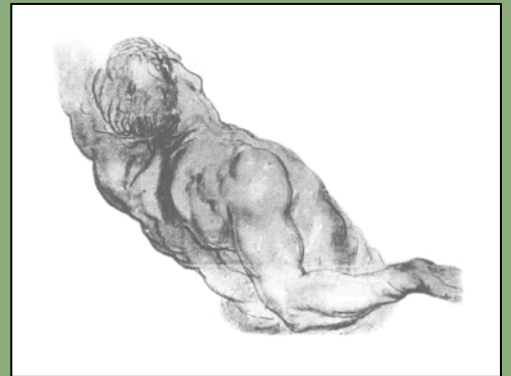


**the usa  
body  
psychotherapy  
journal**



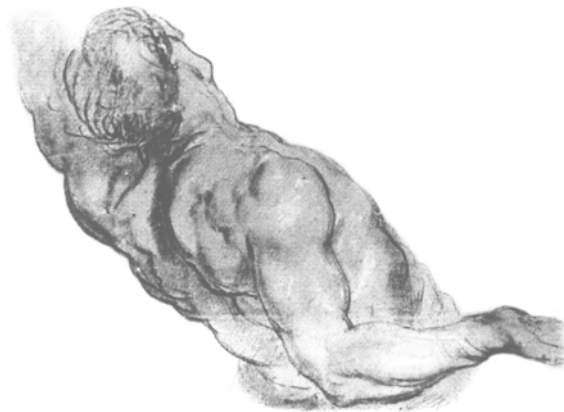
Back Issues and Subscriptions Available at  
[www.usabp.org](http://www.usabp.org)

Volume 9 Number 2 2010

The Official Publication of  
THE UNITED STATES ASSOCIATION FOR  
BODY PSYCHOTHERAPY

# Table of Contents

Editorial By Jacqueline A. Carleton, Ph.D.	3
Facing the Trauma: How the Face Reveals and Processes Unexpressed Suffering Sharon A. Stanley, Ph.D.	5
Developing Sensitive Attunement: Contributions of Traditional Practices to Therapeutic Joining Vivian Gay Gratton	15
Positive Development for Persons with Trauma Spectrum Disorders Philip M Helfaer, Ph.D.	24
The Science of Body-Psychotherapy Today: Part 3: Appropriate Science. Courtenay Young	32
Effect of “Clearing a Space” on Quality of Life in Women with Breast Cancer Joan Klagsbrun Susan L. Lennox Lauren Summers	41
The Effects of Body Experience and Mindfulness on Body-Image Disturbance and Eating Disorders Jennifer Bruha, Ph.D.	51



©2011 USABP

USABP Mission Statement

The USABP believes that integration of the body and the mind is essential to effective psychotherapy, and to that end its mission is to develop and advance the art, science, and practice of body psychotherapy in a professional, ethical, and caring manner in order to promote the health and welfare of humani

# The Effects of Body Experience and Mindfulness on Body-Image Disturbance and Eating Disorders

Jennifer Bruha, Ph.D.

## Abstract

Objective: The role of body experience and mindfulness in body-image disturbance and eating disorders were examined. Method: Participants were 128 adult females, with and without anorexia and with higher- versus lower-symptomatology bulimia, who completed eight surveys on a Web site. Descriptive statistics, ANOVAs, and Pearson Product Correlations were calculated. Results: Individuals with anorexia and higher-symptomatology bulimia scored significantly higher in body-image disturbance and significantly lower in body experience and mindfulness, with more negative thinking and lower overall life satisfaction, when compared to individuals without anorexia and lower-symptomatology bulimia, respectively. Positive moderate correlations were found indicating similarities between individuals with anorexia and higher-symptomatology bulimia and between individuals without anorexia and lower-symptomatology bulimia. Discussion: Individuals with eating disorders do not practice mindfulness, possibly because they equate being mindful with “feeling fat.” This may be attributed to lack of learning, cognitive impairments, or willful choice, all of which are explored.

## Keywords

Eating disorders - Body image - Mindfulness - Body consciousness - Well-being

## Introduction

Anorexia Nervosa and Bulimia Nervosa are eating disorders that have as a core feature the presence of body-image disturbance. Anorexia is characterized by starvation and emaciation, but a subtype of individuals with anorexia engage in repeated episodes of binge-eating and purging (American Psychiatric Association, Diagnostic and Statistical Manual, IV-TR, 2000). Bulimia is characterized by a pattern of binge-eating and purging, or compensatory behaviors including fasting, misusing laxatives and diuretics, and extreme over-exercising (DSM-IV-TR, 2000). Body-image disturbance is generally defined as a disturbance in how accurately an individual perceives their body image, and an over-evaluation and preoccupation with body weight and shape (Delinsky, 2005; Shafran, Fairburn, Robinson, & Lask, 2003). With both these conditions, individuals perceive their bodies as being and looking different from reality, in most cases appearing larger. Weight and shape-checking behaviors and body-avoidance behaviors are characteristic of body-image disturbance as well as a negative evaluation of body image (Shafran et al., 2003). Moreover, individuals with body-image disturbance appear to demonstrate minimal body consciousness, comprising body experience, or awareness and attention to sensations and feelings, and mindfulness, a more advanced form of awareness (Brown & Ryan, 2003). Research suggests body experience and mindfulness are important in achieving good health, safety and comfort, and growth and development.

## Purpose and Significance

Females with and without eating disorders often experience a heightened level of self-consciousness and self-criticism due, in part, to the socio-cultural perception of thinness and beauty in the West. This often fuels body-image disturbance, which is associated with higher levels of disordered eating behaviors. Although body experience, or awareness of inner and outer sensations and feelings, and to a greater extent, mindfulness, or attention and awareness in the present, with an ability to self-reflect, have been incorporated into Eastern philosophies and practices as a means of treatment for various ailments and disorders (e.g., anxiety, depression), the effects of such practices on Western mental health disorders such as anorexia and bulimia have only received minimal attention. Thus, the relationship between and effects of body experience and mindfulness on eating disorders are not well understood. Results of this study will potentially contribute to the growing body of research in the treatment of anorexia and bulimia from a Cognitive-Behavioral viewpoint, with an emphasis on the relationship between body-image disturbance and mindfulness.

## Summary of Research Questions

In the United States, negative body-image and dissatisfaction with body weight and shape are increasing among females, raising the prevalence rates of eating disorders (Jones et al., 2001, Lask & Bryant-Waugh, 2000). In addition, there is evidence suggesting that body experience and mindfulness are important in the development and maintenance of a positive body-image, but may be low in women with eating disorders as they focus on the negative aspects of their bodies (Anderson, 2006). Thus, it is hypothesized that women who score higher on measures of anorexia and bulimia will score higher on tests measuring body-image disturbance, lower on tests measuring mindfulness, and lower on positive affect and life satisfaction. In contrast, it is predicted that women who score lower on eating disorder measures, would score lower in body-image disturbance, higher in body experience and mindfulness, and higher on positive affect and life satisfaction. Finally, it is hypothesized that scores on tests will be similar between participants with anorexia and higher-symptomatology bulimia and between those without anorexia and lower-symptomatology bulimia.

## *Methods*

### Design

This was a Web-based study, and the address was [www.body-imagesurvey.com](http://www.body-imagesurvey.com). Use of the World Wide Web for research purposes has increased substantially, making it a popular source for participants due to the larger and more diverse pool.

### Sample

A sample of 128 adult women, ages 18 to 50, participated in this research study, and inclusion was determined by their responses and scores on the Eating Questionnaire-Revised and the Eating Attitude Test, which indicate presence, if any, and severity of eating disorders.

Participants with eating disorders were recruited from eating disorder websites, flyers posted in treatment facilities and in the offices of therapists who work with eating disordered individuals, and from college professors who offered extra credit to female students who completed the surveys online. A short statement summarizing the purpose of the study was posted on such websites and flyers along with the website address and a link. Confounding variables were determined in demographic questions and factored into statistical analysis.

