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Consumed by consumption: A mindfulness-based intervention for binge eating disorder

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Consumed by consumption: A mindfulness-based intervention for binge eating disorder

Abstract

The consequences of binge eating can be both physically and emotionally detrimental. Empirically supported approaches for the treatment of binge eating disorder (BED) exist, however, they may not be effective for all clients and alternative approaches may be necessary. Mindfulness-based methods for the treatment of eating disorders have been gaining empirical support and may be an alternative approach that merits attention. This study describes the use of a mindfulness-based treatment for a client with BED. Post-treatment data did not indicate a reduction in binge eating, increased levels of mindfulness or an increase in general life satisfaction. Possible explanations for these findings are explored.

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CONSUMED BY CONSUMPTION: A MINDFULNESS-BASED INTERVENTION FOR
BINGE EATING DISORDER

A THESIS

SUBMITTED TO THE FACULTY

OF

SCHOOL OF PROFESSIONAL PSYCHOLOGY

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ABSTRACT

The consequences of binge eating can be both physically and emotionally detrimental. Empirically supported approaches for the treatment of binge eating disorder (BED) exist, however, they may not be effective for all clients and alternative approaches may be necessary. Mindfulness-based methods for the treatment of eating disorders have been gaining empirical support and may be an alternative approach that merits attention. This study describes the use of a mindfulness-based treatment for a client with BED. Post-treatment data did not indicate a reduction in binge eating, increased levels of mindfulness or an increase in general life satisfaction. Possible explanations for these findings are explored.

Keywords: eating disorder, binge eating disorder (BED), mindfulness, case study, mindfulness-based intervention, obesity

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INTRODUCTION

The *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed. (DSM-IV-TR) currently recognizes three categories of eating disorders: anorexia nervosa (AN), bulimia nervosa (BN), and eating disorder not otherwise specified (EDNOS; American Psychiatric Association, 2000). Binge eating disorder (BED) is a provisional diagnosis that has been proposed as a criteria set for further study. The current DSM-IV-TR classification system recognizes BED as a subtype of EDNOS. It is generally believed that BED is more common than AN or BN (Fairburn & Harrison, 2003). Obesity, which is associated with a substantially higher prevalence of BED, is a particularly pressing issue (Singh et al., 2008, Smith et al., 1998).

The prevalence of obesity in the United States has increased by 110% over the past 20 years (Leahey, Crowther, & Irwin, 2008). A number of factors that contribute to an individual's overall well-being are negatively effected by obesity, including social, emotional, and physical health. Obesity is a consequence of overeating that involves an assortment of serious health risks including respiratory problems, hypertension, sleep apnea, type 2 diabetes, skin problems, infertility, cancer, cardiovascular disease and premature death (Bray, 2004; Singh et al., 2008; World Health Organization [WHO], 2000). Various industrialized countries stigmatize obesity in terms of its seemingly unfavorable physical appearance and the associated character defects obesity supposedly indicates (WHO, 2000). For example, Staffieri (1967) found that children described the silhouette of an obese individual with words like "lazy", "stupid", or "ugly", more often than drawings of other body types. Accordingly, obese individuals generally detest their bodies, feeling simultaneously detached from them and defined by them (Kristeller, 2003).

In addition to the aforementioned concerns, obesity has notable financial consequences. In several international studies, conservative estimates of the economic costs of obesity ranged

from 2% to 7% of total health care costs (WHO, 2000). This indicates that obesity is one of the largest expenses in national health care budgets. In 1990, the estimated cost of obesity in the United States (U.S.) was \$68.8 billion (Wolf & Colditz, 1994). The direct cost of obesity-related illnesses accounted for 45.8 billion of this amount. The remaining 23 billion was an estimate of indirect costs such as loss of productivity or premature death. Given the array of risks associated with obesity, it is essential to examine factors that contribute to this epidemic. One such contributor of prominent concern is BED. The prevalence of BED in individuals seeking treatment for obesity ranges from 15 % to 50% (Latner & Clyne, 2008). Below is an overview of EDNOS followed by a detailed look at BED as a subtype of the EDNOS diagnosis.

Eating Disorder Not Otherwise Specified

Individuals with EDNOS do not meet criteria for AN or BN, but demonstrate clinically significant distress or impairment related to eating behavior (American Psychiatric Association, 2000). Often their symptoms may resemble AN or BN, but at a subthreshold level. Similar to AN and BN the primary focus of EDNOS typically involves an overestimate of shape or weight. Controlling food intake may also be a prominent concern (see Table 1).

Binge Eating Disorder

The symptoms associated with BED are included in the DSM-IV-TR as a criteria set for further study (see Table 2). As is the case with other criteria sets and axes for further study, there is “insufficient information to warrant inclusion of these proposals as official categories or axes in the DSM-IV” (American Psychiatric Association, 2000, p. 759). BED is typified by frequent, uncontrolled consumption of large amounts of food in a discrete period of time and is associated with psychiatric comorbidity, weight cycling, and severe obesity (American Psychiatric Association, 2000; WHO, 2000). Individuals with BED often feel that their eating behaviors are

Table 1

Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) Criteria for Eating Disorder Not Otherwise Specified

The Eating Disorder Not Otherwise Specified category is for disorders of eating that do not meet the criteria for any specific Eating Disorder. Examples include

1. For females, all of the criteria for Anorexia Nervosa are met except that the individual has regular menses.
 2. All of the criteria for Anorexia Nervosa are met except that, despite significant weight loss, the individual's current weight is in the normal range.
 3. All of the criteria for Bulimia Nervosa are met except that the binge eating and inappropriate compensatory mechanisms occur at a frequency of less than twice a week or for a duration of less than 3 months.
 4. The regular use of inappropriate compensatory behavior by an individual of normal body weight after eating small amounts of food (e.g., self-induced vomiting after the consumption of two cookies).
 5. Repeatedly chewing and spitting out, but not swallowing, large amounts of food.
 6. Binge-eating disorder: recurrent episodes of binge eating in the absence of the regular use of inappropriate compensatory behaviors characteristic of Bulimia Nervosa
-

Table 2

Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) Research Criteria for Binge Eating Disorder

- A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
- 1) eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat in a similar period of time under similar circumstances
 - 2) a sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating)
- B. The binge-eating episodes are associated with three (or more) of the following:
- 1) eating much more rapidly than normal
 - 2) eating until feelings uncomfortably full
 - 3) eating large amounts of food when not feeling physically hungry
 - 4) eating alone because of being embarrassed by how much one is eating
 - 5) feeling disgusted with oneself, depressed, or very guilty after overeating
- C. Marked distress regarding binge eating is present
- D. The binge eating occurs, on average, at least 2 days a week for 6 months
- E. The binge eating is not associated with the regular use of inappropriate compensatory behaviors (e.g., purging, fasting, excessive exercise) and does not occur exclusively during the course of Anorexia Nervosa or Bulimia Nervosa
-

out of control and their binges result in marked distress. It has been suggested that binge-eating behaviors are primarily triggered by emotional distress, brought on by an assortment of stressors (Wiser & Telch, 1999). Binge eating potentially serves as a distraction or escape from unwanted thoughts and emotional experiences (Arnou, Kenardy, & Agras, 1992). Experiential avoidance has been hypothesized to be one of the primary maintenance factors underlying BED (Kristeller, Baer, & Quillian-Wolever, 2006).

