction with appearance, preoccupation with fat, weight, and dieting, and overall improvement in schematic appearance investment. Grant and Cash (1995) used modest-contact treatment with a nonclinical population and found significant improvements in the MBRSQ-OP and the ASI-Total. Overall, based on the results from this study, large effect sizes suggest that mindfulness-based body-image group therapy for women with eating disorders enrolled in DBT treatment was effective in reducing body image distress. However, limitations of the current study make it difficult to ascertain if the treatment was more effective than traditional cognitive-behavior treatment for body image, though it appears that mindfulness may be especially helpful for some groups. Delinsky and Wilson (2006) hypothesized that mindful mirror exposure promoted emotional processing of dysphoric thoughts regarding body image, thus resulting in the reductions they found in body-checking, avoidance, weight and shape concerns, and overall body dissatisfaction with a nonclinical population reporting body image concerns.
Hypothesis 2: Effects of Mindfulness-Based Body Image Therapy on Eating-Disordered Behavior and Overall Psychological Functioning

Another hypothesis of this study stated that mindfulness-based body image group therapy would result in significant improvements in eating-disorder pathology and overall psychological functioning. Though this assumption was largely unsupported by hypothesis testing, large effect sizes for eating concern and global eating pathology suggest the potential effectiveness of the group in attenuating eating-disordered symptoms. There was a trend for significance on the EDE-Q-Eating Concern, along with a large effect size for this scale and for the EDE-Q-Global. Similarly, Berardi (2008) found that body-image group participants reported less overall eating pathology during treatment (EDE-Q-Total), when compared to wait-list controls. However, she also failed to find significant change in psychological symptoms, as measured by the Symptom-Checklist-90. Cash and Hrabosky (2003) studied the use of Cash’s workbook with a nonclinical population reporting body image concerns, and found some improvements in fear of negative evaluation and in overall self-esteem; they also listed significant improvements on the Eating Attitudes Test-26, another measure of eating pathology.

The lack of statistically significant results in the current study may be surprising given the connections between body image, eating disorder pathology, and overall psychological functioning; however, it should be noted that clients in this study were also past the acute phase of eating disorder symptoms, and had already completed the stabilization phase of their DBT treatment program. Similarly, clients in Berardi’s 2008 study had also completed an initial stage of treatment. Thus, treatment may have already ameliorated symptoms to the point that a restriction of range may have occurred. In addition, it may be that being asked to confront body image concerns may have heightened psychological distress in the short-term, since body image
issues are often seen as a “core psychopathology” in eating disorders (Fairburn, 2008). Indeed, qualitative feedback from group participants suggested that they experienced increased distress, as one woman stated, “I don’t like to be here, but I need to be here.”

**Hypothesis 3: Correlations Between Body Image Distress, Eating Pathology, and Overall Psychological Functioning**

A third hypothesis of the current study expected to find correlations between body image distress, overall psychological functioning, and eating disorder pathology, such that improvements in body image distress would correlate positively with improvements in eating pathology and overall psychological functioning. This hypothesis garnered some support from the findings of this study, with medium to large effect sizes found for significant and nonsignificant correlations. Significant correlations indicated that dietary restraint behaviors decrease as satisfaction with specific body parts increases, and that weight concern decreases as satisfaction with specific body areas increases. It also appears that as overweight preoccupation decreases, overall eating-disordered behavior decreases, along with behaviors related to weight concern and shape concern.

In addition, as overall satisfaction with appearance increased, overall eating-disorder pathology decreased. Overall weight concern diminished along with the importance of appearance to one’s self-esteem. Finally, it appears that dietary restraint behaviors decreased as self-perception of weight decreased. However, contrary to the initial hypothesis, there were no significant correlations between overall psychological functioning as measured by the OQ-45 and improvements in body distress. As mentioned previously, Berardi (2008) also found minimal improvement in overall psychological functioning, despite some improvements on the Beck
Depression Inventory for treated participants. Again, it may be that confronting body image concerns may have prevented improvements in this variable for the short term.

**Additional Factors Contributing to Results**

**Mindfulness.** Mindfulness training as applied to body image represented a key difference in this study as opposed to other body-image interventions using Cash’s workbook (2008), *The Body Image Workbook*. This study did not find improved results over traditional CBT using mindfulness techniques; however, body-image groups for eating-disordered clients as opposed to nonclinical clients are sparsely represented in the research literature. Eating-disordered clients represent a more severe level of psychopathology in general; indeed, Nye and Cash (2006) reported that despite some improvement on body-image measures, eating-disordered clients were still more dissatisfied with their bodies than the norm. As previously mentioned, the clients in the current study appeared to have particularly high levels of body image distress, even when compared to other eating-disordered clients. In addition, the relatively short duration of the mindfulness-based body-image group therapy may have limited results. Participants in the body-image groups reported mixed feelings about the mindfulness practices: some affirmed their helpfulness, while others had difficulty disentangling their attention from negative body-and-self-based thoughts. This qualitative feedback fits well with results from a study evaluating metacognitive processes in anorexic patients (Woolrich, Cooper, & Turner, 2008). They found that though anorexic patients engaged frequently in metacognitive processes, they tended to use these processes to support negative body image schemas, rather than using metacognitive strategies (e.g., thought suppression, cognitive reappraisal) to cope with negative feelings. Perhaps mindfulness treatment for eating-disordered clients needs to better address the control
strategies already in place, in order to help clients evaluate their attachment to these strategies and to separate thoughts from feelings.

Overall, however, mindfulness practices appear to hold potential for eating-disordered clients. Mindfulness practice may enhance perceived control, thus diminishing the need for control of food and the body; the focus on emotional neutrality may also be more palatable to ED clients than requiring them to move toward positive feelings about the body (Stewart, 2004). In addition, Brown and Ryan (2003) found that higher levels of mindfulness correlated with pleasant affect, vitality, life satisfaction, self-esteem, optimism, competence and relatedness. Proulx (2008) also found that women with BN enrolled in a mindfulness-based stress reduction group showed reductions in judgmental thoughts, extreme thoughts, and self-destructive behaviors, while also showing an increase in bodily awareness.

**Diagnosis.** Other factors apart from body image may also have played a role in the results of the current study. For instance, many clients carried additional diagnoses along with an ED diagnosis, including one client with Borderline Personality Disorder (BPD). In the case of ED clients with BPD, it appears that these clients often present with higher levels of depression and anxiety both before and after treatment, though DBT treatment appears to have a positive effect on emotion regulation and self-efficacy related to coping skills (Ben-Porath, Wisnieski, & Warren, 2009).

**Diversity.** Furthermore, it may be that the contribution of poor body image to eating-disorder symptoms and maintenance of symptoms may not be equally prevalent across diverse age and cultural groups. For instance, in a phenomenological study of the etiology of midlife eating disorders, though body image concerns were important for both younger and older groups of women, body image concerns represented an immediate trigger only 10% of the time for older
women, compared to 40% of the time for younger women (Kally & Cumella, 2008). The mean age in the study was 39.2 years (five women over the age of 40), suggesting that other concerns may have equal determination in ED pathology for some of them. In addition, some research supports the notion that body image concerns may not always be a driving factor in EDs for different cultural and religious groups (Huang, Simmons, & Zane, 2005; Tareen, Hodes, & Rangel, 2005). Little research has been done to clarify the nature and presentation of body image dissatisfaction in non-Western cultures, leading to a lack of understanding of how social factors may affect clients from these cultures (Becker, 2007). Even within different ED diagnoses, differing symptom patterns may exist; few researchers have attempted to investigate such patterns, especially among various cultural groups (Huang, Simmons, & Zane, 2005).

