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Acceptance and Body Dissatisfaction: Examining the Efficacy of a Brief Acceptance Based Intervention for Body Dissatisfaction in College Women

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Background: Body dissatisfaction among college women is concerning given its high prevalence and associated negative consequences. While cognitive-behavioral approaches to reducing body dissatisfaction have considerable support, it may be beneficial to target the problematic relationship that some individuals have with their internal experiences. **Aims:** To examine the relative efficacy of an acceptance-based compared to a cognitive restructuring approach to targeting body dissatisfaction. **Method:** College women were randomly assigned to an acceptance ($n = 21$), cognitive restructuring ($n = 21$) or a neutral comparison condition ($n = 24$). Participants completed a body dissatisfaction challenge postintervention and their dissatisfaction, distress about body-related thoughts and emotions, and the extent they felt defined by their outward appearance were measured. **Results:** Both approaches provided a protective effect against decreases in body satisfaction and related feelings. **Conclusion:** Acceptance and CBT approaches to treating body dissatisfaction are worthy of future investigation.

Keywords: Acceptance-based behavior therapy, body dissatisfaction in college women, brief intervention

Introduction

Body dissatisfaction refers to a negative subjective evaluation of one's physical body that manifests in certain cognitive, affective, and attitudinal reactions (Cash, 1990). Although men report some body dissatisfaction, research consistently finds that White women report more negative body image attitudes over their lifespan (e.g.Calogero and Thompson, 2010) perhaps because they place more self-evaluative emphasis on their appearance (Cash and Brown, 1989). Due in part to the highly unattainable "thin ideal" propagated by the media, body dissatisfaction has become so prevalent in Westernized culture that the term "normative discontent" is used to describe the phenomenon (Rodin, Silberstein and Striegel-Moore, 1984).

Body dissatisfaction among girls increases in intensity during adolescence/early adulthood as pubertal development moves a woman's body further from the thin ideal (Kostanski, Fisher and Gullone, 2004). Pressures towards thinness and attractiveness may be particularly potent on college campuses where eating concerns and awareness of body image are arguably more intense (Low et al., 2003). Up to 90% of female undergraduates report some body

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dissatisfaction (Neighbors and Sobal, 2007), which is alarming given the association between body dissatisfaction and impaired self-esteem, depression, and eating pathology (e.g. Stice and Shaw, 2002).

Although cognitive-behavioral (CBT) approaches have demonstrated efficacy in decreasing body dissatisfaction in college women, there is room for improvement. For example, while Grant and Cash (1995) found their intervention increased body satisfaction, only 42% of the sample experienced clinically significant change. Similarly, Farrell, Shafran, Lee and Fairburn (2005) found a brief intervention for body dissatisfaction effectively improved anxiety and body dissatisfaction in a sample of eight participants, but "large" changes were only evidenced for three participants.

Moreover, methodological limitations to this literature minimize the potential clinical utility and scientific impact of the findings. For example, there is significant variability in the therapeutic strategies that have been used across CBT studies, few studies have directly compared specific techniques in an attempt to identify the active ingredients, and the few that have yield contradictory findings (e.g. Strachan and Cash, 2002). Although most studies show pre to posttreatment improvements, the absence of a control group in some studies makes it impossible to conclude that the changes were due to the intervention (Cash and Hrabosky, 2003; Farrell et al., 2005). Of the few studies that directly compared the efficacy of cognitive-behavioral approaches to other types of treatments, the results are mixed (Delinsky and Wilson, 2006; Dworkin and Kerr, 1987; Fisher and Thompson, 1994; Nicolino, Martz and Curtin, 2001; Rosen, Saltzberg and Srebnik, 1989).

Given the widespread prevalence of body dissatisfaction, cost-effectiveness and efficiency are important characteristics of an intervention that should be considered. Unfortunately, many CBT interventions require between 3–11 sessions of contact (e.g. Farrell et al., 2005; Grant and Cash, 1995; Stice, Mazotti, Weibel and Agras, 2000). Not only are briefer programs desirable because of their improved feasibility but there is also no clear evidence that longer programs are more effective.