The similarities between BED and other eating disorders are fairly limited. BED shares binge eating as a diagnostic symptom with BN, but in BED binge eating is not a response to dietary restraint or weight control (American Psychiatric Association, 2000). In addition, individuals with BED do not engage in standard compensatory behaviors such as laxative use, vomiting, or excessive exercise. In BED, binge eating tends to be a pattern of eating behavior that primarily affects an older age group (Barry, Grilo, & Masheb, 2002). Individuals with BED generally range from normal weight to obese (Baer, Fischer, & Huss, 2005).

The consequences of binge eating can be emotionally and physically detrimental. For example, binge eating is associated with guilt and distress, as well as weight gain and obesity (Yanovski, 2003). Individuals with BED may lack emotional awareness or have difficulty regulating their intake of food (Fairburn & Wilson, 1993). Weight fluctuation and caloric intake increase with binges, putting obese binge eaters at an additional risk for the physical consequences of obesity. Furthermore, obese binge eaters tend to have more severe psychological issues and impaired health-related quality of life than obese individuals who do not binge (Rieger, et al., 2001; WHO, 2000). Nonetheless, reservations remain about BED as a distinct clinical disorder. Factors such as frequent psychiatric comorbidity and a lack of agreement on what defines a binge have drawn into question whether a BED diagnosis is

warranted (Stunkard & Allison, 2003).

Treatment of BED

Well-established interventions for the treatment of binge eating include cognitive-behavioral therapy (CBT; Agras et al., 1994) and interpersonal therapy (IPT; Agras et al., 1995). These treatments employ empirically supported methods for changing the maladaptive emotions and behaviors associated with BED (Baer, Fischer, & Huss, 2005). CBT utilizes techniques such as self-monitoring, stimulus control procedures, self-reinforcement, goal setting, problem solving, and cognitive restructuring. Generally the therapist takes a highly structured and active approach. Clients are taught to identify the dysfunctional thoughts and behaviors involved in binge eating and to challenge the maladaptive cognitions that maintain their binge-eating behavior. In addition, they learn to monitor eating habits and to utilize problem-solving skills to address stressors that they have identified as triggers for problematic eating.

Understanding the connection between binge eating and emotions may be accomplished in CBT by keeping a journal to record food consumption and thoughts related to eating and weight. In addition, CBT for BED may involve psychoeducation about balanced nutrition, the importance of regular meals and snacks, and other factors relating to physical health. Though CBT strategies have proven helpful in reducing binge eating episodes, they have not been successful in facilitating weight loss (Peterson & Mitchell, 1999). Therefore, behavioral weight loss strategies have been integrated into some treatment programs.

IPT for BED focuses on interpersonal issues that are maintaining or contributing to binge eating, because as Birchall (1999, p. 316) suggests, “interpersonal problems may not only precipitate, but also perpetuate, an eating disorder.” One of the primary goals in IPT is to develop communication skills that will lead to healthier relationships. This is accomplished

through three stages. The first stage involves education about the diagnosis, a detailed report of the client's interpersonal relationships, and a decision to focus on one of four distinct problems: (a) grief, (b) role transitions, (c) interpersonal role disputes, or (d) interpersonal deficits (Birchall, 1999). The second stage involves work on the identified problem area, generally following a specific set of strategies unique to each problem. The final stage includes an effort to help the client acknowledge their personal capabilities and an explicit discussion about therapy coming to a close. In dealing with their interpersonal struggles, the client can learn how to appropriately solicit emotional support from their social network. As relationships improve and a system of support begins to develop, the urge to binge ideally decreases in frequency and intensity.

Although CBT and IPT have empirical support for the treatment of BED, these interventions are not successful with all individuals (Smith, Shelley, Leahigh, & Vanleit, 2006) and alternative approaches may be necessary. Acceptance-based methods for the treatment of eating disorders have been gaining empirical support (e.g., Wilson, 1996). In particular, mindfulness-based approaches may be an alternative that merits attention. Mindfulness meditation involves moment-to-moment self-awareness that is focused and non-judgmental (Kabat-Zinn, 1994). Such practices promote self-acceptance and physiological awareness that may increase an individual's ability to self-regulate and to make adaptive decisions (Kristeller & Hallett, 1999). Moreover, mindful eating has been found to contribute to physical and mental well-being (Albers, 2002).

Mindfulness

Definitions

Recently, mindfulness has generated interest as a technique and concept. The term mindfulness has accumulated a number of definitions in the research literature. Germer (2005) noted that mindfulness was translated from the Pali word *sati* that “connotes awareness, attention, and remembering” (p. 5). As a therapeutic intervention, Germer defined mindfulness as, “awareness of present experience with acceptance” (p.7). He further stated that mindfulness could be used to describe a theoretical construct, a psychological process, and/or a practice. Similarly, Kabat-Zinn (2003) defined mindfulness as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (p. 145). He stated that mindfulness is an inherent human capacity that is central to the teachings of Buddha. It necessitates consistent inquiry and cultivates profound insight into the nature of the mind (Kabat-Zinn, 2003).

Accordingly, mindfulness is frequently taught through the practice of meditation. Meditation has commonly been portrayed as relaxation technique, while it may be more accurately understood as a process that enhances self-awareness, reduces emotional reactivity, and integrates various aspects of human functioning (Kristeller, 2003). Meditation involves the cognitive skill of focusing attention at will where “participants learn to observe the thoughts, emotions, and sensations that arise without evaluating their truth, importance, or value, and without trying to escape, avoid, or change them” (Baer, Fischer, & Huss, 2005, p. 351). Mindfulness facilitates the process of learning restraint and flexibility. Mindfulness meditation does not impose meaning, but emphasizes non-reactive observation of the mind as the pathway to wisdom (Kristeller, 2003).

Engstrom (2007) noted that mindfulness must be practiced, but is not confined to extended meditation. He described mindfulness as a technique that can be done at any time

during a variety of activities by bringing awareness to the present moment. For example, mindfulness can be practiced while lying, sitting, standing, walking, or eating. Germer (2005) identified eight qualities that are simultaneously present in moments of mindfulness. He stated that mindful moments are: 1) nonconceptual, 2) present-centered, 3) nonjudgmental, 4) intentional, 5) participant observed, 6) nonverbal, 7) exploratory, and 8) liberating. According to Kabat-Zinn (2003), the role mindfulness plays “in deep inquiry and the cultivation of insight have led some to argue that mindfulness provides a unique perspective that can inform critical issues in cognitive science, neurophenomenology, and attempts to understand the cognitive underpinnings of the nature of human experience itself” (p. 146). Similarly, Germer (2005) noted a prospective role that mindfulness might play in the therapeutic arena. He suggested that mindfulness is headed in a direction that unifies clinical theory, practice, and research.

If relevant aspects of mindfulness are identified and cultivated, a model of psychotherapy will emerge with interesting possibilities. Research is on target for recognizing mindfulness as an essential component of treatment protocols, as a tool for clinicians to promote personal well-being, and as a key element in the therapeutic relationship (Germer, 2005).