**Perfectionism.** Other factors also mediate body image; perfectionism represents a trait that often interacts with negative body image to increase distress and ED pathology, ultimately resulting in an obstacle to change (Fairburn, Cooper, & Shafran, 2003; Stewart, 2004). In a follow-up study of anorexic patients who had been in recovery for 8-10 years, researchers found that these patients continued to exhibit an increased obsession with symmetry and exactness, greater risk avoidance and restraint, and increased impulse control after recovery (Srinivasagam, Kaye, Plotonicov, & Greene, 1995). In addition, perfectionism was found to interact with body dissatisfaction and low self-esteem to predict poor outcome for a group of anorexic patients 5-10 years after initial treatment (Peck & Lightsey, 2008). Other researchers have hypothesized that trait perfectionism in those with AN may inhibit group therapy outcomes, due to the resistance to sharing problems with others (Sutandar-Pinnock, Woodside, Carter, Olmstead, & Kaplan, 2003). It may be that an increased focus on mindfulness in treatment may help ameliorate the effect of
perfectionism on body image, as mindfulness teaches a nonjudgmental stance and can lead to greater self-compassion and openness to experience (Stewart, 2004).

**Challenges.** In evaluating the results of the current study, it is also important to examine what the clients may have found challenging about the group treatment. Given that the body image components of eating disorders are often the most resistant to treatment (Fairburn et al., 1993; Stice & Shaw, 2002), it might be expected that the group members found the process of confronting body image concerns difficult. The internal resistance expressed verbally in the group indicates that this difficulty may have influenced factors such as homework completion and group participation. Although most group members rated their homework completion as “average”, many members found the mirror exposure exercises too difficult to attempt, and others found that creating a hierarchy of increasingly distressing body image situations necessitated taking very small steps towards their goals. At least one client described the exposure exercises as “less helpful.” Several clients also expressed a desire for a longer group treatment, stating that 10 weeks was too short to address such a long-standing problem. In fact, two clients repeated the group a second time, although they declined to repeat the assessment instruments the second time. The overall difficulty in confronting body image concerns for clients with EDs may also have affected the number of group members able to be recruited for the groups; clients with long-term EDs may be particularly resistant to treatment of their symptoms (Geller, Williams, & Srikameswaren, 2001).

**Limitations**

One of the most limiting factors in the current study was the small sample size and resultant lack of statistical power. Difficulties in recruiting enough clients for the groups resulted in a smaller than expected sample size; however, based on an a priori power analysis using
“G*power” (Faul, Erdfelder, Lang, & Buchner, 2007), a sample size of 19 would be needed in order to achieve an effect size of .7 and a power of .8. Statistical power limitations also prevented an analysis of results according to ED diagnosis (AN, BN, and EDNOS), thus a comparison of outcomes among these groups was not possible. Although initially the author of the current study desired to include a control group, recruitment difficulties also precluded this option. The original plan to also recruit a control group would have required a sample size of 34 participants per condition, for a total $N$ of 68 participants. Research using eating-disordered clients has been generally plagued by difficulty with recruiting adequate sample sizes, as well as with variable participation and high attrition rates (Nye & Cash, 2006). Other research using Cash’s workbook has also used a relatively small number of participants (20-30), though most of these studies examined nonclinical populations (Butters & Cash, 1987; Grant & Cash, 1995; Rosen, 1990).

However, the lack of a control group for this study seriously hinders its implications, as all participants in the groups were concurrently enrolled in later phase DBT treatment. All clients also participated in additional DBT skills groups, and many also had regular individual psychotherapy sessions. Therefore, it is difficult to ascertain if observed improvements are due to the body image group treatment alone, due to the confounding effects of additional, ongoing treatment. DBT treatment also teaches general mindfulness, emotion regulation, and distress tolerance skills, as well as including an element of one-on-one support in the form of telephone consultation (McCabe, LaVia, & Marcus, 2004; Safer et al., 2001a). Furthermore, lack of randomization makes it difficult to separate the effect of self-selection on observed improvements.
In addition, the current study wished to examine the effect of a mindfulness-based treatment on body image. However, due to a desire to limit the burden of assessment instruments on participants, no measure of mindfulness was included. This lack makes it difficult to parse out the value of mindfulness in the observed improvements. Future research may be well served by including a measure of mindfulness, such as the Mindful Attention and Awareness Scale (Brown & Ryan, 2003).

This study also lacked a measure of group process, making it difficult to interpret how group process may have affected results. Though it was decided to limit the number of assessment instruments in order to reduce the burden on clients, it would still have been helpful to more fully evaluate clients’ experience in the group, such as with the Group Climate Questionnaire Short Form (GCQ-S; MacKenzie, 1983). This questionnaire evaluates level of engagement in the group, the extent to which members are reluctant to take on the task of change, and the presence of interpersonal conflict among group members. On the qualitative feedback questionnaire given at the end of treatment, many clients indicated that they felt less alone while in the group, and were helped by realizing the depth of struggle experienced by other clients. However, it should also be noted that the current study utilized mixed groups, where clients with varying body mass indexes (BMIs) participated together. Though this format may have been helpful for some, it is also possible that some clients experienced this structure as threatening.

Several variables were also not controlled in this study. For example, women in the groups presented with a variety of comorbid Axis I and Axis II diagnoses. Age also varied (from 26 to 56). Initial level of body image distress was also not quantified at the beginning of the
study; participants chose to participate in the group, whether through self-referral or referral from a therapist.

**Directions for Future Research**

This study indicates a need for further research on mindfulness-based body image group treatment for those with eating disorders, both in DBT treatment settings as well as other treatment settings. Well-controlled studies with randomization of control and treatment groups would be ideal for isolating successful components of body image treatment for various groups, though as previously mentioned, recruiting adequate sample size is admittedly difficult in this particular type of research. In addition, few body image treatment studies have been done with ED clients. However, the effort is likely worth the price, for both therapists and patients alike rate “improving body experience” as very important ingredients in recovery (Vanderlinden, Buis, Pieters, & Probst, 2007). Mindfulness-based treatment is relatively new, and future research may benefit from using measures designed to evaluate increases in mindful awareness and its components, such as nonjudgment and nonselective attention (e.g., the MAAS; Brown & Ryan, 2003). In addition, as DBT treatment for eating disorders continues to evolve, using control groups will help to elucidate the added benefit of a specific body-image treatment component.

Follow-up studies were also not done for the current study, and are often not included in the current research on body-image treatment on eating disorders. Berardi (2008) included a three-month follow-up assessment following CBT group treatment for body image, and found a trend towards improved overall psychological functioning and decreased dietary restraint when compared to pre- and post-assessment scores. Additional longitudinal research that includes follow-up at different intervals will also help clarify ongoing benefits of body image treatment, or conversely, loss of improvements in this area.
Though all three eating disorder diagnoses (AN, BN, and EDNOS) are thought by some to share a common psychopathology (Fairburn, Cooper et al., 2003), it may be that these disorders respond differently to body image group treatment. The current study did not differentiate treatment effect based on ED diagnosis, due to small sample size. However, there is some evidence that patients with AN (and perhaps those with EDNOS with restrictive subtypes) may have more difficulty achieving remission, and this fact may hinder their response to treatment or require a different mode of treatment (Keel et al., 2005). Larger samples would enable researchers to further examine the various factors related to successful treatment of body image disturbance in eating disorders.

