A Pilot Case Study:
Enhancing Self-Worth through Mindfulness-Based Art Therapy
In Treatment for Women with Eating Disorders

Melissa Root

A Thesis Submitted in Partial
Fulfillment of the Requirement
for the Master of Arts in Art Therapy Degree

Department of Art Therapy in the Graduate Program
Saint Mary-of-the-Woods College
Saint Mary-of-the-Woods, Indiana

December 2018
This research study investigated the effect of Mindfulness-Based Art Therapy (MBAT) on the self-worth of women with eating disorders. External contingencies of self-worth compared to internally based contingent self-worth and overall self-esteem were examined using a mixed-methods design. Two participants engaged in five, 60-minute individual sessions. Each session consisted of a mindfulness component and an art directive, as well as pre and posttests of the Rosenberg Self-Esteem Scale, Contingencies of Self-Worth Scale, and the Body-Weight Contingency Scale. Participant 1 experienced a 6.8% increase in reported self-esteem, while Participant 2 experienced a 4.6% increase in reported self-esteem. A thematic analysis was used to determine five themes based on participants’ verbal statements during processing discussions and mindfulness-based art responses. The results suggested that MBAT may provide an effective intervention for women in eating disorder treatment to alter the basis of self-worth to more stable internal contingencies and increase overall self-esteem.
# ABSTRACT

The role of art therapy in self-esteem and self-worth in patients with eating disorders is explored. The study utilizes a mixed methods approach, combining qualitative and quantitative data collection methods. Mindfulness exercises and art directives are employed to enhance self-esteem and self-worth in patients with eating disorders. The research design is based on Mindfulness-Based Art Therapy (MBAT) and Rosenberg Self-Worth Scale.

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CHAPTER I

Introduction

Individuals with eating disorders may be extremely worried about their weight and place unreasonable value on body image; however, the illness may pose severe physiological consequences, health risks, and can be potentially fatal (Prowse, Bore, & Dyer, 2013). Eating disorders may also cause a significant decrease in quality of life as a result of impaired identity development (Prowse et al., 2013; Stein & Corte, 2007, 2008). Some researchers believe that eating disorders, especially anorexia nervosa, transforms excruciating inner pain into a visible physical phenomenon (Hinz, 2006; Levens, 1995; Rabin, 2003; Reindl, 2001). Intense feelings of anger, hostility, and shame can perpetuate eating disorders (Hinz, 2006; Moore, 2012; Slyter, 2012; Wattam, Moore, & Ordway, 2014). Furthermore, a low sense of self-worth and deeply held feelings of shame can contribute to the development and maintenance of eating disorders (Hinz, 2006; Hodge & Simpson, 2016; Prowse et al., 2013; Rehavia-Hanauer, 2003). For this reason, treatment goals in eating disorder recovery often include increasing clients’ self-acceptance and self-worth (Frisch, Franko, & Herzog, 2003; Gillespie, 1996; Hinz, 2006; Hodge & Simpson, 2016; Rubin, 1999).

As reviewed by Monti and Peterson (2003) and Rappaport (2014), recent research in the field of mindfulness found that mindfulness-based techniques and practices enhanced self-awareness, self-acceptance, and self-worth. This effect can be enhanced when combined with creativity. The bridging of these two practices, mindfulness and creative arts therapies, have the potential to bring many opportunities to women in treatment for eating disorder recovery and healing. Several studies have indicated that art therapy may be an effective form of treatment for eating disorders (Butryn, 2014; Frisch et al., 2006; Hinz, 2006; Hodge & Simpson, 2016; Hunter,
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2016; Rehavia-Hanauer, 2003; Rubin, 1999). Rappaport (2014) proposed that treatments including elements of mindfulness, such as Cognitive Behavioral Therapy (CBT) and Dialectical Behavioral Therapy (DBT), were beneficial and increased the effectiveness of eating disorder treatment. Moreover, research has revealed successful results in incorporating CBT and art therapy in eating disorder recovery (Czamanski-Cohen et al., 2014; Heckwolf, Bergland, & Mouratidis, 2014; Matto, 1997; Wattam et al., 2014). Caroline Peterson’s (2014) Mindfulness-Based Art Therapy (MBAT) approach combined these two approaches in order to enhance the benefits of each treatment. When used in treatment for women with cancer, MBAT showed statistically significant decreases in distress, increases in quality of life, and the use of more adaptive coping skills (Monti et al., 2006). However, there remains a substantial gap in the research as to the effectiveness of MBAT in eating disorder treatment, as well as the opportunity it holds to help these individuals increase their personal sense of self-worth.

Problem Statement

Women with eating disorders may be struggling with a low sense of self-worth, a potentially catalyzing factor in the healing and recovery process (Barker & Bornstein, 2010; Harlow, Farrar, Stopa, & Turner, 2018; Russell, 2013). An increasing number of women experience the societal pressures of being an idealized female, leading to a distorted identity development and impaired sense of self-worth (Butryn, 2014). According to Prowse et al. (2013), eating disorders have increased in prevalence and significantly distort the individual’s sense of self. Eating disorders pose an immense concern and successful recovery must engage the individual in a holistic treatment that reaches to the roots of the problem (Heckwolf et al., 2014; Wattam et al., 2014).

Research Questions
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This study was guided by the following three questions: (a) How effective was mindfulness-based art therapy at increasing the self-worth of female participants with eating disorders? (b) What was the effect of MBAT on the participants’ feelings of self-worth? and (c) Did MBAT offer an intervention that served to decrease the extent to which participants based self-worth on appearance and body weight?

Basic Assumptions

In order to explore these questions, a few basic assumptions were considered. The first assumption was that women struggling with an eating disorder generally perceive themselves as having low self-worth and, therefore, demonstrate low levels of self-acceptance. A second assumption was that MBAT would increase perceived self-worth in female participants with eating disorders. One’s perceived self-worth is individual and complex; it has been surmised that the contingencies people base their self-worth on are uniquely personal but may be altered to an extent (Buckingham, Weber, & Sypher, 2012; Crocker, Brook, Niiya, & Villacorta, 2006). Therefore, a third assumption was that engagement in MBAT would alter the contingencies on which an individual bases her worth. More specifically for the purposes of this study, it was hypothesized that after completing the MBAT intervention, the participant’s external contingencies of appearance and body weight would decrease. Another assumption was that body weight specifically was a contingency that would deeply affect the self-worth of a woman who was struggling with an eating disorder. This assumption was based on research findings indicating a relationship between externally based contingencies (e.g., appearance, body weight), poor psychological well-being, and decreased life-satisfaction (Clabaugh, Karpinski, & Griffin, 2008; Crocker & Knight, 2005; Crocker et al., 2006). Finally, there was an assumption that a sense of low self-worth would perpetuate the eating disorder through shame; therefore, increased internally
contingent self-worth was surmised to lead to deeper healing and recovery from the eating disorder. Based on this, it was hypothesized that MBAT would lead to a decrease in the participant’s feelings of shame through an increase of self-acceptance gained through the intervention.

**Statement of Purpose**

The purpose of this pilot case study was to explore MBAT as an intervention for women diagnosed with an eating disorder, in order to increase perceived self-worth and simultaneously decrease the amount of value placed on external contingencies of self-worth, such as appearance and body weight. This research was carried out to explore new techniques for eating disorder treatment that may enhance recovery by targeting what has been often described as a core factor to the development and maintenance of the eating disorder—the woman’s self-worth (Barker & Bornstein, 2010; Chang, Perera, & Kupfermann, 2014; Dunkley & Grilo, 2007; Fitzpatrick, Lesser, Brandenburg, & Lesser, 2011; Gual, Perez-Gaspar, Martinez-Gonzalez, Lahortiga, Irala-Estevez, & Cervera-Enguix, 2002; O’Dea, 2004; Russell, 2013). It is anticipated that the results of this research may be used in order to develop a MBAT curriculum for eating disorder treatment to enhance sustained recovery.

**Definitions of Terms**

**Eating disorders.** The *Diagnostic and statistical manual of mental disorders—5th edition* (DSM-5; American Psychiatric Association [APA], 2103) described Feeding and Eating Disorders as a disturbance of eating and related behaviors, which cause impaired nutritional absorption into one’s body and can result in significant physical and psychological health issues. Anorexia Nervosa (AN) and Bulimia Nervosa (BN) may cause serious physiological health consequences
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and medical conditions that can be life threatening and often occur comorbid with other mental illnesses (APA, 2013).

**Mindfulness-based art therapy (MBAT).** This intervention was developed by Caroline Peterson (2000). It integrates techniques from Jon Kabat-Zinn’s Mindfulness-Based Stress Reduction (MBSR) Program and Art Therapy directives for a wellness focused framework (Peterson, 2014).

**Self-esteem.** This is defined as an individual’s overall evaluation of the self and their worth (Myers, 2010). Researchers have found that one’s self-esteem can be both stable and unstable and can fluctuate in response to various events and stimuli (Crocker & Knight, 2005).

**Self-worth.** According to Crocker and Knight (2005), this concept encompasses how an individual feels about him or herself, that they deserve to be treated well and respected, and that they are worthy of acceptance and love.

**Shame.** Researcher Brene Brown (2012) defined shame as “the intensely painful feeling or experience of believing that we are flawed and therefore unworthy of love and belonging” (p. 69).

**Contingencies of self-worth.** This concept has been described as the things on which people base their value as persons, as well as what they believe they need to be, have, or do in order to be of worth (Crocker & Knight, 2005).

**Justification of Study**

Self-worth has been found to be a critical factor in developing meaningful relationships, connections, and the ability to live a whole-hearted life (Brown, 2012). Women with eating disorders struggling with a low sense of self-worth may find a healing catalyst by mindfully and creatively increasing awareness and acceptance of the self in order to develop a higher perceived
sense of self-worth and belonging. This is an important step in healing from the deeply felt shame and inner pain that keeps these individuals from an authentic whole-hearted life.

The findings of this study provided implications that may enhance treatment for women with eating disorders, as well as expand knowledge into the complexities of self-worth and its related contingencies. As a woman, this study was important to the researcher because of her strong belief in the empowerment of other women and desire that all women know they are worthy of acceptance and connection for who they are, not based on appearance, body weight, or living up to the societal pressures of an ideal female. The intention to explore MBAT and advance the field of art therapy through this study was important to this researcher, as well as to fulfill educational requirements to complete a Master of Arts in Art Therapy degree and contribute to growing evidence of the efficacy of art therapy.
CHAPTER II

Literature Review

This chapter examines research and literature relevant to the research study. It is organized in sections that examine elements of mindfulness-based art therapy (MBAT) and its relevance to both eating disorders and self-worth. It begins by first describing eating disorders and contingent self-worth in relation to eating disordered individuals. Then, mindfulness and eating disorders is described including a discussion of various mindfulness-based interventions along with mindfulness-based art therapy. The role of mindfulness in self-worth is next explored. Then, the efficacy of collaborative treatment methods is examined, including a discussion about enhanced neurological engagement. Next, art therapy and eating disorders are described and the role of art therapy in self-worth discussed. The chapter ended with a summary of the literature review.

Eating Disorders

The DSM-5 (APA, 2013) has defined Feeding and Eating Disorders as a consistent disturbance of eating and behaviors that cause impaired consumption and nutritional absorption of the food, in turn significantly damaging physical and psychological health and overall functioning. While eating disorders can be life threatening, Kress and Paylo (2015) asserted that individuals with eating disorders may have a positive prognosis when comprehensive and evidence-based treatment approaches are utilized. This category encompasses the following diagnoses: Pica, Rumination Disorder, Avoidant/Restrictive Food Intake Disorder, Anorexia Nervosa, Bulimia Nervosa, Binge-Eating Disorder, Other Specified Feeding or Eating Disorder, and Unspecified Feeding or Eating Disorder. However, the present study focused on Anorexia Nervosa and Bulimia Nervosa.
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Anorexia Nervosa (AN) has been characterized by restriction of food intake, which results in a significantly low body weight that was below the normal level for the individual’s age, sex, physical health, and developmental trajectory (APA, 2013; Kress & Paylo, 2015). These individuals may be fearful of gaining weight and becoming fat, and thus engage in behaviors that inhibit potential weight gain. Individuals with AN may also experience an unrealistic relationship with their body weight, fail to realize the seriousness of their low body weight on health, and place self-evaluation on their shape and weight (APA, 2013). Anorexia Nervosa can take two forms. These include: (a) restricting type, where low body weight is achieved through fasting, dieting, and/or excessive exercise; and (b) binge-eating/purging type, where the individual engages in episodic binges followed by a compensatory behavior such as self-induced vomiting, laxatives, diuretics, or enemas (APA, 2013; Kress & Paylo, 2015).

Bulimia Nervosa (BN) has been characterized by recurrent episodic binge eating, followed by inappropriate behaviors to inhibit weight gain, such as self-induced vomiting, laxatives, diuretics, medications, fasting, or excessive exercise, as well as unnecessarily basing self-evaluation on body weight and shape. According to the DSM-5 (APA, 2013) the recurrent behaviors must occur at least one time a week for three months in order for an individual to be diagnosed with BN; however, in extreme cases the inappropriate compensatory behaviors may occur 14 or more times in one week. During a binge episode, the individual may consume a significantly large amount of food during a discrete time and experience an extreme loss of control (Kress & Paylo, 2015).