### Procedures and Analysis

On the study's website, there was a home page with warnings, a consent form, a list of demographic questions, questionnaires, and a list of eating disorder resources. The home page noted the following: That participants must be female and 18 or older and that the study consists of eight questionnaires, which would take approximately a total of 30-60 minutes to complete. Each participant was given a consent form that stated their rights to participate in the survey, to decline answering questions, to withdraw without penalty at any time, and to obtain results when available. The following demographic information was gathered in questions: age, ethnicity, socioeconomic status, marital/relationship status, educational grade level, family stability, history of trauma, history of eating disorders, and history of treatment.

Responses from questionnaires were scored and descriptive statistics were calculated. One-way ANOVAs were computed to determine the frequencies and significance of participants with and without anorexia on tests measuring body-image disturbance, body experience and mindfulness, and well-being. One-way ANOVAs were also calculated to determine frequencies and significance among participants with higher-symptomatology and lower-symptomatology bulimia on all tests. Pearson Product Correlations were calculated to determine if there were statistically significant relationships between presence and severity of eating disorders, degree of body-image disturbance, inner and outer body experience, mindfulness, and overall well-being and satisfaction. Correlations (with  $p < .05$ ) ranging from .01 - .30, .31 - .70, and .71 - .99 were categorized as low, moderate, and high correlations, respectively, and a distribution of test results is presented in a table.

## Instruments

Potential participants were asked to complete eight questionnaires that included: The Eating Questionnaire-Revised to assess for bulimia; the Eating Attitudes Test to assess for anorexia; the Body Image Avoidance Questionnaire and Body Checking Questionnaire to assess for presence and severity of body-image disturbance; the Mindful Attention Awareness Scale and the Kentucky Inventory of Mindfulness Skills to assess body experience and mindfulness; the Positive and Negative Affect Schedule to assess affect and well-being; and the Satisfaction With Life Scale to assess subjective life satisfaction.

Participants were screened using the Eating Questionnaire-Revised (EQ-R) developed by Williamson, Davis, Goreczny, McKenzie, & Watkins (1989) and was designed for the purpose of assessing behaviors that are characteristic of Bulimia Nervosa. The EQ-R is a 15-item, self-report questionnaire. Item scores are summed up in a forward procedure ranging from a = 1 to e = 5 for a total score, with items 7 and 10 reverse-scored in which a = 5 and e = 1.

The Eating Attitudes Test (EAT), developed by Garner & Garfinkel (1979), assesses behaviors and attitudes characteristic of Anorexia Nervosa. The EAT is a 40-item, self-report questionnaire that uses a 6-point Likert scale. Scores may range from 0 to 120, with scores of 30 and above indicating that the criteria for a diagnosis of anorexia have been met.

The Body Image Avoidance Questionnaire (BIAQ), developed by Rosen, Srebnik, Saltzberg, & Wendt (1991), is a 19-item questionnaire that assesses body avoidance and body over-evaluation along four dimensions: Clothing, social activities, eating restraint, and grooming and weighing behaviors. Responses fall along a 6-point Likert-type scale ranging from 0 (*never*) to 5 (*always*), and more negative responses signify more intense body dissatisfaction (Rosen et al., 1991).

The Body Checking Questionnaire (BCQ), constructed by Reas, Whisenhunt, Netemeyer, & Williamson (2002), is a 23-item questionnaire that assesses behaviors related to body, weight, and shape checking, both overall and with specific body parts. Responses fall along a 5-point Likert-type scale ranging from 1 (*never*) to 5 (*very often*).

The Mindful Attention Awareness Scale (MAAS) by Brown & Ryan (2003) measures attention and awareness to one's body and the environment. Responses fall along a 6-point Likert scale ranging from 1 (*almost always*) to 6 (*almost never*), in which higher scores reflect more mindfulness.

The Kentucky Inventory of Mindfulness Skills (KIMS), developed by Baer, Smith, & Allen (2004), is a self-report measure designed to address the question, "What does one do (or refrain from doing) when being mindful?" (p.193). The KIMS measures mindfulness skills presented by Marsha Linehan (1993a, 1993b), who has researched mindfulness extensively, in the context of Dialectic Behavior Therapy (DBT). Four mindfulness skills are each measured separately in a comprehensive scale that consists of: Observing, or noticing internal stimuli such as sensations, cognitions, and emotions, and external stimuli such as odors; describing, or using words to label feelings; acting with awareness, or focusing one's attention on one thing at a time; and accepting without judgment, or accepting one's experience in the moment without making judgments (Baer et al., 2004). Responses fall on a 5-point Likert-type scale from 1 (*never or very rarely true*) to 5 (*almost always or always true*), with higher scores indicating a greater degree of mindfulness.

The Positive and Negative Affect Schedule (PANAS) by Watson, Clark, & Tellegen (1988) is comprised of two 10-item scales, the Positive Affect Scale (PAS), which measures enthusiasm, energy, and alertness, and Negative Affect Scale (NAS), which measures negative states such as anger, contempt, disgust, and fear (Watson et al., 1988). Using a 5-item Likert-type scale ranging from 1 (*very slightly or not at all*) to 5 (*extremely*), participants were asked to indicate how they felt in general.

The Satisfaction With Life Scale (SLS), by Diener, Emmons, Larsen, & Griffin (1985) measures level of subjective well-being and overall life satisfaction. The SLS is a 5-item scale that measures degree of life satisfaction using a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) with a total score between 5 and 35, in which higher scores indicate greater life satisfaction.

### Method

## Descriptive Statistics

Demographic information was assessed in a series of questions posed after participants consented to participate in the study, and frequencies of demographic information were calculated among participants ( $M = 26.7$ ,  $SD = 8.37$ ). Participants' ethnicities comprised the following, from highest to lowest: Caucasian ( $n = 97$ , 75.8%); Asian-American ( $n = 10$ , 7.8%); African-American ( $n = 6$ , 4.7%); Latina/Chicana ( $n = 6$ , 4.7%); Other ( $n$

= 5, 3.9%); Native-American ( $n = 2$ , 1.6%); and Pacific-Islander ( $n = 2$ , 1.6%). Participants' highest level of education completed comprised the following: Some college ( $n = 67$ , 52.3%); 4-year degree (e.g., B.A., B.S.) ( $n = 24$ , 18.8%); advanced degree ( $n = 24$ , 18.8%); and high school diploma or GED ( $n = 13$ , 10.2%). Annual household income was reported: Less than \$30,000 ( $n = 57$ , 44.5%); \$30,001 - \$60,000 ( $n = 31$ , 24.2%); over \$90,000 ( $n = 24$ , 18.8%); and \$60,001 - \$90,000 ( $n = 16$ , 12.5%). Fifty-four participants (42.2%) of participants reported a history of sexual and/or physical abuse, whereas 73 (57.0%) reported no past abuse.

Seventy-five participants (58.6%) reported a previous diagnosis of an eating disorder, including: Anorexia ( $n = 30$ , 23.4%); bulimia ( $n = 15$ , 11.7%); both anorexia and bulimia ( $n = 13$ , 10.2%); and other (e.g., EDNOS, Body Dysmorphic Disorder, Binge Eating Disorder) ( $n = 13$ , 10.2%). Fifty-three participants (41.4%) reported no previous diagnosis of an eating disorder.

Eighty participants (62.5%) identified as having been previously diagnosed with a psychiatric disorder, with the most common being mood disorders, including: Depression ( $n = 51$ , 39.8%); bipolar disorder ( $n = 9$ , 7.0%); and dysthymia ( $n = 1$ , 0.8%). The second largest category reported was anxiety disorders, including: Anxiety disorder and Generalized Anxiety Disorder ( $n = 25$ , 19.5%); PTSD ( $n = 15$ , 11.7%); OCD ( $n = 5$ , 3.9%); and panic disorder ( $n = 1$ , 0.8%). Other psychiatric disorders reported by participants were ADHD ( $n = 3$ , 2.3%); Borderline Personality Disorder ( $n = 4$ , 3.1%), and other ( $n = 5$ , 3.9%).

Eighty-five participants (66.4%) reported having no known relatives with an eating disorder, and 43 (33.6%) reported having a relative. Forty-six participants (35.9%) reported currently being in treatment for an eating disorder, and 29 with an eating disorder (22.7%) have been in treatment for more than one year, while 9 (7.0%) for less than one year. Of those in treatment, 41 (32.0%) identified as being in individual therapy, 10 (7.8%) in group therapy, 3 (2.3%) in family therapy, and 4 (3.1%) are in nutritional counseling. Of those individuals currently in eating disorder programs, 7 (5.5%) are in inpatient treatment programs, 7 (5.5%) are in outpatient treatment, and 4 (3.1%) are in both.