Qualitatively, clients also reported difficulty with following through on mirror exposure and hierarchy exercises. Perhaps some clients with ED may benefit from additional individual support while dealing with these challenging exercises. Future research may wish to examine the use of such support with ED clients. Stewart and Williamson (2003) utilized an individual therapy approach over 20 sessions for four ED clients in later recovery; they found improvements on both body image and psychological functioning while using a mindfulness-based CBT approach. Qualitative feedback also suggested that clients wished for a longer treatment program; perhaps future research could explore the benefits of a longer-term treatment; for example, perhaps 20 weeks rather than the 8-10 weeks commonly seen in body image group therapy. Longer treatment makes sense for a population that has traditionally been seen as resistant and difficult to treat, and may be especially helpful for those with long-standing eating disorders (such as the clients in the current sample).

Furthermore, future research with ED clients would benefit from the development of body image measures specifically validated on ED clients. The MBRSQ and the ASI were both
originally validated on nonclinical samples (Cash, 2000; Cash et al., 2004). However, the EDE-Q used in the current study was validated on ED clients, and contains subscales relevant to body image. In general, the task of developing body image measures is itself difficult, due to overall lack of a clear and testable theory of body image (Farrell, Shafran, & Lee, 2006). Other factors that mediate body image should also continue to be explored, including perfectionism, core low self-esteem, interpersonal difficulties, and family background (Fairburn, Shafran, & Lee, 2003; Field, 2004; Keel et al., 2005; Peck & Lightsey, 2008; Polivy & Herman, 2002).

Finally, the women in the current study were relatively homogenous in terms of racial, ethnic, and cultural diversity (11 European-American, 1 Hispanic). Research investigating shape and weight concerns in the pathology of EDs across culture and race will be helpful in developing a truly comprehensive model of ED treatment, where it is unlikely that one treatment will fit all (Tareen et al., 2005). As also mentioned previously, the immediacy of body-image concerns in the initiation and maintenance of ED pathology may differ with age of onset and duration of illness (Kally & Cumella, 2008).

**Conclusions**

This study originally hypothesized that women with eating disorders in a later phase of DBT treatment would show statistically significant improvements in body image distress, eating pathology, and overall psychological functioning as a result of a 10-week mindfulness-based body image treatment. This hypothesis received support in the form of improvements in the level of contribution body image makes to overall self-evaluation, and in anxiety around fat, weight control, and dietary restraint; large effect sizes were also seen for improvements in appearance evaluation. The hypothesis that eating disordered behaviors and overall psychological functioning would be improved was largely unsupported by significance testing, though large
effect sizes suggest the effectiveness of the group in reducing global eating pathology and eating concern. Significant correlations were also found for improvements on some body image measures with improvements in eating disorder pathology. However, this study is also best labeled a pilot study, as small sample size and lack of a control group limits the conclusions that can be drawn from the results.

Given that a large body of research supports the role of body image disturbance in the initiation and maintenance of eating disorders, future research seems necessary in order to develop successful treatment programs for those with eating disorders. Larger sample sizes along with longitudinal studies would allow for better elucidation of the many variables that contribute to eating disorder pathology, including client motivation, client diversity, and client traits such as perfectionism. In addition, larger sample sizes would allow for differentiation of treatment effects among the different ED diagnoses (AN, BN, EDNOS, and perhaps BED). Additional research may also help clarify the role of mindfulness in both traditional and DBT treatment of eating disorders, as well as the role of group process in group therapies for body image.

Overall, the most compelling impetus towards future development of effective body image treatment for eating disorders comes from the participants in the study. Qualitative feedback from the present study showed that participants valued the time and effort spent in the group, found the group process largely helpful, and found the process of confronting body image disturbance helpful, even if it proved difficult.
References


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Appendix A

Group Welcome Letter and Informed Consent
December 29, 2008

Dear**********, 

I am writing to welcome you to the upcoming "Resolving Negative Body Image" group starting Friday, January 23rd at Portland DBT. This group is a new and exciting development in our Path to Mindful Eating program, and we believe it will respond to an important aspect underlying many individuals' difficulties with healthy, balanced, and mindful eating.

This group will be co-run by three group leaders: Susannah Castle, PsyD, clinical psychologist with the Portland DBT PME program; Andrea Erb, BS; and Rachel Mueller, BA. Andrea and Rachel are graduate students pursuing their doctoral degrees in clinical psychology, and have been involved in the development of the group curriculum, as well as in establishing the scientific basis for the curriculum we will be using. We are excited to welcome them to our team.

Portland DBT is a research-based program. We will be asking group members to complete a substantial number of pre- and post-assessments to determine the efficacy of the group itself in resolving factors associated with negative body image. Please prepare to complete assessments in both the first and last group sessions. Anonymous data from these assessments will be used in research.

We will be using a modification of the highly respected curriculum developed by Thomas Cash, PhD for resolving negative body image. A requirement of the group is that you purchase the workbook entitled: The Body Image Workbook, Second Edition by Thomas Cash, PhD. It is available for under $20 on Amazon.com. Please purchase the workbook prior to our first meeting on January 23. Be sure to get the second edition!

We are really looking forward to having you join us, and having a great group! If you have any questions, please feel free to contact me, Susannah Castle, PsyD, at 503-290-3264.

Sincerely,

Susannah Castle, PsyD
Licensed Clinical Psychologist
Portland DBT Program
Dear Group Member,

We are looking forward to your participation in the upcoming “Resolving Negative Body Image” group. This group is a new development in our “Path to Mindful Eating” program. As is common with new additions to a treatment program, we will be gathering a significant amount of data on how you make progress throughout the group. In order to assess your progress, we will be asking you to complete multiple questionnaires in both the first and the last group sessions. We will then compare the data from these questionnaires to determine the kind of progress you have made.

The data that we gather will be analyzed to determine which aspects of negative body image have most and least improved with this group treatment. Results will be used in research, which may be written up and published in scholarly journals or presented at conferences. All of the data will be kept completely anonymous, meaning that we will not have your name, or any other identifying information, associated with it when it is used in research.

Andrea Erb, BS, and Rachel Mueller, BA are doctoral students in clinical psychology at George Fox University. They are being supervised by Susannah Castle, PsyD, Clinical Psychologist. Both Andrea and Rachel have volunteered to co-lead this group. They will be using the data generated from the group to complete research projects toward the completion of their graduate degrees.

Please be aware that your participation in this group, and in the research studies that we are gathering data to complete, is completely voluntary, and you may withdraw at any time.

Please sign below to indicate:

- that you have been informed of the research being conducted with this group,
- that you have been given time to ask questions as needed, and
- that you agree to allow your anonymous assessment data to be used in any research arising from this group format.

Signed: ______________________________ Date __________________

Printed name: __________________________________________
Appendix B

Handouts for Body Image Sessions
Session 1, homework:

As we discussed in group this week, there are two dimensions of “body image” that are generally important. Please consider, on a subjective scale, how high or low you think you rate on these two dimensions.

**Body Image Evaluation:** The extent to which you tend to view your overall appearance with satisfaction or dissatisfaction

<table>
<thead>
<tr>
<th>Very dissatisfied</th>
<th>Somewhat dissatisfied</th>
<th>Neutral</th>
<th>Somewhat Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
</table>

**Body Image Investment:** The extent to which your overall perception of your appearance seems to inform how you feel about yourself in a fundamental way, at the level of your identity or core self-esteem

“My perception of how I look is a key determining factor in how I feel about myself overall”

<table>
<thead>
<tr>
<th>Not true at all</th>
<th>Not very true</th>
<th>Neither true nor false</th>
<th>Somewhat true</th>
<th>Very true</th>
</tr>
</thead>
</table>

When you look at your answers above, does the level of investment in your body image seem to fit your core values? If not, how do you wish it could change?