One possible explanation for why a significant proportion of women who receive CBT do not show clinically significant improvement in body dissatisfaction is that it may be difficult to challenge these unhelpful thoughts in the context of societal and cultural norms that equate thinness with beauty. Recently, some CBT theorists have posited that it is the problematic relationship that some individuals have with internal experiences (such as critical thoughts about appearance) that contribute to the development and maintenance of clinical problems such as body dissatisfaction (e.g. Pearson, Heffner and Follette, 2010). Whereas some individuals are able to see their critical thoughts as "just thoughts", others develop an entangled, judgmental stance towards unpleasant thoughts and related emotions, and thus are motivated to suppress and avoid them (i.e. engage in experiential avoidance (Hayes, Strosahl and Wilson, 1999). This stance may reflect a more general avoidant style of coping with painful emotions that has been associated with eating pathology (Rawal, Park and Williams, 2010). There is also significant evidence for an association between diminished clarity of emotions and body dissatisfaction (De Berardis et al., 2007), body checking behaviors (De Berardis et al., 2007), eating disorder pathology (Ridout, Thom and Wallis, 2010) and food consumption (van Strien and Ouwens, 2007) in non-clinical samples of college women.

Experiential avoidance is often contrasted with acceptance and mindfulness, defined by Kabat-Zinn (1984) as "paying attention in a particular way; on purpose, in the present moment, and nonjudgmentally". Rather than attempting to change how one experiences

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his/her emotions using strategies like experiential avoidance, mindfulness involves accepting uncomfortable internal states as an inevitable part of life. Although the literature is in its infancy, there is some evidence of a negative association between mindfulness and eating disordered behavior (Baer, Fischer and Huss, 2005; Kristeller, Baer and Quillian-Wolever, 2006; Lavender, Jardin and Anderson, 2009; Masuda and Wendell, 2010).

Two small published studies have examined the impact of an acceptance-based intervention on body dissatisfaction in college women (Atkinson and Wade, 2012; Wade, George and Atkinson, 2009). In their 2009 analogue study, Wade and colleagues examined three brief interventions for body dissatisfaction (cognitive dissonance, acceptance, distraction) compared to a no-intervention control group and a ruminative control group in college women who completed an experimental task aimed at inducing body dissatisfaction. Participants in all three intervention groups reported significantly higher weight satisfaction relative to the control conditions. Similarly, all intervention groups reported significantly higher appearance satisfaction than participants in the ruminative control condition. However, only the acceptance group reported significantly more appearance satisfaction than the no-intervention control condition.

While Wade's experimental study provides preliminary support for the use of an acceptance-based intervention for body dissatisfaction, a number of limitations warrant attention. Most notably, the intervention training was no more than 5 minutes, which may not have been sufficient to produce clinically meaningful changes. In addition, the study did not include a manipulation check so it is unclear as to whether participants processed and actively engaged in the training instructions. Finally, participants were not pre-screened for body dissatisfaction, thus the findings may not be generalizable to that population.

In their 2012 study, Atkinson and Wade tested an enhanced version of the 2009 acceptance condition for improving body satisfaction and negative affect in 80 female undergraduates compared to a no training control condition. While investigators improved upon limitations of the prior study by including a manipulation check and increasing the acceptance training length, the study lacked an active comparison condition. Moreover, participants were not pre-screened for body dissatisfaction.

The goal of the present study was to examine the efficacy of a brief acceptance based intervention compared to a cognitive restructuring intervention and a control condition in reducing body dissatisfaction in college women. It was hypothesized that participants who received a brief acceptance intervention would report higher body satisfaction, less distress about feelings about their body, and would report feeling less defined by their outward appearance in response to a body dissatisfaction challenge than women who received a cognitive restructuring intervention or no treatment.