AN and BN can result in serious physiological health consequences and medical conditions that can be life threatening, therefore effective treatment has been conceptualized as needing to be complex and involving a multidisciplinary team (APA, 2013; Kress & Paylo, 2015). Signs and
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symptoms of depression are commonly observed in those with eating disorders and may be a result of physiological consequences related to being severely undernourished (APA, 2013). Similarly, anxiety and obsessive-compulsive features are often prominent issues for this population as well. It has been found that an intense desire for control, highly restrained emotional affect, rigid thinking patterns, and restricted social experiences tend to be patterns associated with AN (APA, 2013), with the DSM-5 reporting that suicide risk is elevated for individuals with either a diagnosis of AN or BN. Kress and Paylo (2015) suggested that it was important for the treatment team to determine the best level of care for the individual due to the seriousness and complexity of eating disorders.

**Contingent Self-Worth in Eating Disordered Patients**

Numerous studies have indicated that low self-esteem plays a critical role in the development and maintenance of eating disorders (Barker & Bornstein, 2010; Chang et al., 2014; Dunkley & Grilo, 2007; Fitzpatrick et al., 2011; Gual et al., 2002; Harlow et al., 2018; O’Dea, 2004; Russell, 2013). Russell (2013) contended that even though the psychopathology of disordered eating was variable and highly individualized, the control and behaviors act in the service of self-worth and emotional nurturance. Therefore, interventions aimed at increasing self-worth may help target some of the deeply rooted functions of an individual’s eating disorder. Crocker and Knight (2005) suggested that contingencies of self-worth function to shape an individual’s thoughts, emotions, and behaviors. However, these contingencies can also create costs to an individual’s learning, autonomy, relationships, self-regulation, and mental health. For example, they found that people experience an emotional high when they are successful in domains on which they base their self-worth, but may also experience feelings of personal failure when they do not succeed in domains critical to their personal worth and self-esteem. Thus,
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contingencies of self-worth serve to regulate an individual’s behavior, influence their short and long-term goals, and provide them with motivation in an effort to prove their worthiness, success, and self-validation. Contingencies of self-worth may also serve to reveal psychological vulnerabilities, such as blaming and other defensive behaviors when one’s self-esteem may be threatened. The researchers believe that those who ground their self-esteem in external contingencies, like appearance, body-weight, or the approval of others, may adapt a pattern of self-validation goals and end up experiencing greater costs as a result of constantly needing validation from others to feel worthy (Crocker & Park, 2004).

Research that examined predictors of eating disorders in South Asian American females and males found that, for females especially, self-worth was often contingent on appearance, and that this, along with a lack of family support, increased disordered eating symptoms and body dissatisfaction (Chang et al., 2014). Their findings highlighted practical implications for treatment interventions, including psychoeducation and promoting positive family communication, that may lessen self-perceptions based on these contingencies, at the same time as strengthening internal self-worth and managing eating disorder behaviors. Other research has shown that appearance contingent self-worth was positively correlated to disordered eating and should therefore be targeted in treatment programs (Bardone-Cone, Brownstone, Higgins, Fitzsimmons-Craft, & Harney, 2013; Bardone-Cone, Lin, & Butler, 2017; Clabaugh et al., 2008). For example, Bardone-Cone et al. (2013, 2017) found that high appearance contingent self-worth mixed with high anxiety and/or maladaptive perfectionism made an individual especially vulnerable to disordered eating behaviors, and that these individuals reported increased symptoms.

The present review of the literature has also revealed that appearance contingent self-worth, an external contingency, may be a significant factor in disordered eating. Several researchers have
associated this factor with unstable low self-esteem and an increase in the individual’s vulnerability to depression and eating disorders (Bardone-Cone et al., 2013, 2017; Chang et al., 2014; Clabaugh et al., 2008; Crocker & Knight, 2005; Crocker et al., 2006). Additionally, external contingencies of self-worth, such as appearance, have also been correlated with overall poor psychological well-being and reduced quality of life (Clabaugh et al., 2008; Crocker & Knight, 2005; Crocker et al., 2006). For example, Clabaugh et al. (2008)’s investigation of body weight contingency of self-worth indicated that self-worth based on body weight over general appearance was uniquely related to anxiety, depression, and overall decreased life-satisfaction. Based on their findings, the authors also speculated that self-objectification led to body shame, restrained eating, and a decrease in mental performance. Thus, a number of researchers have proposed that treatment focused on self-compassion and decreased external contingencies of self-worth may be effective at decreasing eating disorder symptoms (Bardone-Cone et al., 2013, 2017; Chang et al., 2014; Clabaugh et al., 2008; Crocker & Knight, 2005; Crocker et al., 2006). Consequently, it can be concluded from the literature that an intervention that decreases external contingencies of self-worth may be effective in decreasing eating disorder behaviors. Therefore, this study sought to explore mindfulness-based art therapy as an intervention that may decrease external contingencies of self-worth, specifically appearance and body weight.

**Mindfulness and Eating Disorders**

Originating from Eastern philosophy, mindfulness techniques have become increasingly integrated into Western psychology (DeSole, 2011; Rappaport, 2014). Research has found that participants who engaged in mindfulness-based treatments experienced significant positive improvements in physical and psychological symptoms, behaviors, and effective emotional regulation (Baer, Kristeller, & Quillian-Wolever, 2006; Czamanski-Cohen et al., 2014; DeSole,
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2011; Heckwolf et al., 2014; Kalmanowitz & Ho, 2016; Monti et al., 2006; Prowse et al., 2013; Rappaport, 2014; Roghanchi, Mohamad, Mey, Momeni, & Golmohamadian, 2013; Wanden-Berghe, Sanz-Valero, & Wanden-Berghe, 2011; Wattam et al., 2014). In these studies, mindfulness interventions encouraged goals related to increased overall psychological and physiological self-regulation, which were held to be critical in working with the complex dysregulation involved with disordered eating (Baer et al., 2006; Wanden-Berghe et al., 2011). According to Rappaport (2014), practicing mindfulness serves to illuminate a peaceful core within the individual’s center of self that can help to strengthen internal composure, and increase resilient coping skills through deregulating the physiological arousal of painful emotional memories. Research studies also found that mindfulness-based interventions were effective when applied to eating disorder treatment (Atkinson & Wade, 2016; Baer et al., 2006; DeSole, 2011; Prowse et al., 2013; Wanden-Berghe et al., 2011). Such interventions can be used as a means of training one’s attention and increasing awareness of automatic or unconscious patterns. Therefore, mindfulness can help decrease undesired reactions and increase awareness of healthy functioning related to hunger and satiety cues, in order to use awareness to inform behaviors (Kristeller, 2003).

Recent trends in eating disorder research and treatment have involved a variety of mindfulness-based intervention approaches. Wanden-Berghe et al. (2011) conducted a systematic review of eight studies examining the efficacy of various types of mindfulness-based treatment approaches applied to eating disorder treatment. Their results indicated positive evidence of mindfulness-based therapies as an effective intervention with this population. However, most of the studies examined by Wanden-Berghe et al. applied mindfulness-based treatments to the treatment of Bulimia Nervosa and Binge Eating Disorder. Thus, the application of these approaches to the treatment of Anorexia Nervosa remains a critical gap in the research. With this
in mind, the researchers highlighted the following mindfulness approaches utilized in studies for eating disorder treatments:

**Cognitive-behavioral mindfulness intervention (CBMI).** This intervention utilized psychoeducation in order to change problematic thinking, increase mindfulness, and improve coping skills to work to control diet and external triggers with binge eating patients (Leahey, Crowther, & Irwin, 2008). The results of this study found improvements in the participants’ binge eating behaviors, depressive symptoms, and increased emotional regulation, as well as motivation to change eating disordered behaviors.

**Mindfulness based intervention (MBI).** Mindfulness techniques have been rapidly growing in popularity in Western psychology. MBIs have grown from the foundation of Jon Kabat-Zinn’s Mindfulness-Based Stress Reduction (MSBR) and the Center for Mindfulness, and have become increasingly incorporated into the mental health profession (Cullen, 2011). In one study, this intervention utilized psychoeducation and applied experiential meditation practice, followed by group discussion and meditation homework for individuals diagnosed with BN (Proulx, 2008). In another study, this intervention applied general meditation and taught mindfulness skills, including eating meditations and mini-meditations, along with daily meditation homework exercises for those struggling with Binge Eating (Kristeller & Hallet, 1999).

**Dialectical behavior therapy (DBT).** This intervention focused on learning new skills including distress tolerance, mindfulness, emotional regulation, and interpersonal effectiveness (Robins, Zerubavel, Ivanhoff, & Linehan, 2018). DBT was originally developed by Marsha Linehan as a treatment intervention for Borderline Personality Disorder, but has now been generalized and adapted for use with other populations, including individuals with eating disorders (Warlick, Nelson, Krieshok, & Frey, 2018). It focuses on acceptance and change through a
biosocial developmental approach to help individuals understand emotional dysregulation and learn new coping strategies (Warlick et al., 2018). In one study, this intervention consisted of learning core mindfulness and emotional regulation skills for increased distress tolerance and planning for the future in treatment for BN, and resulted in significant decreases of participants’ binge/purge behavior (Safer, Telch, & Agras, 2001). In a later study, the researchers adapted the DBT model for binge eating so that the intervention included family sessions for adolescents (Safer, Lock, & Couturier, 2007).

**Cognitive-emotional-behavioral therapy (CEBT).** The CEBT approaches described utilized psychoeducation to teach participants how to identify and respond to impulses using experiential approaches and techniques to enhance emotion and motivation. The intervention draws from cognitive behavioral therapy, dialectical behavioral therapy, mindfulness training, and experiential exercises, and may help to restructure beliefs and to teach eating disordered individuals how to cope with their illness (Corstorphine, 2006). CEBT aims to challenge the root of emotional distress in order to decrease the need for the functioning eating disordered behaviors (Corstorphine, 2006).

**Mindfulness-based cognitive therapy (MBCT).** Developed by Segal, Williams, and Teasdale in 2002, this approach has been successfully utilized in treatment for depression (Segal, Williams, & Teasdale, 2013). Baer, Fischer, and Huss (2005) adapted MBCT to be used as an eating disorder intervention. The researchers incorporated body scans, sitting meditations, mindful walking, stretching, and cognitive therapy elements in order to help individuals diagnosed with Binge Eating Disorder (BED) learn how to generalize mindfulness techniques to everyday life (Baer et al., 2005).
Acceptance and commitment therapy (ACT). This therapy was originally developed by Hayes, Strosahl, and Wilson in 1999. ACT offers a contextual behavioral psychotherapy treatment approach (Hayes, Pankey, & Gregg, 2002). One study utilized this intervention to focus on the self as the context for creative existential hopelessness and seeing control as a problem, while letting go of a struggle to choose a direction and commit to behavioral change with AN, restricting type patients (Heffner, Sperry, Eifert, & Detweiler, 2002). The intervention was primarily designed to teach individuals acceptance and willingness in response to undesired or uncomfortable situations where change is not possible. In addition, the intervention aims to help individuals gain an increased sense of self, develop awareness of personal life direction and values, and to live in ways that line up with their values through learning behavioral commitment skills (Hayes et al., 2002).

Atkinson and Wade (2016) reported statistically significant improvements in the areas of weight and shape concern, internalization of the societal ideal of thin, food restriction, eating disorder symptoms, and psychosocial impairments when compared to the post intervention results of the control and dissonance groups. The study indicated the uniqueness of mindfulness-based treatment in decreasing eating disorder symptoms and impairments in psychosocial functioning when examined using a short-term intervention protocol.

Mindfulness-based eating awareness training (MB-EAT). This intervention was developed by Kristeller and Hallett in 1999. It integrated MBSR, CBT, and guided eating meditations to address self-regulation related to food intake and learning sensations such as hunger and satiety cues, appetite, gastric processes, and taste satisfaction, as well as considered shape and weight issues (Baer et al., 2006). The results of a randomized clinical trial that used MB-EAT with BED individuals, compared to a psychoeducational cognitive-behavioral intervention and a control group, found that MB-EAT decreased binge eating behaviors and symptoms at a clinical level.
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(Kristeller, Wolever, & Sheets, 2014). Furthermore, the researchers found that 95% of participants who engaged in MB-EAT no longer met the criteria for BED at a follow up four months after the study.

MB-EAT used mindfulness and meditation as a tuning skill to recognize automatic patterns, learn ways to disengage in these unwanted habits, and increase attention to healthier ways of functioning (Baer et al., 2006). The intervention program incorporated mindful bodywork and self-forgiveness, as well as emphasized self-regulation along with the individual’s inner wisdom to empower them to choose healthier options. A case study that involved a woman with binge eating disorder in a Mindfulness-Based Eating Awareness Training (MB-EAT) reported significant improvements in mood, as evidenced by her low score on the Beck Depression Inventory (BDI-II) at a follow up six months post treatment (Baer et al., 2006). The study further showed that the participant’s improvements in mood were paralleled by improvements in self-care and increased control over eating. The study further indicated that applying mindfulness in treatment can help individuals with disordered eating habits find a balanced ordinary relationship with food rather than one of control and power. Literature related to the use of mindfulness-based interventions in eating disorder treatment strongly indicated that learning and applying these techniques helped individuals develop a deeper understanding and awareness which helped them engage in fewer behaviors.

**Mindfulness-Based Art Therapy (MBAT)**

Mindfulness-based art therapy was first developed by Caroline Peterson as a topic of clinical thesis research in an oncology setting during the early 2000’s. Prior to this, she had studied Jon Kabat-Zinn’s Mindfulness-Based Stress Reduction (MBSR) Program at the Stress Reduction Clinic, Center for Mindfulness (CFM), at the University of Massachusetts Medical Center
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(Peterson, 2014). MBAT integrates the structure and various aspects of MBSR with art therapy directives designed to apply in supportive group therapy as a wellness focused framework (Peterson, 2014). Peterson (2014) described the theoretical framework of MBAT as rooted in the beliefs of John Dewey, who believed that creativity brings together consciousness and self-regulation, as well as includes open experiences, playfulness, and the value of feeling within relationship as adopted from Carl Rogers.

