

Women's Experience with a Mindful Eating Course on a University Campus: A Pilot Study

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Abstract

Background: Weight and eating are sources of distress for many women and most weight-loss diets fail to sustain their effects over time. *Mindful eating* focuses on the processes involved in eating (e.g., hunger, satiety, emotion) rather than on the regulation of weight, and is grounded in mindfulness meditation practices. **Purpose:** The purpose of this mixed-methods pilot study was to understand the experiences (attitudes, feelings, behaviors) of participants taking a course in mindful eating, and to know in what respects this approach showed promise for women in general. **Methods:** Seven university staff and faculty women (ages 37 - 59, BMI 21.76 – 40.42) participated in mindful eating classes taught over an 8-week period. Qualitative data were analyzed using intrinsic case study design, supported by pre- and post-measures of mindful eating and disordered eating. **Results:** Three major themes were derived: *Increased Awareness, New Behaviors in Eating, and Barriers to Practice*, with notable experiences in limiting food intake. According to the MEQ, there was a significant increase in the Awareness domain ($p = .045$). **Conclusion:** Mindful eating can be incorporated into daily life and offer a way for women to regulate and enjoy their eating. Although there are challenges in making time for the practices, the study supports further exploration of mindful eating as both preventative and health-enhancing for women.

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Keywords: mindfulness, mindful eating, meditation, weight

Introduction and Purpose

Many people struggle with eating habits and body dissatisfaction. Nearly half of U.S. women are unhappy with their weight (Grabe & Hyde, 2006). Dieting among “normal weight” women is common and correlated with depression and low self-esteem; furthermore, when weight loss is achieved, most women and men cannot maintain it (Wilson, 2002). Bays (2009) asserts that the attempts to control weight in the face of less activity and more processed foods in developed countries have led to enormous distress, and that a more balanced approach to eating is sorely needed.

Following Kabat-Zinn's pioneering adaptation of Buddhist meditation practices for the treatment of pain, there has been an explosion of research suggesting the effectiveness of mindfulness-based treatment of depression, anxiety, and substance abuse (see Kabat-Zinn, 2013, for explanation and review), and more recently for eating disorders. Kristeller and

Wolever (2011) suggest that people with disordered eating are excessively influenced by external cues, have difficulty regulating emotion, and are disengaged from internal systems of food regulation. Mindfulness, defined as “the awareness that arises by paying attention on purpose, in the present moment, and non-judgmentally” (Kabat-Zinn, 2013, p. xxxv), may help self-regulation because it teaches acute attention to internal experience (physical and emotional) in the context of self-compassion, leading to more conscious choices (Kristeller & Wolever, 2011). The research on mindful eating is limited but growing, and has focused primarily on eating disorders. Kristeller and Wolever (2011) developed *Mindfulness-based eating awareness training* (MB-EAT) for binge eating, and report findings from their NIH-funded randomized trial suggesting that MB-EAT was as effective as a well-regarded psychoeducational program. Indeed, both established therapies that include a secondary mindfulness component and approaches that are primarily mindfulness-based have had good

results in treating binge eating (see Katterman, Kleinman, Hood, Nackers, & Corsica, 2014). Relatively fewer studies have examined the impact of mindful eating practices for general concerns in the broader population, but results are encouraging. For example, increases in mindfulness were correlated with reductions in body dissatisfaction and problematic eating behaviors (e.g., emotional eating) in non-clinical samples, as compared to wait-list controls (Alberts, Thewissen, & Rase, 2012; Bush, Rossy, Mintz, & Schopp, 2014). Although mindfulness strategies are beginning to be combined with traditional weight loss programs (see Katterman et al., 2014), given the external focus (and poor results) of dieting, Bush et al. (2014) encourage researchers to use physical measures such as percentage of body fat and blood pressure, rather than weight, to determine health outcomes of mindful eating. The literature is scant, but for example, Daubenmier et al. (2011) found preliminary evidence of “dose-dependent” findings in a mindfulness study that focused on stress-eating in “overweight/obese” participants, such that those who reported the strongest increases in mindfulness and stress reduction showed the strongest decrease in abdominal fat.

Given the level of distress in modern culture regarding eating and weight, we wanted to explore mindful eating in a non-clinical context, with women who wanted a better relationship with food. Few studies have explored the phenomenological experiences of women going through mindful eating training. The purpose of this study was to understand participants’ reactions to mindful eating practices, and to see what aspects of mindful eating had potential for women in general.