Method

Participants

The study was advertised to college students at an urban university in northeastern United States via flyers displayed in accordance with institution policies. Participants were at least 18 years of age, female, and able to complete an online screening survey written in English. Participants received course credit or monetary reimbursement for their participation. Research was approved by appropriate university ethics committees. A total of 268 students

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completed the online screening. Twelve participants did not complete the body dissatisfaction questionnaire, used to identify appropriate participants, and two participants were male and therefore ineligible. Of the 117 participants who were identified as high in body dissatisfaction, 67 students expressed interest in the study and completed the lab phase. These participants had a mean age of 20.15 ($SD = 2.78$) and a mean self-reported BMI of 23.65 ($SD = 4.23$). Two participants did not report their weight.

Screening measure

The 9-item Body Dissatisfaction scale from the Eating Disorder Inventory (Garner, Olmstead and Polivy, 1983) was used as a screening measure to identify potential participants with elevated body dissatisfaction. The scale asks participants to indicate how often each statement is true of them on a 6-point scale ranging from 1 (never) to 6 (always). Consistent with previous studies using college samples (Basow, Foran and Bookwala, 2007; Gordon, Castro, Sitnikov and Holm-Denoma, 2010; Wade et al., 2009), the full 6-point Likert scale scoring method was used. Participants scoring 36 or higher (reflecting an average rating of 4, or "often" on all nine items) were invited to participate in the lab portion of the study. Internal consistency was good in the current sample (Cronbach's $\alpha = .83$).

Procedure

Eligible and interested participants were contacted and scheduled for their lab visit. Upon arrival, participants were asked to provide informed consent and then to relax for 2 minutes. Following the lab acclimation, participants completed a visual analogue scale used in previous studies (e.g. Wade et al., 2009) to measure state body dissatisfaction. Specifically, participants were asked to indicate on a horizontal line representing a scale from 0 (not at all) to 100 (very much) their responses to three questions: "How dissatisfied do you feel about your body right now?" "How distressed are you by your feelings about your body right now?" and "How defined do you feel by your outward appearance right now?"

Participants matched on body dissatisfaction were then randomly assigned to one of three conditions (acceptance, cognitive restructuring (CR) or comparison) consisting of an audio recording using block randomization. In the acceptance condition, thoughts about body dissatisfaction were normalized and participants were introduced to the paradoxical effects of trying to suppress or change thoughts and feelings. Acceptance was introduced as an alternative way of coping with uncomfortable thoughts and participants were led through a mindfulness activity that asked them to bring compassion to an early memory of an experience of negative body image. In the CR condition, participants were introduced to the idea that automatic, faulty beliefs about body shape and size negatively impact mood and behavior. Cognitive Restructuring was offered as a method of systematically evaluating thoughts that can help one approach situations with a more balanced attitude. Participants were then directed on how to apply CR to three negative body image thoughts and asked to do so. Participants in the comparison condition listened to the script of a nature story from National Public Radio entitled, "Scientists Tune In To the 'Voices of the Landscape'".[1]

[1] Please contact Susan Margolis at semichelson@suffolk.edu for a copy of the full scripts and manipulation checks used in each experimental condition.

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Table 1. Means, standard deviations, and ranges for potential covariates

	Acceptance ($n = 21$)		CBT ($n = 21$)		Control ($n = 24$)	
	M (*SD*)	Range	*M* (*SD*)	Range	*M* (*SD*)	Range
BDI	38.81 (3.79)	36-50	41.57 (5.97)	36-54	39.50 (3.73)	36-52
Age	19.90 (1.38)	18-22	19.71 (1.49)	18-23	20.71 (4.25)	18-35
BMI	24.38 (6.01)	22-27	23.50 (2.73)	22-25	23.23 (3.67)	22-25

Notes: Two participants did not report their weight. For BMI, acceptance $n = 20$, control $n = 23$. BDI = Body Dissatisfaction Inventory, BMI = Body Mass Index

After listening to a 15–20 minute audio recording, participants completed a 3-item quiz (manipulation check) designed to test their understanding of the material and indicated on a 4-point scale their level of understanding and alertness[1].

