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Considering an Affect Regulation Framework for Examining the Association Between Body Dissatisfaction and Positive Body Image in Black Older Adolescent Females: Does Body Mass Index Matter?

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Abstract

The present study provided an initial evaluation of an affect regulation model describing the association between body dissatisfaction and two contemporary measures of positive body image among 247 Black college-bound older adolescent females. We further tested whether possessing a higher body mass index (BMI) would strengthen these associations. Self-reported height and weight were used to calculate BMI. Respondents also completed a culturally-sensitive figure rating scale along with assessments of body appreciation and body image flexibility. Results indicated a robust positive association between the two measures of positive body image; BMI was the strongest predictor of both body appreciation and body image flexibility with body size discrepancy (current minus ideal) contributing incremental variance to both models tested. Implications for improving our understanding of the association between positive and negative body image and bolstering positive body image to promote health-protective behaviors among Black young women at this developmental juncture are discussed.

Keywords

affect regulation; Black older adolescent females; body dissatisfaction; BMI; body appreciation; body image flexibility

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Within the last decade, the burgeoning scholarship devoted to the study of body appreciation has generated tremendous advancements in the contemporary science of positive body image (Avalos, Tylka, & Wood-Barcalow, 2005; Tylka, 2011). The present investigation sought to further contribute to this flourishing line of research by attempting to both expand and deepen the scope of modern conceptualizations of positive body image to include more emergent, experientially-based constructs such as body image flexibility (Sandoz, Wilson, Merwin, & Kellum, 2013). Whereas body appreciation reflects a proactive stance of accepting the body even amidst its flaws (Avalos et al., 2005), body image flexibility describes the process of openly engaging (versus avoiding) negative thoughts and emotions about the body in order to live life more fully (Sandoz et al., 2013).

Additionally, leading experts have cautioned against making the premature inference that low negative body image (e.g., body dissatisfaction) is the equivalent of high positive body image (e.g., Tiggemann & McCourt, 2013; Tylka, 2011). Nevertheless, despite the mounting evidence supporting the inverse association between discrepancy score indices of body dissatisfaction and positive body image (e.g., Halliwell, 2013; Swami, Begum, & Petrides, 2010; Swami, Mada, & Tovee, 2012; Swami, Salem, Furnham, & Tovee, 2008; Swami & Tovee, 2009), a theoretically-driven understanding of how these two dimensions of body image may operate in relation to one another remains underdeveloped. Accordingly, drawing from Cash's (2011) comprehensive cognitive-behavioral process model, we considered the utility of an integrative affect regulation framework [infused with social comparison (Festinger, 1954) and self-discrepancy (Higgins, 1987) theoretical perspectives] for explaining how positive body image may be understood as adaptive coping responses that serve to transform or ameliorate the aversive impact of body dissatisfaction.

Recent data have further confirmed the importance of identifying pertinent moderators that may influence the relationship between body dissatisfaction and positive body image. For example, Tiggemann and McCourt (2013) found that this association was attenuated at older versus younger ages in their female community sample. Other findings revealed a significant negative correlation between weight dissatisfaction and body appreciation among a group of female non-dancers while this relationship failed to reach significance in their comparison sample of women who perform as street dancers (Swami & Tovee, 2009). Collectively, these results tentatively suggest that younger women (Tiggemann & McCourt, 2013) and those who are less accustomed to moving their bodies in a highly athletic and empowering form of self-expression (Swami & Tovee, 2009) may be less prone to appreciating their bodies when confronted with experiences of body dissatisfaction than their age mature (Tiggemann & McCourt, 2013) and street dancing (Swami & Tovee, 2009) counterparts.

As a complement to this inceptive line of inquiry and in light of the potential public health significance, we were interested in determining whether body mass index (BMI) would strengthen the inverse associations between body dissatisfaction and both body appreciation and body image flexibility. We chose to evaluate the tenability of these models using a culturally-sensitive figure rating scale instrument (Kelly, Bulik, & Mazzeo, 2011; Pulvers et al., 2004) in a pre-college sample of Black older adolescent females. This age has been framed as critical period of transition in Black female body image (Webb, Warren-Findlow, Chou, & Adams, 2013) among young ethnic minority women for whom rates of overweight

and obesity are particularly high (e.g., Ogden, 2009). Research conducted in ethnically-diverse first-year college female samples has shown that higher body weights are associated with greater body dissatisfaction (Delinsky & Wilson, 2008) which could pose increased risk for engaging in less adaptive eating behavior and gaining more weight in acclimating to early college life relative to non-overweight peers (e.g., Webb & Hardin, 2012) if such body image threats are not managed constructively (Cash, 2011).

The Next Generation of Positive Body Image: Body Appreciation and Body Image Flexibility

The landscape of how more positive experiences of body image are defined and operationalized has evolved dramatically in recent years. Conventional understandings of adaptively relating to one's body were limited to making rather one-dimensional cognitive-affective evaluations reflective of body esteem (Franzoi & Shields, 1984) and body satisfaction (Pingitore, Spring, & Garfield, 1997). However, these widely-accepted concepts failed to adequately capture a more dialectical and nuanced experience of positive body image that is more closely aligned with affect regulation theory (e.g., Anestis, Selby, Fink, & Joiner, 2007; Cash, 2011) and Positive Psychology principles (Neff & Tirch, 2013; Tylka, 2011), which both contemporary formulations such as body appreciation (Avalos et al., 2005) and body image flexibility (Sandoz et al., 2013) provide.

For instance, body appreciation transcends beyond holding favorable views of the physical self to also incorporate internalizing a flexible, holistic orientation to the body that is exemplified by: (a) accepting the body even with its perceived flaws and regardless of actual weight or size, (b) being attuned to and responding to the body's needs, (c) respecting the body by engaging in adaptive self-care/health-promoting behaviors, and (d) protecting the body by resisting unrealistic media images of beauty (Avalos et al., 2005).