Methods

Study Design

We used a mixed methods design in which the mindfulness program was studied as a “case,” primarily using qualitative data from multiple sources (screening interviews, process notes, and written feedback from participants) to develop broad themes (*intrinsic case study design*; Creswell, 2013), and we used pre- and post-class

standardized measures assessing mindful and disordered eating to triangulate those data.

Participants

Participation was open to any faculty and staff of the university who desired a better relationship with food. The only exclusionary criteria were having a severe eating disorder or being on a rigid weight-loss diet. RS conducted 11 screening interviews (only women applied) and all began the course. Two dropped out immediately, and two stopped mid-way. There were no discernable patterns in occupation, age, or ethnicity of those who dropped, but time constraints were evident. Two others had sporadic attendance and five attended all classes. Ultimately, we had useful data from seven participants of European, Latino, and Asian descent. The mean age was 50 (37 – 59, $SD = 7.8$), and the average BMI was on the low end of “overweight” at 26.93 (21.76 – 40.42, $SD = 7.09$). Four were cautious about weight gain, six had struggled with weight gain and wanted to manage their weight in a healthy way, and three reported occasional compulsive eating.

Procedures

Following IRB approval by California State University Fullerton, the first author (RS) led an 8-week course in mindful eating that met for 75 minutes once a week over the lunch hour at a large university in Southern California. The second author took process notes during each meeting. Participants were given weekly homework (readings, meditations, practices), and logged into a confidential website to answer questions regarding their experiences. At the beginning and end of the course, participants took standardized measures assessing disordered and mindful eating.

The Mindful Eating Class. RS created her own version of the course using elements from Bays (2009), Kristeller and Wolever (2011), and Kabat-Zinn (2013). Eight sessions is typical (see Katterman et al., 2014), and we used common practices across programs, such as the raisin exercise (all senses are used to experience the sensation of eating), body scan (meditative awareness on each part of the body), and loving kindness meditation (expanding compassion for

self and others). Participants were provided copies of Bays' (2009) book on mindful eating and they practiced meditations from the website of mindfulness teacher Ron Siegel. Table 1 provides a brief outline of topics.

Table 1.

Mindful Eating 8-Week Course	
Time frame	Content/activity
Every week	Meditation and mindfulness exercises Discussion of concepts, practices, and homework Mindful eating with lunch or snack
Week 1	Introductions and guidelines for participation Introduction to mindful eating ("raisin" exercise)
Week 2	Breath awareness meditations Slowing down eating
Week 3	Emotional hunger Self-compassion and non-judgment
Week 4	Physical hunger Body Scan meditation
Week 5	Hunger and satiety Body image and loving kindness meditation
Week 6	Perfectionism and self-criticism Gratitude for food and body meditation
Week 7	Barriers to mindful eating Urge surfing meditation
Week 8	Discussion of resources available Sharing of experience in the class

Measures and Analysis

Qualitative themes were derived through independent coding of narrative material by two of the authors, followed by discussion and consensus. Quantitative data were obtained using the Mindful Eating Questionnaire (MEQ, Framson et al., 2009) and the Eating Attitudes Test (EAT-26, Garner, Olmsted, Bohr, & Garfinkel, 1982). The MEQ is a 28-item measure assessing five domains: awareness ("I notice when there are subtle flavors in the foods I eat"), distraction ("I eat so quickly that I don't taste what I'm eating"), disinhibition ("If there's good food at a party, I'll continue eating even after I'm full"); emotional response ("When I'm sad I eat to feel better"), and external cues ("I notice when I'm eating from a dish of candy just because it's there"). Participants answer

"never/rarely", "sometimes", "often", or "usually/always." The EAT-26 is a 26-item measure assessing three domains of abnormal eating: Dieting ("Aware of the calorie content of foods that I eat"); Bulimia and Food Preoccupation ("Have gone on eating binges where I feel that I may not be able to stop"); and Oral Control ("Avoid eating when I am hungry"). Participants answer "always", "usually", "often", "sometimes", "rarely", or "never." Paired-sampled t-tests were conducted using IBM SPSS Statistics 21.0 to examine the quantitative data collected from the MEQ and EAT-26 domains.