Mindfulness-Based Treatments

Mindfulness-Based Stress Reduction (MBSR). Jon Kabat-Zinn developed MBSR in 1979 at the University of Massachusetts Medical Center. The intention for the program was to be an avenue for relief from pain and chronic suffering. An additional objective was for the program to serve as a model for additional hospitals and other applicable contexts, which it undoubtedly has (Kabat-Zinn, 2003). Participants in the MBSR program are trained in various meditative practices that facilitate the development of mindfulness.

The clinic, in the form of an 8-week course for outpatients, was meant to serve as an

educational (in the sense of inviting what is already present to come forth) vehicle through which people could assume a degree of responsibility for their own well-being and participate more fully in their own unique movement towards greater levels of health by cultivating and refining our innate capacity for paying attention and for a deep, penetrative seeing/sensing of the interconnectedness of apparently separate aspects of experience, many of which tend to hover beneath our ordinary level of awareness regarding both inner and outer experience (Kabat-Zinn, 2003, p. 149).

Participants are taught to change their relationship to their thoughts and feelings by becoming more aware of them. Thoughts are recognized as mental events, instead of factual information or reflections of selfhood. Rather than falling into negative patterns of thinking during stressful situations, mindfulness gives the individual mental and emotional distance to make calm and skillful decisions (Bishop, 2002). The practice of meditation in MBSR emphasizes observing each thought or feeling without judgment or a need to respond. The format is highly experiential and includes psychoeducational components that address the psychophysiology of stress and emotions (Bishop, 2002). Weekly homework is assigned that involves formal and informal practices of meditation.

Mindfulness-Based Cognitive Therapy (MBCT). The success of the MBSR program prompted the inclusion of mindfulness in the development of mindfulness-based cognitive therapy (MBCT) to prevent depressive relapse (Segal, Williams & Teasdale, 2002). The MBCT program stemmed from Kabat-Zinn's work and used the eight-week MBSR program as a model. In the MBCT program, individuals are trained in mindfulness to identify and observe thoughts as they occur. Individuals learn to view mental content from a detached and nonjudgmental perspective. Mindfulness exercises heighten purposeful awareness, which combats depression by

taking up limited cognitive resources (Segal et al., 2002). The mind is essentially starved of the means it needs to maintain negative thoughts or rumination.

Additionally, the purposeful awareness of thoughts, feelings, and sensations can help patients learn to recognize early warning signs of depression, and potentially prevent a major depressive episode (Segal et al., 2002). Purposeful awareness is also an alternative method of decentering, which is considered an essential skill for relapse prevention in cognitive therapy. MBCT is not a problem solving approach per se; instead mindfulness provides individuals space to look at a problem more clearly. By bringing awareness to a particular difficulty, it can be addressed in a deliberate and skillful manner. If a thought, feeling, or sensation becomes too intense, the individual can return to their breath as a neutral and secure focus (Segal et al., 2002).

As in MBSR, mindfulness allows individuals in MBCT to change their relationship to their thoughts and sensations. Deeply rooted patterns of the depressive experience are changed by providing an alternative perspective (Segal et al., 2002). New experiences for the mind and body accumulate to counteract old models that contributed to depressive relapse. MBCT incorporates mindfulness with the aim of teaching individuals how to recognize and disengage from self-perpetuating negative thought while integrating various coping strategies to prevent relapse.

Dialectical Behavior Therapy (DBT). DBT is a behavioral approach originally developed by Marsha Linehan for the treatment of borderline personality disorder (BPD), particularly those with chronic suicidality and other self-destructive behaviors related to problems with emotion regulation. Several modifications were made to the standard behavior therapy (BT) approach to accommodate the unique needs of individuals with BPD (Linehan, 1993). The strong emphasis on change in BT alone was found invalidating by some. Therefore, Linehan incorporated

mindfulness strategies into DBT that indicated acceptance of the client's current capabilities. The entirety of treatment focuses on balancing validation and change.

DBT is generally conducted in skills training groups. Four main modules are covered in the group context. Mindfulness skills are introduced as module one and are taught during the first two to three group sessions. Mindfulness skills are considered core to the development of skills in the three modules to follow (interpersonal effectiveness, emotional regulation, and distress tolerance) and are revisited as each module is introduced (Germer, 2005; Robins, 2002). The goals of mindfulness practice are presented and discussed during the mindfulness skills module and participants engage in a variety of practice exercises (Robins, 2002).

The concept of "wise mind" as an assimilation of "emotion mind" and "rational mind" is introduced early in DBT (Robins, 2002). Mindfulness practice is conveyed as a technique by which thoughts and emotions settle and the wise mind can be heard (Robins, 2002). Furthermore, DBT distinguishes between "what" and "how" mindfulness skills. The three what skills include observing, describing, and participating and the three how skills are nonjudgmentally, one-mindfully, and effectively (Robins, 2002). DBT utilizes short mindfulness practices and is primarily focused on helping individuals engage in interpersonally successful lives. Similar to MBSR and MBCT, a number of skills from DBT are derived from the Zen tradition, such as focusing awareness on the present, engaging in one thing at a time, and practicing nonjudgment (Germer, 2005). In addition, distress-tolerance skills teach participants to accept their current experience and to tolerate distress without immediately relieving it in habitually impulsive or maladaptive ways (Robins, 2002).

Mindfulness-Based Treatments for Binge Eating Disorder

Mindfulness-based eating awareness training (MB-EAT) was developed to address issues

specific to weight, shape, and self-regulation as it pertains to food intake (Kristeller & Hallett, 1999). The treatment combines guided eating meditations with components of CBT and MBSR. Meditation is taught formally and is integrated into the daily experience of food cravings and consumption (Kristeller et al., 2006). In the MB-EAT program, mindfulness is a tool that allows participants to recognize physiological cues, separate themselves from distressing reactivity, and make healthier food choices. The guided eating meditations focus on nonjudgmental awareness of thoughts and sensations associated with hunger, satiety, and binge triggers (Kristeller et al., 2006). Mindfulness-based interventions address the physical and psychological complexities associated with eating disorders by increasing general self-regulation (Kristeller et al., 2006).

Researchers have begun to explore the use of mindfulness-based treatments such as MB-EAT specifically for the treatment of BED. For example, Kristeller and Hallett (1999) conducted a study to evaluate the efficacy of a meditation-based group intervention for BED. A total of 18 women who met criteria for BED participated in seven treatment sessions. The treatment sessions involved practice in general mindfulness meditation, eating meditation, and mini-meditations. The Binge Eating Scale (BES; Gormally, Black, Daston, & Rardin, 1982), Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), and Beck Anxiety Inventory (BAI; Beck & Steer, 1987) were administered five times throughout the study: (a) at the initial screening, (b) on the first day of the group, (c) prior to the fourth session, (d) on the last day of the group, and (e) at a 3-week follow-up. Additionally, participants completed weekly reports detailing their time spent in meditation and their binge-eating behaviors. Results indicated that scores on the BES, BAI, and BDI were significantly reduced over the course of treatment. The number of binges reported per week dropped significantly as well. Based on these results, Kristeller and Hallett concluded that meditation, which involved

nonjudgmental awareness of the self, was an essential component to the success of the intervention. The authors cautioned, however, that the findings were based on a small sample size and an exploratory design.