Research has shown body appreciation to be inversely associated with harmful dimensions of body image and eating disorder symptoms (Avalos et al., 2005), restrictive/critical caregiver eating messages (Kroon Van Diest & Tylka, 2010), along with certain personality variables including neuroticism (Swami, Hadji-Michael, & Furnham, 2008) and maladaptive perfectionism (Iannantuono & Tylka, 2012). Conversely, it demonstrated positive links with body acceptance by others and healthy approaches to food consumption (i.e., intuitive eating: Augustus-Horvath & Tylka, 2011; Avalos & Tylka, 2006). Body appreciation has additionally contributed incremental variance beyond measures of disordered eating and negative body image in the prediction of psychological well-being (e.g., self-esteem, life satisfaction, optimism, proactive coping: Avalos et al., 2005) in college women. Body appreciation further served as a moderator in the context of thin-ideal media internalization and appearance-related self-discrepancies in undergraduate females exposed to magazine advertisements depicting either thin female models or control images (Halliwell, 2013). More specifically, when viewing the models, young women scoring high on internalization and low on body appreciation endorsed greater importance and demonstrated a larger appearance discrepancy relative to young women in the control condition. Conversely, participants with elevated ratings on both measures of media internalization and body

appreciation indicated a less prominent self-discrepancy that was comparable in magnitude to their counterparts who viewed the control images (Halliwell, 2013).

While much evidence supports body appreciation as a component of positive body image, the scholarship on body image flexibility is emerging. This more nascent form of positive body image is an outgrowth of the Buddhism-inspired third-wave behavior therapy movement (Hayes, Villatte, Levin, & Hildebrandt, 2011) and is described as a change process relevant to the treatment of disordered eating (Sandoz et al., 2013). Indeed, the development of the Body Image-Acceptance and Action Questionnaire (BI-AAQ) as a measure of the construct of body image flexibility (Sandoz et al., 2013) was largely guided by the philosophical underpinnings of Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999).

Central to ACT is the idea that the content or valence of one's internal experience (e.g., negative thoughts, emotions, bodily sensations, perceptions) is not most problematic. Instead it is the rigid and inflexible desire to want to avoid or control these painful experiences (as opposed to willingly accepting them from an open stance of mindful compassionate awareness) that drives mental distress and maladaptive behavioral responses (Hayes et al., 1999). Moreover, ACT emphasizes catalyzing engagement in meaningful or valued action as the antidote to becoming absorbed in unhelpful mental processes (e.g., self-critical worry and rumination, attempts at thought suppression; Hayes et al., 1999).

In the context of body image, when this flexible mindset is activated, unfavorable body-evaluative content is not perceived as true in an absolute sense and is understood as time-limited in nature (Sandoz et al., 2013). Therefore, it follows that having undesirable thoughts and feelings about aspects of the body do not necessarily negatively impact one's overall outlook or the motivation to pursue meaningful goals in other life domains (Sandoz et al., 2013). In line with this theoretical framework, behaviors intentionally taken to respect, take care of, and protect the body in the face of body image-related threats and distress would reflect instances of valued action, which are core to both the foundations of body appreciation and body image flexibility.

Research has uncovered strong positive relationships between body image flexibility and self-compassion (Ferreira, Pinto-Gouveia, & Duarte, 2011; Schoenefeld & Webb, 2013) and intuitive eating (Schoenefeld & Webb, 2013). Inverse associations were observed between body image flexibility and psychological distress and poor body image (Ferreira et al., 2011; Sandoz et al., 2013) along with disordered eating (Sandoz et al., 2013). Body image flexibility was shown to partially account for the relationship between disordered eating cognitions and reports of eating pathology (Wendell, Masuda, & Le, 2012) and between body dissatisfaction and disordered eating (Sandoz et al., 2013) in college student samples. Female participants reporting higher levels of body image flexibility endorsed lower EAT-26 scores at low (versus average and high) BMI levels (Hill, Masuda, & Latzman, 2013).

Both body appreciation (Tylka, 2013) and body image flexibility (Sandoz et al., 2013) tend to be higher in men. With respect to BMI, reports of body appreciation are typically lower at

higher body weights (e.g., Iannantuono & Tylka, 2012; Kroon Van Diest & Tylka, 2010; Swami, Campana, & Coles, 2012) even among Black college women (Cotter, Kelly, Mitchell, & Mazzeo, 2013) though this finding is not supported cross-culturally (e.g., Swami et al., 2008; Swami, Mada, & Tovee, 2012; Swami & Tovee, 2009). A corresponding pattern of inverse associations has been found between body image flexibility and BMI among university students (e.g., Hill et al., 2013; Wendell et al., 2012), though one study failed to detect a significant relationship among female participants (Sandoz et al., 2013). Finally, the psychometric properties of body appreciation have a long-standing history of being examined in a wide range of culturally-diverse samples (e.g., Swami, Airs, Chouhan, Padilla Leon, & Towell, 2009; Swami & Jaafar, 2012; Swami, Kannan, & Furnham, 2011; Swami et al., 2012) and notably most recently in a sample exclusively comprised of Black female undergraduates (Cotter et al., 2013). However, the study of body image flexibility in ethnically-diverse samples has received limited attention (Hill et al., 2013; Sandoz et al., 2013; Wendell et al., 2012). Thus, the present investigation extends the empirical base of body image flexibility in relation to both body appreciation and BMI as experienced by Black older adolescent females preparing to matriculate within a university setting.

A New Era in Black Female Body Image?: Possible Implications for Overweight and Obese Black Females

Black females across the lifespan are disproportionately affected by high rates of obesity and resultant cardio-metabolic vulnerability (e.g., Ogden, 2009). In addition to exposure to systemic inequities such as racism-related stress (Cozier et al., 2014), some scholars have argued that body image-related cultural factors contribute to this risk. These have included Black women's generally lower levels of body dissatisfaction (Franko & Roehrig, 2011), greater acceptance of larger body sizes (Aruguete, Nickleberry, & Yates, 2004), more flexible conceptions of beauty and attractiveness (Parker et al., 1995), higher favorable attitudes towards obesity (Latner, Stunkard, & Wilson, 2005), and a putatively lower social cost to physical attractiveness at higher body weights (Ali, Rizzo, & Heiland, 2013). Nonetheless, research now reveals that despite prevailing notions of the perceived impenetrable protection conferred by these cultural characteristics, Black young women are not impervious to feelings of body dissatisfaction (e.g., Capodilupo & Kim, 2013; Kelch-Oliver & Ancis, 2011; Wolfe, 2000), and this may be particularly true for their heavier peers in today's increasingly weight-loss centric media and public health climate (e.g., Kelly et al., 2011; Sherwood et al., 2004; Yates, Edman, & Aruguete, 2004).