Sixty-four individuals (50%) reported being treated in the past for an eating disorder. Of those, 26 (20.3%) were treated for less than one year, and 26 (20.3%) for more than one year. Of those treated in the past, 32 (25.0%) received individual therapy, 21 (16.4%) group therapy, 10 (7.8%) family therapy, and 1 (0.8%) nutritional counseling. Nineteen (14.8%) were in inpatient treatment at some time, 8 (6.3%) in outpatient treatment, and 21 (16.4%) in both.

Fifty-five (43.0%) of individuals reported currently taking psychiatric medications, while 72 (56.3%) reported taking no psychiatric medications. Medications were divided into 5 basic categories based on their psychiatric effects, including: Antidepressants, SSRIs, and SNRIs; anticonvulsant mood stabilizers; antipsychotics; stimulants; and benzodiazepines and depressants.

In addition, 12 (9.4%) of individuals reported drug (e.g., marijuana) or alcohol abuse, with last use varying between "last night" to several months ago. One hundred fourteen (89.1%) reported no substance abuse.

Participants who scored a total of 30 or more on the Eating Attitudes Test were categorized as having Anorexia Nervosa ( $n = 65$ ), and those with 29 or less were categorized as not having anorexia ( $n = 63$ ), as directed in the scoring materials (Garner & Garfinkel, 1979). A one-way Analysis of Variance was computed, comparing participants' EAT scores with and without anorexia on all of the following tests: The EQ-R; BIAQ; BCQ; MAAS; KIMS; PANAS; and SLS (see Table 1).

Table 1  
Means, Standard Deviations, and Probabilities for Participants With and Without Anorexia

Tests	N = 65 Anorexia group		N = 63 Non-anorexia group		P
	M	SD	M	SD	
EQ-R	42.89	17.74	31.25	12.17	0.0001
EAT	50.25	11.52	14.73	8.31	0.0001
BIAQ	53.29	14.36	29.19	12.21	0.0001
Clothing factor	24.34	8.45	15.19	8.00	0.0001
Social situations factor	10.06	4.99	2.67	3.91	0.0001
Eating restraint factor	9.22	3.09	3.60	2.12	0.0001
Grooming and weighing	9.68	3.07	7.73	3.21	0.001
BCQ	77.12	21.49	50.62	21.66	0.0001
OAS	33.95	8.78	23.73	9.00	0.0001
BPS	29.34	8.60	18.19	8.80	0.0001
IC	13.83	6.22	8.70	4.90	0.0001
MAAS	41.14	12.04	58.48	16.59	0.0001
KIMS	103.57	16.28	121.00	17.30	0.0001
Observe skill	35.80	9.14	36.79	7.58	0.51
Describe skill	22.85	5.55	27.13	5.07	0.0001
Act with awareness skill	24.77	4.95	29.51	5.84	0.0001
Accept without judgment	20.15	7.95	27.57	9.04	0.0001
PAS	26.95	7.56	34.35	7.82	0.0001
NAS	33.32	8.21	24.70	8.93	0.0001
SLS	14.66	7.68	23.13	8.48	0.0001
Eating Questionnaire-Revised					
Eating Attitudes Test					
Body Image Avoidance Questionnaire					
Clothing					
Social Situations					
Eating Restraint					
Grooming and Weighing					
Body Checking Questionnaire					
Overall Appearance Scale					
Body Parts Scale					
Idiosyncratic (ritualistic) Checking					
Mindful Attention Awareness Scale					
Kentucky Inventory of Mindfulness Skills					
Observe					
Describe					
Act with Awareness					
Accept without Judgment					
Positive and Negative Affect Schedule					
Positive Affect Scale					
Negative Affect Scale					
Satisfaction with Life Scale					

Level of bulimia was determined by participants' total scores on the Eating Questionnaire-Revised, with higher scores reflecting higher-symptomatology bulimia (Williamson et al., 1989). Total scores were divided at the midpoint, 45, with scores of 44 or less (low to medium scores) indicating lower-symptomatology bulimia and scores of 45 or greater (medium to high scores) indicating higher-symptomatology bulimia. A one-way Analysis of Variance was computed comparing individuals with lower-symptomatology bulimia ( $n = 67$ ) on the EQ-R and individuals with higher-symptomatology bulimia ( $n = 50$ ) on the BIAQ, BCQ, MAAS, KIMS, PANAS, and SLS (see Table 2). Statistically significant differences were found between with higher- and lower-symptomatology groups on all tests.



Table 2  
Means, Standard Deviations, and Probabilities for Participants With Higher-Symptomology and Lower-Symptomology Bulimia

Tests	N = 50 Higher-symptomology Bulimia		N = 67 Lower-symptomology Bulimia		P
	M	SD	M	SD	
EAT	48.54	14.90	20.51	16.07	0.0001
BIAQ	54.70	13.56	31.46	15.21	0.0001
Clothing factor	26.06	7.69	14.90	8.12	0.0001
Social situations factor	10.64	5.01	3.25	4.39	0.0001
Eating restraint factor	8.90	3.49	4.58	3.30	0.0001
Grooming and weighing	9.10	3.33	8.73	3.22	0.13
BCQ	74.80	22.18	57.07	26.14	0.0001
OAS	32.82	9.15	25.97	10.54	0.001
BPS	28.58	8.95	20.87	10.55	0.0001
IC	13.40	6.08	10.24	6.10	0.005
MAAS	39.88	12.01	56.27	17.11	0.0001
KIMS	101.52	15.74	119.81	17.68	0.0001
Observe factor	35.04	9.85	37.07	7.41	0.41
Describe factor	22.34	5.34	26.87	4.99	0.0001
Act with awareness factor	24.68	4.99	28.94	6.26	0.0001
Accept without judgment	19.46	7.52	26.93	9.31	0.0001
PAS	25.24	7.09	34.13	7.77	0.0001
NAS	35.40	7.44	24.75	8.87	0.0001
SLS	12.52	6.93	23.51	8.09	0.0001

Eating Questionnaire-Revised  
Eating Attitudes Test  
Body Image Avoidance Questionnaire  
  Clothing  
  Social Situations  
  Eating Restraint  
  Grooming and Weighing  
Body Checking Questionnaire  
  Overall Appearance Scale  
  Body Parts Scale  
  Idiosyncratic (ritualistic) Checking  
Mindful Attention Awareness Scale  
Kentucky Inventory of Mindfulness Skills  
  Observe  
  Describe  
  Act with Awareness  
  Accept without Judgment  
Positive and Negative Affect Schedule  
  Positive Affect Scale  
  Negative Affect Scale  
Satisfaction with Life Scale

## Hypotheses

*Hypothesis 1:* Participants with anorexia will score higher on tests measuring body-image disturbance (BIAQ and BCQ), lower in tests measuring mindfulness as determined by the MAAS and KIMS, lower in positive affect (and higher in negative affect), and lower in overall well-being and life satisfaction. Participants without anorexia will demonstrate the reverse, scoring lower on the BIAQ and BCQ, higher in mindfulness on the MAAS and KIMS, higher in positive affect, and higher in life satisfaction.

*Hypothesis 2:* Participants with higher-symptomatology bulimia will score higher on tests measuring body-image disturbance (BIAQ and BCQ), lower on tests measuring body experience and mindfulness (MAAS and KIMS), lower in positive affect (PAS), and lower in life satisfaction (SLS). Participants with lower-symptomatology bulimia will score lower on the BIAQ and BCQ, higher on the MAAS and KIMS, higher in positive affect (PAS), and higher on the SLS.

*Hypothesis 3:* Participants with anorexia will score similarly to participants with higher-symptomatology bulimia; that is, higher on tests measuring body-image disturbance (BIAQ and BCQ), lower in body experience and mindfulness (MAAS and KIMS), lower in positive affect (PAS), and lower in life satisfaction (SLS), in comparison to participants without anorexia and lower-symptomatology bulimia. It is further hypothesized that individuals without anorexia will score similarly to those with lower-symptomatology bulimia in that they will score lower on the BIAQ and BCQ, higher on the MAAS and KIMS, higher in positive affect (PAS), and higher on the SLS.