Smith, Shelley, Leahigh, and Vanleit (2006) tested the effectiveness of an MBSR intervention for reducing binge eating. Participants in the study did not necessarily meet criteria for BED. A total of 25 men and women completed the eight-week course. Participants attended weekly sessions that involved breathing exercises, body scans, meditation, and yoga, as in the standard MBSR course, as well as several mindful eating exercises that were not part of the standard curriculum. The Mindful Awareness Attention Scale (MAAS; Brown & Ryan, 2003), State Anxiety scale of the State-Trait Anxiety Inventory (Spielberger, 1983), BES, and BDI were administered before and after the course. Participants showed a significant reduction in binge-eating episodes following treatment. In addition, anxiety and depressive symptoms declined, while receptive awareness of present-moment experience increased. Smith et al. concluded that reduced binge eating appeared to be related to increased self-acceptance and lowered anxiety; however, the authors noted that methodological flaws limited the conclusions that can be drawn from the study. For example, volunteers were obtained through a procedure that resulted in a small, nonrandom sample that was not representative of a broader population of individuals who engage in binge eating (i.e., participants were primarily affluent, college-educated females). Furthermore, no reference was made to the ethnic composition of the sample.

Similar to the Kristeller and Hallett (1999) and Smith et al. (2006) studies, Baer, Fischer, and Huss (2005) examined the value of MBCT for BED treatment. The participants consisted of six women who met full criteria for BED. Treatment followed an adapted version of the standard MBCT protocol with binge-eating components. Five mindfulness exercises were practiced and

discussed over a period of 10-sessions: (a) body scans, (b) mindful stretching, (c) mindful eating, (d) sitting meditation, and (e) short periods of mindful awareness. A number of sessions included behavior change strategies and cognitive therapy exercises as well. Results indicated that binge-eating behaviors and concerns decreased for all participants. The Kentucky Inventory of Mindfulness Skills (KIMS; Baer, Smith, & Allen, 2004) was used to assess two components of mindfulness: observation and nonjudgmental acceptance. Scores on the KIMS reflected an increase in both the observation and acceptance of thoughts, feelings, and perceptions. Small increases in weight concern were noted post-treatment. To explain this finding, Baer et al. (2005) suggested that participants continued to have negative thoughts about their shape and weight because the intervention did not target thought content or negative emotions. After treatment, participants were able to refrain from binge eating but did not experience a change in their weight or in their ability to manage negative affect.

To summarize, several mindfulness-based group therapies have been studied as potential treatment options for disordered eating. In particular, MB-EAT, MBSR, and MBCT have been evaluated as interventions for binge eating (Baer et al., 2005; Kristeller & Hallett, 1999; Smith et al., 2006). Despite some limitations in the aforementioned studies, the combined results suggest that mindfulness is a promising component for the treatment of BED. Seemingly uncontrollable thoughts drive the compulsions and obsessions common in eating disorders and are perceived as an innate aspect of selfhood (Kristeller, 2003). Mindfulness presents an empowering opportunity to see thoughts as thoughts, separate from the reactions that habitually follow. The process of disengaging from compulsions reinstates an individual's ability to be in control of their choices and leads to an improved sense of self (Kristeller, 2003).

The aim of the following case study was to further clarify the strengths and limitations of mindfulness meditation as a treatment component for BED, particularly when used in individual treatment. Therefore the hypotheses in this exploratory study were that an individual mindfulness-based treatment would result in:

1. A reduction in binge eating episodes
2. A clinically significant increase in mindfulness
3. A clinically significant increase in satisfaction with life

METHOD

Client Characteristics and Presenting Problems

Ellen is a multiracial, bi-sexual female in her early 20s. During treatment she was living with her partner and attending college part-time. She reported difficulties with school and cycles of negative self-talk. Ellen stated that she engaged in patterns of destructive behavior throughout her life, which she attributed to low-self esteem. She reported that she was “stuck in a rut of self-doubt, blame, and criticism.” She expressed difficulty asserting her ideas and knowing when something was true for her. Ellen had moved approximately 6 months prior to treatment. Long-term dissatisfaction with her body intensified at the time of the move, at which point she began engaging in binge eating. Ellen approximated a 15-20 pound weight gain within that 6-month time frame. She stated that purging, in the form of vomiting, intermittently followed binges. Ellen identified cooking as one of her strengths, but indicated that she was no longer cooking for fear that it would trigger a binge. Ellen also identified “feeling good” and conversations about her weight or body as binge triggers. She reported that she constantly feels judged by her physical appearance. At the time of treatment, Ellen was not involved in any other mental health or weight loss program.

Assessment Procedures

Clinical Interview. In the intake interview, Ellen described experiencing symptoms of binge eating disorder and mild depression. Her depressive symptoms included weight gain, fatigue, indecisiveness, and feelings of worthlessness. She did not meet criteria for major depressive disorder, though she reported a general sense of dissatisfaction with her life. She stated occasional suicidal ideation, but denied any plan or intention of committing suicide. Ellen also denied any drug or alcohol use at the time of treatment. Ellen met full criteria for BED.

Although she endorsed purging behaviors, they were not regular and consistent enough to warrant a BN diagnosis or to rule out the BED diagnosis. Ellen reported marked distress about frequent binges during which she experienced a lack of control over how much she ate. She consumed food rapidly and would eat until feeling uncomfortably full, to the point of immobility. Binges took place privately due to embarrassment and would be accompanied by a sense of shame and disgust. She reported an average of 7-10 binge episodes a week.

Mindfulness. The Mindful Attention Awareness Scale (MAAS; see Appendix B) is a 15-item questionnaire in which respondents indicate on a 6-point Likert-type scale (1 = *almost always* to 6 = *almost never*) their level of awareness and attention to present events and experiences (Brown & Ryan, 2003). Sample MAAS items include “I find it difficult to stay focused on what’s happening in the present” and “I do jobs or tasks automatically, without being aware of what I’m doing.” A mean rating score is calculated with higher scores indicating greater mindfulness. The MAAS shows a good range of internal consistency across several samples ($\alpha = .80 - .87$) and excellent test re-test reliability over a 1-month time period ($r = .81$). The MAAS also exhibits adequate convergent validity; as expected it correlates negatively with measures of anxiety and depression and positively with measures of positive affect and self-esteem (Brown & Ryan, 2003).

Satisfaction with Life. The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985; see Appendix C) is a 5-item measure that is widely used to represent the cognitive evaluation of subjective well-being. Sample items include, “In most ways my life is close to my ideal” and “The conditions of my life are excellent.” All items on the SWLS are scored on 7-point Likert-type scales (1 = *strongly disagree* to 7 = *strongly agree*). Among a

college student sample, alpha coefficient was .87 and the test-retest reliability over a two-month interval was excellent ($r = .82$).

Binge Eating. An episode of binge eating was defined as a discrete period of time in which an amount of food is consumed that is larger than what most people would eat in a similar period of time under similar circumstances (American Psychiatric Association, 2000). Binge eating episodes were assessed by Ellen's self-report.

Each week of treatment, and one week post-treatment, Ellen completed the MAAS, SWLS, and self-report of binges from the past week.