Peterson (2014) designed MBAT to take place during weekly two-and-a-half hour sessions spanning over eight weeks in conjunction with daily meditation homework assignments. Each session is structured with mindfulness practice in order to bring attention to one’s body, thoughts, and feelings, further integrated with an art task to enhance and process the mindfulness element, and finally end with group reflection to deepen awareness. Some of the various meditations include breathing awareness, body scans, sitting meditations, gentle yoga, mindful eating, walking meditation, mindful awareness of the art materials, creative expression, as well as an emphasis on the Lovingkindness meditation. Monti et al. (2006) found that the active process orientation of MBAT involved in both mindfulness techniques and creative art making contributed to advancing more adaptive coping skills and transformed threatening schemas and thought patterns. In a randomized control trial, Walkabout, a MBAT program adapted for women with cancer, the MBAT group demonstrated a significant decrease in distress (Monti et al., 2006). According to the authors, the group that engaged in MBAT also reported significant improvements in health-related aspects related to quality of life, higher scores in mental health, general health, and vitality. Consequently, they concluded that MBAT was effective in helping women with cancer apply adaptive coping skills, change dysfunctional thinking, and experience an increase in various health related areas. Although few studies have examined MBAT with eating disordered individuals,
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these same treatment goals apply to this population. Research has yet to explore the effects of MBAT on self-worth specifically; however, based on the research findings reviewed, it may be concluded that mindfulness-based techniques and art therapy, both separately and in collaboration, enhance an individual’s self-acceptance, self-value, and overall perception of worthiness.

The Role of Mindfulness in Self-Worth

As previously discussed, mindfulness interventions may be uniquely suited to creating change in eating disorder behaviors. Research evidence has demonstrated that such interventions played a critical role in changing body image and perceptions of self that were pervasive issues for this population (Bardone-Cone et al., 2017; Clabaugh et al., 2008; Prowse et al., 2013). Additionally, it has also been found that individuals who exhibited higher eating disordered symptoms reported lower scores in areas of self-compassion, self-control, and overall quality of life (Prowse et al., 2013). Thus, it has been proposed that individuals who define their sense of self and self-worth on appearance may benefit from practicing mindfulness to increase self-acceptance, self-compassion, and self-worth, thereby developing a more holistic sense of self (Prowse et al., 2013; Stewart, 2004). In an experiment comparing elements of mindfulness skills, Prowse et al. (2013) found that the practice of increasing awareness with actions and accepting without judgment were associated with increased resilience and decreased eating pathology. In addition, they also found that increased practice of specific mindfulness skills worked to create a more complete sense of self and increased one’s positive sense of self-worth. Prowse et al. believed that through increased self-understanding and awareness, individuals gained a deeper appreciation for their authentic self, thus concluding that mindfulness interventions may serve to increase internal contingencies of self-worth and decrease reliance on external factors for one’s worthiness.
In their study exploring the relationship between self-imagery and self-concept in individuals with eating disorders, Harlow et al. (2018) found that when individuals held in their mind a positive self-image, they experienced a significant increase in positive explicit self-esteem, a decrease in negative explicit self-esteem, and an improvement in the clarity of their current self-concept. These results provide support for the use of mindfulness interventions aimed at increasing self-esteem. The researchers believed that the regular practice of mindfulness techniques encourage positive self-image over time, and that this mental activation could replace negative self-concept and increase self-worth.

**The Efficacy of Collaborative Treatment Methods**

Researchers and mental health care professionals alike have applied collaborative treatment approaches for enhanced outcome benefits for those they serve. Czamanski-Cohen et al. (2014) implemented a hybrid cognitive behavioral and art-based intervention for pain and related symptoms in women with chronic illness. Their quantitative findings demonstrated that the breathing and relaxation exercises associated with CBT used in conjunction with the art making had a strong effect in reduced distress and improved well-being. The participants experienced a reduction in distress symptoms through the physical release of tension involved in creating imagery, while the concrete experience of the art making increased self-efficacy related thoughts that seemed to reinforce the image from the CBT elements. Similarly, in a study that treated adolescent females diagnosed with bulimia nervosa, researchers found that the combination of CBT and art therapy served to change faulty thinking and increased positive body image (Wattam et al., 2014).

In a quest to further understand the impact of Rational Emotive Behavior Therapy (REBT) and art therapy on variables of self-esteem and resilience, Roghanchi et al. (2013) found that self-
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esteem was indeed enhanced by combining these two treatment approaches. The results revealed a
statistically significant difference of increased self-esteem for the participants in the REBT-art
therapy group when compared to the control group. Heckwolf et al. (2014) demonstrated similar
outcomes in their study integrating mindfulness-based art therapy with Dialectical Behavioral
Therapy (DBT). The results demonstrated that the group who engaged in DBT mindfulness-based
art therapy displayed a statistically significant decrease in distress symptoms along with a
significant increase in health-related quality of life aspects. These findings indicated that using art
therapy in conjunction with other mindfulness-based interventions may enhance and reinforce the
benefits of both.

In their use of art therapy and mindfulness with refugees and victims of trauma and
political violence, Kalmanowitz and Ho (2016) found that the combination of art therapy and
mindfulness helped participants cope on a daily basis. Moreover, this approach led the participants
to gain a deeper sense of who they were and the experiences they had lived through, including
their ability to see a potential for who they could become in the future. One participant described
how painting brought her appreciation in knowing that although she had endured intense suffering
that left her feeling “depleted and tainted,” she was still someone of worth (p. 63). Based on these
findings, it may be concluded that applying collaborative methods not only increases the efficacy
of each treatment approach, but may also encourage deeper meaning and valuing of the self.

**Collaborative methods & enhanced neurological engagement.** From a neurological
perspective, the verbal aspects of DBT when used in conjunction with the kinesthetic nature of art
therapy may enhance and expand the activation of bilateral integration, thereby connecting the left
and right sides of the brain (Heckwolf et al., 2014; Rappaport, 2014). The connections created
through bilateral stimulation and integration have been found to decrease experienced stress and
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help one regulate emotions (Heckwolf et al., 2014; Rappaport, 2014; Siegel, 2012). This deeper activation and linking of the two hemispheres of the brain may be an explanatory factor behind the efficacy of using various cognitive-behavioral techniques in collaboration with art therapy. Although much is still unknown about the human brain, evidence suggests that art therapy transforms and rewires the brain to create healing change at a neurological level (Hass-Cohen & Carr, 2008).

Rappaport (2014) asserted that the therapeutic use of mindfulness and creative arts are effective clinical tools due to the neurological activation that these methods produce in working through psychological wounds, emotional distress, and distorted thought patterns, all of which have been encoded in the brain through a somatically preverbal nature. Collaborating meditation and art approaches may enhance neural feedback loops and work to create an increased parasympathetic response to stressful events or experiences (Peterson, 2015). MBAT has also been associated with reductions in anxiety, with fMRI scans having recorded and documented these changes on a neural level (Monti et al., 2012; Peterson, 2015). Therefore, these findings provide preliminary evidence for the idea that that change may occur on a deeper neurological level when art therapy and mindfulness-based interventions are used together, which in turn, may increase potential for sustained recovery and long-term change.

Art Therapy and Eating Disorders

Art therapy interventions have been described as an action-oriented way for patients with eating disorders to get in touch with the ideas behind their symptoms because repressed thoughts and feelings can be more easily expressed in imagery than words (Hinz, 2006; Rubin, 1999). Engaging in art therapy promotes an active role for persons with eating disorders, empowering them to gain a more active stance towards their participation in recovery (Hinz, 2006; Rubin,
Art often touches on universal themes and bypasses language, intellectualization, and defense mechanisms on which some individuals may be overly reliant, in order to reveal inner-truths and promote growth (Hinz, 2006). Hinz (2006), Matto (1997), and Rehavia-Hanauer (2003) all theorized that participants were no longer a prisoner of the eating disorder when they became involved with art materials because it allowed them to develop a form of control that was not rooted in the eating behaviors.

Through the art therapy process, the creative product can represent internal conflicts in a concrete form so that the patients can relate to it, just like food. Harlow et al. (2018) suggested that mental imagery may play a role in the maintenance of eating disorders. Through the ability to access these images, art therapy may help the images to mediate between inner/outer worlds, while the art embodies the conflicts, emotions, and associations found in relationship to food and eating behaviors (Rehavia-Hanauer, 2003). In her qualitative study, Rehavia-Hanauer determined that the art therapy process and products were a particularly good tool for exposing and treating these internal conflicts as a bridge between the distances of opposing forces. Art experiences can provide in depth explorations of issues that may lead the patient toward regaining inner wisdom and significant steps in the recovery process (Hinz, 2006).

The voice of the eating disorder can be a persuasive internal voice that affects the way the individual perceives the self and the world; however, engaging in the art process to develop positive affirmations may help create a shift in the way the individual conceptualizes the possibility for an improvement in life quality and recovery (Hunter, 2016). In this inquiry, Hunter found art therapy to be especially unique in its potential to reawaken an individual’s emotions and associations. For example, the development of positive affirmations through imagery helped to instill the hope necessary for healing and transformation in three women aged 13, 28, and 34 years.
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of age. Frisch et al. (2006) found that arts may be used to explore developmental stages and root causes of eating disorders, as well as help patients identify feelings and integrate new awareness into more positive coping behaviors. In this study, the art directives were viewed as non-threatening and were reported to be especially effective for those with more difficulties in traditional talk-based therapies. At an intensive inpatient hospital, Wolf, Willmuth, Gazda, and Watkins (1985) found that art therapy was a valuable means for women between adolescence and early adulthood to gain self-awareness. Furthermore, art was a good indicator of issues and conflicts occupying the patient and defenses used to deal with that conflict. Wolf and colleagues concluded that art can become a bridge to verbal expression to help clarify and conceptualize confusing emotions and thoughts before exposing them to talk therapy.

Butryn (2014) explored eating disorders from a feminist poststructuralist perspective, asserting that eating disorders can be understood as rooted in relational dysfunction, as well as an attempt to reconcile the double-bind of femininity. She described this double-bind as a mind-body discourse in which the mind is associated with positive masculine qualities and the body with negative feminine qualities. She asserted that this perspective could help art therapists destabilize the fundamental power imbalance. Thus, eating disorders may be understood as being rooted in a disturbed separation-individuation stage of development, with this stage as important in leading to the goal of achieving a healthy individual self. Self-objectification has also been found to lead to body shame, restrained eating, and a decrease in mental performance (Clabaugh et al., 2008). Butryn believed that engaging the body in the creative process can empower the individual by defining identity separate from dysfunctional behaviors and destabilizing the gendered hierarchy that devalues the body. By using visual images and the creative process to repair psychological deficits related to difficulties in the separation-individuation developmental stage, clients can
reconstruct a positive and strengthened relationship with the body and a new feminine identity unique to them (Butryn, 2014). Similarly, art therapy may work to repair the result of dysfunctional relationships by creatively meeting clients at appropriate developmental stages to repair positive self-identity. The creative process and product can create change in thought patterns through an integration of cognitive understanding with affective experience (Matto, 1997).

Therefore, by actively applying the creative process, art therapy may help individuals to access the repressed roots of the eating disorder; understand its function unique to them; express and understand their thoughts and emotions from a different perspective; develop a deeper sense of self-awareness; and repair functional individuation psychological development in order to find recovery.

**The Role of Art Therapy in Self-Worth**

Clinicians and researchers have found that patients with eating disorders frequently and consistently report having been told, either directly or indirectly, that who they are is not enough, not adequate, or unacceptable, which often times contributes to the onset and development of eating disorders through shame (Anderson, Cohn, & Holbrook, 2000; Hinz, 2006; Pipher, 1995; Reindl, 2001). However, engaging in the creative experience of art therapy may allow individuals to explore their uniqueness and learn about parts of themselves that they have rejected or split off, in order to enhance self-acceptance and internalize a new sense of self in safe and non-threatening ways (Frisch et al., 2006; Hinz, 2006; Hodge & Simpson, 2016; Rubin, 1999; Wolf et al., 1985). Harlow et al. (2018) indicated that a shift in an activation of mental images, specifically an increase in availability of positive self-images, can be used to challenge negative self-perceptions and could therefore improve an individual’s self-worth. Art therapy holds the unique ability to help individuals create and reinforce their own positive self-symbols and imagery; therefore art therapy
interventions may help the brain wire preferential activation of positive self-images. Furthermore, art therapy works similarly with self-concept; the stronger one’s certainty of self-concept, the more this may contribute to increased confidence and positive self-esteem (Harlow et al., 2018).

Similar to Butyn’s (2014) theory as previously discussed, Gillespie (1996) believed that disordered eating was a manifestation of rejection of the body related to inadequate development of identity and authentic self. These disruptions in development from infancy most frequently emerge during adolescence, but often remain through adulthood if the development of the real self has not occurred (Gillespie, 1996). Drawing provided a concrete object for projections and allowed for gradual movement from concrete aspects of food obsessions toward personal symbolism. In this way, artwork may help determine inner self-representations that affect the eating disorder and provide personal insight into the real self (Gillespie, 1996; Hinz, 2006).