## Results

*Hypothesis 1:* The findings support the first hypothesis. A one-way Analysis of Variance was calculated, comparing participants with and without anorexia on all tests and revealed statistically significant differences between both groups (see Table 1). Participants with anorexia scored significantly higher than those without anorexia on the BIAQ and all four skills and on the BCQ and its three subscales, indicating participants with anorexia engaged in more body-avoidance and body-checking behaviors, characteristic of body-image disturbance. Participants with anorexia scored significantly lower than those without anorexia on the MAAS and KIMS, including three of its four component factors, the describe skill, the act with awareness skill, and the accept without judgment skill. With regard to the observe skill, the group with anorexia scored lower than the group without anorexia but not at a statistically significant level. In addition, individuals with anorexia scored significantly lower in positive affect on the PANAS, and scored significantly lower than those without anorexia on the SLS, measuring life satisfaction.

**EQ-R data.** Individuals with anorexia ( $M = 42.89$ ,  $SD = 17.74$ ) reported more symptoms of bulimia at a statistically significant level than individuals without symptoms of anorexia ( $M = 31.25$ ,  $SD = 12.17$ ),  $F(1, 126) = 18.63$ ,  $p < 0.0001$ . This suggests individuals with anorexia are more likely to engage in behaviors characteristic of bulimia such as binge-eating followed by compensatory behaviors such as vomiting, abusing laxatives or diuretics, over-exercising, or fasting.

**BIAQ data.** As predicted, individuals with anorexia ( $M = 53.29$ ,  $SD = 14.36$ ) scored significantly higher in body-avoidance behaviors than individuals without anorexia ( $M = 29.19$ ,  $SD = 12.21$ ) on the BIAQ,  $F(1, 126) = 104.36$ ,  $p < 0.0001$ . Participants with anorexia scored significantly higher than those without anorexia in the four factors comprising the BIAQ, including: clothing, social situations, eating restraint, and grooming and weighing (see Table 1).

**BCQ data.** Participants with anorexia ( $M = 77.12$ ,  $SD = 21.49$ ) scored higher on the BCQ than individuals without anorexia ( $M = 50.62$ ,  $SD = 21.66$ ),  $F(1, 126) = 48.28$ ,  $p < 0.0001$ , and on its three composing scales (see Table 1). Taken together, higher scores on these scales indicate individuals with anorexia are more likely to engage in body-checking behaviors that focus on their appearance and body parts, often in comparison to others.

**MAAS data.** As predicted, participants with anorexia scored significantly lower in surveys measuring body experience and mindfulness, whereas participants without anorexia scored significantly higher in both. Participants with anorexia ( $M = 41.14$ ,  $SD = 12.04$ ) scored 17.34 points lower than those without anorexia ( $M = 58.48$ ,  $SD = 16.59$ ) on the MAAS,  $F(1, 126) = 46.00$ ,  $p < 0.0001$ . This suggests that individuals with anorexia experience less

mindfulness, or less attention and awareness to one's present state, and possibly a tendency toward engaging in blunted or restricted consciousness that limits one's emotional and physical availability (Brown & Ryan, 2003).

**KIMS data.** The group with anorexia ( $M = 103.57$ ,  $SD = 16.28$ ) scored lower at a statistically significant level than the group without anorexia ( $M = 121.00$ ,  $SD = 17.30$ ) on the KIMS,  $F(1, 126) = 34.77$ ,  $p < 0.0001$ , and on three of its four component factors. Participants with anorexia ( $M = 22.85$ ,  $SD = 5.55$ ) scored significantly lower than those without anorexia ( $M = 27.13$ ,  $SD = 5.07$ ) in the describe skill,  $F(1, 126) = 20.75$ ,  $p < 0.0001$ , which suggests that the group with anorexia has more difficulty with identifying and labeling observed phenomena. The group with anorexia ( $M = 24.77$ ,  $SD = 4.95$ ) scored significantly lower than the group without anorexia ( $M = 29.51$ ,  $SD = 5.84$ ) in the act with awareness skill,  $F(1, 126) = 24.55$ ,  $p < 0.0001$ , suggesting that participants with anorexia have more difficulty attending to one thing at a time. In the fourth factor, or accept without judgment skill, the group with anorexia ( $M = 20.15$ ,  $SD = 7.95$ ) scored significantly lower than the group without anorexia ( $M = 27.57$ ,  $SD = 9.04$ ),  $F(1, 126) = 24.35$ ,  $p < 0.0001$ . Therefore, participants with anorexia are less likely to be nonjudgmental about their experiences, and they are more inclined to label their thoughts, feelings, and sensations as being good or bad, right or wrong, worthwhile or worthless, rational or irrational, and valued or de-valued. On the observe skill, the group with anorexia ( $M = 35.80$ ,  $SD = 9.14$ ) scored lower than the group without anorexia ( $M = 36.79$ ,  $SD = 7.58$ ), but not at a statistically significant level,  $F(1, 126) = 0.45$ ,  $p < 0.51$ , suggesting that anorexics minimally practice attending to external and internal stimuli on a daily basis than the non-eating disordered (Baer et al., 2004). This raises the possibility that what they notice and attend to are the physical sensations of "fatness," and are thus mindful of their "fatness."

**PANAS data.** Participants with anorexia ( $M = 26.95$ ,  $SD = 7.56$ ) scored significantly lower than participants without anorexia ( $M = 34.35$ ,  $SD = 7.82$ ) on the Positive Affect Scale,  $F(1, 126) = 29.60$ ,  $p < 0.0001$ , and they ( $M = 33.32$ ,  $SD = 8.21$ ) scored significantly higher than participants without anorexia ( $M = 24.70$ ,  $SD = 8.93$ ) on the Negative Affect Scale,  $F(1, 126) = 32.38$ ,  $p < 0.0001$ . This suggests participants with anorexia may experience more "subjective distress" (Watson et al., 1988).

**SLS data.** As hypothesized, individuals with anorexia ( $M = 14.66$ ,  $SD = 7.68$ ) scored lower at a statistically significant level than individuals without anorexia ( $M = 23.13$ ,  $SD = 8.47$ ) on the Satisfaction With Life Scale,  $F(1, 126) = 35.09$ ,  $p < 0.0001$ , suggesting that participants with anorexia report having less overall life satisfaction.

**Hypothesis 2:** The findings support the second hypothesis in that one-way ANOVAs were calculated, comparing participants with higher-symptomatology and lower-symptomatology bulimia on all tests and revealed statistically significant differences between the two groups. A one-way ANOVA was computed comparing individuals with low to medium scores (lower-symptomatology bulimia) ( $n = 67$ ) on the EQ-R and individuals with medium to high scores (higher-symptomatology bulimia) ( $n = 50$ ) on the EQ-R (see Table 2). Participants with higher-symptomatology bulimia scored significantly higher than those with lower-symptomatology bulimia in body-image disturbance (on the BIAQ and BCQ), in body experience and mindfulness (on the MAAS and KIMS), and lower in positive affect, well-being, and life satisfaction (on PANAS and SLS).

**EAT data.** Scores on the EAT were compared using Analysis of Variance to evaluate group differences among individuals with higher-symptomatology bulimia ( $M = 48.54$ ,  $SD = 14.90$ ), and lower-symptomatology bulimia ( $M = 20.51$ ,  $SD = 16.07$ ),  $F(2, 125) = 46.29$ ,  $p < 0.0001$ , suggesting those with more severe bulimia also have more symptoms of anorexia.

**BIAQ data.** Individuals with higher-symptomatology bulimia ( $M = 54.70$ ,  $SD = 13.56$ ) versus those with lower-symptomatology bulimia ( $M = 31.46$ ,  $SD = 15.21$ ) scored significantly higher on the BIAQ,  $F(2, 125) = 37.81$ ,  $p < 0.0001$ , and on three of its four comprising factors: clothing, social situations, and eating restraint (see Table 2). While the higher-symptomatology group ( $M = 9.10$ ,  $SD = 3.33$ ) scored higher than the lower-symptomatology group ( $M = 8.73$ ,  $SD = 3.28$ ) in grooming and weighing on the BIAQ, it was not a statistically significant difference,  $F(2, 125) = 2.05$ ,  $p < 0.13$ . This suggests the higher-symptomatology group may engage in behaviors that focus on grooming and weighing more often, but not to the extent, bordering on obsession and preoccupation with weight that is characteristic of body-image disturbance and more severe eating disorders.