Case Conceptualization and Treatment

Ellen experienced patterns of emotional eating and overeating. Such patterns implied underlying dissatisfaction and contributed to her inability to self-regulate. Ellen reported feeling distracted and distressed by issues related to her weight and shape. Efforts to control her food intake generally resulted in frustration. Attempts to restrict her diet led to a feeling of deprivation that frequently resulted in a binge. Ellen also appeared unable to identify feelings of hunger or satiety. Although binges provided an initial sense of comfort, they were immediately followed by guilt and self-defeating thoughts. Consequently, Ellen would once again deprive herself, maintaining the pattern that ultimately resulted in repeated binging. Mindfulness meditation appeared to be a well-suited fit for Ellen, given the focus on heightening awareness and disengaging from reactivity and undesirable behavior.

Treatment was administered in an 8-session format following the basic procedures of Proulx (2008; see Appendix A). Proulx's mindfulness-based eating disorder treatment group (M-BED) adapted components of MBSR and MB-EAT. In this study, sessions were conducted one-on-one, for two hours once a week. The experiential component of treatment included sitting

meditation, body scan meditation, yoga, loving-kindness meditation, eating awareness training, walking meditation, wisdom meditation, and mini-meditations. Eating exercises were aimed at observing the beliefs and behaviors associated with food, with the intention of achieving a detached awareness.

Each session began with a review of activities and homework from the previous week. Specifically, we explored any progress or difficulties encountered. A new theme was introduced each week related to overcoming binge eating, such as awareness of tendencies towards perfectionism and control, interpretation of media and cultural messages, recognition of the influence of interpersonal relationships, and identification of binge triggers. Homework included daily meditation and mindful-eating exercises.

RESULTS

To test hypothesis one, Ellen's frequency of binge eating episodes were tracked weekly throughout treatment. As shown in Figure 1 she reported binge eating throughout treatment once a day on average, with the exception of the third week and one week post-treatment.

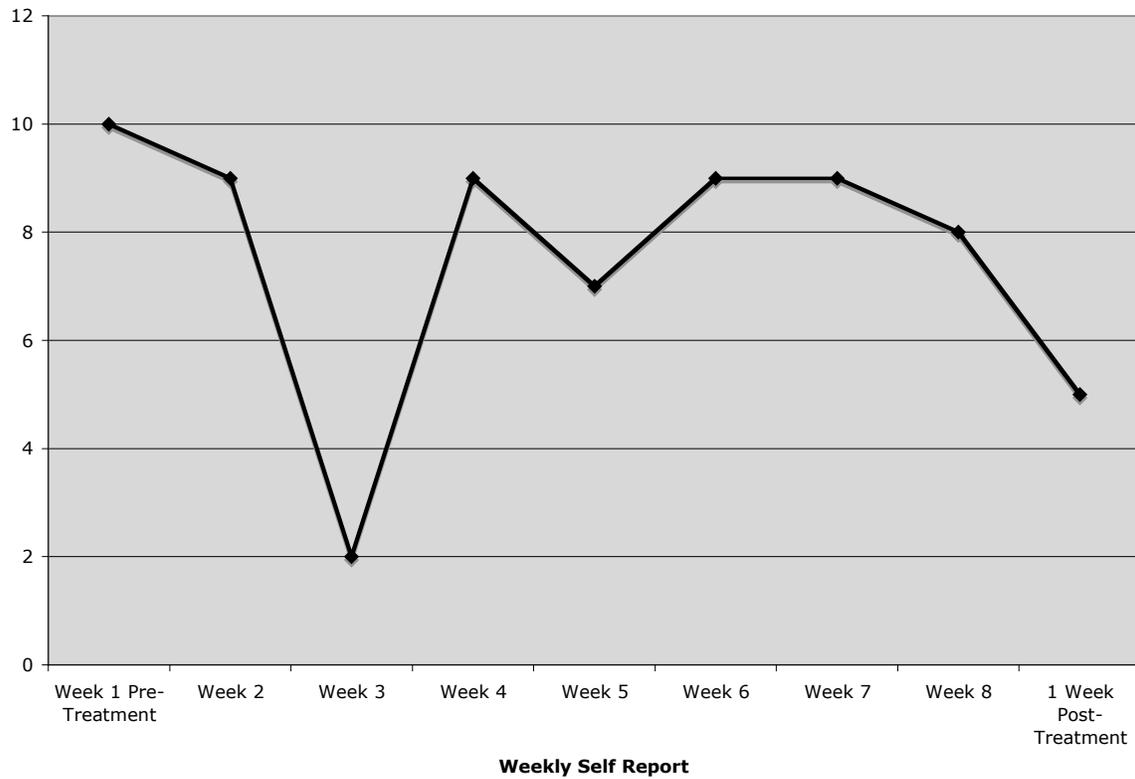


Figure 1. Changes in reported binges over the course of treatment.

To test hypotheses two and three, pre- and post-treatment scores on the MAAS and SWLS were evaluated for clinical significance using the methods described by Jacobson, Roberts, Berns, and McGlinchey (1999). Clinical significance was calculated by examining reliable change scores and cutoff points using the formulas below. Reliable change scores determine whether the amount of change that occurred was unlikely due to error, and cutoff points determine whether the participant's post-treatment scores were closer to non-clinical or normal functioning than to the clinical population (Jacobson et al., 1999).

$$RC = \frac{x_{post} - x_{pre}}{\sqrt{2}(s_{pre} \sqrt{1 - r_{test/retest}})}; c = \frac{s_{non-clinical}M_{clinical} + s_{clinical}M_{non-clinical}}{s_{clinical} + s_{non-clinical}}$$

The measure of reliable change for the participant's scores on the MAAS did not exceed 1.96; the amount necessary to deem the change in scores as unlikely due to measurement error. Therefore her scores did not reflect a clinically significant change in present-moment awareness and attention (see Figure 2).