________________________________________________________________________

________________________________________________________________________
If this group were to be really successful for you, what specific changes would you see in the following areas over the next couple months?

Thinking:

Behavior:

Emotions:

Relationships:

Other:

The process of changing beliefs and deep emotions about one’s self is generally a difficult and painful process. Many of the assignments in this group will be ask you to think about things in new ways that may feel uncomfortable or unnatural, or to engage in activities that create some degree of anxiety or discomfort. Take some time to think about how willing you feel to engage in some discomfort in order to make some changes in your overall negative body image:
Is there anything else that has been left out that you want to express?
Session 2: Understanding Your Body Image Story

Factors that Influence Body Image:

1. Historical influences from the past are the forces that shaped how you came to view your appearance in the ways that you do. This is what we will focus on in this session.

2. The current influences are the events and experiences in everyday life that determine how you think, feel, and react to your looks.

Four Historical Factors That Feed Your Body Image:

1. Cultural Socialization
   - We learn early on that society places a high value on appearance. Society seems to say that you are probably not good enough the way you are. As a result, women do many things to their bodies to make them “acceptable.”
   - However, societal standards can’t harm you if you don’t buy into them.
   - Other people don’t judge you as harshly as you do yourself.

![Figure B1. Four historical factors that feed your body image.](image-url)
2. Interpersonal Experiences
   • Modeling-If important people in your life worried about appearance, you may have learned to criticize your appearance as well.
   • Teasing by peers or family may have increased your focus on your body.
   • Adolescence may have brought insecurity about your body.
   • Romantic relationships can affect our body image, especially if a partner is harsh or critical.

3. Physical Characteristics and Changes
   • Developmental changes may cause insecurity.
   • Bodies are always changing; we cannot control all the changes our bodies go through, especially those related to heredity and/or life events.
   • How your body appears on the outside does not have to determine how you feel on the inside.
     o Think: Some people whose appearance you envy are just as unhappy with their looks as you are.
     o A fulfilling life is not dependent on how you look or how you think you look.

4. Personality Traits (for risk and resilience)
   • Low self-esteem leaves us vulnerable to poor body image. A secure sense of self (as in feeling competent, lovable, and invested in hope and in living) we will have greater strength in resisting societal pressure and interpersonal wounds to our body image.
   • The way we approach others also may affect our predisposition to a negative body image. For instance, if a person worries about being rejected, that worry may translate into a fear that one’s physical self will be rejected.
   • Perfectionism also affects body image, especially when a person feels a need to present herself to other people as exemplary and flawless in actions and appearance (called self-presentational perfectionism).
   • People who are most resilient to threats and challenges to body image:
     o are not overly invested in their physical appearance for their identity and self-worth.
     o They keep their looks in perspective and are invested in many other things for self-fulfillment (such as family, friends, achievements, work, leisure interests, etc.)
TRUTH: Negative body image may begin in our history, but it continues to exist and grow in the presence of your mind. It is our pattern of relating and interacting with ourselves that maintains a negative body image.

TRUTH: The most influential dictators of body image emotions are your own ways of judging your looks. They may be triggered by events, but once they start, they begin a cycle of self-criticism and distressing feelings.
ACCEPTANCE means seeing things as they really are and seeing them in the present moment. Feelings are just feelings. Pain is just pain. Not liking your body is simply what it is, nothing more, nothing less. The goal is to use your WISE MIND when you interact with your body and body image.

ACCEPTANCE means that you don’t buy into the idea that you must DO something about the discomfort. Mindful acceptance means you are aware of your desire to avoid or fix but you just observe that desire. You don’t follow the commands of your inner voice.

How to Mindfully Accept Your Body Image Experiences:

**OBSERVE**
Rather than judging inner experiences as intolerable, you learn to be mindfully aware of your discomfort and allow it to just be discomfort.

**DESCRIBE**
Put words on your experience, or put your experience into words. Tell yourself what is happening, but don’t get caught in the content.

**PARTICIPATE**
Ask yourself “What is really needed in this situation?” Use your WISE MIND to discover what you truly need.

**NON-JUDGEMENT**
Don’t evaluate. Usually you come to the verdict that something is wrong with you for having your experiences. You can’t accept the experience or yourself if you have them. Your self-judgment is not truth; it is only another inner voice.

**ONE-MINDFULLY**
Rather than following your body image thoughts, focus on the activity at hand. Give the activity with your full attention.

**EFFECTIVELY**
Give yourself time to figure out how to interact with your body image experiences. Over time, focus on what works.

Mindful Self-Monitoring will teach you to step back and ask, “What am I feeling? What just happened to make me feel this way? What am I saying to myself in this situation? How am I reacting or wanting to react behaviorally to this experience? You will learn to “eavesdrop” on yourself.

You will learn to notice and describe Body Image Episodes: times when negative body image experiences crowd your consciousness.
Learning to Mindfully Self-Monitor: Body Image ABC’s

A  Activators. What happened?

B  Beliefs-What is going through your mind?

C  Consequences of your thoughts and beliefs. How did you react emotionally and behaviorally?

The acronym TIDE explains consequences:

T  Type of emotion you felt in the situation.

I  Intensity of your emotions. Rate on a scale from 1-10.

D  Duration. How long did the distress last?

E  Effect. How did the episode affect your behavior?
Session 4: Facing Your Body Image Avoidance

Why would you want to face your Body Image feelings and thoughts without engaging in your escape and avoidance behaviors?

- It is understandable to want avoid the uncomfortable body image thoughts and feelings that happen when faced with a practice, person, place, or pose that triggers these thoughts and feelings.

- *Evasive Actions* are *Escape Behaviors* or *Grooming to Hide Behaviors*. *Escape Behaviors* refer your actions by which you seek to avoid persons, places, practices, or poses that trigger negative thoughts and feelings about your body. *Grooming to Hide Behaviors* are rituals through which you aim to hide what you do not like about your appearance. What are your *Escape Behaviors* and *Grooming to Hide Behaviors*? Take a moment to fill out pg. 139 and 142 to uncover your Escape and Grooming to Hide Behaviors.

- When you avoid these uncomfortable experiences by engaging in *Evasive Actions* or *Grooming to Hide Behaviors*, you may feel better temporarily, but your negative feelings about your body actually become stronger as a result of engaging in these behaviors. No *counterconditioning* happens, and your poor self esteem remains and is reinforced. (See the chart on the third page)

- Research suggests that these negative emotional experiences, such as anxiety, have a rise and fall in intensity over time, like the curve drawn below. How strong does your anxiety or other negative emotion feel when you decide to engage in the *Escape or Grooming to Hide Behavior* that makes the anxiety temporarily go away? Draw an x at that place on the curve.

- Although these *Escape and Grooming Behaviors* are adaptive in the sense that they bring relief, in the long term, they are not. Your original thoughts and feelings about your appearance remain and often grow stronger as a result.

- According to research, without engaging in your typical escape and grooming behaviors, the uncomfortable experience will decrease on its own. This is hard to believe when you are actually having the experience. Our purpose in this session will be to learn to ride this intensity wave by experiencing negative feelings about yourself and body without engaging in your normal *Evasive Action*. We will refer to these *Evasive Actions* as *Target*
Behaviors, since our aim is to learn a new response to the feelings and thoughts that arise when we encounter a certain person, place, practice, or pose, or desire to hide what we do not like about ourselves. You may be familiar with this approach as exposure therapy, or counterconditioning. We will replace your Target Behaviors (Evasive Actions) by teaching you skills and strengthening your Wise Mind/New Inner Inner Voice.