Results

Three broad themes were derived: *Increased Awareness, New Behaviors in Eating, and Barriers to Practice*. Themes and subthemes, with corresponding quotations from eight participants used to illustrate them, are in Tables 2, 3, and 4. Participants reported increased awareness primarily in their recognition of *hunger types and satisfaction and connections among body, food, and emotion*. The majority embraced the idea of categorizing their hunger, which often led to an awareness of the use of food to regulate emotion. For example, one participant wrote about "heart hunger" (from Bays, 2009): "I think I do tend to try to create a 'false sense of intimacy' using food..." adding that once she realized where the hunger was coming from ("It was heart hunger, but also really intense mouth hunger"), the "urge" had passed. These results were supported by the MEQ, which indicated a significant increase in *awareness* ($t(6) = -2.53, p = .045$), suggesting that participants were more appreciative of food, more aware of its flavor, and more aware of their emotions with regard to food after participating in the program.

Results from the EAT-26 indicated that none of the participants was at risk for an eating disorder, and there were no significant changes pre- and post-intervention in disordered behavior or BMI. However, the dominant behavioral change expressed by participants in the qualitative data was in lessening their eating,

Table 2.

Subcategories for the “Increased Awareness” Theme	
Subcategory	Characteristic response
Hunger types and satisfaction	“I think the most potent hunger for me is cellular hunger. To me, this feels like a heavy, burning tiredness in my bones, a yearning to be nourished, and a lull in energy that results from not having enough fuel. I am also a heart hunger person in that I find myself wanting to eat treats where I do not feel well or happy in some way.”
Connections among body, food, and emotion	“I noticed that after eating that empty space is still there and nothing exciting happen and I am on this vicious circle of eating and feeling dissatisfied with my life.”
Appreciation for food	“Chocolate shake was so good even though I only had a couple of sips. I noticed the texture and really savor end [sic] it.”
Appreciation for the body	“After a couple breaths, I decided that, instead of saying, ‘may my body...’ I would say, ‘my body is ... at ease ... happy and well, etc.’ Occasionally, I would also say, ‘I am loved,’ ‘my body is perfect.’”
Internal criticism and self-compassion	“I got a lot out of the reading, it was fascinating it was like it allowed me to give myself a break, some of it’s instinctual and allows me to reduce judgment and criticism....”

and this was primarily achieved by *slowing down eating* and *recognizing emotions*. A number reported reduced emotional eating and increased enjoyment of food. Three participants reported being post-menopausal, and that self-compassion and a less punitive approach seemed to fit well with them as a long-term strategy for managing issues of aging and maintaining weight.

Experiences of body and weight were painful for some participants, and staying with the practices was challenging. Issues varied, although the theme of not having or making time dominated. Less common, but important, was the concern by one participant that being more accepting and trusting of her internal cues would only result in giving herself permission to indulge more. Another participant was frank about her inability to accept the philosophy and practices.

Table 3.

Subcategories for the “New Behaviors in Eating” Theme	
Subcategory	Characteristic response
Moderating intake by slowing down	“I have definitely been eating slower, most of the time, and stopping eating when I feel full. I have been eating one bite at a time most of the time, and find that I am more conscious of what I’m doing and how full I feel.”
Moderating intake by recognizing emotion	“I kind of ‘crashed’ emotionally and found I was eating a lot. I was aware of my increasing eating and that it was ‘heart’ hunger, but I couldn’t identify what I needed to alleviate that behavior. I stayed in the question and eventually found the peace and comfort I needed...since then, I have been able to eat for hunger.”
Moderating intake by recognizing hunger or hunger types	“I am more aware of whether I am hungry or not and find that I am less likely to eat if I am not hungry. I also stop eating sooner than in the past because I check in with how my body and stomach feel (state of fullness).”
Moderating intake by making deliberate choices	“I was [at] a restaurant that had a chocolate fountain and my boyfriend asked if I wanted some and I said no, it still feels good to be able to say no and not have to explain myself. Even though you like something, you don’t have to eat it right now.”
Eating mindfully by appreciating food	“I have changed the way I eat. I put my fork down between bites. I stop mid meal to take in how I am feeling, and to be thankful for the hands that prepared my meal. I don’t take my food for granted.”

Discussion

This pilot study provides increased understanding about the benefits and barriers women experience attempting to use mindfulness to change their approach to eating. Among those who stayed in the study, the response was highly positive. Participants reported benefits due to slowing down eating, becoming more aware of hunger, satiety, and emotions, making more conscious choices, and having more self-compassion, which are all consistent with themes found in one of the few qualitative studies on mindfulness with a clinical sample (Woolhouse, Knowles, & Crafti, 2012).

Table 4.