For women who manifested eating disorders later in life and also experienced childhood sexual abuse and trauma, drawing created a space to express their introspective experiences and emotions, make visible inner thoughts, and increase capacity to process trauma and information more effectively (Hodge & Simpson, 2016). Trauma was often described as a combination of a deeply embodied “felt sense” of shame which contributed to a poor sense of self-worth (p. 5). However, drawing enabled clients to conceptualize complex intrapersonal processes while emphasizing the intersection between “what is seen” and “what is felt” (Hodge & Simpson, 2016, p. 7). The researchers found that successive drawings helped those with eating disorders elaborate on a new sense of self, as well as internalize and integrate it for increased feelings of well-being.

Through the artwork, the eating disordered individual was presented with experiences that helped them gain an internal sense of self in order to see that they are more than their physical external body (Harlow et al., 2018; Hinz, 2006; Rubin, 1999). Furthermore, throughout the
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difficulty of confronting trauma, shame, and repressed aspects of the self, the patient experienced
the art therapist as nonjudgmental and accepting. Experiencing someone who showed interest in all
parts of the self and their artwork helped increase the patient’s personal curiosity and self-
acceptance (Hinz, 2006). These creative experiences and expressions encouraged them to embrace
and internalize a deeper felt sense of self-worth (Hinz, 2006; Wattam et al., 2014). Thus, literature
indicates that art therapy may play a direct role in helping individuals come to know, understand,
and appreciate their authentic self, thereby increasing one’s self-worth through use of a treatment
approach that can creatively meet each individual where they are at.

Summary of Literature Review

Eating disorders can be complex and potentially fatal. Studies show that eating disorders
have become prevalent and increasingly diagnosed, especially in adolescent females (Le Grange,
Lock, & Dymek, 2003; Stice, Marti, & Rohde, 2013; Wattam et al., 2014). Moreover, numerous
researchers have found a relationship between eating disorders and low self-esteem, concluding
that feelings of inadequacy and unworthiness serve to further contribute to the development and
maintenance of the eating disorder (Barker & Bornstein, 2010; Chang et al., 2014; Dunkley &
Grilo, 2007; Fitzpatrick et al., 2011; Gual et al., 2002; O’dea, 2004; Russell, 2013). It has also
been speculated that the control and eating disorder behaviors may act in the service of self-worth
and emotional nurturance (Hinz, 2006). However, it has also been shown that treatment focused on
self-compassion and decreased external contingencies of self-worth may be effective in decreasing
eating disorder symptoms (Bardone-Cone et al., 2013, 2017; Chang et al., 2014; Clabaugh et al.,
2008; Crocker & Knight, 2005; Crocker et al., 2006). Further, incorporating mindfulness-based
interventions in treatment has been found to be effective when applied to eating disorder recovery
(Atkinson & Wade, 2016; Baer et al., 2006; DeSole, 2011; Prowse et al., 2013; Wanden-Berghe et
It was also found that specific mindfulness skills enhanced a more complete sense of self and increased one’s positive sense of self-worth (Prowse et al., 2013).

Hinz (2006) and Rubin (1999) speculated that art therapy may be effective in helping clients get in touch with repressed memories through creative explorations of issues. Through engaging in creative exploration and self-acceptance work with individuals diagnosed with eating disorders, therapists can help them see that they are more than their physical body. Further, previous research has indicated that this realization may help to internalize a deeper felt sense of self-worth (Frisch et al., 2006; Gillespie, 1996; Hinz, 2006; Hodge & Simpson, 2016; Rubin, 1999; Wolf et al., 1985).

Research studies indicate that collaborative treatment methods can enhance eating disorder treatment and recovery (Czamanski-Cohen et al., 2014; Heckwolf et al., 2014; Kalmanowitz & Ho, 2016; Rappaport, 2014; Roghanchi et al., 2013; Wattam et al., 2014). Moreover, neurological research showed that mindfulness and creative arts can be an effective clinical tool to work through psychological wounds, emotional distress, and distorted thought patterns (Rappaport, 2014). Therefore, MBAT may offer a uniquely individualized and potentially effective therapeutic intervention to help those diagnosed with eating disorders increase self-acceptance, decrease reliance on external factors (e.g., appearance, body weight) for one’s self-worth, connect to their authentic self, and work to decrease eating disorder symptoms and behaviors.
CHAPTER III

Methodology

This case study applied a mixed methods design to explore mindfulness-based art therapy (MBAT) as a treatment approach for women with eating disorders in order to enhance overall self-worth through increased self-awareness and self-acceptance. This study also sought to increase overall self-esteem and simultaneously decrease the amount of value individuals placed on external contingencies of self-worth, especially in regards to appearance and body-weight.

Participants

Two individual adult women who were seeking eating disorder treatment at a recovery center in Colorado participated in this research study. Both participants were in the Partial Hospitalization Program (PHP) level of care and were referred for this study by their primary therapists at the treatment center. An informational flyer with further details was made available to both participants. Although eating disorders encompass many illnesses, the participants in this study were suffering from Anorexia Nervosa or Bulimia Nervosa. It was required that the patients were older than 18 years of age to participate in the study.

Participant 1 was a 26 year old female. Her primary diagnosis was F50.01 Anorexia Nervosa, Restricting Type with secondary diagnoses of F33.42 Major Depressive Disorder, Recurrent Episode, In Full Remission, and F40.10 Social Anxiety Disorder, (Social Phobia) exhibiting traits F42.2 Obsessive-Compulsive Disorder. Participant 2 was a 22 year old female. Her primary diagnosis was F50.2 Bulimia Nervosa with secondary diagnoses of F33.1 Major depressive Disorder, Recurrent Episodes, Moderate, and F41.1 Generalized Anxiety Disorder. This study obtained informed consent from both participants, as well as informed consent to photograph the mindfulness-based art responses. The researcher ensured participants that they could decline
further participation at any time and that doing so would have no negative consequences to the remainder of their time in treatment as stated by Standard 9.4 (AATA, 2013, p. 9).

**Mixed Methods**

In order to most effectively study the effects of MBAT (Peterson, 2000) on the self-worth of individuals diagnosed with eating disorders, this study employed a mixed methods design by integrating qualitative and quantitative elements into the research. Mixed methods designs have been applied to research since the 1950’s but evolved toward a more systematic combination of qualitative and quantitative methods by the early 1990’s (Creswell, 2014). The researcher selected a mixed methods design for the study to ensure a more holistic view of the data so that valuable findings would not be lost through using only a qualitative or quantitative method and perspective lens. Although not free of limitations, employing a mixed methods approach minimized the limitations of each method (Creswell, 2014). This study was rooted in the theoretical perspective of critical theory (Fay, 1987) and incorporates feminist perspectives (Olesen, 2000). This study sought to empower its female participants to transcend the various constraints experienced due to variables of gender, class, family structure or other experiences perceived as holding participants back from living a truly authentic life and perceiving oneself worthy to do so.

More specifically, an embedded mixed methods design provided the foundation for the researcher to best understand the results of the experiment through the lens of the individual participant. A critical goal in this research was to understand the participant’s view of herself and her perceived self-worth within the context of MBAT. Through the yearning to discover quantifiable information, along with a desire to cultivate a deeper empathic understanding of the participants’ experiences, taking a mixed methods approach helped build a bridge between the researcher role and the clinician role during each session (Czamanski- Cohen et al., 2014; Dattilio,
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Edwards, & Fisherman, 2010). In this way the research sought to increase understanding and the impact of MBAT as a clinical intervention by collecting both qualitative and quantitative data.

Research Design

In order to better understand the participants’ inner experiences, this study was structured through a combination of both valid and reliable self-report measures, open-ended questions, and each individual participant’s experience and processing of her artwork through discussion with the researcher. Each participant was asked to read and sign the consent forms at the beginning of the first session. After the participants signed the consent forms, the researcher discussed the structure of each session, including the pretests, the MBAT directive, and the posttests. The participants completed pre and posttests of the research instrument measurements discussed below in each session. Each participant engaged in five 60-minute individual sessions with the researcher over the course of two weeks. The sessions followed an adaptation from the original MBAT structure (Peterson, 2000, 2014) altered to fit an individual rather than group format. Details describing each of the five MBAT sessions can be found in Appendix A. The sessions were shortened to fit within a 60-minute time frame, rather than a two-and-half hour time frame. All sessions were held in the facility’s art therapy room and were uninterrupted. The adaptations made to the MBAT interventions were done so in order to best comply with the pre-existing program structure at the treatment center.

Before and after each session the participant completed the Rosenberg Self-Esteem Scale (Rosenberg, 1965) along with The Contingencies of Self-Worth Scale (Crocker et al., 2003) including the Body Weight Contingency of Self-Worth Scale (Clabaugh et al., 2008b), in order to measure changes that may have occurred on specific days or in result to specific sessions. Each session followed a similar structure that began with the pretests, then engagement in a mindfulness
or meditation exercise and followed with a corresponding art task to further deepen and process the experience. After completing the artwork, the participant engaged in conversation with the researcher; open-ended questions were discussed, and the participant’s thoughts, feelings, and experiences were recorded. Processing the experience with the researcher provided insight into the participant’s individual experience and personal description of her art process and product for data purposes. The participants concluded each session by completing the posttests.

**Research Instruments**

**Rosenberg Self-Esteem Scale (RSES).** This scale was developed by Rosenberg (1965) and measures global self-worth through a 10-item statement scale. The participant’s positive and negative feelings about the self were rated on a uni-dimensional four-point Likert scale from strongly agree to strongly disagree in response to statements such as “On the whole, I am satisfied with myself.” The researcher chose the Rosenberg Self-Esteem Scale due to the simplicity and length of the measurement for time purposes related to this study, as well as evidence indicating the high validity and reliability of the measurement.

The Rosenberg Self-Esteem Scale has been one of the most widely used measurements of self-esteem (Gomez-Lugo et al., 2016). Its psychometric properties are strong, with research providing evidence for a high degree of validity and reliability. A study utilizing the RSES with nursing assistants found evidence of its reliability and validity for use with this population (McMullen & Resnick, 2013). In a separate study using a sample of 669 ex-prisoners, the two-factor model of positive and negative variables using the RSES was examined, also finding evidence of high reliability for use with this population (Boduszek, Hyland, Dhingra, & Mallett, 2013). In a study that examined the validity and reliability of the Rosenberg Self-Esteem Scale when adapted for Colombian and Spanish individuals, the researchers compared participants’
answers to the Rosenberg Self-Esteem Scale and the sexual self-esteem scale (Gomez-Lugo et al., 2016). Their data results (CFI=.912 and RMSEA=.079) confirmed the factorial equivalence, standard deviations were near one, and their results (CI=.95) offered statistically significant evidence. The study indicated a strong level of invariance for the Rosenberg Self-Esteem Scale, suggesting applicability for use with these populations.

**Contingencies of self-worth scale.** This scale measures what the participant believes she needs to be or do in order to be valuable and have worth as a person (Crocker et al., 2003; Crocker & Knight, 2005). The 35-item scale measures contingencies related to the categories of Family Support, Competition, Appearance, God’s Love, Academic Competence, Virtue, and Approval from Others; each item was rated by the participant from 1-7 ranging from “strongly disagree” to “strongly agree.” All the subscales demonstrate high internal consistency and test-retest reliability (Crocker et al., 2003). Research indicated acceptable levels of internal consistency (above .70 on all factors) for each dimension, as well as statistically significant correlations (p<.05), of the Contingencies of Self-Worth Scale (Maricutoiu, Macsinga, Rusu, Virga, & Sava, 2012). The researchers’ results supported the concept of external and internal contingencies of self-worth and found evidence of good validity within a sample of Romanian students.

**Body weight contingency of self-worth scale.** This addition provides an eight-item scale that was built off the Contingencies of Self-Worth Scale (Clabaugh et al., 2008b). Each item was rated by the participant from 1-7 ranging from “strongly disagree” to “strongly agree” in order to measure how much the participant based their self-esteem and value as a person on being a specific body weight. The test demonstrated evidence for reliability and validity in a sample of undergraduate female students with statistically significant correlations (Clabaugh et al., 2008b).
Mindfulness exercises & art directives. These exercises were adapted from Peterson’s (2000) MBAT program used in treating women with cancer, which were later further adapted for use in inpatient addictions clinical work (Peterson, 2014). Peterson (2014) asserted that in order to orient to mindfulness, participants engage in intentional attention and attitude from moment-to-moment. Kindness and curiosity are encouraged by “attitudes of non-judging, patience, beginner’s mind, trust, non-striving, acceptance, and letting go/letting be” (p. 44). The participants shared and discussed their artwork and reflections on the art processes with the researcher at the end of each session. There was a wide variety of art materials available including: pens, pencils, colored pencils, markers, oil and chalk pastels, acrylic paint, watercolor paint, and a variety of paper sizes and colors. For an outline of the directives see Appendix A.

Studies have found the MBAT protocol to be effective in use with cancer populations, as it has remained stable over time and shown clinically significant post intervention improvements as evidenced by randomized control trials (Monti et al., 2006; Peterson, 2008; Peterson, Moss, Leiby, Pequignot, & Monti, 2008). However, because there has been little research using MBAT with different populations, the effectiveness of using this approach with the eating disordered population is unknown.

Data Collection

The consent forms were stored in a small locked box in order to protect the identifying information and confidentiality of both participants. All assessments were coded to protect the anonymity of participants through a labeling formula that described the participant number, P1 & P2, the session number, followed by a notation of pre or posttest. At the end of the five sessions, all of the participants’ artwork was placed in a folder and given back to the participant. After all of
the data was collected, the assessments, researcher discussion notes, and photographs of artwork were stored in the locked box. The data will be kept for three years and then destroyed.