Indeed, contemporary shifts in the broader sociocultural milieu are purportedly marking a new era in Black females' experience of weight-related body image (Webb et al., 2013). More specifically, meta-analytic findings contend that Black-White differences in female body dissatisfaction are narrowing (Roberts, Cash, Feingold, & Johnson, 2006). While Michelle Obama serves in the prominent and high profile role of First Lady, the Black female body in relation to health and beauty has been brought to the forefront of public opinion and is therefore possibly more exposed than ever to intense popular scrutiny (Quinlan, Bates, & Webb, 2012).

This changing zeitgeist in Black female body image may additionally stem in part from the heightened mainstream media visibility of "fit and skinny" Black female celebrities (e.g., Jennifer Hudson and Kerry Washington; Capodilupo & Kim, 2013; Sanders, 2013), the magnified presence of thin Black women featured in rap music videos (Capodilupo & Kim, 2013), and the limited inclusion of weight-diverse models in magazines traditionally marketed to Black women (Dawson-Andoh, Gray, Soto, & Parker, 2011; Thompson-Brenner, Boisseau, & St. Paul, 2011). Some Black women have expressed concern over how these constrained media representations exert influence on Black men's preferences and attitudes which in turn may invalidate or otherwise detract from their own sense of physical appeal (Capodilupo & Kim, 2013). These media effects are further compounded by the intensified albeit well-intended public health initiatives on preventing childhood obesity (e.g., the "Let's Move" campaign) along with promoting weight loss/preventing weight gain among Black women in hopes of eliminating their obesity-related health inequities (e.g., Bennett et al., 2013; Fitzgibbon et al., 2005; Murphy & Williams, 2013; Williams et al., 2013).

These secular trends are occurring in tandem with an escalation in general reports of weight discrimination corresponding to the collective call to action to eradicate the "epidemic crisis of obesity" (Andreyeva, Puhl, & Brownell, 2008; Puhl & Heuer, 2009) which may position overweight and obese Black females at particularly high risk. In support of this, former U.S. Surgeon General Dr. Regina Benjamin, only the second Black female to hold this prestigious appointment, incurred harsh ridicule for her strong advocacy of healthy approaches to weight management while herself possessing an elevated BMI (e.g., Donaldson James, 2009). Similarly, Black female professional tennis player Taylor Townsend was criticized by the United States Tennis Association for not being "healthy" or "fit" enough, which was interpreted as covert weight stigmatization (e.g., Taylor, 2012). One recent study found that media images of obese Black females evoked stronger feelings of dislike and greater social distance attitudes relative to obese White target images (Puhl, Luedicke, & Heuer, 2013) further suggesting that the intersection (Bowleg, 2012) of their marginalized social identities may be an important consideration in determining Black women's vulnerability to weightism.

From an affect regulation perspective (e.g., Cash, 2011), the confluence of these macro-level forces may accentuate individual-level weight consciousness and body size self-evaluative processes for Black young women. Given the collective preoccupation in western culture with reality television shows (e.g., *The Biggest Loser*; Domoff, Hinman, Koball et al., 2012; Yoo, 2013) and social networking outlets (e.g., Facebook; Rutledge, Gillmor, & Gillen, 2013; Smith, Hames, & Joiner, 2013; Tiggemann & Slater, 2013) that demonstrate the high value society places on weight, image, and physical attractiveness, these processes may perhaps be even more acutely salient for younger overweight and obese Black females. Triggering these negative self-evaluative processes may adversely affect their capacity to successfully cope with their emergent body dissatisfaction. It is plausible that overweight and obese Black females may feel even less well-equipped to effectively engage health-promoting positive body image coping resources to adaptively respond to this perpetual onslaught of body image insults and amplified pressure to lose weight. This possibility holds

considerable public health ramifications for these young ethnic minority women at the developmental transition of preparing to acclimate to early college life (e.g., Gillen & Lefkowitz, 2012; Nelson, Gortmaker, Subramanian, Cheung, & Wechsler, 2007; Webb & Hardin, 2012; Webb, Butler-Ajibade, Robinson, & Lee, 2013). Therefore, further testing these hypothesized relationships at this developmental stage in Black females' body image may help scholars understand the health benefits associated with positive body image among weight- and culturally-diverse older adolescent females.

An Affect Regulation Framework for Conceptualizing the Association Between Body Dissatisfaction and Positive Body Image

Affect regulation theory has garnered extensive support as a useful explanatory framework for articulating the development and maintenance of disordered eating (e.g., Anestis et al., 2007; Heatherton & Baumeister, 1991; Stice, Shaw, & Nemeroff, 1998). According to this model, disordered eating-related behaviors are viewed as manifestations of dysregulated affect, frequently functioning as attempts to alleviate, suppress, or otherwise control the experience of aversive emotions and negative self-evaluations (e.g., Corstorphine, Mountford, Tomlinson, Waller, & Meyer, 2007; Heatherton & Baumeister, 1991). Drawing upon Cash's (2011) comprehensive cognitive-behavioral process model of body image, the present study adopts this self-regulatory perspective to frame the relationships between body dissatisfaction and positive body image coping strategies and examine BMI as a potential moderator of these associations (see Figure 1).

In this hypothesized model, a young overweight or obese Black adolescent female might encounter innumerable instances of everyday stimuli that serve as proximal triggers of body size or weight self-consciousness (see Figure 1). For instance, this young woman could start off her day checking her Facebook page on her smartphone at the breakfast table and note that a thinner ethnic female peer has recently uploaded an attractive photo of herself. This event could then lead to the activation of both upward social comparison (Festinger, 1954) and self-discrepancy (Higgins, 1987) processes that may simultaneously result in the experience of body dissatisfaction at the perceived failure of meeting her personal as well as potentially her perceived ethnic group/peer standards of ideal female body size (Gillen & Lefkowitz, 2011; Gordon, Castro, Sitnikov, & Holm-Denoma, 2010). This sense of dissatisfaction could take a variety of forms inclusive of eliciting critical self-evaluative automatic thoughts such as "My stomach is so huge!" along with evoking feelings of body shame.