Next, participants were asked to engage in a body dissatisfaction challenge task adapted from Wade et al. (2009). Participants viewed 16 magazine advertisements featuring young, thin women. For each advertisement, participants were asked to indicate their agreement to the questions (a) "I would like my body to look like this woman's body"; (b) "This woman is thinner than me"; and (c) "In a busy clothes shop, I would not like to try on bathing suits if this woman was also trying on bathing suits in the same change room", on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). This task has been found to reliably decrease a woman's satisfaction with her body (Groesz, Levine and Murnen, 2002). Finally, participants completed a second VAS rating and were debriefed on the nature of the experiment.

Results

Baseline comparisons

Analyses were conducted on 66 participants (acceptance group $n = 21$, CR group $n = 21$, comparison group $n = 24$)[2] . No differences were found between groups on age [$F(2, 63) = .81$, $p = .45$, $\eta_p^2 = .02$], BMI [$F(2, 61) = .41$, $p = .67$, $\eta_p^2 = .01$], body dissatisfaction [$F(2, 63) = 2.09$, $p = .13$, $\eta_p^2 = .06$] (see Table 1), quiz scores from the manipulation check (acceptance 2.81(0.40), CR 2.81(0.40), comparison 2.92(0.28); [$F(2, 63) = .67$, $p = .52$])., subjective level of understanding of intervention material (acceptance 3(0.62), CR 2.86(.73), comparison 2.88(.61); [$F(2, 64) = .31$, $p = .73$]) or self-reported alertness and attentiveness (acceptance 2.64(.58), CR 2.81(.68), comparison 2.50(.59); [$F(2, 64) = 1.41$, $p = .25$]). Data met assumptions for statistical tests with the exception of, in the acceptance condition, the variable "How dissatisfied do you feel about your body right now" at baseline (Kolmogorov-Smirnov = .14, $p = .003$, demonstrating negative skew) and at post (Kolmogorov-Smirnov = .11, $p = .05$, demonstrating negative skew). Two participants' scores were outliers ($z = -2.2$ and $z = -2.0$) at the post intervention time point and were therefore likely driving the significant Kolmogorov-Smirnov statistics. According to guidelines proposed by Tabachnick and Fidell (2001), data transformations were not conducted as the distribution of scores

[2] One participant in the acceptance condition failed the manipulation check scoring a 0/3 and was not included in the analyses.

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Table 2. Means, standard deviations, and ranges for dependent variables

	Acceptance ($n = 21$)		CBT ($n = 21$)		Control ($n = 24$)	
	M (*SD*)	Range	*M* (*SD*)	Range	*M* (*SD*)	Range
Baseline:						
Dissatisfaction	55.14 (19.54)	21-78	61.14 (19.59)	16-91	58.25 (17.82)	20-95
Distress	44.19 (22.42)	8-88	56.33 (18.69)	28-90	50.04 (23.61)	5-87
Defined	58.19 (24.99)	10-95	53.14 (20.33)	17-97	57.21 (22.69)	10-90
Post:						
Dissatisfaction	57.76 (24.33)	5-92	58.00 (24.02)	15-95	68.33 (17.51)†	20-96
Distressed	42.33 (23.14)*	6-90	54.00 (25.90)	11-93	61.83 (22.43)†	12-100
Defined	60.29 (26.55)	1-93	53.86 (23.58)	6-97	67.58 (19.26)	20-90

Notes: *Superscripts indicate significant differences from control at $p < .05$ with Bonferroni correction. † Superscripts indicate significant difference from baseline data at $p < .005$ with Bonferroni correction

represents the characteristics of the samples under investigation. In this case, we specifically sampled participants who were high in body dissatisfaction.