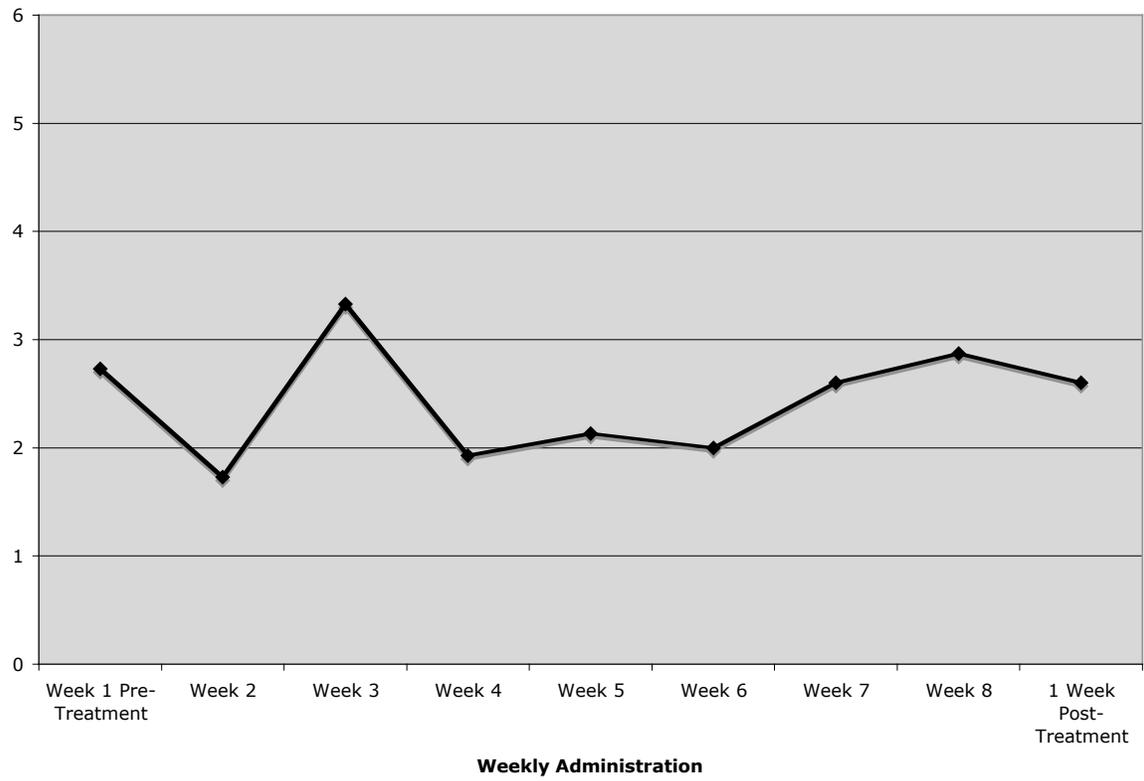


Figure 2. Changes in Mindful Attention Awareness Scale scores over the course of treatment.

As shown in Figure 3, the client's scores on the SWLS over the course of treatment fluctuated fairly dramatically. The measure of reliable change for the participant's scores on the SWLS did exceed 1.96; however, it was in the opposite direction of what was hypothesized. The direction of the results suggests that the client's general life satisfaction deteriorated over the course of treatment (Jacobson et al., 1999).

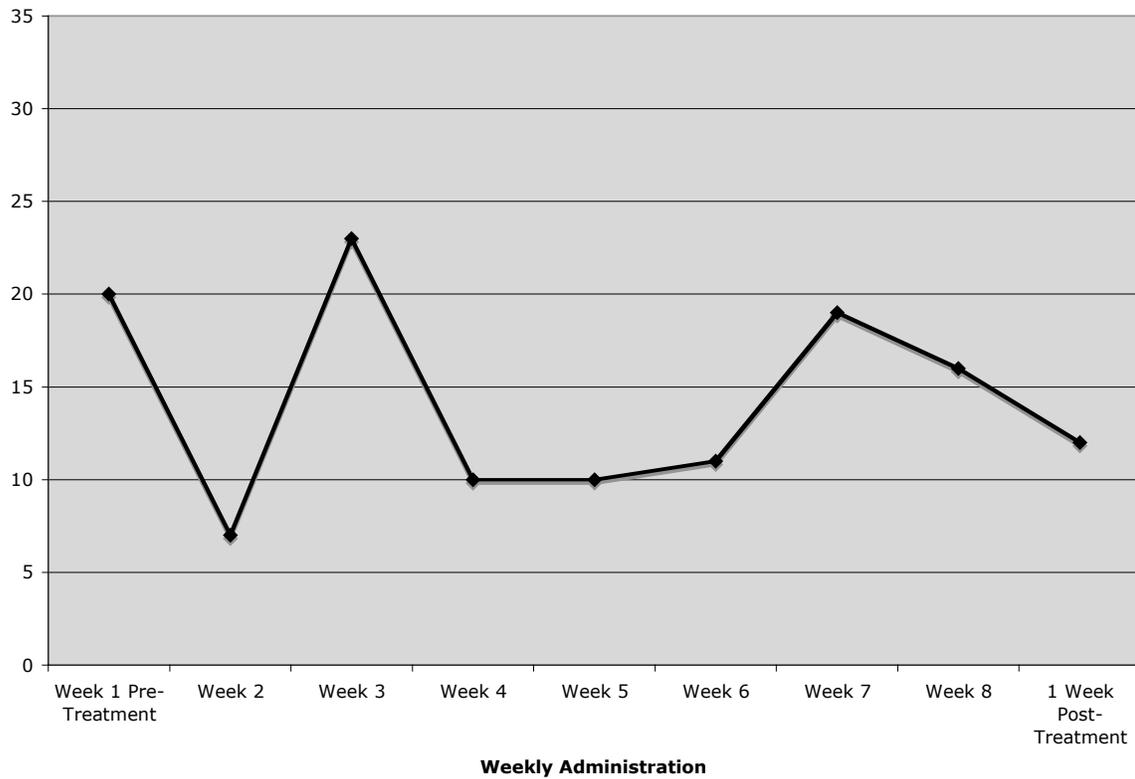


Figure 3. Changes in Satisfaction with Life Scale scores over the course of treatment.

DISCUSSION

The objective of this exploratory case study was to identify the strengths and limitations of mindfulness meditation as a treatment component for BED. The hypotheses were that an individual mindfulness-based treatment would result in a reduction in binge eating episodes, a clinically significant increase in mindfulness, and a clinically significant increase in satisfaction with life. The three hypotheses were not supported by the results. Several explanations may account for the non-significant results.

Ellen's depressive symptoms may have interfered with her participation and success in treatment. It is possible that the program is not well-suited for a co-occurrence of presenting problems. In the aforementioned study by Kristeller and Hallett (1999), individuals with a comorbid disorder were purposefully screened out due to concerns about how co-occurring disorders would interfere with treatment compliance. Ellen did indicate difficulty with treatment compliance, though it was unclear to what extent her depression interfered.

She additionally reported an inconsistent practice of meditation exercises at home, despite her initial enthusiasm. A consistent practice of meditation is deemed a necessary component for the success of the intervention (Kristeller & Hallett, 1999). However, Ellen stated that she struggled to commit to something that did not provide her with specific change strategies. She reported that she found the practice unpleasant in that it made her feel more mindless than mindful. Though Ellen's concerns may be fairly common, they are not necessarily met with inactivity. Kristeller and Hallett noted that women in their study "found it surprising and paradoxical that giving up a degree of conscious control over their eating led to increased control" (p. 362).

It is likely that Ellen did not experience a clinically significant increase in mindfulness because she did not practice bringing attention and awareness to her reality and staying present with difficult experiences. Consequently, she was not able to reap the potential benefits of the program, which may have included a reduction in binge eating and an increase in subjective well-being. Ellen stated that she recognized the potential benefits of identifying and accepting bodily sensations towards the end of treatment, which may suggest that a longer duration of treatment is necessary to facilitate change.

This study has several limitations. Ellen reported intermittent purging, which is not typical for individuals with BED. Future research should examine the effects of mindfulness-based treatment for individuals with BED who do not engage in purging behaviors. Additionally, the assessment of binge episodes was limited by reliance on Ellen's self-report. Ellen also did not receive the group support typical of mindfulness-based treatments, given that sessions were conducted one-on-one. Finally, the relative contributions of various treatment components could not be assessed given the design of this study.

Despite these limitations, mindfulness continues to be a promising component of treatment for BED (Baer et al., 2005; Kristeller & Hallett, 1999; Smith et al., 2006). Furthermore, mindfulness-based interventions have been implicated in the prevention of increases in binge eating and obesity (Smith et al., 2006). Exploring the utility of mindfulness-based strategies in individual treatment remains an important area for future research. This includes an examination of any necessary adjustments from the traditional group format. In addition, consideration should be given to the common psychiatric comorbidity for individuals with eating disorders. Further studies examining the effectiveness of mindfulness-based interventions for "real world" populations are essential (Kotler, Boudreau, & Devlin, 2003).