At this moment, there is a critical choice point for this young woman. For example, she could find herself beginning to zone out while eating her breakfast and potentially consume more calories beyond satiety to avoid ruminating on her physical imperfections and body size flaws, as doing so might intensify her experiences of shame. However, an alternative to this body-image threat experiential avoidance coping strategy (Cash, 2011) would be to intentionally practice body appreciation and body image flexibility skills. In this manner, she would mindfully and compassionately allow full contact with aversive body-image

related content (e.g., body dissatisfaction) while still moving in valued life directions (e.g., eating intuitively; Schoenefeld & Webb, 2013).

Support for this model was obtained in two recent European studies which found that directing female participants to engage in acceptance-based coping strategies in the midst of experimentally-induced body dissatisfaction resulted in more positive outcomes (e.g., diminished negative affect, enhanced weight and appearance satisfaction) relative to alternate emotion regulation control conditions (Atkinson & Wade, 2012; Svaldi, Naumann, Trentowska, Lackner, & Tuschen-Caffier, 2013). Of note, in the overweight female sample (i.e., Svaldi et al., 2013) ruminating exacerbated body-image related distress and negative mood post-induction relative to baseline levels whereas these psychological characteristics returned to baseline levels in the acceptance condition. Therefore, an affect regulation approach appears to be a promising conceptualization to serve as the basis for further examination in the current study.

In keeping with earlier theoretical and empirical justifications, we anticipated observing the following effects: (a) body appreciation and body image flexibility would be strongly positively correlated; (b) body dissatisfaction (as measured by culturally-relevant body size discrepancy scores as detailed in Figure 1) would be negatively correlated with both measures of positive body image; and (c) the inverse relationship between these variables would be stronger for participants at higher BMIs in our pre-college sample of Black adolescent females. Lastly, a final exploratory aim was to describe the relative magnitude of any significant differences in participants' body size ratings depending upon the particular source or referent for comparison (i.e., personal ideal, ethnic group ideal, or typical ethnic female peer).

Method

Participants

Two hundred forty-seven Black female adolescents admitted to either a state-funded predominantly White institution (PWI; $n = 38$) or one of two Historically Black Colleges and Universities (HBCUs; $n = 209$) located in the southeastern U.S. participated in this study. The mean age of the sample was 17.8 years ($SD = 0.47$). On average, participants' mothers attained 14.1 years ($SD = 2.1$) of education. The sample's mean BMI was 25.4 kg/m^2 ($SD = 6.4$). The BMI distribution for the sample was as follows: 6.5% underweight, 51% normal weight, 20% overweight, and 22.4% obese.

Measures

Body mass index—Participants provided self-reported height in inches and weight in pounds, which were used to calculate BMI converted to kg/m^2.

Body dissatisfaction—When assessing participants' body size discrepancy, previous research highlights the importance of utilizing ethnic group referents, particularly for ethnic minority young women (e.g., Frisby, 2004; Gordon et al., 2010; Makkar & Strube, 1995). Ethnically similar referents serve as more culturally identifiable images, which activate social/body comparison processes to more accurately assess body size discrepancy. While

authors of the Photographic Figure Rating Scale (which has been validated in relation to body appreciation) made efforts to attempt to neutralize ethnic and skin tone features by including female photos in grey scale without heads, it is unclear whether this scale is as ecologically valid as figure rating scales that do include images with facial features (Swami et al., 2008). Arguably, the inclusion of physical attributes that may suggest a more ethnically-ambiguous silhouette may hold greater appeal to a wider range of ethnically-diverse participants and result in less reactivity of measurement (e.g., what bell hooks, 1992 described as the "oppositional gaze"; Evans & McConnell, 2003; Poran, 2002). Thus, participants are less likely to react to the images as if they depict women predominantly of White European heritage (Webb et al., 2013).

Therefore, we chose to use Pulvers and colleagues' (2004) culturally-relevant body size rating scale instrument to assess participants' body size perceptions. Respondents were asked to select a figure from one of nine increasingly larger line drawings portrayed with ethnically-neutral hair and facial characteristics that best represented: (a) their current body size, (b) the body size of a typical female peer from their ethnic group (ethnic peer), (c) their ideal body size (personal ideal), and (d) the ideal body size for their female ethnic group (ethnic group ideal). Discrepancy scores as indicators of body dissatisfaction were computed between participants' current body size rating and each of the other three referents. Scale developers documented robust psychometric properties (i.e., interrater reliability as well as convergent, concurrent, and content validity parameter estimates) for this measure in their initial validation work conducted in a sample of Black urban community residents (Pulvers et al., 2004). Further, body dissatisfaction as measured by this scale partially accounted for the relationship between BMI and weight-related quality of life among Black females (Cox, Ard, Beasley, Fernandez, Howard, & Affuso, 2011). The appropriateness of using this measure in younger Black female cohorts has also been supported by previous pediatric and adolescent weight management intervention research (Kelly et al., 2011; Porter, 2008).

Body appreciation—The Body Appreciation Scale (BAS; Avalos et al., 2005) is a 13-item holistic measure of positive body image. Respondents use a 5-point scale with anchors ranging from 1 (*never*) to 5 (*always*). Higher scores represent greater levels of body appreciation (e.g., "My self-worth is independent of my body shape or weight"). The BAS has been extensively examined in a broad spectrum of culturally-diverse samples (e.g., Swami et al., 2009; Swami & Jaafar, 2012; Swami et al., 2011; Swami et al., 2012). The BAS's psychometric properties and factor structure have been confirmed in a large sample of Black female undergraduates (Cotter et al., 2013). In this same study, BAS scores were positively associated with participants' ethnic identity, appearance evaluation, and self-esteem Among these young ethnic minority women, reported levels of body appreciation were inversely associated with internalization of the Western media's beauty ideal, dieting, eating pathology, and weight-based teasing. Avalos et al. (2005) reported evidence for the BAS's internal consistency ($\alpha = .94$) in their original undergraduate female validation sample. In the current study, Cronbach's alpha was .89.