Figure B3. Facing your body image avoidance—chain
Goal 1: Replace Escape Behaviors with the Wise Mind/New Inner Voice

_Helpsheet for Change: My Ladder of Success for Facing It (p. 146)_

_How: PACE_

Prepare: Exactly what will I do?

Act: When? Where? For how long?

Cope: What uncomfortable thoughts and feelings do I expect? How will I accept and cope with them?

- Suggestions:
  - Letting Go of Tension (p. 143)
  - Diaphragmatic Breathing (p. 144)
  - Mental Imagery (p. 144)

Enjoy: How will I reward my efforts?

_Helpsheet for Change: My Plan for Facing It (p. 149)_

Goal 2: Replace Grooming to Hide Behaviors with the Wise Mind/New Inner Voice

_Helpsheet for Change: My Ladder of Success for Facing It (p. 151)_

_How: PACE_

_Helpsheet for Change: My Plan for Facing It (p. 153)_

_Homework for Remainder of Group: Do a Helpsheet for Change: My Plan for Facing It, for a rung of the Ladder of Success Each Week (For an Escape Behavior and a Grooming to Hide Behavior)._
Session 5

Seeing Beneath the Surface of Your Private Body Talk

Private Body Talk – the conversation you have with yourself about your body

Appearance Assumptions - Appearance Assumptions are what drive your Private Body Talk. Appearance Assumptions are those beliefs about your physical appearance and the importance of your physical appearance in all areas of your life. They happen automatically, and you often take them for granted and do not even consider their accuracy. The assumptions can trigger and fuel negative, sometimes powerful painful emotions.

Getting in touch with Appearance Assumptions

1. What kinds of things do I say to myself about my appearance?
2. Why do I do this to myself?
3. To what extent do I define myself and my self-worth on the basis of what I look like?
4. To what extent do I ignore and reject any evidence that these appearance assumptions might not be on target?
5. Your particular “appearance assumptions” can be identified by referring back to your responses to the “Appearance Importance Test” on page 19 that you took at the beginning of this group.

*Figure B4.* Assumptions underlying private body talk: from assumptions to emotions.
Ten Appearance Assumptions Underlying Private Body Talk

1. Physically Attractive People Have It All
2. My Worth as a Person Depends on How I Look
3. I Should Always Do Whatever I Can to Look My Best
4. The First Thing That People Will Notice About Me Is What’s Wrong With My Appearance
5. If People Knew How I Really Look, They Would Probably Like Me Less
7. My Appearance Is Responsible for Much of What Has Happened to Me in My Life
8. If I Could Look Just As I Wish, My Life Would Be Much Happier
9. My Culture’s Messages Make It Impossible for Me to Be Satisfied with My Appearance
10. The Only Way I Could Ever Accept My Looks Would Be to Change My Looks

Loosening the Grip of Assumptions

Challenging Assumptions: Arguments against the 10 Appearance Assumptions

*Use these arguments as a counter to the assumptions that presently dominate your Private Body Talk*

- **Assumption 1: Physically Attractive People Have It All.** Physical Attractiveness is a poor and unreliable guarantee of happiness. There are ways in which being physically attractive can lead to sadness for a person.

- **Assumption 2: My Worth as a Person Depends on How I Look.** What aspects of myself, other than my appearance, suggest that I have self worth? What else do I like about myself? In your private body talk, begin talking about these aspects apart from your looks that define your value as a person.

- **Assumption 3: I Should Always Do Whatever I Can to Look My Best.** Why do I feel that I must, should, always have a responsibility to look perfect? Do I have the same expectations for others, or am I more likely to accept others regardless of their imperfections?
• Assumption 4: *The First Thing that People Will Notice About Me is What’s Wrong with My Appearance.* Most of the time, this statement is not true. In the case of obesity or physical disfigurement, people will notice, but you have other aspects of yourself which are more relevant in determining whether or not they will like you.

• Assumption 5: *If People Knew How I Really Look, They Would Probably Like Me Less.* It is likely more difficult for you to accept your perceived physical flaws than it is for others to accept these perceived flaws. When you discover physical flaws in others, does your opinion of them change?

• Assumption 6: *By Managing My Physical Appearance, I Can Control My Social and Emotional Life.* In order to improve your social and emotional life, it is more effective to change body image rather than change your appearance.

• Assumption 7: *My Appearance is Responsible for Much of What Has Happened to Me in My Life.* Appearance does play a role, but other factors, such as choices, personality, and intelligence, play a much bigger role in what has happened in your life. Consider those people you admire or have been significant in your life. Ask yourself how much of their importance is related to their attractiveness.

• Assumption 8: *If I Could Look Just as I Wish, My Life Would Be Much Happier.* Research suggests that physically attractive people are not necessarily happier, or even happier with their bodies. Accepting your body and appearance, rather than wishing for a different body, will increase your happiness.

• Assumption 9: *My Culture’s Messages Make It Impossible for Me to Be Satisfied with My Appearance.* Although the media makes it difficult to accept your appearance, it is not impossible. Intelligent examination of cultural messages reveals that these messages are clearly distorted and unrealistic. You are free to make choices to reject these distortions and accept your body.

• Assumption 10: *The Only Way I Could Ever Accept My Looks Would Be to Change My Looks.* Ask yourself if your past efforts to change your looks and appearance have actually changed how you feel about your body. If not, consider the possibility that changing body image is more effective than changing your actual body.

• *Helpsheets for Change: Arguing with My Appearance Assumptions (pages 94-103 - homework)*

• Each day, read aloud the arguments you recorded on your *Helpsheet for Change: Arguing with My Appearance Assumptions.*
• Tell others who know about the body image work you are doing. Be specific about the ways in which you are challenging and changing your assumptions.
  
  *Strengthening Your Wise Mind: Answering Assumptions with Acceptance*

Session 6- Mindfully Modifying Mental Mistakes

“What disturbs peoples’ minds is not events but their judgments of events.” Epicetetus, 1st century AD

Cognitive Distortions: Specific mental mistakes that steer inner self talk along crooked paths that send you in the wrong direction and down dead ends where it’s difficult to turn around.

The key to turning cognitive distortions around is recognizing them as such.

Take the “Self Discovery Helpsheet: Thinking about your Thinking” on pgs. 106-109 and score.

Distortion 1 - Beauty or Beast: Viewing one’s appearance in terms of extremes, and discounting the middle ground. For example, gaining one pound and thinking you are “huge”.

Distortion 2 - Unfair to Compare: Pitting your appearance against some extreme or unrealistic standard. The “unfair” aspect of this distortion is that we tend to choose people to compare ourselves with who inevitably make us look worse. We choose to compare ourselves to someone tall if we are short, short if we are tall, with big breasts if we have small ones, with a shapely butt if we have a flat one, etc. The comparisons are never objective.

Distortion 3 – The Magnifying Glass: This is based on the concept of “selective attention”, meaning that we focus on specific bodily areas, and magnify their importance in terms of our overall looks. Not only do we magnify apparent “defects”, it downplays all positive or neutral aspects of our appearance. A fear of being vain can also drive this distortion.