**Data Analysis**

The researcher conducted a thematic analysis (Creswell, 2014) of all of the collected data including a comparison of the pre and posttest results, taking into account the participants’ insights, quotes, and direct perspectives of her art process and product. First, all the questionnaire scales were scored and recorded in an Excel spreadsheet document. The results were analyzed to determine whether any changes occurred between pretests and posttests after the participant engaged in the MBAT intervention. The pretest and posttest scores were also analyzed to determine changes that occurred over time, from the first session to the last session. The Appearance and Body Weight Contingencies were specifically analyzed in order to discern whether the participants’ externally based contingencies had significantly decreased after engaging in MBAT.

Conversation notes from each participant’s processing were transcribed into Word documents. Then, after becoming familiar with the conversation notes, the researcher identified keywords and phrases that occurred repeatedly in both of the participants’ insights and quotes. Similarities between each participant at their base level or before engagement in MBAT was noted, as well as similarities that each demonstrated after the interventions. Revisiting the transcripts, the researcher noted specific and general insights the participants discussed in each session and which insights both had in common for each session. Taking into account keywords, phrases, and shared insights, the researcher then narrowed the data down to six overarching themes that had emerged over the course of the research sessions from both of the participants. These themes were examined in depth in relation to self-esteem and contingent self-worth to provide increased insight
into the individual’s experience and perceived self-worth over the course of the study. The thematic analysis (Figure 1) results from the data were then studied cohesively with the mindfulness-based art responses to determine whether the MBAT intervention affected the participant’s experience of her self-worth and altered the contingencies in which she found her value as a person.

**Validity and Reliability**

The researcher aimed to increase the internal validity and reliability of this study through use of a mixed methods approach in order to gain information from both quantitative and
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qualitative perspectives. Thus, multiple data sources were incorporated as a means of triangulation in order to increase the study’s validity (Creswell, 2014). Triangulation refers to the use of multiple data sources for purposes of cross-validation to facilitate validity in qualitative research (Creswell, 2014). To this end, the researcher selected instruments with well-established psychometric properties, as well engaged in a systematic analysis of the qualitative data, including participants’ direct quotes and creative expressions.

During qualitative data analysis, efforts were made to ensure validity and reliability through the use of various widely used and well-established thematic analysis procedures (Creswell, 2014). These methods were carried out with fidelity in several ways. First, detailed descriptions were used to provide accurate and realistic perspectives of the themes that emerged. Any contrary evidence or data that did not seem to fit in the five themes found were still presented in order to provide accurate data and increase the validity of this research. In addition, the researcher strived to ensure that the codes were an accurate reflection of the data collected and each of the participant’s insights and experiences (Creswell, 2014). Finally, during all stages of data analysis, the researcher thoroughly checked and rechecked all questionnaire scale scores, transcripts, and codes.

In spite of these efforts, one significant confounding factor was that participants were involved in other treatment during the same timeframe of this study. They both engaged in a variety of other therapy groups and individual primary sessions simultaneously at the program center. Thus, their participation in the overall treatment program may have impacted the results of this study, as other treatments may have also targeted the same variables under examination in this study (e.g., self-esteem, perceived worth). Nevertheless, the results of this study may provide
evidence for the external validity of this intervention as generalizable for use in other eating disorder treatment facilities, but may not be as valid when applied to other disorders and settings.

**Ethical Implications**

Through engagement with MBAT, the participant may have experienced some discomfort in using the art materials and may have had uncomfortable thoughts or memories from traumatic experiences that arose. The participants were informed that they could talk with their primary therapists or the rest of their treatment team if any disturbing or discomforting thoughts or feelings emerged from the research sessions. The American Art Therapy Association (AATA, 2013) Ethical Principles for Art Therapists Standard 9.2 states that researchers must seek advice from professionals who are not directly involved in the research in order to protect the rights and safety of the participants. This researcher routinely reviewed and discussed the research process, sessions, and any questions with the site supervisor in order to engage in ethical research practices. All information collected through the research instruments, art products, and conversation were kept confidential (Standard 9.5) and all of the artwork created by the participant was presented to the participant and given back to them (Standard 9.6). In order to comply with item 9.7, all digital photographs of participant artwork were de-identified and securely stored in a locked box (AATA, 2013, p. 9).

**Researcher Bias**

This researcher has been working towards a master’s degree in art therapy and believes in the efficacy of art therapy, which constitutes a dispositional bias. This case study was conducted at the same site this researcher was working at as an intern, so the relationships between the researcher and the participants may have impacted the discussions. In order to engage in researcher reflexivity, the researcher regularly discussed the sessions with the site supervisor. Continual
supervision throughout the research process helped to bracket any assumptions and provided the researcher with accountability.
Results

Results indicated six overarching themes constructed from the data based on participants’ verbal statements and the mindfulness-based art responses. These included (a) increase in self-esteem and self-worth, (b) experienced disconnection vs. experienced connection, (c) acceptance-letting go and letting be, (d) cultivating desire for transformation, (e) facing challenges, and (f) cultivating authenticity. Although images were included throughout the text, all of the mindfulness-based art responses can also be found in Appendix C.

Increase in Self-Esteem and Self-Worth

Self-esteem was measured before and after each session using the Rosenberg Self-Esteem Scale. The results of both participants’ pre and posttest scores can be examined in Table 1 (Appendix B). Participant 1 experienced a 6.8% increase in reported self-esteem according to her mean scores, while Participant 2 experienced a 4.6% increase in reported self-esteem. The mean score of Participant 1’s pretest scores was 18.8 and increased to a mean score of 26.6 on her posttests, which were taken following the MBAT interventions. The mean score of participant 2’s pretest scores was 14.4 and increased to a mean score of 20 in her posttests.

Although these results are not statistically significant, the results indicated that engagement in MBAT may have worked to increase both of the participants’ perceived overall self-esteem. These results were further supported by direct insights, experiences, and mindfulness-based art responses from the participants. For example, in session #4 Participant 1 explored “proud” as an emotional state she wished to cultivate and described this feeling as “Simple. Just to be proud of who I am.” Her discussion exhibited an increased desire to be proud of herself from an intrinsic level rather than basing her pride and worthiness on external factors, which suggested
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movement toward overall higher self-esteem and a desire for a shift toward internal contingencies.

While connecting to how she felt “proud” in the body she explained it as whole body-experience and exclaimed, “It’s me!” Participant 2 also indicated rising self-esteem when she connected to feeling “rejuvenated” as an emotional state that she wished to cultivate. She described, “rejuvenated” as “easy” and when “most authentically me.” After exploring the felt experience in the body she discussed this as being “all in my head” and how her eating disorder “thoughts aren’t as strong, more connected to authentic self, so also less misunderstood.” In the last session Participant 2 shared that after engaging in MBAT she was “overall feeling more, as a whole, positive about myself and optimistic.”

The appearance contingency scale was specifically examined in order to determine whether MBAT had any effect on altering how much each participant based her self-worth on appearance. See Table 2 (Appendix B) for the pre and posttest scores. The results indicated that Participant 1’s mean pretest score was 5.24, which decreased to a mean of 4.76 on her post scores. There was a -1.48% change in difference between the two averages. Participant 2 scored a mean of 5.96 on her pretests, which decreased to mean score of 5.72 on her posttests. Similarly, there was -1.24% change in difference between her pre and posttest mean scores. These results indicated a slight decrease in the amount for which both participants based their self-worth on self-perceptions of their appearance, but the results were not statistically significant.

The Body Weight Contingency of Self-Worth scale was examined in order to explore the potential for MBAT as an intervention to decrease the amount for which each participant based her self-worth on her weight. See Table 3 (Appendix B) for the pre and posttest scores of both participants. The mean score of Participant 1’s pretests was 41.6 (5.21), which decreased on her posttests to a mean score of 39.4 (4.93) after engaging in MBAT. There was a -3.2% change in
difference between her pre and posttest scores. The results showed that Participant 2 scored a mean of 39.4 (4.9) on her pretests, which decreased to mean score of 37.4 (4.66) on her posttests. Therefore, there was a -3% change of difference in how she perceived her self-worth as related to body weight after engaging in MBAT. Similar to the appearance contingency, these findings suggested that both participants experienced a slight decrease in the amount for which self-worth was based on body weight, however the results were not statistically significant. Table 4 (Appendix B) compares the difference in pre and posttest scores between the appearance and body weight contingencies.

Throughout the sessions, appearance and body weight were not explicitly discussed or brought up in conversations between the participants and researcher. However, thematic analysis of direct quotes and participants’ experiences indicated a shift from focus on external attributes to internal attributes. Findings also suggested that the participants were experiencing a shift towards increased positive body image. For example, in session #2 both participants reported decreased negative body thoughts after the MBAT intervention. At first, Participant 1 chose red to represent her body (Figure 2) because she identified red as a “less favored color,” but after the body scan

Figure 2. Drawing of mind-body-spirit connection.
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meditation she chose brown to represent the body (Figure 3) because “I like brown more,” she stated. Her change in perspective indicates an increase in positive body image after engaging in mindfulness. She spoke to this when she explored the impact of the focus she placed on her body, “wish I wasn’t so focused on my body and its power in my life.” Her perspective of her body began to change after the MBAT intervention when she chose brown, a better-liked color, to represent her body rather than red. Participant 2 also explored her relationship with her body when she related to feeling most insecure about her body, but by the end of the last MBAT session she shared how she was, “overall feeling more, as a whole, positive about myself and optimistic.” Participant 2 described her experience of the body scan meditation in session #2 as resulting in “shrunk body thoughts, expanded the mind, and pulled the spirit into the mind.” Furthermore, she explained that her thoughts had been affected by her spirit and she felt as though they were
“lightening or getting enlightened.” She also specifically reported experiencing more “positive body thoughts.”

**Experienced Disconnection vs. Experienced Connection**

Themes of being disconnected from the self and others emerged throughout both participants’ verbal processing of the MBAT interventions and their mindfulness-based art responses. Themes of connection emerged frequently and often times in response to heightened awareness surrounding disconnection. In session #2, each participant shared an increased awareness of their disconnection from their spirit and the resulting consequences. In heightened awareness of her disconnection from her spirit, Participant 1 shared a desire for growth and “discovery” in this part of herself. She described, “I think of my spirit as my place in the world” and shared a longing to connect deeper with this part of herself. She spoke to having experienced an “increased room for growth” after connecting to her spirit during MBAT. As seen in her mindfulness-based art responses, she found a deeper connection to herself during the guided body-scan meditation, which inspired themes of growth and expansion. She moved from a state of disconnection from her spirit, to a state of growth from increased connection after the guided body scan meditation.

During the second session Participant 2 also discussed how she felt “disconnected from my spirit, which is the part of me that does not want the eating disorder.” She shared a change in her thought process that maybe if she allowed herself to connect more to her spirit, she might feel more balanced, stronger, and able to decrease her eating disorder behaviors. Her experience of the body-scan meditation “shrunk my body-thoughts, expanded the mind, and pulled my spirit into my mind.” The connection she was able to experience through the MBAT intervention was further
seen in her mindfulness-based art responses (Figure 4). The circle representing her spirit had found contact with her mind and body, whereas previously it was disconnected.

*Figure 4. Explorations of mind-body-spirit connection.*

In session #4, the first researcher directed the participants to explore four emotions that may be sticky habits. Participant 1 chose “disconnected” as one of these to explore for herself. She showed increased awareness about the function of her eating disorder as she described “disconnection” as the “solution” that she had found to avoid feeling sadness; “this is where my eating disorder comes in,” she stated. After exploring the felt experience in the body, she discussed feeling disconnection in her feet as a way to keep sadness out, as if she was trying to “step on it, smush it, and keep it as far away from my head and heart.” In another element of the MBAT intervention the participant was directed to choose four emotions with which she would like to have more contact or cultivate. During this phase she chose “Unhappy” in order to connect with the part of herself from which she works so hard to stay disconnected. She shared insight and a
change in her thought process that maybe “It’s okay to touch this, diffuse it.” Allowing herself to connect with sadness as a felt experience in her body, a “weakness in the knees”, she stated, “maybe it can stay there, but it doesn’t have to cripple me.” Previously she had described how sadness made her feel “cut off” at the knees much of the time. Her mindfulness-based art responses (Figures 5 & 6) illustrated how she experienced disconnection and unhappiness/sadness in the body and highlighted the connection between these two emotional states.

*Figure 5. Exploration of emotions.*

Similarly, Participant 2 explored “misunderstood” in the same session and discussed disconnection and isolation as patterns of emotional habit for her. She stated, “I don’t understand

*Figure 6. Drawing of felt experience of emotions within the body.*
myself so it separates me from others.” A pattern of using disconnection and isolation revealed itself in her mindfulness-based art response (Figure 7). This can be seen in how she illustrated herself as physically encapsulated and isolated in each representation of her sticky habit emotions.

*Figure 7. Exploration of emotions.*

However, all of the emotions she wished to cultivate were illustrated with expansion and utilized more colors. After exploring the mind body connection and how she experienced each of these emotions physically, she became aware that she experienced each of these opposing emotions in similar areas of the body. This insight was emphasized by her mindfulness-based art response (Figure 8) and she found that by connecting to the emotions that she wished to cultivate, she also felt more connected to her authentic self. For example, when discussing feeling

*Figure 8. Drawing of felt experience of emotions within the body.*
rejuvenated, she stated that her eating disorder “thoughts aren’t as strong, I feel more connected to my authentic self, so also less misunderstood.” The MBAT intervention increased her awareness around some of her self-defeating patterns and how her feelings were connected to her body. She shared insight around how she experienced these opposing emotions in the same areas of the body, so if she worked to cultivate feeling optimistic, passionate, rejuvenated, and happy, then perhaps it would help her connect to her authentic self and overcome the emotional patterns causing her to isolate and disconnect.