Body image flexibility—The latest version of the BI-AAQ consists of 12 items retained from the original 29-item measure (Ferreira et al., 2011; Sandoz et al., 2013). The BI-AAQ

is a measure of body image flexibility that evaluates an individual's acceptance of the presence of negative or unwanted thoughts, perceptions, physical sensations, and emotions related to the body (e.g., weight and size) in the service of pursuing valued action. Respondents use a 7-point scale ranging from 1 (*never true*) to 7 (*always true*). All items are negatively-worded (e.g., "Worrying about my weight makes it difficult for me to live a life that I value.") and thus are reverse-scored such that higher scores reflect higher levels of body image flexibility. Scale developers obtained strong support for the test-retest reliability, concurrent and incremental validity, along with the unidimensional factor structure of the BI-AAQ in undergraduate female and male samples (Sandoz et al., 2013). BI-AAQ scores were also shown to enhance the precision of predicting disordered eating when simultaneously accounting for participants' levels of body shape dissatisfaction, BMI, and overall levels of general psychological flexibility. Sandoz et al. (2013) additionally found evidence of the scale's criterion-related validity such that BI-AAQ scores were able to correctly classify over 90% of participants at risk for an eating disorder, and internal consistency reliability ($\alpha = .93$). In the present analysis, Cronbach's alpha was .89.

Procedures

Ethical approvals were received from the appropriate university Institutional Review Boards at all three partnering sites. Our pre-college sample was recruited as part of a larger NIH-funded study designed to evaluate the biopsychosocial determinants of body composition changes in Black first-year college women. Through a partnership with the Office of Admissions at all three collaborating institutions, researchers obtained access to the racial identification and contact information of all admitted female first-year students who were subsequently invited to participate. In the summer before entering college, admitted students who racially identified as Black were mailed an invitation letter both through U.S. mail and through email when available that provided details of the research and included a weblink to access the SurveyShare-hosted online study. Passive consent was acquired once the participant proceeded beyond the initial consent page of the web survey. Minors were urged to obtain permission from a parent or other primary caregiver before completing the study. As an incentive, students' names were entered into a drawing for one of nine iPad2s.

Results

Descriptive Statistics and Intercorrelations for the Primary Study Variables

Table 1 presents the means, standard deviations, and correlational matrix for the primary study variables. The amount of missing data was negligible for most variables. However, the majority of incomplete cases were associated with absent BAS ($n = 19$, 7.7%) and BI-AAQ ($n = 20$, 8.2%) scores. Yet, *t*-tests indicated no significant mean differences between participants with and without BI-AAQ scores on the key observed variables. Young women with missing items on the BAS reported *lower* body dissatisfaction (i.e., a smaller current-personal ideal discrepancy) than participants who fully completed the BAS ($p < .05$). Due to these patterns, we chose to use all available data and did not perform imputation analyses. Regarding interpretation of the mean body size perception ratings, according to Pulvers et al. (2004), the average figure ratings selected to represent one's current, personal ideal, ethnic group ideal, and typical ethnic female peer body sizes in the present investigation roughly

corresponded to having a BMI approaching 25 (high normal weight), slightly exceeding 22 (normal weight), between 22–25 (normal weight), and between 25–28 (overweight), respectively.

As noted in Table 1, a large positive link was established between the two positive body image measures. BMI was strongly inversely correlated with both body appreciation and body image flexibility. Further, consistent with hypothesized directions, all discrepancy scores (as indicators of body dissatisfaction) were inversely associated with both measures of positive body image and were positively associated with BMI in the current sample. The correlation coefficient effect sizes ranged from small-moderate to large in magnitude.

Within Group Mean Differences in Body Size Rating Variables

With respect to our exploratory aim, a repeated measures ANOVA model produced a significant within group effect, $F(3, 238) = 166.52$, $p < .001$, indicating notable mean differences in the figures selected to represent participants' current, personal ideal, ethnic group ideal, and the typical ethnic female peer body size adjusted for BMI. Bonferroni-corrected post-hoc analyses more specifically revealed that on average students' current or actual body size rating was larger than the figure chosen for their personal ideal ($p < .001$, Cohen's $d = .42$) and the ideal body size for their ethnic group ($p = .001$, Cohen's $d = .17$) albeit the latter difference was relatively small in magnitude. On the other hand, participants on average perceived their actual body size to be somewhat *smaller than* their fellow ethnic female peer ($p < .001$, Cohen's $d = -.41$). Additionally, the mean personal ideal body size rating was significantly smaller than the selected ethnic group ideal ($p < .001$, Cohen's $d = -.35$) as well as the body size viewed as typical for an ethnic female peer ($p < .001$, Cohen's $d = -.1.13$). Similarly, the average body size rating for the ethnic group ideal was smaller than the average body size chosen to reflect the typical ethnic female peer ($p < .001$, Cohen's $d = -.77$).

Testing BMI as a Moderator of the Association Between Body Dissatisfaction and Positive Body Image

Two separate hierarchical moderated regression models were computed to further evaluate the associations among BMI, the three body dissatisfaction scores (i.e., current-personal ideal, current-ethnic group ideal, current-typical ethnic female peer body size discrepancies) and both measures of positive body image (i.e., body appreciation and body image flexibility). BMI was entered into the first step in each regression, all three body size discrepancy variables as measures of body dissatisfaction were entered into the subsequent step, and the two-way interactions between each of the three body size discrepancy scores and BMI were entered in the final step of each regression. In accordance with procedures outlined by Aiken and West (1991), BMI, body dissatisfaction, and their interaction terms were mean centered. In the event that an interaction term generated a significant beta weight and contributed incremental variance in positive body image, additional steps would be undertaken to graph and interpret these findings consistent with currently accepted approaches (e.g., Aiken & West, 1991). For both models, muliticollinearity was not detected: in both instances the variance inflation factor (VIF) statistics were less than 10, and indices of tolerance were greater than .20.

Body appreciation—Table 2 presents the statistical parameters for the regression with body appreciation as the criterion variable. The full model explained roughly 22% of the variance in body appreciation scores. BMI emerged as the strongest predictor, and the discrepancy between one's current body size and one's selected personal ideal body size also contributed an additional 2.3% of the variance in body appreciation scores. Notably, neither of the other two discrepancy scores was found to be associated with body appreciation while controlling for BMI. Further, in contrast to our original hypotheses, none of the three proposed interactions tested contributed unique variance to body appreciation.