Distortion 4 – The Blame Game: This happens when you incorrectly conclude the some disliked physical attribute is directly responsible for certain disappointments you may experience. This is not to say that appearance does not affect outcomes in certain situations. However, the distortion occurs when the disappointing situation is automatically attributed to appearance, without consideration of other factors.

Distortion 5 – Mind Misreading: This is the distortion which leads people to think “If I think I look bad, others must think so as well.” This faulty mental process is called “projection”, in that we tend to project onto others what we ourselves are feeling.

Distortion 6 – Misfortune Telling: This distortion focuses on how you make negative predictions about the future based on your appearance.
Distortion 7 – Beauty Bound: This is reflected in body self talk that says you cannot do certain things because of your looks.

Distortion 8 – Moody Mirror: This distortion reflects what is known as “emotional reasoning”, or mood-dependent reasoning. If you are having a strong emotion, you then try to make some kind of cognitive meaning out of the emotion, and end up with a conclusion that strengthens the emotion.

Talking Back with Corrective ways of Thinking:

Beauty or Beast distortion:

- Force yourself to see things on a continuum; to “see the dialectical nature” of your appearance
- Consider if you judge the looks of others in the same harsh good/bad manner that you use with yourself
- Eliminate judgmental language and use more descriptive language in your self talk.
- Consider what the evidence is to the contrary of the idea that you are bad-looking.

Unfair to Compare Distortion:

- Replace “shoulds, musts, and oughts” with language that communicates your disappointment rather than judgment.
- Think, “I don’t have to have a perfect body to be decent looking”, or “Nobody is complaining about me but me”.
- Reject societal ideals of extreme thinness, or ideals that are unrealistic or sexist.
- Consider that there will always be someone both better and worse-looking than you. It is irrelevant to make such comparisons.
- Recognize that a compliment to someone else does not have to be a criticism to yourself.
- If you have to compare, go both ways – think of someone you are better-looking than, if you are going to think about how you are less attractive than someone.

Magnifying Glass Distortion:

- Raise your awareness about if you are micro-focusing on one area and forgetting about positive or neutral areas of your looks.
- When you start self-criticism in the mirror, stop it and force yourself to say, “I caught myself picking on myself again, I am going to stop, give myself a half-smile, and walk away, saying something accepting to myself.”
• If you think about a negative aspect of your looks, make yourself spend an equal amount of time being aware of a positive aspect of your looks.

Blame Game Distortion:
• Catch yourself blaming your looks and say, “stop blaming!” Say “I am going to leave my appearance out of this and focus on what I can do to make things better.”
• Let your wise minded voice say, “I know I am blaming my looks because I don’t like them, but that does not mean my looks are actually the cause for the problem here.”

Mind Misreading Distortion:
• Accept that what you are doing is reading the thoughts and opinions of others. If these thoughts strongly resemble your own, it is pretty likely you are engaging in projection.
• Say, “I am bright, but I can’t read minds. The only mind I can read is my own.”
• Do you have any evidence that your mind reading is inaccurate?
• Talk back assertively to the self talk when it is disparaging. Say, “I need to stop reading into what others are thinking. I need to change what I am thinking, instead.”
• Consider, “if it isn’t my appearance that is bothering someone else, what might it be?”

Misfortune Telling Distortion:
• Recognize your pessimism may stem from the expectation you will feel self-conscious.
• Recognize how anxiety about appearance may be a stand-in for other anxieties in the future.

Other skills for coping with cognitive distortions include
• Simply noticing that you are having the thoughts and label them “eating disorder thoughts”.

Observe that the thoughts are present, and you don’t have to act on the thoughts, or be defined by them.

Homework: In addition to the Helpsheets for Change, write about how you arrive at (or could arrive at) a place of radical acceptance in relation to your body or other difficulties you face.
Session 7: Erasing Body Image Rituals

Discovering Your Appearance Checking Rituals

*What are Appearance Checking Rituals?* Checking Rituals are compulsive behaviors that are focused on inspecting, checking, and rechecking appearance. They are often preceded by recurrent thoughts that something is wrong with your looks.

*What is the purpose of Checking Rituals?* To seek and obtain relief from unsettling worries about appearance—they can be willful, deliberate attempts to avoid worrying. They can also be mindless automatic reactions.

Examples of Checking Rituals:

- Intrusive thoughts telling you to inspect your appearance; these thoughts are difficult to dismiss without taking action.
- When you pass a mirror or other reflecting surface, you often reflexively check to make sure that your appearance is okay.
- You frequently visit the restroom to check your appearance even though you have no good reason to believe that anything is truly wrong with your looks.
- You frequently weigh yourself to find out if you’ve gained or lost any small amount.
- You often pinch or squeeze areas of your body to determine how fat or thin they are.
- You repeatedly check how your appearance compares to others when you are in social situations.

Erasing Your Body Image Rituals (continued)

Discovering Your Appearance Fixing Rituals

*What are Appearance Fixing Rituals?* These rituals usually coexist with Checking Rituals and involve elaborate and meticulous efforts to manage or modify your appearance.

*What is the purpose of Fixing Rituals?* Like Checking Rituals, Appearance Fixing Rituals are an attempt to avoid worry and insecurity in social situations. They may be a distraction from deeper concerns such as how acceptable or worthy you feel as a person.

Examples of Appearance Fixing Rituals:

- Spending an extraordinarily long time in the bathroom getting ready and getting dressed. Perhaps others have made remarks about how long it takes you to get ready.
• You primp and fuss with your clothes, hair and/or makeup more than you know you should. You just can’t leave it alone. You may worry about various outfits making you “look fat.”
• Different situations demand that you change what you are wearing. Otherwise, you worry that your appearance is inadequate.
• Gaining a couple of pounds or the experience of feeling fat compels you eat less or to exercise more intensely for a few days.
• When you see yourself in a mirror, you reflexively adjust some aspect of your appearance, even though nothing is really amiss.
• You regularly make significant modifications to your appearance, such as changing hairstyles or hair colors, or getting makeovers.

Taking care of our body is a good thing. However, when we feel like we must perform our rituals in order to feel okay, then we are being controlled by them. Appearance Preoccupied Rituals fuel beliefs such as “If I don’t look perfect, bad things will happen or people won’t like me.”

Use the Self-Discovery Helpsheet: What Are My Appearance-Preoccupied Rituals? (p. 159) to identify your appearance-fixing and checking rituals.

Erasing Your Body Image Rituals (continued)

Ways to Erase Rituals Using Exposure and Response Prevention:

• Obstructing Your Rituals: You block the path for your ritual to occur. Think about a ritual that you need certain “tools” for (e.g. a mirror, scales) Can you alter your environment to remove the tool?

• Delaying Your Rituals: This works well for Checking Rituals.
  o Notice your inner urges to check. Accept that they occur but allow your mind to go on to other things.
  o Realize that checking rituals serve self-protective purposes: they interrupt your preoccupied thoughts and feelings of discomfort. Try to detach your thoughts from the ritual; recognize the urge but remind yourself that you don’t have to check.
  o Postpone the checking for a set period of time, say 15 minutes.
  o Learn to use mindful or pleasurable experiences to soothe yourself during the anxious time of waiting: nurture your new, kind inner voice, breathe deeply, distract.

• Restricting Your Rituals: Place a time limit on your ritual by playing “Beat the Clock”. First, determine how long it takes you now; set a reasonable goal; gradually lower the time allowed. Reward your progress by using the extra time to do something you love.
• Rationing Rituals: This involves setting a limit on the number of times you can engage in a ritual within a certain period of time. Gradually reduce the ration to zero. For example, put your rituals on a schedule. Set a beginning and ending time. If you miss your “appointment” you must wait until the next one. If the urge occurs outside of your appointment, you must also wait.