Condition effects

To examine the impact of condition on body dissatisfaction scores, a 3 (condition) by 2 (time) mixed model Analysis of Variance (ANOVA) was performed with response on the visual analogue scale to the question "How dissatisfied do you feel about your body right now?" as the dependent variable. No main effect for time [$F(1, 63) = 2.89$, $p = .09$, $\eta_p^2 = .04$] or condition [$F(2, 63) = .73$, $p = .49$, $\eta_p^2 = .02$] were observed; however, there was a statistically significant interaction of time x condition [$F(2, 63) = 4.29$, $p < .05$] with a medium to large effect size ($\eta_p^2 = .12$). Post-hoc pairwise comparisons using Bonferroni adjustment indicated that participants' body dissatisfaction scores in the comparison group became significantly worse over time [$F(1, 63) = 10.57$, $p < .005$] with a large effect size ($\eta_p^2 = .14$), while changes in body dissatisfaction scores in the acceptance and CR groups did not reach statistical significance [$F(1, 63) = .62$, $p = .43$, $\eta_p^2 = .01$], [$F(1, 63) = .90$, $p = .35$, $\eta_p^2 = .01$], respectively (see Table 2).

To examine the impact of condition on distress about feelings about the body, a similar 3 (condition) by 2 (time) mixed model Analysis of Variance (ANOVA) was performed with response on the visual analogue scale to the question "How distressed are you by your feelings about your body right now?" as the dependent variable. Again, no main effect for time [$F(1, 63) = 1.21$, $p = .28$, $\eta_p^2 = .02$] or condition [$F(2, 63) = 2.52$, $p = .09$, $\eta_p^2 = .07$] were observed; however, there was a statistically significant interaction for time x condition [$F(2, 63) = 4.23$, $p < .05$] with a medium to large effect size ($\eta_p^2 = .12$). Post hoc pairwise comparisons using Bonferroni adjustment indicated that, after intervention, participants' scores in the acceptance group were significantly lower as compared to those in the comparison group [$F(2, 63) = 3.78$, $p < .05$] with a medium to large effect size ($\eta_p^2 = .11$). Further, participants' scores in the comparison group became significantly worse over time [$F(1, 63) = 9.57$, $p < .01$] with a medium to large effect size ($\eta_p^2 = .13$). In contrast, changes

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in distress towards feelings about the body over time did not reach statistical significance in the acceptance or CR groups [$F(1, 63) = .21$, $p = .65$, $\eta_p^2 = .003$], [$F(1, 63) = .33$, $p = .57$, $\eta_p^2 = .005$] respectively (see Table 2).

To examine the impact of condition on how defined participants felt by their appearance, a 3 (condition) by 2 (time) mixed model Analysis of Variance (ANOVA) was performed with response on the visual analogue scale to the question "How defined do you feel by your outward appearance right now?" as the dependent variable. There was a significant main effect of time [$F(1, 63) = 4.49$, $p < .05$] as scores increased from baseline (56.2(22.7)) to postintervention (60.6(23.2)), with a medium effect size ($\eta_p^2 = .07$). No main effect of condition [$F(2, 63) = .99$, $p = .38$, $\eta_p^2 = .03$] or time x condition [$F(2, 63) = 2.21$, $p = .12$, $\eta_p^2 = .07$] were observed (see Table 2).

Discussion

Body dissatisfaction among women increases during college, when pubertal development moves the female body further away from the thin ideal (Kostanski et al., 2004), social and academic pressures increase, and women are subject to increased pressures towards thinness and attractiveness (Low et al., 2003). Given that body dissatisfaction in college women is related to decreased self-esteem, depression and, most notably, eating disorder pathology (Stice and Shaw, 2002), efficacious interventions aimed at reducing the risk of increased body dissatisfaction are sorely needed.