**Acceptance- Letting Go and Letting Be**

Themes of learning to accept things that were previously unacceptable, learning to let go of expectations, control, and self-judgment, as well as letting these things be, was revealed many times throughout the participants’ processing and artwork. For example, Participant 1 shared insight as she practiced letting go of control and expectations, “As I’m realizing, there is some power in not having all the answers. I’m used to having all the answers and being done, which I’m learning can be limiting.” Her statement evidenced a shift in her thought process and movement away from needing a tight grip on control, which was a significant function of her eating disorder. She discussed insight into the function of her eating disorder and how control of her body helped her to not feel sad. She expanded on that by accepting her “honest mind” in feeling the sadness and letting go of control, which she expressed, resulted in room for more growth.

In the first session both participants experienced a heightened awareness of their tendencies towards perfectionism, self-judgment, needing to be in control, dislike of the unexpected, and strong preference of what was familiar and comfortable. During the exploration of art materials Participant 1 expressed, “I like when I know what to do” about working with chalk pastels (Figure 9), a medium that she was very familiar with.
On the other hand, working with acrylic paint was “not as comfortable” and “activating thoughts about perfection.” While working with colored markers, Participant 1 shared that she had tried to let go of her plans and expectations and found herself to be relaxed, that “it was easier to draw when I connected to the feeling the drawing gave me.” Furthermore, she felt that she could “color over feelings of self-judgment.” Participant 2’s experience during the first session was very similar. While exploring with colored pencils she shared it was “less stressful because it was more familiar” and while working with oil pastels she expressed that it was “familiar, I knew what to do,” and that it was “calming in a control way.” She shared she liked that, “I have power over the utensil versus it has power over me because it knows what it is and I don’t.”

During the watercolor exploration, participant 2 appeared more relaxed and stated that now “It’s okay to make a mess because I know what kind of a mess to expect” (Figure 10). Session #1 helped each participant increase their understanding and awareness of themselves, their likes, dislikes, and much about how they processed and functioned in their day-to-day life. This deeper self-understanding seemed to lay the groundwork for accepting these parts of the self and learning to move beyond them in future sessions.
Both participants worked to find acceptance in areas of their lives that were previously unacceptable. Throughout the sessions, Participant 1 spoke to how she found herself “hesitant to access sadness” and began to work towards accepting this as a reality within her. She allowed herself to begin to feel this sadness, which she described as “a tight ball that is centered in my chest, although it radiates a little bit I keep it there. The idea of letting it out is scary.” Then, as she continued to allow herself to feel her sadness, she showed an acceptance of her depression and a willingness to let it be as a part of her, though not as something that was controlling her, stating “maybe it can stay there, but it doesn’t have to cripple me.” This image became part the larger picture of the self as she continued to explore sadness as a potentially acceptable part of herself, rather than a root cause for her eating disorder. Participant 2 showed awareness of how her emotional habits of alienation and misunderstanding led to eating disorder “thoughts [that] are stronger and hard to turn off.” Through mindful exploration of the self, Participant 2 also shared that when she was rejuvenated, her “thoughts aren’t as strong, more connected to authentic self, so also less misunderstood.” In the last session, Participant 2 discussed how she was learning to let go of some of her control, to let things be, and work with what was best for her rather than trying to
fight against it. She expressed, “I’m learning to let what I need in and accept the help, the nutrients, I need to grow.”

**Cultivating Desire for Transformation**

Themes of change and a desire for personal transformation were prevalent throughout the participants’ engagement in MBAT. While exploring the relationship between the mind, body, and spirit, Participant 1 shared “I wish I wasn’t so focused in my body and it’s power in my life.” Her statement showed a desire for something different, as she later discussed “being open to let something change and allowing for something different.” In the final session she drew “Rock field” (Figure 11) and expressed she was “amazed when things grow through the cracks” and “they find a way even against the odds.” In a previous session she had described cracks as a way to leave organic room for growth and change. Participant 1 metaphorically illustrated and described an inner change that she was experiencing, a transformation of growth and potential in a place where it seemed impossible to her. She described this feeling as “hope” that “feels true, honest, realistic, achievable.” Her mindfulness-based art response and insights indicated hope, a desire for growth, and an increase in resilience.

*Figure 11. Rock field.*
In session #2 Participant 2 experienced an inner change, which she described as “lightening, or getting enlightened, more neutral and not as dark.” Then in the next session after exploring her pain and offering symbolic self-care, she discussed how potential and capability for transformation was her biggest take-away from this MBAT intervention. She expressed, “You don’t have to stop at pain, you can make something out of it. It becomes part of the bigger picture.” Her insight indicated hope, a desire for growth, and an increase in resilience and seemed to speak to a growing feeling of self-efficacy. Furthermore, in a later session she spoke to a desire to cultivate the emotions that connected her to her authentic self as a tool to help overcome her eating disorder behaviors and thoughts in order to find transformation.

**Facing Challenges**

Throughout the sessions each participant was confronted with tasks that challenged their perfectionism and tolerance of what was uncomfortable or anxiety provoking. Participant 1 worked to challenge herself in these areas, such as when she intentionally let go of her expectations, as well as after she experienced “activating thoughts about perfectionism,” she pulled green paint across the image in order to physically take action against making the image perfect (Figure 12). She described this opposite action as “uncomfortable” but challenged herself to do it anyways.

*Figure 12. Fighting perfectionism: Explorations with acrylic.*
Throughout the sessions, Participant 1 shared how one of the most significant struggles for her was self-acceptance, including allowing herself to feel sadness and believing that it was okay for her to feel sad. “It’s not okay to be sad” she stated during the first session but continued to challenge this thought process in the following MBAT interventions. The third session led the participants though a body scan meditation and directed them to bring attention to any mental, emotional, or physical pain they might have been experiencing. Then they were given a body outline and encouraged to explore any of this pain within the body boundary using line, shape, and color. In the next step, they moved the symbolic representations of pain on to another sheet of paper and out of the body, then were given the opportunity to practice self-care. This session confronted Participant 1 with two of her biggest personal challenges: feeling sadness and allowing herself to care for herself. After illustrating her pain within the body boundary (Figure 13), she took a step back to look at the representation and stated, “It feels dramatic, it looks accurate, but it feels harsh.” However, after moving these symbols out of the body (Figure 14) she expressed that

*Figure 13. Drawing of felt pain within the body.*
“it feels softer than it should be.” She shared insight that maybe her sadness and anxiety are less threatening than she thinks,” which showed how as she faced this challenge it may have encouraged a shift in her long time tightly held belief that “it is not okay to be sad” and “the idea of letting it out is scary.” The next step in the MBAT intervention challenged another one of her deeply ingrained thought processes. She expressed that it was “challenging to offer self-care” and discussed how she does not believe she should have self-care unless she has “earned it.” However, after reflecting on the intervention, she expressed being open to challenging this engrained and distorted thought process. Her mindfulness-based art response (Figure 15) depicted a “deconstructed vine” that did “not erase the pain but carry it, let it be, let it blossom” and illustrated the growth potential that came from facing challenges. After providing symbolic
self-care she continued to work to accept the sadness within herself. Her mindfulness-based art response illustrated the growth she was able find in accepting and letting her sadness be. Facing these challenges in Session #3 helped her continue to confront challenges in the next two sessions. In session #4 she explored “unhappy” as an emotion that she would like more contact with, indicating that she was beginning to accept sadness as part of her life and movement toward allowing herself to explore rather than “keeping it in her chest.” Lastly, in the final session she illustrated and discussed how growth can come from a place of struggle.

Participant 2 experienced session #3 in similar ways, as she was also confronted with the challenge of allowing herself to feel and sit with emotional, mental, and physical pain, especially depression and anxiety. She shared that in her body she experienced a “depression cloud, like a sadness bubble over her heart,” or “a stagnant rain cloud.” She experienced anxiety as a “nervous
energy in her gut” that felt like “sharp movement” as represented in Figure 16. After moving the symbolic expressions of pain outside of her body she stated, “Looking at pain outside of the body feels weird, they just like blobs instead of pain” (Figure 17). She expressed the same reaction that

![Figure 16. Drawing of felt pain within the body.](image)

Participant 1 experienced as she discussed feeling that perhaps her pain was less threatening than she thought. At first she struggled to offer self-care with the art materials to her pain expressions, then she flipped the entire paper around from top to bottom and created a new image using the pain representations as a map. However, she worked around the cloud of depression leaving it for

![Figure 17. Drawing of felt pain removed from the body.](image)
last and came to it with hesitation. When asked about this she discussed how depression was the “most difficult to approach” and that she “almost left it.” After completing her art response (Figure 18) she shared insight about how “you do not have to stop at pain, you can make something out of it. It becomes part of the bigger picture.” She appeared excited about her new revelation and illustrated growth as a result of having faced these challenges. She continued to face her cloud of depression in session #4, describing it as “an elephant on my chest making it hard to breathe” and shared that it “smashes down my optimism and passion.” Participant 2 struggled to offer herself care as well, especially when it came to caring for her depression. She shared it was the “most difficult to approach” and how she had “almost left it.” However, after completing what felt threatening she expressed pride in herself, and was able to see both the bigger picture and the resulting transformation. Then finally, in the last session, she spoke to facing the challenge of giving up control and learning to “accept the help, the nutrients, I need to grow.”

**Cultivating Authenticity**

Themes of authenticity were found frequently throughout the data. Participant conversations and artwork revealed discovery and curiosity about the participant’s authentic self to active intentional cultivation of living an authentic life. Participant 1 shared an increase in

*Figure 18. Transformative self-care drawing.*
awareness of how much the amount of focus and energy she placed on her body limited the growth of her mind and spirit and expressed a desire for mental and spiritual growth. She also expressed experiencing her “honest mind” and feelings of sadness, but how in allowing herself to feel this sadness she found more room for internal transformation. Her insight indicated that by accepting sadness as a real and authentic part of herself, it cultivated more room for an increased knowledge of her true and authentic self. She continued to confront her authentic feelings of sadness and continued to find “always green, growth, and natural feeling” and further “being open to let something change.” While connecting to emotional states she wished to cultivate, she discussed a desire to feel authentically proud and worthy of who she was. When exploring “proud” she described this as “Simple. Just to be proud of who I am.” Her statement showed that she desired to cultivate a simple sense of self-worth based on her intrinsic self, rather than feeling like she needed to earn her pride and worth in who she was. This indicated a shift from believing that she needed to do or be something in order to be worthy of self-care, to a shift in thinking that she could be proud of and value her authentic self, therefore worthy of caring for herself.

Along with “proud,” she also chose to explore “passionate” as a feeling that she desired to cultivate further; “It’s important to me, how I decided what to do.” She explained that when she felt passionate about something, “I can feel all the feelings, but it’s uplifting not overwhelming.” This statement described how when she was passionate, she was authentically in touch with and accepting of all of her emotions. This emotional state further defied her eating disorder since she shared that one of the primary functions of her eating disorder was to intentionally disconnect from emotions, especially sadness. Connecting to the felt experience of passion in her body, she spoke to feeling passion in her hands, “I feel like I can do something, feel capable, feel powerful and strong.” This suggested that, through connecting to her authentic passion, she also experienced an
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increase in self-efficacy. Finally, in the last session, Participant 1 continued to explore her authentic self when she discussed growth through struggle. She spoke about “hope” and how “this is what gets me through all of this,” she related to her art response in that it “feels true, honest, realistic, achievable.” Throughout this last session she demonstrated increased connection to personal growth, acceptance of struggle, resilience, and a feeling of what was authentic and real to her.

Participant 2 showed a desire to cultivate her authenticity when she expressed a desire to explore the “new territory” of her spirit further. She shared that her spirit was the part of her that “doesn’t want the eating disorder.” Then, after she offered self-care and confronted her depression, she found that it was “happier, calmer, a place I’d want to go.” Her insight suggested that by confronting what was authentic and difficult, she experienced a calm and a desire to be in that place of authenticity. MBAT emphasized Participant 2’s self-understanding surrounding her authentic self and ways in which she could cultivate her authenticity. She described the emotional habit of “misunderstood” as “I don’t understand myself so it separates me from others.” She showed awareness around her lack of true self-knowledge. However, she also described emotional states that she would like to cultivate and found that all of them led her to experiencing her authentic self. “Optimistic” she described as “after the storm there is a bright thing, something I would want to be.” “Passionate” she explained as “fun and falling in love with something” and discussed the possibility of falling in love with herself. “Rejuvenated” she expressed was “easy” and when she was “most authentically me.” Furthermore, “happy” to her was “looking for things that are authentically me.”

After considering how all of these emotional states manifested in her body, she found that when she was rejuvenated, her eating disorder “thoughts aren’t as strong, I am more connected to
my authentic self, so also less misunderstood.” She shared insightfully that her illustrations depicted herself as physically encapsulated in all of her emotions that were self-defeating cycles, while her images representing the emotional states she would like to cultivate are growing and expanding. This illustrated how she isolated and disconnected while in these emotional cycles, but that all of the emotional states with which she would like more contact might bring her closer to her authentic self. Moreover, after reflecting she noticed how she experienced all of these opposing emotions in the same areas of the body. She insightfully shared a realization that if she worked to cultivate optimism, passion, rejuvenation, and happiness that these emotional states might help her to connect more to her authentic self and give her the resilience to fight the patterns of isolation and eating disorder behaviors. Finally, in session #5 she spoke to building on her authenticity when she described herself as the “foundation” of the palm tree that symbolized herself (Figure 19). She related her treatment team to the sun, her family to the roots of the palm tree, and herself as the foundation. She expressed, “I’m learning to let what I need in and accept the help, the nutrients, I need to grow.”