References

- Agras, W. S., Telch, C. F., Arnow, B., Eldredge, K., Detzer, M. J., Henderson, J., et al. (1995). Does interpersonal therapy help patients with binge eating disorder who fail to respond to cognitive-behavioral therapy? *Journal of Consulting and Clinical Psychology, 63*(3), 356–360.
- Agras, W. S., Telch, C. F., Arnow, B., Eldredge, K., Wilfley, D. E., Raeburn, S. D., et al. (1994). Weight loss, cognitive-behavioral, and desipramine treatments in binge eating disorder: An additive design. *Behavior Therapy, 25*, 225–238.
- Albers, S. (2002). *Eating mindfully*. Oakland, CA: New Harbinger.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: American Psychiatric Association.
- Arnow, B., Kenardy, J., Agras, W. S. (1992). Binge eating among the obese: A descriptive study. *Journal of Behavioral Medicine, 15*, 155-170.
- Baer, R. A., Fischer, S., & Huss, D. B. (2005). Mindfulness and acceptance in the treatment of disordered eating. *Journal of Rational-Emotive & Cognitive-Behavior Therapy, 23*(4), 281-300.
- Baer R. A., Smith G. T., Allen K. B., (2004). Assessment of mindfulness by self-report: The Kentucky Inventory of Mindfulness Skills. *Assessment, 29*, 191–206.
- Barry, D. T., Grilo, C. M., & Masheb, R. M. (2002). Gender differences in patients with binge eating disorder. *International Journal of Eating Disorders, 31*, 63-70.
- Beck, A. S., & Steer, R. A. (1987). *Beck Anxiety Inventory manual*. San Antonio, TX: Psychological Corporation.
- Beck, A. S., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4*, 53–63.
- Birchall, H. (1999). Interpersonal psychotherapy in the treatment of eating disorders. *European Eating Disorders Review, 7*, 315-320.
- Bishop, S. R. What do we really know about mindfulness-based stress reduction? *Psychosomatic Medicine, 64*, 71-84.
- Bray, G. A. (2004). Medical consequences of obesity. *The Journal of Clinical Endocrinology & Metabolism, 89*(6), 2583-2589.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*, 822-848.

- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71-75.
- Engstrom, D. (2007). Eating mindfully and cultivating satisfaction: Modifying eating patterns in a bariatric surgery patient. *Bariatric Nursing and Surgical Patient Care*, 2(4), 245-250.
- Fairburn, C. G., & Harrison, P. J. (2003). Eating disorders. *The Lancet*, 361, 407-416.
- Fairburn, C. G., & Wilson, G. T. (Eds.). (1993). *Binge eating: Nature, assessment, and treatment*. New York: Guilford Press.
- Germer, C. K. (2005). Mindfulness: What is it? What does it matter? In C. K. Germer, R. D. Siegel, & P. R. Fulton (Eds.) *Mindfulness and psychotherapy* (pp. 3-27). NY: Guilford.
- Gormally, J., Black, S., Daston, S., & Rardin, D. (1982). The assessment of binge eating severity in obese persons. *Addictive Behaviors*, 7, 45-55.
- Jacobson, N. S., Roberts, L. J., Berns, S. B., McGlinchey, J. B. (1999). Methods for defining and determining the clinical significance of treatment effects: Description, application, and alternatives. *Journal of Consulting and Clinical Psychology*, 67(3), 300-307.
- Jhally, S. (Producer/Director/Editor) & Kilbourne, J. (Writer). (1995). *Slim hopes* [video documentary]. Northampton, Massachusetts: Media Education Foundation.
- Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life*. New York: Hyperion.
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology Science and Practice*, 10(2), 144-156.
- Kotler, L. A., Boudreau, G. S., & Devlin, M. J. (2003). Emerging psychotherapies for eating disorders. *Journal of Psychiatric Practice*, 9, 431-441.
- Kristeller, J. L. (2003). Mindfulness, wisdom, and eating: Applying a multi-domain model of meditation effects. *Constructivism in the Human Sciences*, 8(2), 107-118.
- Kristeller, J. L., Baer, R. A., & Quillian-Wolever, R. (2006). Mindfulness-based approaches to eating disorders. In Baer (Ed.), *Mindfulness-based treatment approaches* (pp. 75-91). New York: Guilford Press.
- Kristeller, J. L., & Hallett, C. B. (1999). An exploratory study of a meditation-based intervention for binge eating disorder. *Journal of Health Psychology*, 4(3), 357-363.
- Latner, J. D., & Clyne, C. (2008). The diagnostic validity of the criteria for binge eating disorder. *International Journal of Eating Disorders*, 41(1), 1-14.

- Leahey, T. M., Crowther, J. H., & Irwin, S. R. (2008). A cognitive-behavioral mindfulness group therapy intervention for the treatment of binge eating in bariatric surgery patients. *Cognitive and Behavioral Practice, 15*, 364-375.
- Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York: Guilford Press.
- Peterson, C. B., & Mitchell, J. E. (1999). Psychosocial and pharmacological treatment of eating disorders: A review of research findings. *Clinical Psychology, 55*, 685-697.
- Proulx, K. (2008). Experiences of women with bulimia nervosa in a mindfulness-based eating disorder treatment group. *Eating Disorders, 16*, 52-72.
- Rieger, E., Wilfley, D. E., Stein, R. I., Marino, V., Crow, S. J. (2005). A comparison of quality of life in obese individuals with and without binge eating disorder. *International Journal of Eating Disorders, 37*(3), 234-240.
- Robins, C. J. (2002). Zen principles and mindfulness practice in Dialectical Behavior Therapy. *Cognitive & Behavioral Practice, 9*(1), 50-57.
- Segal, Z. V., Williams, J. M. G., & Teasdale, J. D. (2002). *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. New York: Guilford.
- Singh, N. N., Lancioni, G. E., Singh, A. N., Winton, A. S., Singh, J., McAleavey, K. M., et al. (2008). A mindfulness-based health wellness program for managing morbid obesity. *Clinical Case Studies, 7*(4), 327-339.
- Smith, B. W., Shelley, B. M., Leahigh, L., & Vanleit, B. (2006). A preliminary study of the effects of a modified mindfulness intervention on binge eating. *Complementary Health Practice Review, 11*(3), 133-143.
- Smith, D. E., Marcus, M. D., Lewis, C. E., Fitzgibbon, M., & Schreiner, P. (1998). Prevalence of binge eating disorder, obesity, and depression in a biracial cohort of young adults. *Annals of Behavioral Medicine, 20*(3), 227-232.
- Spielberger, C. D. (1983). *Manual for the State-Trait Anxiety Inventory (STAI)*. Palo Alto, CA: Consulting Psychologists Press.
- Staffieri, J. R. (1967). A study of social stereotype of body image in children. *Journal of Personality and Social Psychology, 7*(1), 101-104.
- Stunkard, A. J., & Allison, K. C. (2003). Binge eating disorder: Disorder or marker? *International Journal of Eating Disorders, 34*, 107-116.
- World Health Organization. (2000). *Obesity: Preventing and managing the global epidemic*.