• Resisting by Rebellion: You rebel by resisting the ritual cold turkey. You may want to try this first on weaker rituals; try gradually increasing the time for your rebellions.
  o Use mindful acceptance, body-and-mind relaxation, and corrective thinking as your allies.
  o Try to remain in the situation until the urge to perform the ritual subsides. You mindfully observe the urge and its weakening.

Erasing Body Image Rituals (continued)

How to Build Your Ladder of Success for Erasing Rituals:

• Go back to the What Are My Appearance-Preoccupied Rituals? Helpsheet (p.159) to evaluate the level of distress you might feel if you could not perform the ritual. Rate your expected level of distress using a SUDS rating from 0-100. Arrange the rituals in order of expected distress on the Helpsheet for Change: Ladder of Success for Erasing It (p.165). Put the least distressing ritual on the bottom, and most distressing rating at the top.

• Start with the ritual at the bottom. Write out your plan using the format on the Helpsheet for Change: My Plan for Erasing It (p.166).

PACE yourself: Prepare
  Act
  Cope
  Enjoy

  1. Visualize yourself effectively carrying out your plans.
  2. Go for it.
  3. One rung at a time, keep climbing your ladder.

Take a minute to picture what life might be like without your rituals or evasive actions!
Session 8

Healing the Relationship with my Body Partner

Achieving and Pleasing with Positive Physical Activities: Mastery and Pleasure

- Mastery and Pleasure Activities
  
  a. Mastery Activities – activities which give a sense of satisfaction through the experience of achievement or accomplishment
  
  b. Pleasure Activities – activities which are positive in and of themselves, regardless of experience of accomplishment or achievement

- Three Types of Physical Activities
  
  c. Physical health and fitness
  
  d. Sensate experiences
  
  e. Physical Appearance

- *Self-discovery Helpsheet: Survey of Positive Physical Activities* (pp. 173-176)

- *Helpsheet for Change: My Positive Physical Activities* (pg 178)

Helpsheet for Change: My Positive Health and Fitness Activities (pg. 180)

- Engage in two or three per week which you rated as a 2 or 3 for pleasure or mastery on the helpsheet

- Correlation between regular exercise and feeling better about health, fitness and appearance

- Kinds of motivation
  
  a. Be more attractive or lose weight (tendency towards negative body image is possible)
  
  b. Improve physical competence, fitness, health,
  
  c. Mood and Stress management
  
  d. Social aspect

- Effects of kinds of motivation for health and fitness physical activities
  
  o Most psychological benefits when for reasons other than appearance
  
  o Empirical research supports that engaging in physical activity training improves body image
  
  o Focus on motivations b-d, as opposed to a, promotes the experience of pleasure and mastery for health related activities

Helpsheet for Change: My Positive Sensate Activities (pg.181)
• These activities fall in the pleasure category (as opposed to mastery)
• Engage in two or three per week

Helpsheet for Change: My Positive Appearance- Oriented Activities (pg 183).

- 3 types of Groomers
  - Insatiable Groomers – groom to hide; minimal to no satisfaction with appearance; constant focus on fixing appearance
  - Gloomy Groomers – do not attend to their appearance because they feel as though nothing they could do would be helpful or they are afraid to draw attention to what they look like
  - Flexible Groomers – balance between the above two extremes; enjoy their looks and use grooming as a way to highlight, or play with their appearance, rather than hide or fix it

- Use Facing-It and Erasing It Strategies from Previous Lessons
- Engage in 2 or 3 per week which you rated as a 2 or 3 for pleasure or mastery on the helpsheet

Mindfulness Exercises for Positive Physical Activities\(^1\)


This can be practiced in any time and place. Begin to focus your attention on your breath. Breathe quietly and more deeply than usual. Be mindful of the position of your body, whether you are walking, standing, lying, or sitting down. Know where you walk, stand, lie, or sit. Be aware of the purpose of your position. For example, you might be conscious that you are standing on a green hillside in order to refresh yourself, to practice breathing, or just to stand. If there is no purpose, be aware that there is no purpose.

2. Awareness While Taking a Slow Motion Bath: Distress Tolerance Handout 4 (Applicable to Sensate Activities)

Allow yourself 30-45 minutes to take a bath. Don’t hurry for even a second. From the moment you prepare bath water to the moment you put on clean clothes, let every motion be light and slow. Be attentive of every movement. Place your attention to every part of your body, without discrimination or fear. Be aware of each stream of water on your body. By the time you’ve finished, your mind will feel as peaceful and light as your body. Follow your breath. Think of yourself as being in a clean and fragrant lotus pond in the summer.

\(^1\) From *Skills Training Manual for Treating Borderline Personality Disorder* by Marsha Linehan. Copyright 1993 The Guilford Press.
FEEL (Feeling Experience Enriches Living)
4 FEEL Steps

1. Select one of your physical activities from your Positive Health and Fitness Activities Helpsheet for Change.

2. Begin your selected health and fitness activity and continue it for 30-60 seconds after physical discomfort begins.

3. Apply your mindful acceptance skills. “Continue to simply observe, with kindness and gentleness, for one or two minutes after you stop each exercise. Simply observe and make space for what you’re experiencing” (Forsyth, Eiffert 2007, p. 219).

4. Reflect on your practice. “Gently reflect on the exercise you just did. Look at your ratings. Did you experience high levels of unwillingness, struggle avoidance? If so, try repeating the exercise again more slowly. As you do, watch for sticky, judgmental thoughts like ‘This isn’t working’ or ‘I can’t stand this anxiety anymore.’ See if you can simply notice these thoughts from your Wise Mind perspective. The next time you do the exercise, approach it from an observer perspective, and when sticky thoughts show up, notice them, and gently say to yourself, ‘I am having the thought that this isn’t working’ or ‘I am having the thought that I can’t stand this anxiety anymore’ or ‘I am having the thought that this is too much.’ Or simply label them all as ‘thinking’” (Forsyth, Eiffert 2007, p. 219). However, there will also likely be pleasurable feelings and thoughts that arise, given that you selected these particular activities based on the satisfaction they provide based on mastery and/or pleasure. Notice these feelings with the same skills with which you notice negative thoughts and feelings that arise.

Follow Up Activity: Affirmative Actions: Affirming Your Changes

- Take an hour to enjoy and reflect on the steps you’ve taken in your body image improvement. Be specific.
  - In what ways are you different in how you think, feel, and behave?
  - Talk about how you feel about these changes.

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2 Adapted from *The Mindfulness & Acceptance Workbook for Anxiety* by Forsyth, J., Eiffert, G. Copyright 2007. Original exercise has 7 steps, but has been modified for the purposes of this DBT Body Image Group.
Appendix C

Curriculum Vita
Andrea Lanier Erb, M.A.

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Education

George Fox University, GPA: 4.0/4.0 Newberg, Oregon
Current Psy.D. student (anticipated graduation-2012)
M.A. Clinical Psychology (2009)

 Messiah College, GPA: 3.97/4.0 Grantham, Pennsylvania
B.S. Nutrition and Dietetics (1996)

Additional Training

Certificate of Primary Care Behavioral Health, University of Massachusetts
June 11, 2010

Awards/Honors

American Dietetic Association Scholarship
Whitaker Scholar (Hershey Medical Center, Hershey, Pennsylvania)
National Merit Scholar
Sigma Zeta, National Science Honor Society

Supervised Clinical Experience/Practicum Experience

Portland State University Student Health and Counseling, Sept. 2009- June 2010 Portland, OR
Position: Assessment Trainee
Conducted interviews and multiple psychoeducational and personality assessments for students with ADHD and learning disabilities. Responsible for writing reports, giving feedback and consulting with other professionals as needed. Participated in one hour of individual supervision and one hour of group supervision weekly.