Figure 19. Empty beach with a palm tree.
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At the end of the last session, she shared that she had come into this final hour feeling upset after having had a difficult therapy session, but after doing the safe place guided imagery she was able to get out of her head and felt like she had a place to go. Her thoughts showed that she was beginning to build skills, as well as find the internal strength and resilience within herself to withstand the uncomfortable, unexpected, and unfamiliar things in her life. Throughout these sessions she demonstrated a growing connection to herself, an acceptance of struggle, increasing resilience, and a growing desire to cultivate her authentic self.
Discussion

The results of this study indicated that mindfulness-based art therapy may provide an effective intervention for women in eating disorder treatment, in order to increase overall self-esteem and alter self-worth to more stable internal contingencies. Six themes were constructed from the qualitative data including (a) increase in self-esteem and self-worth, (b) experienced disconnection vs. experienced connection, (c) acceptance—letting go and letting be, (d) cultivating desire for transformation, (e) facing challenges, and (f) cultivating authenticity. The construction of these themes were viewed as elements of working toward a deeper valuing of the self and belief that one was worthy of love and connection just for who they are, rather than what they look like or how much they weigh. Although the results of this study were not statistically significant or generalizable, they were supported by the literature, limitations of the study were examined, and recommendations for future studies were suggested.

Increase in Self-Esteem and Self-Worth

The literature indicated that patients with eating disorders have frequently and consistently been told, either directly or indirectly, that who they were was not enough, inadequate, or unacceptable, which has been found to contribute to the onset and development of eating disorders (Anderson et al., 2000; Hinz, 2006; Pipher, 1995; Reindl, 2001). This study corroborates these findings, as a low base level of self-esteem was assessed in both of the participants. In addition, researchers have claimed that a low sense of self-worth and deeply held feelings of shame can contribute to the development and maintenance of eating disorders (Hinz, 2006; Hodge & Simpson, 2016; Prowse et al., 2013; Rehavia-Hanauer, 2003). This idea was illustrated in Participant 2’s increased self-understanding found through exploring her emotional habits, which
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she was able to see had become self-defeating cycles that maintained her eating disorder. She found that the more she felt alienated, insecure, depressed, and misunderstood, the more she isolated herself from not only others, but disconnected herself from her authenticity, further deepening the feelings of insecurity and low self-esteem. For this reason, treatment goals in eating disorder recovery often include increasing self-acceptance and self-worth (Frisch, Franko, & Herzog, 2003; Gillespie, 1996; Hinz, 2006; Hodge & Simpson, 2016; Rubin, 1999).

The results of this study provided preliminary evidence for the effectiveness of the methods used in order to help women with eating disorders internalize healing and recovery on a deeper level. In this study, both participants experienced a slight decrease in the amount for which they based their self-worth on appearance and body weight. As research had indicated, individuals who defined their sense of self and self-worth on appearance can benefit from practicing mindfulness to increase self-acceptance, self-compassion, and self-worth, thereby developing a more holistic sense of self (Prowse et al., 2013; Stewart, 2004). Research showed that appearance contingent self-worth was positively correlated to disordered eating and should be targeted in treatment programs (Bardone-Cone et al., 2013, 2017; Clabaugh et al., 2008). The results of this study provided evidence of a possible effective intervention aimed at targeting appearance contingent self-worth for women with eating disorders. Research by Harlow et al. (2018) indicated that a shift in an activation of mental images, specifically increased availability of positive self-images, can work to challenge negative self-perceptions and could therefore improve an individual’s self-worth. MBAT presents an intervention that helps individuals activate and shift mental imagery while challenging negative beliefs about the self; furthermore this study echoes Harlow et al. (2018) in that the participants experienced an increase in reported self-esteem.
Mindfulness interventions may be uniquely suited to creating change in eating disorder thoughts; evidence has found that such interventions played a critical role in changing body image and perceptions of self (Bardone-Cone et al., 2017; Clabaugh et al., 2008; Prowse et al., 2013). The results of this study adds to this research by indicating that MBAT may be an intervention which focuses on self-compassion, self-awareness, and cultivating a curiosity to know one’s authentic self, which increased participants’ positive self-image and self-worth. Therefore, this study added to research that has indicated that treatment focused on self-compassion and decreased external contingencies of self-worth may be effective at decreasing eating disorder symptoms (Bardone-Cone et al., 2013, 2017; Chang et al., 2014; Clabaugh et al., 2008; Crocker & Knight, 2005; Crocker et al., 2006).

**Experienced Disconnection vs. Experienced Connection**

Engagement in the creative experience of art therapy may allow individuals to explore their uniqueness and learn about parts of themselves that they have rejected and split off, in order to enhance self-acceptance and internalize a new sense of self in safe and non-threatening ways (Frisch et al., 2006; Hinz, 2006; Hodge & Simpson, 2016; Rubin, 1999; Wolf et al., 1985). This study further adds to this research, as was seen through both of the participants’ desire to reconnect with their spirit, a part of themselves both had cut off in consequence of the eating disorder. Furthermore, engagement in MBAT allowed both of the participants to explore the deep sadness, depression, and anxiety that they had rejected in creative ways that were less threatening. This safe exploration created a shift in their perspectives that these terrifying and unacceptable feelings might not be as bad as they were perceived to be. In this way, the artwork may have helped the participants’ determine inner self-representations that affected their eating disorder, in order to
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provide personal insight into the real self and a stronger connection to authenticity (Gillespie, 1996; Hinz, 2006).

Acceptance- Letting Go and Letting Be

Through the MBAT sessions, the participants worked to create self-awareness and increase self-acceptance. Researchers have found that the practice of increasing awareness with actions and accepting without judgment were associated with increased resilience and decreased eating pathology (Prowse et al., 2013). This study corroborated the literature in finding that, as the participants increased their awareness of and accepted previously rejected parts of themselves, they expressed feeling more connected to their authentic selves than their eating disordered self.

Prowse et al. believed that through increased self-understanding and awareness, individuals gained a deeper appreciation for their authentic self; thus, mindfulness interventions may serve to increase internal contingencies of self-worth and decrease reliance on external factors for one’s worthiness. Individuals who defined their sense of self and self-worth on appearance can practice mindfulness to increase self-acceptance, self-compassion, and self-worth developing a more holistic sense of self (Prowse et al., 2013; Stewart, 2004).

Much of the acceptance work throughout the MBAT interventions involved letting go of expectations as both participants expressed strong preferences towards knowing what to expect and a strong dislike of uncertainty. Each of them described finding a degree of freedom when they were able to let go of some their expectations, control, perfectionism, and self-judgment through engagement with MBAT. Hinz (2006), Matto (1997), and Rehavia-Hanauer (2003) all found that participants were no longer a prisoner of the eating disorder when they became involved with art materials and they developed a sense of control that was not rooted in the eating behaviors.
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Heffner et al. (2002) applied Acceptance and Commitment Therapy with AN as an intervention to focus on the self as the context for creative existential hopelessness and seeing control as a problem, while letting go of a struggle to choose a direction and commit to behavioral change. The intervention was primarily designed to teach individuals acceptance and willingness in response to undesired or uncomfortable situations where change was not possible. The results of the present study echoed aspects of these ACT interventions in helping participants work to let go of control struggles and move towards implementing change. In addition, this study may have helped participants gain an increased sense of self, develop awareness of personal life direction and values, and live in ways that line up with their values by teaching behavioral commitment skills (Hayes, Pankey, & Gregg, 2002). Participant 2 spoke to behavioral change as a result of acceptance when she shared that she is “learning to let what I need in and accept the help, the nutrients, I need to grow.”

Cultivating Desire for Transformation

It has frequently been claimed that art therapy is especially unique in its potential to reawaken an individual’s emotions and associations. Hunter (2016) found that the development of positive affirmations through imagery helped to instill the hope necessary for healing and transformation. This study showed that MBAT may have a similar effect in helping individuals develop a desire for change and hope that may have previously felt out of reach. Frisch et al. (2006) found that arts may be used to explore root causes of eating disorders, as well as help patients identify feelings and integrate new awareness into more positive coping behaviors. Relatedly, each participant in this study demonstrated a desire for personal growth, as well as exhibited signs of increased resilience. These, may in turn, result in future behavioral change to face the unexpected and the unacceptable with more adaptive coping skills instead of eating
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disorder behaviors. This finding echoed Hodge and Simpson’s (2016) research, which showed that successive drawing helped those with eating disorders elaborate on a new sense of self, internalize, and integrate it, just as the MBAT interventions may have begun to do.

Facing Challenges

Hinz (2006) asserted that by engaging in the processes of artwork, the eating disordered individual is presented with experiences that help them see that they are more than just their body, which in turn may encourage them to internalize a deeper sense of self and self-worth. Many of the MBAT interventions utilized in this study directed the participants to face something or complete a task that was somewhat uncomfortable and difficult. However, by facing the challenge and completing the difficult task, both participants were able to find growth and personal insight.

Perhaps one of the most difficult of these for each of the participants was the task of using the art materials to metaphorically offer self-care to their pain. For example, Participant 1’s mindfulness-based art response depicted a “deconstructed vine” that did “not erase the pain but carry it, let it be, let it blossom,” which illustrated the growth potential that came from facing challenges and taking care of herself in the process.

Throughout the MBAT sessions, both participants were faced with the challenging task of confronting their depression, anxiety, pain, and rejected parts of themselves. Each time, the participants showed signs of increased self-acceptance, growth, and resilience. This finding is consistent with the literature. Research found that for women who manifested eating disorders later in life, as well as also experienced childhood sexual abuse and trauma, drawing created a space to express their introspective experiences and emotions, put imagery to inner thoughts, and increase capacity to process trauma and information more effectively (Hodge & Simpson, 2016). MBAT may have a unique capacity to help individuals process their pain and create change on a
neurological level. Rappaport (2014) asserted that the therapeutic use of mindfulness and creative
arts produce effective clinical tools due to the neurological activation through these methods to
work through psychological wounds, emotional distress, and distorted thought patterns, which
have all been encoded in the brain at a preverbal level. MBAT has also been associated with
reducing anxiety, however these changes reach even deeper as fMRI scans have recorded and
documented changes on a neural level (Monti et al., 2012; Peterson, 2015).

Cultivating Authenticity

Harlow et al. (2018) found that when individuals held in their mind a positive self-image,
they experienced a significant increase in positive explicit self-esteem, a decrease in negative
explicit self-esteem, as well as an improvement on their current self-concept clarity. Throughout
engagement in the series of MBAT interventions, the participants created realistic positive
representations of themselves that explored and accepted various aspects of who they were. Based
on theory and systematic inquiry, researchers have proposed that that mindfulness practices
targeting the areas of self-understanding and awareness may help individuals gain a deeper
appreciation for their authentic self; similarly, creating artwork may help individuals gain a deeper
experience of their internal self, which may then encourage them to embrace that they are more
than their physical appearance and body (Frisch et al., 2006; Gillespie, 1996; Hinz, 2006; Hodge &
Simpson, 2016; Prowse et al. 2013; Rubin, 1999; Wolf et al., 1985). The findings of this study
appear to support these assertions, which were demonstrated by both participants’ insightful
statements, mindfulness-based art responses, and changes in engrained thought patterns about the
self.

One participant demonstrated a shift in thought patterns when she made a statement
reflecting increased insight into behavioral changes she could make that directly connected her
more to her authentic self. She was able to explore emotional habits and emotional states with which she wanted to have more contact, and identified habits that caused her to isolate and those that helped her to grow. The results of this study were supported by the research of Prowse et al. (2013), which found that mindfulness practices worked to create a more complete sense of self and increase one’s positive sense of self-worth.

Limitations

Although this study exhibited many strengths, there were many elements that limited the study. The case study design of this study allowed for the researcher and participant to engage in deeper one on one conversation that allowed the researcher to better understand the participant’s experience and perspective. MBAT was originally designed to be a group intervention, but the length of patient stay at the recovery center varies and assumed the risk of being cut short by insurance. Thus, in order to decrease participant dropout, this study employed a case study design rather than group format. Altering the intervention from a group setting to an individual session could have taken away valuable processing and relationship building among the group members. Individual case sessions increased the amount of one-to-one processing with the researcher, but the participant may have lost the experience and benefits of processing in a group and receiving peer support. Furthermore, the small number of participants limited the results and precluded the possibility of finding any statistically significant data. Without a larger number of participants, this study was limited in making quantitative conclusions.

Another significant alteration to the original MBAT intervention was the time change from two-and-half hour sessions to one-hour sessions. Although this allowed the study to fit cohesively within the pre-existing program structure, the one-hour time frame did not seem to be enough time. The researcher noticed that the sessions felt rushed near the end and more time would have
allowed the participant further space to engage with herself, the art materials, and reach a deeper level of processing. The shortened sessions seemed to limit the amount the participant could benefit from the MBAT intervention. Similarly, Peterson (2014) designed MBAT to consist of a total of eight sessions, but this study shortened the structure to a total of five sessions. Although this allowed the study to work best at the facility, it also limited the participants’ engagement with MBAT. Peterson (2014) incorporated mindfulness and meditation homework, which was not a part of this study due to various other therapies and activities offered to the participants as part of the partial hospitalization program. The shortened time frame, session number, and exclusion of at home meditation may have decreased the effectiveness of MBAT.