Subcategories for the “Barriers to Practice and Change” Theme

Subcategory	Characteristic response
No time, tiredness, forgetting	<i>“I’m having trouble getting myself to do the exercises, not because I don’t want to, but because I’m so busy and so tired by the time that I get home...it ends up feeling like another thing I have to do before I can ‘relax.’”</i>
Difficulty slowing down	<i>“Since I am always in a hurry to do anything I thought the meditation was slow of course...I just feel like I need more discipline so I can do the exercises as many time as I need to.”</i>
Difficult emotions	<i>“Night time is the worse for me. Lonely. I need to engage myself in the evening so the heart hunger falls in the background.”</i>
Other people or the external environment	<i>“What I feel is guilty at friends or family members’ houses, I am eating more to please someone else.”</i>
Habits, lifestyle, mindlessness	<i>“It’s still hard to stop when I eat in the evening. I am still having a hard time breaking the late evening eating habit.”</i>
Not wanting to feel deprived	<i>“What if I get hungry in a little while and I am not in a position to be able to eat? I can do the one bite at a time, but it does take concentration.... I did however, sometimes continue eating past fullness because something tasted good: Salty chips, sweet ice cream.”</i>
Frustration or resistance	<i>“I’m astonished at my own reluctance/lack of discipline on this. I’ve been aware a couple of times this week that I was eating mindlessly, but I seem to resist really doing this in any meaningful way.”</i>
Health issues	<i>“...noticed that I want to eat this because I was in pain, maybe I look to treats to ease pain?”</i>

Bays (2009) observed that Americans seem to greatly look forward to eating, only to not really enjoy food. Kabat-Zinn (2013) asserted that mindfulness increases pleasure with eating, and most participants in the present study did indeed report greater enjoyment of food following the exercises.

As expected, given the non-clinical sample, participants did not report changes in disordered eating. And similar to numerous studies

(reviewed by Katterman et al., 2014), that did not incorporate weight loss strategies or have weight loss as a goal, participants did not report weight loss. Although some of the participants were struggling with their weight, the present study would seem to support the idea that mindful eating is beneficial regardless of its impact on weight.

To our knowledge, other studies have not considered barriers to practice, although drop-out rates of 10% to 25% are not uncommon (Katterman et al., 2014). In both participants who dropped out of the study and those who stayed, making time for the sessions and the practices was difficult. Kabat-Zinn (2013) pointed out that people do struggle to make room in their lives for meditation; however, we believe that given the necessity to eat, mindfulness could eventually become so integrated into daily life that it would not require much more “extra” time. Ironically, we had shortened the duration of each class in order to meet participants’ time constraints; two hours would likely have helped them better integrate the practices.

Embracing the philosophy of mindful eating itself can be a struggle. The idea of learning to trust one’s internal mechanisms to regulate eating is contrary to diet culture, and one participant feared that this would lead to overeating. Roth (2010) asserts that this fear is common, and crucial to overcome; however, this may be exceptionally difficult for some. Indeed, Kristeller and Wolver (2011) found that some participants in their study lost weight but others gained, presumably from misinterpreting the spirit of the techniques. Such fears—and any possible resultant behavior—should be addressed in mindful eating programs. Finally, mindfulness may simply not be a good fit for everyone, or perhaps we could have done a better job offering hope and encouragement, while still avoiding the promises of weight-loss diets.

Limitations

Although a small sample was intended, it was not optimal to lose participants. The results are primarily reflective of middle-aged, professional

women at a single university who had a preexisting interest in mindfulness. Responses might differ with men and younger people, or those who do not live in Southern California, work at a university, or lack interest in mindfulness. It is also hard to predict if the gains in awareness and behavior will last, and without a control group we cannot attribute the results to mindfulness specifically. However, the study suggests there is promise in using mindfulness with women who experience a variety of “normal” and subclinical issues related to eating.

Conclusion

The present study lends support to the use of mindful eating in so-called normal populations as a way of improving women’s relationship

with food and enhancing well-being. Mindful eating may be especially well-received by women in middle age who are tired of dieting and are looking for ways to maintain weight and enjoy food. The study also illuminates some of the struggles women can have making mindfulness a part of their lives. Further study with large community samples is needed, and longitudinal data would help determine mindful eating’s longer-term impact on well-being, weight, and physical health.

Acknowledgement

We thank mindful eating instructors Jan Chozen Bays, M.D., and Char Wilkins, LCSW, for their expertise in training professionals and helping to shape our process.

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