Portland and Vancouver Veteran Affairs Medical Center, May-August 2009 Portland, OR
Position: Palliative Care Practicum Student and Therapist
Provided individual outpatient and inpatient therapy and assessment for veterans diagnosed with chronic and terminal medical illnesses. Participated in multidisciplinary palliative care team meetings and consulted with medical personnel as needed. This position also involved shadowing the palliative care psychologist, providing co-therapy, and participating in two to three hours of weekly supervision.

George Fox University Health and Counseling Center, August 2008-May 2009 Newberg, OR
Position: Staff Therapist, Practicum Student
Conducted intake assessments and individual therapy for college students. Performed all aspects of therapeutic care for a caseload of 7-12 students weekly, including treatment planning and termination. Participated in weekly 2-hour trainings as well as weekly supervision.

**Portland Dialectical Behavior Therapy (DBT) Center,** August 2008-present Portland, OR  
**Position:** Practicum Student  
Researched and developed curriculum for a mindfulness/DBT body image group based on an existing cognitive-behavioral curriculum. Implemented this curriculum in a weekly body image group for patients diagnosed with an eating disorder and enrolled in Phase II of the Path to Mindful Eating program.

**George Fox University, Prepracticum,** January 2008-May 2008 Newberg, OR  
**Position:** Student Therapist  
Provided simulated psychotherapy to male and female undergraduate students. Conducted intake interviews, psychosocial assessments, and treatment planning, as well as practiced basic therapy techniques and skills. Reviewed videotapes of sessions.

**Teaching/Mentoring Experience**

**Teaching Assistant for Personality Assessment Class** Spring 2010  
Assisted professor in preparing lectures and grading assessment reports. Prepared and delivered lectures in the professor’s absence. Also met with students to assist with interpretation and report-writing.

**Additional Work Experience**

**Polyclinic Hospital** Harrisburg, Pennsylvania  
**Community General Hospital** Harrisburg Pennsylvania  
**Positions:** Dietetic Technician/Staff Dietitian, 1996-1998  
Performed nutrition assessments and care planning for acute, subacute, and extended care patients. Participated in weekly goal-planning conferences for patients on a multidisciplinary team. Educated patients regarding diet and nutrition. Acted as food service manager and consultant dietitian on weekends.

**Pennsylvania State University/Hershey Medical Center** Hershey, Pennsylvania  
**Position:** Fellow, Whitaker Scholar Program, Summer 1995  
Developed research methodology and assisted in statistical analysis. Participated in research team meetings and organized data into a poster presentation. Research focused on the mapping of the human SP-A gene locus.

**North Carolina State University Department of Food Science** Raleigh, North Carolina  
**Position:** Research Assistant, Summer of 1993 and 1994  
Researched the effect of protein hydrocolloids on chocolate milk stability and explored the use of whey protein as a fat substitute. Assisted in organization of data into written format.

**Additional Skills and Experience**
Enhancing Effectiveness of DBT with Body Image Group Treatment

Shepherdstown and Upper Allen Elementary Schools  
*Parent Volunteer*  
Mechanicsburg, Pennsylvania

Charles F. Tigard Elementary School  
*Parent Volunteer*  
Tigard, Oregon

Assisted in classroom activities, led centers with the children, assisted with class parties, and chaperoned field trips.

Mechanicsburg Brethren in Christ Church  
*Leadership Team, Celebrate Recovery*  
*Preschool Sunday School Teacher*, 10 years  
Mechanicsburg, Pennsylvania

Presentations/Publications and Research


**McMinn, M., Bearse, J., Smithberger, A., Heyne, K., & Erb, A.** (2010). Technology and practice: Ethical considerations. *Poster presented at the APA National Convention, Division 12, held in San Diego, CA.*

**Erb, A. L., Mueller, R., & Castle, S.** (2009). Integrating mindfulness into a cognitive-behavioral curriculum for a body image group within a DBT framework. *Poster accepted for the International Conference on Eating Disorders in Cancun, Mexico; conference cancelled due to the H1N1 virus outbreak.*


Professional Development

Sept. 2009-present  
*Psychodynamic Case Consultation Group*  
Facilitator: Kurt Free, Ph.D.  
Hillsboro, Oregon

October 2009  
*Multicultural Counseling: An Alternative*  
Presenter: Carlos Taloyo, Ph.D.  
Newberg, Oregon

September 2009  
*Time-Limited Psychodynamic Psychotherapy*  
Presenter: Hanna Levenson, Ph.D.  
Eugene, Oregon
Enhancing Effectiveness of DBT with Body Image Group Treatment

April 2009

*Understanding Learning Styles and Meeting the Needs of Students with Autism-Spectrum Disorders*

Presenter: Gary Mesibov, Ph.D.
Newberg, Oregon

October 2008

*Toward a Global Christian Psychology*

Presenter: J. Derek McNeill, Ph.D.
Newberg, Oregon

June 2008

*WAIS-IV: An Overview*

Presenter: Larry Weiss, Ph.D.
Newberg, Oregon

May 2008

*Mindfulness: The Third Pathway in Trauma Resolution; A Relational Cognitive-Behavioral Approach to Complex Trauma in Adolescents, Parts I and II*

Annual Conference of the Oregon Psychological Association
Presenter: John Briere, Ph.D.
Portland, Oregon

February 2008

*The Psychology of Forgiveness in Clinical Practice*

Presenter: Nathaniel Wade, Ph.D.
Newberg, Oregon

November 2003

*Imago Therapy Workshop*
Phila, Philadelphia, Pennsylvania

August 2003

*Family Systems and Codependency*
Caron Foundation

Wernersville, Pennsylvania

**Professional Memberships**

Student Member, American Psychological Association
Student Member, Oregon Psychological Association

**Selected Relevant Graduate Coursework**

**Therapy**

Clinical Foundations of Treatment, II and I
Cognitive Behavioral Psychotherapy
Psychodynamic Psychotherapy
Family and Couples Therapy
Spiritual and Religious Diversity in Psychotherapy

Multicultural Psychotherapy
Play Therapy
Object Relations Therapy
Integrative Psychotherapies

**Assessment**

Personality Assessment
Cognitive and Intellectual Assessment

Projective Assessment
Neuropsychological Assessment

**Other**

Psychopathology
Personality Theories

Psychology of Shame
Human Sexuality and Dysfunction
Assessments Administered

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<th>Personality/Clinical Syndrome Tests</th>
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<td>Thematic Apperception Test</td>
<td>Rey-Osterreith Complex Figure Drawing Test</td>
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<td>House-Tree-Person</td>
<td>Boston Naming Test</td>
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<td>Minnesota Multiphasic Inventory, 2nd Edition</td>
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<td>Woodcock-Johnson Tests of Achievement, 3rd Edition</td>
<td>Personality Assessment Inventory</td>
<td>California Verbal Learning Test-II</td>
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<td>Wechsler Individual Achievement Test, 2nd Edition</td>
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<td>Wide Range Achievement Test, 4th Edition</td>
<td>Anxiety Disorders Interview Schedule</td>
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References

Jennifer Dahlin, Psy.D
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Clinical Supervisor, Portland/Vancouver VA Medical Center
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