**BCQ data.** Participants with higher-symptomatology bulimia ( $M = 74.80$ ,  $SD = 22.18$ ) in comparison to those with lower-symptomatology bulimia ( $M = 57.07$ ,  $SD = 26.14$ ) scored higher at a statistically significant level on the BCQ,  $F(2, 125) = 8.23$ ,  $p < 0.0001$  and its three comprising scales, the OAS, BPS, and IC (see Table 2). Higher scores on all three scales, characteristic of the higher-symptomatology group, reflect a greater degree of body dissatisfaction, a negative body-image, a preoccupation with body weight and shape, a fear of fat and weight gain, and more frequent body checking behaviors (e.g., staring into mirrors, comparing the size of one's thighs with the width of a chair) (Reas et al., 2002).

**MAAS data.** Individuals with higher-symptomatology bulimia ( $M = 39.88$ ,  $SD = 12.01$ ) scored lower on the MAAS than individuals with lower-symptomatology bulimia ( $M = 56.27$ ,  $SD = 17.11$ ) at a statistically

significant level,  $F(2, 125) = 17.64, p < 0.0001$ , suggesting individuals who scored higher on the MAAS (the lower-symptomatology group) may be more mindful, or attentive, aware, and receptive to one's experiences, physically and emotionally, and in turn, experience greater overall well-being. Individuals who scored lower (the higher-symptomatology group) may experience less mindfulness, suggesting they are less attentive and aware of their present state, physically and emotionally, which is associated with lower levels of overall well-being.

**KIMS data.** Similarly, on the KIMS, individuals with higher-symptomatology bulimia ( $M = 101.52, SD = 15.74$ ) scored lower than the lower-symptomatology group ( $M = 119.81, SD = 17.68$ ),  $F(2, 125) = 16.85, p < 0.0001$ . There were statistically significant differences in three of its four comprising skills: describe (Factor 2); act with awareness (Factor 3); and accept without judgment (Factor 4). However, differences were not statistically significant between groups in (Factor 1) observe (see Table 2).

Participants with higher-symptomatology bulimia ( $M = 22.34, SD = 5.34$ ), scored significantly lower than those with lower-symptomatology bulimia ( $M = 26.87, SD = 4.99$ ), in the describe skill,  $F(2, 125) = 10.31, SD = 4.99$ , which suggests that individuals with higher-symptomatology bulimia are less likely to practice labeling or describing cognitions, feelings, and sensations they experience. Individuals with higher-symptomatology bulimia ( $M = 24.68, SD = 4.99$ ), compared to those with lower-symptomatology ( $M = 28.94, SD = 6.26$ ), scored significantly lower in the act with awareness skill,  $F(2, 125) = 8.37, p < 0.0001$ , suggesting participants with higher-symptomatology bulimia are significantly less likely to practice paying undivided attention to external and internal phenomena, may be more easily distracted, and less focused on the present state (Baer et al., 2004). Participants with higher-symptomatology bulimia ( $M = 19.46, SD = 7.52$ ), versus lower-symptomatology participants ( $M = 26.93, SD = 9.31$ ), had statistically significantly lower scores in the accept without judgment skill,  $F(2, 125) = 10.81, p < 0.0001$ , indicating that individuals with more severe bulimia are less likely to practice being nonjudgmental or non-evaluative in their experiences, and are more likely to judge their feelings, cognitions, and sensations as good or bad, right or wrong, valuable or worthless (Baer et al., 2004).

**PANAS data.** Individuals with higher-symptomatology bulimia scored higher in negative affect ( $M = 35.40, SD = 7.44$ ) than positive affect ( $M = 25.24, SD = 7.09$ ) while individuals with lower-symptomatology bulimia scored higher in positive affect ( $M = 34.13, SD = 7.77$ ) than negative affect ( $M = 24.75, SD = 8.86$ ). Likewise, participants with higher-symptomatology bulimia scored statistically significantly lower on the PAS than those with lower-symptomatology bulimia,  $F(2, 125) = 21.54, p < 0.0001$ , and scored statistically significantly higher on the NAS,  $F(2, 125) = 24.90, p < 0.0001$ .

**SLS data.** Lastly, as predicted, the higher-symptomatology bulimia group ( $M = 12.52, SD = 6.93$ ) reported having less overall life satisfaction than the lower-symptomatology group ( $M = 23.51, SD = 8.09$ ) at a statistically significant level,  $F(2, 125) = 30.57, p < 0.0001$ . While one cannot assume a cause-and-effect relation, it leaves open the possibility that one or more of these factors influence their subjective satisfaction or dissatisfaction with life in general.

**Hypothesis 3:** The findings support the third hypothesis that participants with anorexia and higher-symptomatology bulimia score similarly on all tests, while participants without anorexia and lower-symptomatology bulimia also score similarly on all tests (BIAQ, BCQ, MAAS, KIMS, PANAS, SLS). Pearson Product Correlations were calculated comparing the relationship between scores on the EAT (for anorexia) and EQ-R (for degree of bulimia) with all tests (see Table 3).

Table 3  
Table of Correlations

Tests	EQ-R		EAT	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
EQ-R	1.00	-	0.47	0.01
EAT	0.47	0.01	1.00	-
BIAQ	0.43	0.01	0.79	0.01
Clothing factor	0.34	0.01	0.62	0.01
Social situations factor	0.39	0.01	0.73	0.01
Eating restraint factor	0.38	0.01	0.83	0.01
Grooming and weighing	0.21	0.05	0.29	0.01
BCQ	0.39	0.01	0.65	0.01
OAS	0.32	0.01	0.61	0.01
BPS	0.42	0.01	0.65	0.01
IC	0.36	0.01	0.55	0.01
MAAS	-0.41	0.01	-0.55	0.01
KIMS	-0.33	0.01	-0.51	0.01
Observe skill	-0.03	-	-0.03	-
Describe skill	-0.23	0.01	-0.37	0.01
Act with awareness skill	-0.28	0.01	-0.42	0.01
Accept without judgment	-0.32	0.01	-0.51	0.01
PAS	-0.40	0.01	-0.50	0.01
NAS	0.44	0.01	0.56	0.01
SLS	-0.36	0.01	-0.50	0.01
Eating Questionnaire-Revised				
Eating Attitudes Test				
Body Image Avoidance Questionnaire				
Clothing				
Social Situations				
Eating Restraint				
Grooming and Weighing				
Body Checking Questionnaire				
Overall Appearance Scale				
Body Parts Scale				
Idiosyncratic (ritualistic) Checking				
Mindful Attention Awareness Scale				
Kentucky Inventory of Mindfulness Skills				
Observe				
Describe				
Act with Awareness				
Accept without Judgment				
Positive and Negative Affect Schedule				
Positive Affect Scale				
Negative Affect Scale				
Satisfaction with Life Scale				

*Anorexia Nervosa.* Pearson Product Correlations were calculated between Eating Attitudes Test scores and all questionnaires ( $p < 0.01$ ). A positive moderate correlation was found between the EAT and EQ-R ( $r = 0.47$ ), indicating that as scores on the EAT increased, scores on the EQ-R also increased, and vice versa.

Pearson Product Correlations were calculated and positive correlations between the EAT and tests measuring body-image disturbance were determined. A high positive correlation was calculated between the EAT and BIAQ ( $r = 0.79$ ). Positive correlations were also calculated between the EAT and the BIAQ's four factors (see Table 3). Thus, as symptoms of anorexia increased, body-avoidant behaviors and body-image disturbance also increased. A moderate positive correlation was calculated with the BCQ ( $r = 0.65$ ) and its three scales, the OAS ( $r = 0.61$ ), the BPS ( $r = 0.65$ ), and the IC ( $r = 0.55$ ), indicating that as scores in anorexia increased, so did the scores measuring body-checking behavior and body-image disturbance.