Body image flexibility—Table 3 presents the regression model featuring body image flexibility as the criterion. The full model accounted for approximately 34% of the variance in body image flexibility scores. A similar pattern emerged to those described above for body appreciation. However, while BMI remained the strongest negative predictor of body image flexibility in this model, it appeared to account for a larger proportion of variance in body image flexibility when compared to body appreciation. The current-personal ideal body size discrepancy contributed unique variance in body image flexibility scores. The current-ethnic group ideal body size discrepancy and the current-typical ethnic female peer body size discrepancy did not explain a significant increase in variance in body image flexibility. Finally, inconsistent with our predictions, the interactions between BMI and each of the three body dissatisfaction discrepancy scores did not contribute incrementally to body image flexibility.

Discussion

In efforts to further advance the science of body image, scholars are turning their attention to clarifying the relationship between positive and negative forms of this multidimensional construct as they unfold within individuals (e.g., Atkinson & Wade, 2012; Halliwell, 2013; Svaldi et al., 2013). Following this lead, the present analysis evaluated the magnitude of the correlation between a leading (i.e., body appreciation) and a more emerging (i.e., body image flexibility) measure of positive body image and examined whether their respective associations with culturally-relevant indices of body dissatisfaction were moderated by BMI in a pre-college sample of Black older-adolescent females. Drawing from an overarching cognitive-behavioral affect regulation framework (e.g., Cash, 2011), our findings both support and extend the extant literatures (e.g., Swami & Tovee, 2009; Tiggemann & McCourt, 2013) and point to subsequent investigations to pursue towards enhancing multicultural inclusion in the study of positive body image.

Comparisons Among Ethnically-relevant Body Size Ratings

The young women in our sample on average selected a smaller (low-range normal weight) figure to represent their personal ideal body size compared to their (moderate-range normal weight) rating of the ethnic group ideal. This initial stage finding provides evidence for a possible transitional period among some Black females' body size ideals consequent to the pervasive threat of weight-related stigmatization (Andreyeva et al., 2008; Puhl & Heuer, 2009); the amplified media presence of thinner, more fit and formerly overweight high profile Black female celebrities (e.g., Capodilupo & Kim, 2013; Sanders, 2013); and the

bombardment of public health campaigns and numerous weight loss research programs targeting the awareness and elimination of obesity-related health complications disproportionately experienced by Black women (e.g., Bennett et al., 2013; Fitzgibbon et al., 2005; Murphy & Williams, 2013; Williams et al., 2013). Our preliminary results also bolster recent evidence citing an increased vulnerability to internalizing the thin ideal (Snapp, 2009) along with the reported beliefs that thinness corresponds with health (Katz et al., 2004) expressed by some younger Black females.

Alternatively, as suggested by previous research (Webb et al., 2013), selecting a smaller figure to represent one's personal ideal body size compared to the ideal perceived to be typically endorsed for one's ethnic group could also stem from a desire to exercise autonomy and self-determination at this particular developmental stage. This perspective fails to fully appreciate that what these young women are attempting to assert as a personally-defined ideal is often indeed shaped by Black men's preferences which are impacted by the cultural ideals promulgated in the media (e.g., Capodilupo & Kim, 2013; Webb et al., 2013). This is a fruitful area that qualitative methods are especially well-suited to deepen scholars' understanding of the processes and rationales that inform the nature of these ideal body size choices during this specific developmental transition as well as potentially across the lifespan.

Our analyses also indicated that the figure selected to reflect participants' actual body size was on average significantly smaller than the figure selected to reflect a typical ethnic female peer despite more than 40% of the sample possessing a BMI in the overweight or obese range. Without having access to the actual body sizes of the participants' immediate ethnic female peer environments, it is not possible to assess how accurate these perceptions are in an objective sense. Yet, it does raise possibilities that could be further explored by both social comparison (Festinger, 1954) and self-discrepancy (Higgins, 1987) theoretical perspectives. Indeed, perceiving one's own body size to be smaller than a female ethnic peer (i.e., making a downward as opposed to an upward social comparison) could serve as a buffer against experiencing critical self evaluations regarding one's body weight or size and alternatively could promote more positive feelings of body acceptance even at larger body weights. Thus the discrepancy is in the less harmful or self-esteem threatening direction in favor of reduced negative affect or emotional distress (Higgins, 1987). These results combined with those discussed above provide a compatible view on the potential role that members of one's cultural group may play in influencing actual and idealized body size perceptions of young Black women to that of existing research (e.g., Forbes, Adams-Curtis, Rade, & Jaberg, 2001; Gillen & Lefkowitz, 2011; Gordon et al., 2010).

Body Appreciation and Body Image Flexibility: Two Sides of the Same Coin?

A key aim of the present investigation was to broaden scholars' understanding of what constitutes positive body image by considering body image flexibility as a complementary albeit more process-driven extension of body appreciation. In support of this objective, we noted a very strong positive relationship between these two variables among the ethnic minority young women in our sample. This suggests that there is meaningful conceptual overlap between these two measures of positive body image. This finding is not surprising

given that both constructs tap into attitudes and behaviors representing an intentional and active acceptance of one's perceived bodily flaws and imperfections (Avalos et al., 2005; Sandoz et al., 2013).

Nonetheless, body appreciation and body image flexibility arguably also remain somewhat distinct, as they only share about 49% of variance. Body appreciation may be viewed as perhaps a more holistic variant of positive body image that operationalizes appreciation along specific behavioral lines (e.g., accepting, protecting, care-taking, and respecting: Avalos et al., 2005; Cotter et al., 2013). Body image flexibility adopts a more contextual-based, experiential approach to positive body image. This is reflected in how individuals scoring high on this measure are willing to openly and fully experience aversive thoughts, feelings, and physical sensations regarding their body as they arise in awareness without suppressing or otherwise attempting to mitigate these unwanted internal events in order to actualize a values-consistent life (Sandoz et al., 2013). Yet engaging in valued action in this context could behaviorally be identical to those aforementioned qualities intrinsic to actively appreciating the body.