One significant confounding factor to the results of this study was that each participant was also engaged in a full time treatment program. Therefore, the various other individual and group therapy sessions that were a part of the partial hospitalization program could have influenced the outcome of their scores and mindfulness-based art responses. This limits what can be concluded about using MBAT as an intervention aimed at increasing overall self-worth since MBAT was not an isolated intervention for both participants. Although the results indicated a change in how much the participants based their self-worth on appearance and body weight, overall self-esteem and perceived worth are complex and may take longer than the five sessions offered in this study to increase self-worth on an in-depth long-term level.

**Recommendations and Future Studies**

The limitations discussed above set the stage for areas in which this study could be improved upon in the future. One recommendation would be to apply MBAT as per the original model in a group setting composed of eight sessions that are two-and-a-half hours each. The alterations made to this study limited the time for processing the participants had to engage with
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MBAT, thereby possibly decreasing the effectiveness of the intervention. However, making these changes in a future study while working with women with eating disorders may produce more accurate results regarding the effectiveness of MBAT with this population. Future studies could expand MBAT by extending the intervention past eight sessions to explore the long-term effect of its application. Furthermore, the researcher highly recommends that future studies engage more participants in order to produce quantitative statically significant results.

Moreover, future studies could explore the difference between MBAT as an intervention in a treatment program compared to MBAT used with women with eating disorders who are not receiving treatment. A primary confounding factor of the present study was that the participants were engaged in a full time treatment program. In order to isolate MBAT as the only factor, it is recommended that a group be held in which the participants are not engaged in any other therapies throughout the duration of the study. This change would help to decrease interfering factors that may alter the results indicating the effect of MBAT on the self-worth of eating disordered women. Though, such a study would have to be mindful to any ethical issues that doing so might pose, such as utilizing strict exclusion criteria in the case of individuals who necessitate additional treatment modalities. As there are many contingencies of self-worth, future studies could explore the effects of MBAT on other contingencies, rather than focusing only on appearance and body weight. It would also be recommended that any shift between external and internal contingencies be more directly compared and examined.

Although this study involved one participant with Anorexia Nervosa and one with Bulimia Nervosa, future studies could compare the differences of MBAT as an intervention used with individuals diagnosed with AN and individuals diagnosed with BN. Future studies could also explore MBAT as an intervention used with adolescent eating disordered girls rather than with
adult women. Working with adolescent girls is recommended in order to explore MBAT as a preventative intervention or as a way to help decrease eating disordered thoughts and behaviors at a younger age. Furthermore, due to the high prevalence of comorbid diagnoses of depression and anxiety with eating disorders, future studies could explore the efficacy of MBAT as an intervention to decrease symptoms of depression or anxiety with this population. A further recommendation would be to measure the direct effect of MBAT on participants’ engagement in their personal eating disordered behaviors.

Conclusion

Overall, the results of this case study indicated that MBAT may serve as a potentially effective treatment for use with women with eating disorders in order to help increase overall self-esteem and self-worth. Through practicing MBAT, the participants gained self-awareness and increased self-acceptance that allowed them to experience and connect to their authentic inner selves. Six themes were constructed from the thematic analysis including (a) increase in self-esteem and self-worth, (b) experienced disconnection vs. experienced connection (c) acceptance-letting go and letting be, (d) cultivating desire for transformation, (e) facing challenges, and (f) cultivating authenticity. These themes are viewed as factors involved in deepening one’s internal belief in themselves as an individual worthy of love and connection just for who they are, despite their appearance, body weight, and imperfections. All of these themes were supported by the literature as well as the qualitative results measured by the Rosenberg Self-Esteem Scale, the Contingencies of Self-Worth Scale, and the Body Weight Contingency of Self-Worth Scale. Although not statistically significant, the results offered intriguing information about the efficacy of MBAT and its potential as an intervention for eating disorders. It is recommended that future studies continue to explore MBAT in relation to self-esteem and contingent self-worth in women.
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diagnosed with an eating disorder. MBAT may offer a uniquely individualized and potentially
effective therapeutic intervention to help those diagnosed with eating disorders increase self-
acceptance, decrease reliance on external factors such as appearance and body weight for one’s
self-worth, connect to their authentic self, and work towards a sustained decrease eating disorder
symptoms and behaviors.
References


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Gual, P., Pérez-Gaspar, M., Martínez-González, M. A., Lahortiga, F., Irala-Estévez, J., &


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doi:10.1016/j.aip.2016.05.005


*The Wiley handbook of art therapy* (pp. 387-396). West Sussex, UK: John Wiley & Sons, Ltd.

Kalmanowitz, D., & Ho, R. T. H. (2016). Out of our mind, art therapy and mindfulness with

doi:10.1016/j.aip.2016.05.012


meditation effects. *Journal of Constructivism in the Human Sciences, 8*, 107-118. Retrieved from

https://s3.amazonaws.com/academia.edu.documents/46988801/Mindfulness_Wisdom_and_Eating_Applying_a20160703-23020


doi:10.1177/135910539900400305


doi:10.1007/s12671-012-0179-1

MBAT & SELF-WORTH WITH EATING DISORDERS

group therapy intervention for the treatment of binge eating in bariatric surgery patients.

*Cognitive and Behavioral Practice, 15*, 349–442. doi:10.1016/j.cbpra.2008.01.004


Moore, R. O. (2012). *To cut or not to cut: Treating teens who self-mutilate using structured play therapy techniques*. Paper presented for the Association for Play Therapy International Conference: Cleveland, OH.


Peterson, C. (2000). *A national institutes of health R-21 grant application with discussion: Mindfulness-based art therapy for cancer patients*. Philadelphia, PA: MCP Hahnemann University, School of Health Professions, Department of Mental Health Sciences.


with cancer. Integrating Mindfulness-Based Interventions into Medicine, Health Care, and Society. Sixth Annual Conference for Clinicians, Researchers and Educators, Worcester, MA: University of Massachusetts.


Wattam, J., Moore, R. O., & Ordway, A. M. (2014). Treating adolescent females with bulimia...
MBAT & SELF-WORTH WITH EATING DISORDERS

nervosa: using a creative approach with CBT. *ACA Knowledge Center: Vistas Online, 19.*

Retrieved from http://counseling.org/knowledge-center/vistas


Mindfulness Exercises & Art Directives

These exercises were adapted from the MBAT program that Peterson (2000) developed for a pilot study for women with cancer and continued using in inpatient addictions clinical work (Peterson, 2014). Peterson (2014) asserted that in order to orient to mindfulness, participants should engage in intentional attention and attitude from moment-to-moment. Kindness and curiosity was encouraged by “attitudes of non-judging, patience, beginner’s mind, trust, non-striving, acceptance, and letting go/letting be” (Peterson, 2014, p. 44). The participant shared their artwork and reflected on their art process and product with the researcher at the end of the session.

There was a wide variety of art materials available including: pens, pencils, colored pencils, markers, oil and chalk pastels, acrylic paint, watercolor paint, and a variety of paper sizes and colors.

Session #1: “Mindful Exploration of Art Materials (MEAM)”

The participant used a variety of art materials to explore and practice mindful attention in their experience with the supplies and focus their awareness. Pairs of art materials including fine-tipped colored pens, colored pencils, medium-tipped colored markers, chalk pastels, oil pastels, acrylic paint, and watercolor paint along with paper and necessary brushes were each presented for the participant to explore for about five minutes. The researcher briefly presented the materials from the most structured to most fluid medium. Participants were asked to become aware of and record any body sensations, thoughts, and any pleasant or unpleasant feelings during the experiences with each media. Learning what the individual turns towards and from in preference, habit, and associations, may create a new awareness and encourage the participant to explore rejected parts of their own inner and outer self to see new possibilities (Peterson, 2000, 2014).
Session #2: “Exploring the Mind/Body Relationship with Meditation”

The participant was directed through a two-part exercise to learn skills in observing the mind and body and potential change states. First the participant was guided through a short breathing exercise to bring attention to the body. Then, was provided with three pre-cut circles, 4, 5.5, and 7 inches in diameter, and directed to chose one to represent the mind and one to represent the body. The participant was directed to use colors and art materials that felt appropriate to trace the circles on the page so that the positioning of the circles on the page reflected their observed mind-body relationship. In the second part, the participant was guided through a 2 minute, 44 second body scan meditation. After the mediation, the circle directive was repeated onto the same page. Then the researcher invited the participant to use any of the art materials to illustrate more about their awareness in and around the circles (Peterson, 2000, 2014).

Session #3: “Bringing Attention to Pain and Care”

The participant was guided through the same body scan meditation and directed to bring attention to their direct experience of pain. Then invited to offer self-care through the art materials. A pre-drawn body outline (Appendix D) was provided and participants were instructed to explore “any physical, emotional, or mental pain within the body boundary, using line shape and color” (Peterson, 2014, p. 48). In the next step the participant was directed to move the symbolic images of pain out of the body and onto a new piece of paper, then to use any art materials to offer care for these expressions. Peterson (2014) has observed that the participant’s expressions of care often point toward unrealized inner resources.

Session #4: “Feeling Vocabulary of the Body”

The participant was encouraged to expand their understanding of the range of human emotions, how their individual body responds to a feeling, recognize awareness to when they feel stuck, and
practice being open to new possibilities. A standard feeling vocabulary (Appendix E) list was provided and the participant was directed to identify two categories. First, four emotions that may be “habits perhaps that feel sticky for you. Perhaps places that you can end up hanging out in that are discomforting, discouraging, perhaps a pattern related to reactivity to experience” (Peterson, 2014, p.51). Second, four emotions “that you would like to cultivate, emotional states you would like more contact with” (Peterson, 2014, p.51). The participant was provided with a large paper folded into a grid and directed to write the feelings at the top of each box. Then, to use line, shape, and color to express the energetic experience of this feeling symbolically. In the next step, the participant was provided with a pre-drawn body outline (Appendix D) and asked to draw these symbolic expressions on the body form where they feel each emotion in the body (Peterson, 2000, 2014). Peterson (2014) has found that mapping the feelings out within the body enhances insights into the mind-body relationship.

Session #5: “Healing Place”

The last session engaged the participant in a guided imagery meditation toward a safe place and breathing awareness. Peterson (2014) reported that the guided experience was designed to support the participant’s awareness of comforting preferences and evoke a meaningful environment. The researcher led the participant through a safe place guided imagery. Then the art response to follow instructed the participants to “draw a barren place and then show something growing there” (Peterson, 2014, p.52) using any art materials to explore any feelings, images, or sensations that may have emerged. Peterson (2014) has observed that throughout participating in MBAT individuals’ art products indicate a more connected personal narrative and a more whole identity.
Table 1

*Rosenberg Self-Esteem Scale Scores*

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<td>Posttest</td>
<td>Pretest</td>
<td>Posttest</td>
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<td>19</td>
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<td>11</td>
<td>22</td>
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<td>Session 5</td>
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<td>18.8</td>
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<td>14.4</td>
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*Note.* Higher scores indicate higher overall self-esteem. The lowest score is 10 while the highest possible score is 40.

Table 2

*Appearance Contingency of Self-Worth Scale Scores*

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<thead>
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Table 3

*Body-Weight Contingency of Self-Worth Scale Scores*

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<td>Pretest</td>
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<td>Posttest</td>
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<tr>
<td>Session 1</td>
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Table 4

*Appearance and Body Weight Contingencies of Self-Worth Results*

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<td>Body Weight</td>
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<td>4.9</td>
<td>4.66</td>
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</table>

*Note.* Higher scores indicate a greater tendency to base one’s self-worth on appearance or body weight on a scale from 1-7.
Participant 1

Session #1

Figure 1. Explorations with fine-tip pens.

Figure 2. Explorations with colored pencils.
Figure 3. Explorations with colored markers.

Figure 4. Explorations with chalk pastels.
Figure 5. Explorations with oil pastels.

Figure 6. Fighting perfectionism: Explorations with acrylic.
Figure 7. Explorations with watercolor.

**Session #2**

Figure 8. Drawing of mind-body-spirit connection.
Figure 9. Drawing of mind-body-spirit connection after guided meditation.

Session #3

Figure 10. Drawing of felt pain within the body.
Figure 11. Drawing of felt pain removed from the body.

Figure 12. Self-care offered to personal experience of pain.
Session #4

Figure 13. Exploration of emotions.

Figure 14. Drawing of felt experience of emotions in the body.
Session #5

Figure 15. Rock field.

Participant 2

Session #1

Figure 16. Explorations with fine-tip pens.
Figure 17. Explorations with colored pencils.

Figure 18. Explorations with colored markers.
Figure 19. Explorations with chalk pastels.

Figure 20. Explorations with oil pastels.
Figure 21. Explorations with acrylic.

Figure 22. Safely letting go of control: Explorations with watercolor.
Session #2

Figure 23. Mind-body-spirit connection.

Figure 24. Explorations of mind-body-spirit connection.
Session #3

Figure 25. Drawing of felt pain within the body.

Figure 26. Drawing of felt pain removed from the body.
Figure 27. Transformative self-care.

Session #4

Figure 28. Exploration of emotions.
Figure 29. Drawing of felt experience of emotions within the body.

Session #5

Figure 30. Empty beach with a palm tree.
APPENDIX D

Pre-drawn Body Outline
### Emotion List

<table>
<thead>
<tr>
<th>Abandoned</th>
<th>Amused</th>
<th>Affectionate</th>
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<tr>
<td>Afraid</td>
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