Negative moderate correlations were found between the EAT and MAAS ( $r = -0.55$ ) and the EAT and KIMS ( $r = -0.51$ ), suggesting that as symptoms of anorexia increased, mindfulness and body experience decreased. Findings were mixed for the four skills comprising the KIMS: A low negative correlation was found with the observe skill ( $r = -0.03$ ), and no probability was reported; and moderate negative correlations were calculated with the describe skill ( $r = -0.37$ ), the act with awareness skill ( $r = -0.42$ ), and the accept without judgment skill ( $r = -0.51$ ).

As predicted, a moderate negative correlation was found between the EAT and positive affect ( $r = -0.50$ ) and a moderate positive correlation was calculated with negative affect ( $r = 0.56$ ). Therefore, as scores in anorexia increased, positive affect decreased and negative affect increased. A moderate negative correlation was also calculated between the EAT and SLS ( $r = -0.50$ ), suggesting as symptoms of anorexia increased, life satisfaction decreased.

*Bulimia Nervosa.* Pearson Product Correlations were calculated between the EQ-R, which measured degree of bulimia, and tests measuring body-image disturbance, mindfulness, affect, and life satisfaction ( $p < 0.01$ ). Moderate, positive correlations were calculated comparing the EQ-R and BIAQ ( $r = 0.43$ ) and for three of its four factors, clothing ( $r = 0.34$ ), social situations ( $r = 0.39$ ), and eating restraint ( $r = 0.38$ ). A low positive correlation was calculated between the EQ-R and the BIAQ's fourth factor, grooming and weighing ( $r = 0.21$ ),  $p < 0.05$ . Moderate positive correlations were further determined between the EQ-R and body-checking behaviors: A correlation of  $r = 0.39$  was found between the EQ-R and BCQ, and its scales, including, the OAS ( $r = 0.32$ ), the BPS ( $r = 0.42$ ), and IC ( $r = 0.36$ ), indicating as symptoms of bulimia increased body-checking behaviors increased.

A moderate negative correlation was determined between the EQ-R and MAAS ( $r = -0.41$ ) and between the EQ-R and KIMS ( $r = -0.33$ ). However, correlations between the EQ-R and KIMS' four skills varied. A low negative correlation ( $r = -0.31$ ) with no probability was found between the EQ-R and observe skill. Low negative correlations were additionally found between the EQ-R and describe skill ( $r = -0.23$ ) and act with awareness skill ( $r = -0.28$ ), but a moderate negative correlation was determined between the EQ-R and accept without judgment skill ( $r = -0.32$ ).

Furthermore, a negative moderate correlation was calculated between the EQ-R and PAS ( $r = -0.40$ ), while a moderate positive correlation was determined with the NAS ( $r = 0.44$ ). The opposite was true for the lower-symptomatology group in that there was a positive correlation with positive affect and a negative correlation with negative affect. Finally, a negative, moderate correlation was calculated between the EQ-R and SLS ( $r = -0.36$ ), indicating that as symptoms of bulimia increased, overall well-being and life satisfaction decreased.

### Discussion

As hypothesized, the findings reveal that individuals with eating disorders are more likely to have more severe body-image disturbance, are less likely to exhibit and practice mindfulness, demonstrate more negative than positive affect, and generally report less overall well-being and life satisfaction. Individuals with anorexia and higher-symptomatology bulimia engage in significantly more body-avoidance and body-checking behaviors, indicative of more severe body-image disturbance, greater body-dissatisfaction, and an obsessive preoccupation with weight, appearance, and eating, which, in turn, fuels the harmful eating behaviors (e.g., fasting, restricting foods, binge-eating and purging) and body-image problems. Individuals who are more mindful are less likely to struggle with body-image problems and eating disorders as demonstrated by the finding that participants without anorexia scored higher than those with anorexia on the MAAS and KIMS.

Individuals with anorexia and higher-symptomatology bulimia are less likely to describe and manage the thoughts, feelings, and sensations involved in eating, are more likely to make judgments about food, eating, and the body, and may make potentially harmful decisions such as deciding to vomit after eating because the food will turn into fat, or so they think, thereby complicating what is an otherwise normal, everyday process, eating. Individuals with anorexia or higher-symptomatology bulimia appear less mindful, if at all, and are generally less aware of the present state, their emotions, and their subjective physical experiences. They may react and display little if any forethought, and are generally less aware of how their reactions affect others, sometimes making hasty decisions that often result in harmful behaviors to self (e.g., purging, fasting) or others (e.g., talking about how disgusting fat is around people who are overweight). Thus, communication may be hampered by the lack of mindfulness, over-reactivity, and cognitive impulsiveness.

It is unclear, though, whether individuals with anorexia and higher-symptomatology bulimia are unable to practice mindfulness - in part, due to a lack of experience - or if they, consciously or unconsciously, choose not to be mindful; possibly because being alert to their present state reminds them of their weight and body shape. To individuals with anorexia or severe bulimia, mindfulness may be associated with weight and shape to such an extent that being mindful equals feeling fat. They may focus on their "fatness," regardless of whether or not they are overweight, and their subjective physical imperfections, unable to consciously separate the act of being mindful from their obsessive preoccupation with weight and shape. This leads to two questions. Are individuals with anorexia and higher-symptomatology bulimia incapable of being mindful due to the very nature of their preoccupation with weight, appearance, and food, and does this mean that reducing or eliminating the preoccupation, would open the door for mindfulness? Or, do they willfully choose not to attend to the present in order to avoid the "fat feelings"? The inability to answer these two questions represents one limitation of this study as there can be no conclusion as to whether the lack of mindfulness in participants with anorexia and higher-symptomatology bulimia is due to a lack of learning, negative reinforcement, cognitive impairments, or willful choice.

They may have also learned to not be mindful but to be self-critical and self-judgmental through repetition and negative reinforcement. This may relate to their tendency toward having perfectionist standards for themselves, which they may have learned through negative reinforcement; for example, being told by parents or teachers when younger that 90% on a test is not "good enough," but that they must earn 100% to be rewarded or praised. The resulting feeling may be shame or embarrassment, as they are labeled or label themselves a "bad student" or "stupid," and even fear if punishment has been administered. Perfectionism becomes a necessary evil, and mindfulness may become a perceived threat.

One may argue individuals with anorexia and higher-symptomatology bulimia simply have not learned how to be mindful, and thus, it is an impairment in that it has not yet been learned. Just as children learn by watching their parents modeling behaviors, from simple chores such as ironing to complex behaviors such as learning language, mindfulness may be conceptualized in much the same way. Mindfulness can be learned behaviorally, as in the case of an individual who learns how to engage in meditation or yoga from watching their parents or an instructor, and cognitively as well, for example, when two parents have a disagreement and practice mindful communication in the form of active listening, reflecting, and acknowledging the thoughts, feelings, and sensations that the argument brings up. Participants with anorexia and higher-symptomatology bulimia may have never learned how to be mindful, which is not necessarily indicative of an impairment. It merely suggests they need to be taught mindfulness, beginning with the skills of mindfulness - observing, describing, acting with awareness, and accepting without judgment - as a part of treatment.

Another possibility is that neurologically individuals with anorexia or higher-symptomatology bulimia are so damaged from deprivation that they are unable to think clearly, focus on the here and now, and make a conscious decision to be or not to be mindful. Cognitive impairments may result from neurological damage to any of the four lobes, but in particular, the frontal lobe, which is responsible for executive functioning, decision-making, and processing. There may be a loss of neurons or neuronal pathways from the starvation, thereby slowing the entire cognitive process. This is suggestive of previous research which demonstrates that cognitive processing slows with starvation, regardless if the starvation is willful or is a byproduct of a disease (e.g., cancer) or a manmade tragedy (e.g., the holocaust). Cognitive impairments may result from the slowing of the central nervous system brought on by neuronal degeneration, as neurons lose their myelin sheath (fat) that covers the axons and aids in speed of processing. In a constant state of starvation, the body takes the fat from wherever it is - including organs and nerve cells - to use as energy for basic bodily functions such as maintaining a heart beat. Neuronal processing becomes secondary and slows down without the myelin sheath, causing cognitive impairments.