In other words, body image flexibility may equip young women with the affect regulation skills with which to constructively transform body image distress in the moment it is unfolding in order to effectively engage in body appreciation (i.e., valued action). Thus, body image flexibility provides the "how to" of intentionally accepting the body at times when its perceived flaws are exposed that would facilitate taking part in behaviors or actions representing body appreciation values. Future research would be well served to continue to clarify the unique and shared properties of these two measures of positive body image and to discern whether the strength of the relationship between body appreciation and body image flexibility is comparable among young women from other racial/ethnic backgrounds.

An Affect Regulation Perspective on the Association Between Body Dissatisfaction and Positive Body Image: Does BMI Matter?

This study contributes to the growing literature concerned with examining the associations between positive and negative body image and articulating what factors may either strengthen or attenuate this relationship (e.g., Swami & Tovee, 2009; Tiggemann & McCourt, 2013). In seeking to advance the field beyond simply supporting claims that low body dissatisfaction is not equivalent to high levels of positive body image, our study used an affect regulation approach (e.g., Cash, 2011) to enable a fuller understanding of how these two dimensions of body image may function within individuals. Thus, while the moderate-to-large correlational coefficients generated between our measures of body dissatisfaction and both body appreciation and body image flexibility do indeed support these assertions, we believe framing our findings from a body image-related stress and coping vantage point provides a more nuanced account of these relationships. Adopting this framework also has the potential to provide enhanced practical utility.

Our regression findings largely mirrored the trend of bivariate associations delineating BMI as the most significant negative predictor of both forms of positive body image, with a stronger relationship observed for body image flexibility than body appreciation scores. We also noted that across both models, it was the perceived difference between one's current

body size and one's personal ideal body size that appeared to be the most consistent body dissatisfaction contributor in accounting for incremental variance in positive body image. This finding suggests that even when controlling for BMI, young women with a larger current minus personal ideal discrepancy may be least likely to engage in positive body image coping strategies when faced with body dissatisfaction, which may be triggered by perceptions of having failed to meet one's personal standard of an ideal body size versus when their ethnic group ideal or a typical female peer are the referents for comparison.

The failure of the more culturally-relevant ideal body size discrepancy to emerge as a significant predictor in the present investigation is in contrast to findings from another recent published report conducted in a multi-ethnic college female sample (Gordon et al., 2010). These mixed findings may stem from differing sample attributes, perceived phenotypic differences in the figure rating scale images used (e.g., images with more Eurocentric features versus the more ethnically-inclusive features portrayed in the images used in the current analysis), and variability in the types of body size discrepancy scores included in the models. These inconclusive results may also indicate that such discrepancy scores could operate differentially in the prediction of positive versus negative body image. We believe that future mixed methods research may prove useful in further understanding these associations.

Finally, contrary to expectations, none of BMI × body discrepancy interactions were significant in this sample. Thus, we did not attain evidence indicating that a higher BMI exacerbates the inverse relationships between body dissatisfaction and positive body image with our sample. From an affect regulation standpoint, this finding may suggest that participants' ability to turn to positive body image coping strategies to constructively respond to body dissatisfaction may be compromised regardless of body size. Future research could discern whether this association is stronger when environmental threats activate the discrepancy between current and personal ideal body size. Subsequent research would also benefit from evaluating whether BMI moderates the relationship between body dissatisfaction and body appreciation within other racial/ethnic groups. For instance, Hill et al. (2013) recently found that lower BMI strengthened the negative association between body image flexibility and disordered eating behavior within a predominantly White female undergraduate sample.

Yet, despite the null interactions between BMI and body dissatisfaction in the present study, it remains concerning that heavier Black older adolescent females reported higher body dissatisfaction and lower levels of both body appreciation and body image flexibility. This pattern indicates that Black young women preparing to start college at higher body weights may be more vulnerable to experiencing body dissatisfaction as a function of perceiving their current body size as falling short not only from their personal ideal, but also the body sizes believed to reflect the ideal of other Black young women and that of their Black female peers. Relative to their peers possessing lower body weights, these heavier Black adolescent females are also less likely to appreciate their bodies and may not choose adaptive behaviors such as eating intuitively and participating in enjoyable physical activity when having troublesome thoughts and feelings related to their body size or weight.

These preliminary results have implications for supporting multicultural sensitivity and inclusion efforts in competently executing college health promotion initiatives for in-coming first-year females from ethnically-diverse backgrounds. Clinicians and other college health professionals would be well served to consider how the present study's findings continue to debunk the myth or stereotype that Black young women are immune to feelings of body dissatisfaction, which may be experienced as oppressive and invalidating (Capodilupo & Kim, 2013). To avoid or minimize contributing to the marginalization experiences of these young women, college health officials are additionally encouraged to examine their own possible biases (potentially shaped by the sizeable extant research base; e.g., Franko & Roehrig, 2011) with respect to beliefs that Black young women are not at risk for experiencing significant levels of body dissatisfaction and that overweight and obese Black females categorically embrace their larger sizes (Wolfe, 2000). Instead, they are urged to engage in positive body image health promoting strategies among their newly matriculating female students regardless of race/ethnicity (e.g., Franko, Cousineau, Rodgers, & Roehrig, 2013). This inclusive approach would not mistakenly assume that an individual's racial or ethnic identity label means that she has been previously armed with a comprehensive understanding of current views on positive body image or is already well-skilled at accessing adaptive coping responses while exposed to myriad daily opportunities to encounter threats to body satisfaction.

A more careful consideration of these recommendations may be especially warranted when encouraging healthy approaches to weight management (e.g., intuitive eating, joyful movement) among young Black women starting college at higher BMIs. The more empowering messages of body appreciation and body image flexibility will stand in contrast to the heightened sociocultural climate of weight stigmatization (Andreyeva et al., 2008; Puhl & Heuer, 2009) and to the pronounced concerns about first-year college weight gain that some overweight and obese Black adolescent females are preoccupied with (Webb et al., 2013). More positive approaches to living healthy and relating to one's body regardless of one's size may in turn result in a greater holistic sense of well-being and may reduce these young women's elevated risk of cardio-metabolic vulnerability at this developmental juncture (Bacon, Stern, Van Loan, & Keim, 2005; Neumark-Sztainer, Paxton, Hannan, Haines, & Story, 2006; Sutin & Terracciano, 2013; van den Berg & Neumark-Sztainer, 2007; Webb & Hardin, 2012).