Findings from the current study suggest that both acceptance-based approaches and CR may have the potential to protect female college students from the increases in body dissatisfaction that commonly occur in this age group. As expected, participants in the comparison group reported an increase both in body dissatisfaction and distress towards feelings about their body following the challenge task. In contrast, both the acceptance and CR interventions appeared to provide a protective effect against these responses to the challenge. Unfortunately, participants in all three conditions reported an increase in the extent to which they felt defined by their outward appearance following the body dissatisfaction challenge. Future studies could explore the potential benefit of including "Self-as-Context" strategies from ACT that are specifically aimed at enhancing a sense of self that observes, but is not defined by, thoughts and other experiences. However, it is notable that participants' scores in the control condition suffered the largest mean increase from baseline (57.21) to post (67.58) compared to scores in the acceptance condition at baseline (58.19) to post (60.29) and CR condition at baseline (53.14) to post (53.86), suggesting the main effect of time was primarily driven by the increase in control participant scores.

Although we hypothesized that an acceptance-based approach, focusing on changing the entangled relationship women form with their body dissatisfied thoughts, would outperform cognitive restructuring in improving body satisfaction, acceptance and CR had similar effects in our lab-based study. While no other study has compared acceptance with cognitive restructuring in a sample of body dissatisfied college women, results from the current study are consistent with prior research that has found similar results following acceptance-based and cognitive-behavioral interventions in samples of clients with depression and anxiety (e.g. Arch et al., 2012; Forman et al., 2007). Future research is needed to determine whether or not these approaches share a common mechanism of change despite their topographical differences. Further, individual factors could predict which clients respond best to acceptance or CBT and,

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as such, results from the current investigation suggesting that both approaches are effective warrants attention and future investigation.

Several study limitations should be taken into consideration when interpreting study results. First, the baseline assessment tool used to identify body dissatisfied participants yielded a smaller sample than expected, suggesting a lack of sensitivity of this tool for the female college sample. Although prior research suggests that upwards of 90% of college women are dissatisfied with their bodies (Raudenbush and Zellner, 1997), less than 50% of college women screened for the current study with the body dissatisfaction subscale met criteria for the current study.

Although both acceptance and CR appeared to protect participants from increases in body dissatisfaction, the design of the current study makes it impossible to determine the potential endurance of the effects. Research that includes follow-up assessments is needed to determine the effectiveness of the interventions over time. Moreover, an additional dependent variable measurement at the time of the experiment, occurring between the time of the training and the induction, would further specify when change occurred. In addition, while the manipulation check utilized in the current study indicated the degree of understanding, familiarity with, and perceived helpfulness of presented strategies (acceptance and CR), actual use of such strategies was not examined.

Although CR was associated with positive effects in the current study, CR is not the only form of CBT that has been used to address body dissatisfaction. It is possible that an alternative CBT approach, such as cognitive dissonance (e.g. Stice, Mazotti, Weibel and Agras, 2000), may be more powerful.

Finally, while the current study sought to examine the efficacy of a brief acceptance based intervention for body dissatisfaction, the brevity of the interventions could have limited study findings. It is possible that a longer acceptance intervention would have yielded greater improvements in study variables. While the feasibility of a lengthy treatment package for a normative experience is questionable, it is possible that the 20 minute intervention offered in the current investigation was not powerful enough to impact change. A criticism of existing treatments for body dissatisfaction is their length, given the prevalence of the phenomenon. In balancing cost effectiveness with ability to impact change, it could be argued that the current study erred on the side of brevity.

Future directions

This study adds to an increasing body of research examining acceptance as an intervention for a myriad of psychological concerns. Despite its limitations, the findings of the current study suggest that acceptance for body dissatisfaction is an intervention worthy of future examination. Future research would build on the current investigation by utilizing an assessment measure more sensitive to the body dissatisfaction experienced by college women. As the Body Dissatisfaction subscale was designed for use in a clinical sample, future studies may consider examining the utility of a measure created for and normed on a non-clinical college population.

A growing body of evidence suggests that there may be *two* empirically supported treatments that are helpful in reducing body dissatisfaction and potentially preventing the associated negative consequences. As it is unlikely that the societal pressures that elevate the importance of one's outward appearance and equate thinness with happiness will

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dissipate from Western sociocultural pressures evident in Westernized cultures, the continual refinement of treatments for body dissatisfaction increases the likelihood that women will experience relief from its negative associations.

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