Report of a WHO consultation (WHO Technical Report Series No. 894). Geneva: World Health Organization.

Wilson, G. T. (1996). Acceptance and change in the treatment of eating disorders and obesity. *Behavior Therapy*, 27, 417-439.

Wiser, S., & Telch, C. F. (1999). Dialectical behavior therapy for binge-eating disorder. *Journal of Clinical Psychology*, 55(6), 755-768.

Wolf, A. M., & Colditz, G. A. (1994). The costs of obesity: The U.S. perspective. *Pharmacoeconomics*, 5, 34-37.

Yanovski, S. Z. (2003). Binge eating disorder and obesity in 2003: Could treating an eating disorder have a positive effect on the obesity epidemic? *International Journal of Eating Disorders*, 34, S117-S120.

Appendix A

Session Outlines (Proulx, 2008)

Session	Component			
	Discussion	Psychoeducation	Experiential	Home Practice
1	Introduction. Q & A after meditation	Overview of MBSR	Raison eating exercise, diaphragmatic breathing body scan	Daily body scan using CD. Complete Pleasant Events calendar. Eat one meal mindfully over the week. Journaling
2	Reviewed home practice. Discussed pleasant events noticed, discussed experience and impact of stress, began list of stress triggers.	Mind-body connection, stress-reaction cycle, effects of emotional reactivity, differences between reacting and responding to stress.	Sitting meditation, mini-meditation	Daily formal meditation using CD. Eat 2 meals mindfully over the week. Mini-meditation before eating and throughout the day. Notice triggers of stress and emotional reactivity. Complete Unpleasant Events calendar.
3	Reviewed home practice. Discussed the Unpleasant Events Calendars, triggers of and common reactions to stress. Generated a list of self-soothing and coping strategies.	The value of self-awareness in recognizing triggers of stress that lead to bingeing and purging. Strategies for coping and lowering stress as alternatives to bingeing or self-harming behaviors.	Mindful walking, yoga	Daily formal mediation using CD. Eat three meals mindfully over the week. Continued practice of mini-meditation before eating and at intervals throughout the day. Continue to notice triggers of stress and the impact of stress on the body. Begin using a list of self-soothing strategies to lower and cope with stress. Journaling.
4	Reviewed home practice. What was noticed about triggers of stress, where it was felt in the body, and what coping strategies	The mindful intentions of nonjudgment, loving kindness, compassion, acceptance, and patience were	Loving-kindness meditation	Daily formal meditation practice using CD. Eat four meals mindfully over the course of the week. Use mini-meditation before

	<p>were used. Discussed thought patterns, self-judgment, comparison to others, control issues, and perfectionism.</p>	<p>introduced as an alternative way of being and relating to oneself.</p>		<p>eating and throughout the day. Become increasingly aware of the tendencies towards judgment, control and perfectionism. Alternatively, practice the mindful qualities of nonjudgment, loving kindness, compassion, acceptance, and patience in daily life. Journaling.</p>
5	<p>Reviewed home practice. Patterns in tendencies towards self-judgment, control, perfectionism, and comparison to others were explored. Experiences with mindful intentions of nonjudgment, loving-kindness, compassion, acceptance, and patience during the previous week were discussed. Discussed the authenticity of family relationships and how family impacted the participant's sense of self, either as a source of stress or support.</p>	<p>Relationships with family and friends impact our sense of identity, self worth, and level of stress.</p>	<p>Sitting meditation</p>	<p>Daily formal meditation practice using CD. Eat 5 meals mindfully over the week. Continue with mini-meditation before meals and throughout the day. Notice how relationships impact her sense of self and whether the relationships were a source of stress or support. When aware of stress, practice nonjudgment, compassion, and self-soothing strategies. Journaling.</p>
6	<p>Reviewed home practice. Discussed issues of trust and getting needs met within interpersonal relationships. Discussed eating patterns, the quality of her binging behaviors, triggers of binges, and the range of emotional needs underlying the</p>	<p>The concepts of hunger and taste satiety were presented. Styles of communication were presented.</p>	<p>Eating Exercises: Awareness of hunger, fullness, and taste satiety</p>	<p>Daily formal meditation practice using CD. Eat 6 meals mindfully over the week, noticing degrees of hunger, fullness, and taste satiety. Continue with mini-meditation before meals and throughout the day. Notice patterns of</p>

	binge eating.			communication style sin relationships and thoughts and feeling associated with theses styles. Journaling.
7	Experiences with assertive, aggressive, and passive communication styles were discussed. The participant shared her thoughts and feelings related to hunger and satiety over the previous week. Explored reactions to the Slim Hopes documentary	Viewed a portion of the Media Education foundation Documentary, Slim Hopes (Jhally & Kilbourne, 1995).	Sitting meditation	Daily formal meditation practice using the CD. Eat 7 meals mindfully over the week using the mini-meditation before meals as needed to raise awareness and lower anxiety. Notice the impact of media images and cultural pressure on the participant's values and sense of identity.
8	Reviewed observations of media and cultural messages over the previous week and how these impacted the participant's sense of self, body image, and authenticity.	Aspects of healthy lifestyle were presented synthesizing the components learned throughout the prior seven weeks of treatment. Discussed ways to continue a mindfulness practice after treatment.	Wisdom meditation	A list of further readings and resources was provided.

Appendix B

Mindful Attention Awareness Scale

Below is a collection of statements about your everyday experience. Using the 1–6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what *really reflects* your experience rather than what you think your experience should be.

1	2	3	4	5	6
Almost Always	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Almost Never

1. I could be experiencing some emotion and not be conscious of it until some time later.
1 2 3 4 5 6
2. I break or spill things because of carelessness, not paying attention, or thinking of something else.
1 2 3 4 5 6
3. I find it difficult to stay focused on what’s happening in the present.
1 2 3 4 5 6
4. I tend to walk quickly to get where I’m going without paying attention to what I experience along the way.
1 2 3 4 5 6
5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention.
1 2 3 4 5 6
6. I forget a person’s name almost as soon as I’ve been told it for the first time.
1 2 3 4 5 6
7. It seems I am “running on automatic” without much awareness of what I’m doing.
1 2 3 4 5 6
8. I rush through activities without being really attentive to them.
1 2 3 4 5 6
9. I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there.
1 2 3 4 5 6
10. I do jobs or tasks automatically, without being aware of what I’m doing.

1 2 3 4 5 6

11. I find myself listening to someone with one ear, doing something else at the same time.

1 2 3 4 5 6

12. I drive places on “automatic pilot” and then wonder why I went there.

1 2 3 4 5 6

13. I find myself preoccupied with the future or the past.

1 2 3 4 5 6

14. I find myself doing things without paying attention.

1 2 3 4 5 6

15. I snack without being aware that I’m eating.

1 2 3 4 5 6

Appendix C

Satisfaction with Life Scale

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item. Please be open and honest in your responding.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

1. In most ways my life is close to ideal. 1 2 3 4 5 6 7
 2. The conditions of my life are excellent. 1 2 3 4 5 6 7
 3. I am satisfied with my life. 1 2 3 4 5 6 7
 4. So far I have gotten the important things I want in life. 1 2 3 4 5 6 7
- If I could live my life over, I would change almost nothing. 1 2 3 4 5 6 7