In contrast, it is possible that mindfulness, and lack thereof, is a choice; that someone with anorexia or higher-symptomatology bulimia makes a choice not to pay attention or be aware of internal and external phenomena because of what mindfulness represents. As stated, paying attention to one's body may be equated with feeling fat, seeing fat (that is not necessarily there), and being fat. This preoccupation with fat and weight is mindfulness and body experience taken to the extreme, or some might classify it as an obsession, which is really not about the body at all. Individuals with anorexia may choose to obsess over their body, which is different from being mindful about the body. Obsessions appear to be real and absolute to the obsessive person, but they are not grounded in reality. Whereas mindfulness is very much about reality and one's experiences - internal and external - in reality. Thus, individuals with anorexia and higher-symptomatology bulimia may choose to obsess and then compulsively act on these choices to maintain the veil of reality and certainty to avoid thinking about the fat.

Therefore, it is proposed that treatment for eating disorders and/or body-image disturbance be multi-dimensional and include the teaching, learning, and practicing of mindfulness skills, alongside cognitive-behavioral therapy, which may include individual, group, and family therapeutic interventions as well as nutritional counseling. Mindfulness should be conceptualized and differentiated from "feeling fat," as some individuals may equate the two. Working with eating disordered individuals to develop an awareness of emotions - beginning with naming and describing them - followed by the safe expression of emotions and emotion management may increase their cognitive awareness, emotional intelligence, and coping skills. An individual with anorexia will often say "I feel fat," (which, as stated, is not a feeling) when upon deeper exploration, they discover it is not about the fat, but about feeling overwhelmed, vulnerable, or anxious. Mindful attention and awareness to emotions may make emotions more manageable and controllable. With control issues being at the core of eating disorders, the statement "I feel fat" creates the illusion that the individual has more control over their life in a world in which so much is out of our control; also a core issue for individuals with sexual and physical trauma. Thus, using mindfulness as a tool of emotion management may lessen control issues, feelings of vulnerability, and create a sense of empowerment.

Finally, this raises the question of whether participants with lower-symptomatology bulimia are more like the non-eating disordered participants or those with higher-symptomatology bulimia. Based on the ANOVA scores, one could conclude that individuals without anorexia, who scored similarly to those with lower-symptomatology bulimia, are more similar cognitively and possibly behaviorally as they engage in significantly fewer body-checking and body-avoidance behaviors, characteristic of body-image disturbance, and display significantly more mindfulness skills in general. Both also demonstrate significantly more positive affect, overall well-being, and life satisfaction. However, a diagnosis of bulimia implies there is some level of preoccupation with food and/or weight, regardless of the level of behavioral acting out, raising the possibility that participants with lower- and higher-symptomatology bulimia are more similar. This raises the possibility that anorexia, compared to bulimia, may be the more pathological and severe of the two eating disorders, and that the ability to be mindful may be more hampered by the physical and psychological effects of deprivation.

#### References

- Agras, W., Schneider, J., Arnow, B., Raeburn, S., & Telch, C. (1989). Cognitive- Behavioral and response-prevention treatments for bulimia nervosa. *Journal of Consulting and Clinical Psychology, 57*, 215-221.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.
- Anderson, R. (2006). Body intelligence scale: Defining and measuring the intelligence of the body. *The Humanistic Psychologist, 34*(4), 357-367.
- Astin, J., & Shapiro, D. (1997). Measuring the psychological construct of control: Applications to transpersonal psychology. *Journal of Transpersonal Psychology, 29*(1), 63-72.
- Azar, B. (2000). A web of research. *Monitor on Psychology, 31*, 42-47.
- Baer, R., Smith, G., & Allen, K. (2004). Assessment of mindfulness by self-report The Kentucky Inventory of Mindfulness Skills. *Assessment, 11*(3), 191-206.
- Beck, A., Rush, J., Shaw, B., & Emery, G. (1979). *Cognitive therapy of depression*. New York: The Guilford Press.
- Beck, A., Wright, F., Newman, C., & Liese, B. (1993). *Cognitive therapy of substance abuse*. New York: The Guilford Press.
- Bergstrom, R., & Neighbors, C. (2006). Body image disturbance and the social norms approach: An integrative review of the literature. *Journal of Social and Clinical Psychology, 25*(9), 975-1000.
- Bloom, C., & Kogel, L. (1994). Symbolic meanings of food and body. In C. Bloom, A. Gitter, S. Gutwill, L. Kogel, & L. Zaphiropoulos (Eds.), *Eating problems: A feminist psychoanalytic treatment model* (pp. 57-66). New York: BasicBooks.
- Brown, K., & Ryan, R. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*(4), 822-848.
- Cash, T., & Henry, P. (1995). Women's body images: The results of a national survey in the U.S.A. *Sex Roles, 33*, 19-28.
- Delinsky, S. (2005). Effectiveness of mirror exposure for body image disturbance. (Doctoral dissertation, Rutgers, 2005). *Dissertation Abstracts International, 31*76163.
- Diener, E., Emmons, R., Larsen, R., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment, 49*, 71-75.



- Garner, D., & Garfinkel, P. (1979). The Eating Attitudes Test: An index of the symptoms of anorexia nervosa. *Psychological Medicine*, 9, 273-279.
- Garner, D. & Garfinkel, P. (Eds.). (1997). *Handbook of treatment for eating disorders*. New York: The Guilford Press.
- Garner, D., Garfinkel, P., & O'Shaughnessy, M. (1985). The validity of the distinction between bulimia with and without anorexia nervosa. *American Journal of Psychiatry*, 142, 581-587.
- Garner, D., Olmsted, M., Bohr, Y., & Garfinkel, P. (1982). The Eating Attitudes Test: Psychometric features and clinical correlates. *Psychological Medicine*, 12, 871-878.
- Garner, D., Olmsted, M., & Polivy, J. (1983). Development and validation of a multi-dimensional eating disorder inventory for Anorexia Nervosa and bulimia. *International Journal of Eating Disorders*, 2, 15-34.
- Halmi, K. A. (1992). *Psychobiology and treatment of Anorexia Nervosa and Bulimia Nervosa*. Washington, DC: American Psychiatric Press.
- Havill, A. (2006). Adolescent female embodiment as transformational experience in the lives of women: An empirical existential-phenomenological investigation. (Doctoral dissertation, Duquesne University, 2006). *Dissertation Abstracts International*, 3217481.
- Hsu, G. (1990). Experiential aspects of Bulimia Nervosa: Implications for cognitive-behavioral therapy. *Behavior Modification*, 14(1), 50-65.
- Hsu, L. K., Santhouse, R., & Chesler, B. (1991). Individual cognitive behavioral Therapy for bulimia nervosa: The description of a program. *International Journal of Eating Disorders*, 10(3), 273-283.
- Jones, J., Bennett, S., Olmsted, M., Lawson, M., & Rodin, G. (2001). Disordered eating attitudes and behaviors in teenaged girls: A school-based study. *Canadian Medical Association Journal*, 165(5), 547-552.
- King, M. (1989). Locus of control in women with eating pathology. *Psychological Medicine*, 19, 183-187.
- Kodish, B. (2004). Body awareness in theory and practice. *Et Cetera*, 61(3), 353-368.
- Lask, B., & Bryant-Waugh, R. (Eds.). (2000). *Anorexia Nervosa and related eating disorders in childhood and adolescence* (2nd ed.). East Sussex, England: Psychology Press.
- Lilenfeld, L., & Kaye, W. (1996). The link between alcoholism and eating disorders. *Alcohol Health and Research World*, 20(2), 94-99.
- Linehan, M. (1993a). *Cognitive-behavioral treatment of Borderline Personality Disorder*. New York: The Guilford Press.
- Linehan, M. (1993b). *Skills Training Manual for treating Borderline Personality Disorder*. New York: The Guilford Press.
- Phares, V., Steinberg, A., & Thompson, K. (2004). Gender differences in peer and parental influences: Body image disturbance, self-worth, and psychological functioning in preadolescent children. *Journal of Youth and Adolescence*, 33 (5), 421-429.
- Reas, D., Whisenhunt, B., Netemeyer, R., & Williamson, D. (2002). Development of the Body-Checking Questionnaire: A self-report measure of body-checking behaviors. *International Journal of Eating Disorders*, 31(3), 324-333.
- Richards, P., Hardman, R., & Berrett, M. (2007). *Spiritual approaches in the treatment of women with eating disorders*. Washington, DC: American Psychological Association.
- Rorty, M., & Yager, J. (1996). Speculations on the role of childhood abuse in the development of eating disorders among women. In M. Schwartz & L. Cohn (Eds.), *Sexual abuse and eating disorders* (pp. 23-35). New York: Brunner/Mazel.
- Rosen, J., Srebnik, D., Saltzberg, E., & Wendt, S. (1991). Development of a Body Image Avoidance Questionnaire. *Psychological Assessment*, 3, 32-37. Copyright © 2010 by the American Psychological Association. Reproduced with permission.
- Shafran, R., Fairburn, C., Robinson, P., & Lask, B. (2003). Body-checking and its avoidance in eating disorders. *International Journal of Eating Disorders*, 35, 93-101.
- Skemp-Arlt, K. (2006). Body image dissatisfaction and eating disturbances among children and adolescents: Prevalence, risk factors, and prevention strategies. *Journal of Physical Education, Recreation & Dance*, 77(1), 45-51.
- Steiger, H., Lehoux, P., & Gauvin, L. (1999). Impulsivity, dietary control, and the urge to binge in bulimic syndromes. *International Journal of Eating Disorders*, 26, 261-274.
- Strickland, B. (1978). Internal-external expectancies and health-related behaviors. *Journal of Consulting and Clinical Psychology*, 46(6), 1192-1211.
- Thompson, J. K., & Heinberg, L. J. (1999). The media's influence on body image disturbance and eating disorders: We've reviled them, now can we rehabilitate them? *Journal of Social Issues*, 55, 339-353.
- Verdon, R. (2000). Mirror, mirror on the wall, who is the thinnest of them all? *Reclaiming Children and Youth*, 9(3), 157-161.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063-1070. Copyright © 2010 by the American Psychological Association. Reproduced with permission.
- Williamson, D., Davis, C., Goreczny, A., McKenzie, S., & Watkins, P. (1989). The Eating Questionnaire-Revised: A symptom checklist for bulimia. In P. A. Keller & S. R. Heyman (Eds.), *Innovations in clinical practice* (Vol. 8, pp. 321-326). Sarasota, FL: Professional Resource Exchange. Instrument reprinted by permission.

### Biography

**Jennifer Bruha, Ph.D.** was born and raised in the San Francisco bay area, the eldest of two daughters to Don and Janis Bruha. She attended UCLA and earned a Bachelors degree in Psychology, followed by a Masters degree in Counseling Psychology and a Certificate in Chemical Dependency Counseling from Notre Dame de Namur University. She earned a second Masters degree and Doctorate (Ph.D.) in Clinical Psychology from the Institute of Transpersonal Psychology. She has been working as a clinician since 2003 at Our Common Ground adolescent treatment facility and since 2009 at the adult facility, facilitating Drug Education and Relapse Prevention. Her research interests include addiction, eating disorders, and trauma. Contact information: [jbruha@sbcglobal.net](mailto:jbruha@sbcglobal.net)

# The USA Body Psychotherapy Journal The Official Publication of the USABP

## *Editor*

JACQUELINE A. CARLETON, PH.D.

## *Assistant Editor*

SASHA DMOCHOWSKI

## *Production Manager*

ROBYN BURNS, M.A.

## *Peer Review Board*

SUSAN APOSHYAN, M.A.

DAVID BROWN, PH.D.

RUELLA FRANK, PH.D.

MARY J. GIUFFRA, PH.D.

BARBARA GOODRICH-DUNN

ELLIOT GREENE, M.A.

LAWRENCE HEDGES, PH.D.

JOEL ISAACS, PH.D.

GREG JOHANSON, PH.D.

BLAIR JUSTICE, PH.D.

RITA JUSTICE, PH.D.

ALICE LADAS, Ed.D.

ALINE LAPIERRE, Psy.D.

LINDA MARKS, M.S.M.

JOHN MAY, Ph.D.

PATRIZIA PALLARO, LCMFT, ADTR

MARJORIE RAND, Ph.D.

LAUREL THOMPSON, M.P.S.

## **USABP BOARD OF DIRECTORS**

VIRGINIA DENNEHY, PRESIDENT

PAUL BRIGGS, VICE PRESIDENT

LYNN TURNER, SECRETARY

JACQUELINE A. CARLETON, TREASURER

MARY J. GIUFFRA

GREG JOHANSON

ANN LADD

KATHY SCHEG

LAUREL THOMPSON

## **ADVERTISING INFORMATION**

The USABP Journal accepts advertisements for books, conferences, training programs, etc. of possible interest to our members. Please contact [usabp@usabp.org](mailto:usabp@usabp.org) for more information.

## **CRITERIA FOR ACCEPTANCE**

How does material in this manuscript inform the field and add to the body of knowledge? If it is a description of what we already know, is there some unique nugget or gem the reader can store away or hold onto? If it is a case study, is there a balance among the elements, i.e., back ground information, description of prescribed interventions and how they work, outcomes that add to our body of knowledge? If this is a reflective piece, does it tie together elements in the field to create a new perspective? Given that the field does not easily lend itself to controlled studies and statistics, if the manuscript submitted presents such, is the analysis forced or is it something other than it purports to be?

## **PURPOSE**

This peer-reviewed journal seeks to support, promote and stimulate the exchange of ideas, scholarship and research within the field of body psychotherapy as well as an interdisciplinary exchange with related fields of clinical practice and inquiry.

To ensure the confidentiality of any individuals who may be mentioned in case material, names and identifying information have been changed. It must be understood, however, that although articles must meet academic publishing guidelines, the accuracy or premises of articles printed does not necessarily represent the official beliefs of the USABP or its Board of Directors.

The USA Body Psychotherapy Journal (ISSN 1530-960X) is published semi-annually by the United States Association for Body Psychotherapy. Copyright (c) 2008 United States Association for Body Psychotherapy. All rights reserved. No part of this journal may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without written permission of the publisher.

## **SUBMISSION GUIDELINES AND SPECIFICATIONS**

First consideration will be given to articles of original theory, qualitative and quantitative research, experiential data, case studies, as well as comparative analyses and literature reviews. Submission of an article to the *USA Body Psychotherapy Journal* represents certification on the part of the author that it has not been published or submitted for publication elsewhere.

**Initial submission** should be e-mailed to [jacarletonphd@gmail.com](mailto:jacarletonphd@gmail.com) as an attachment in Microsoft Word.

Manuscript should be double-spaced in 10pt. type, Times New Roman font, with at least a one inch margin on all four sides—please include page numbers, otherwise manuscript should be free of other formatting.

Title, full authorship, **abstract of about 100 words and 3-5 key words precede the text.**

Please include an endnote with author's degrees, training, mailing address, e-mail fax, acknowledgement of research support, etc.

Authors are responsible for preparing clearly written manuscripts free of errors in spelling, grammar, or punctuation. We recognize that the majority of contributors are not professional writers, nor do they function in a publish or perish mode. Furthermore, we are aware that the work of our profession is sometimes pragmatic, associative, intuitive, and difficult to structure. However, a professional journal such as we envision normally accepts only pieces that are fully edited. Therefore, we may occasionally suggest that writers find a reviewer to edit their work before it can be accepted. We will suggest names of possible editors if requested.

**References:** References within the text should include author's surname, publication date and page number.

Full attribution should be included in bibliography at end. *For books:* surname, first name, book title, place, publisher, date of publication. *For periodicals:* Surname, first name, title of article in quotes, name of publication, year, volume, and page numbers. Or, consult the latest edition of the Publication Manual of the American Psychological Association.

## **LETTERS TO THE EDITOR**

The editors are eager to receive letters, particularly communications commenting on and debating works already published in the journal, but also suggestions and requests for additional features or departments. They may be sent to the email address below. A selection of those received will be published in the next volume of the journal.

## **CORRESPONDANCE ADDRESS**

Jacqueline A. Carleton, Ph.D.

Editor

USA Body Psychotherapy Journal

115 East 92<sup>nd</sup>. Street #2A

New York, NY 10128

212.987.4969

[jacarletonphd@gmail.com](mailto:jacarletonphd@gmail.com)