Limitations and Future Directions

These contributions to the literature must be interpreted within the context of the following caveats. Our sample exclusively consisted of Black older adolescent females who primarily resided in and were admitted to public universities in the southeastern U.S. Thus, our findings are neither representative of the prospective first-year Black male experience nor likely of their female counterparts living in other regions of the country. Moreover, our cross-sectional design precludes any causal inferences. This finding underscores that there may be additional factors that contribute to positive body image in this sample. Patterns of missing data may have further produced somewhat biased estimates that may not fully account for the full range of Black adolescent females' experience of body dissatisfaction and positive body image.

Although the affect regulation conceptualization provided a useful theoretical framework to guide the present analysis, future investigations employing a variety of methodologies are invited to test the full hypothesized model presented. Experimental research in particular may be a more rigorous evaluation of our process model (e.g., Atkinson & Wade, 2012; Svaldi et al., 2013). By exposing young women to specific situational triggers for eliciting body dissatisfaction, experimental research may disentangle the unique versus shared contributions of different forms of body size dissatisfaction, given that the three discrepancy scores in the current study were highly correlated. Also, we contend that body image flexibility merits consideration as a component of positive body image. Yet, from a psychometric and conceptual standpoint, all items were negatively-worded and thus needed to be reverse-scored. This means that higher scores on the items as they are currently written do not correspond to higher levels of positive body image. This discrepancy is problematic since we cannot assume that lower scores on this measure reflect positive body image. Thus, further psychometric work appears warranted to more closely align the conceptual and measurement components of the construct. Finally, as is suggested by scholars (e.g., Cotter et al., 2013), measuring individual differences in racial/ethnic identity and/or acculturation/acculturative stress in conjunction with including more culturally-relevant dimensions of physical appearance dissatisfaction (e.g., skin tone/complexion, hair texture, etc.) or respondents' perceived discrepancy from the curvaceous ideal (e.g., Overstreet, Quinn, & Agocha, 2010) may have further elucidated the within group findings in our sample.

Conclusions

Research in body image is now targeting a more refined understanding of how positive body image self-regulatory strategies may protect against the development of disordered eating. Addressing this aim is becoming increasingly important in western culture, which is extremely health- and weight-focused, exemplified by normative and prevalent experiences of body dissatisfaction that to some extent transcend race or ethnicity. To our knowledge, this study is the first to incorporate body image flexibility within the broader scope of positive body image assessment, which provides a process-driven approach to the study of positive body image. The present study's findings call for more in-depth empirical coverage explicating the sociocultural factors determining what constitutes Black females' personally-defined ideal body size relative to more ethnically-framed referents. Results further underscore the need for a more culturally-attuned understanding of how best to promote effective engagement in positive body image coping strategies when encountering experiences of body dissatisfaction among ethnic minority young women about to enter college who may be presumed to already be doing so. For overweight and obese Black young women in particular, such efforts have the potential to bolster body image resilience (Snapp, Hensley-Choate, & Ryu, 2012) and in turn possibly mitigate subsequent cardio-metabolic risk secondary to excessive weight gain and other adverse body composition changes that may occur while acclimating to early college life.

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Research Highlights

- Positive body image was examined in U.S. Black college-bound females.
- Body appreciation and body image flexibility were highly correlated.
- BMI was the strongest predictor of positive body image.
- Body size discrepancy (current minus ideal) added unique variance.
- Culturally-relevant body size discrepancies did not contribute additional variance.

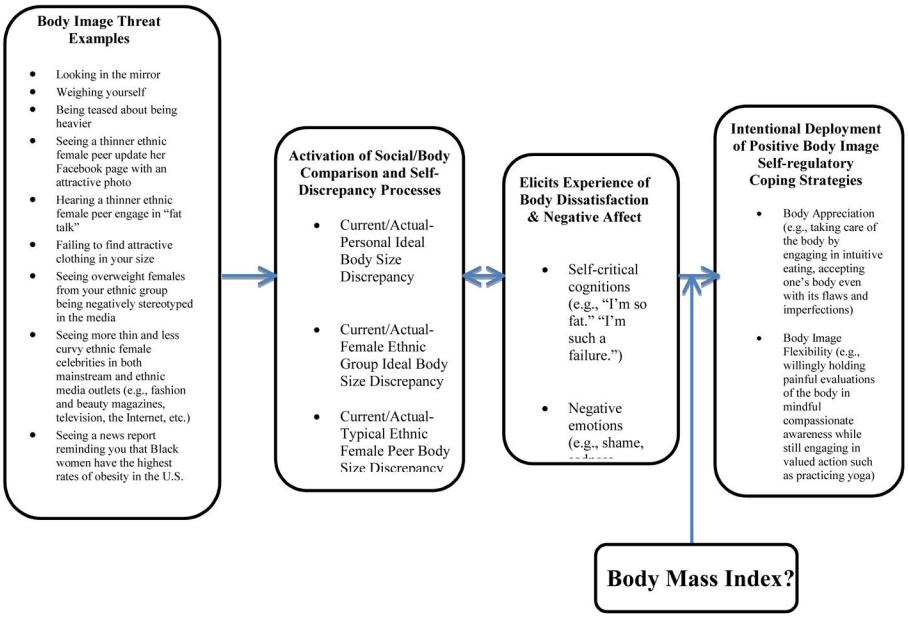

Figure 1.

An Affect Regulation Model Conceptualizing the Association Between Body Dissatisfaction and Positive Body Image with BMI as a Proposed Moderator in Black Older Adolescent Females (adapted from Cash, 2011)

Table 1

Intercorrelations and Descriptive Statistics among the Primary Study Variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	.12
1. Age												
2. BMI	.08											
3. Maternal Education	−.04	−.11										
4. BI-AAQ	−.04	−.54**	−.01									
5. BAS	.03	−.44**	.02	.70**								
6. Current Body Size Rating	.08	.85**	−.10	−.48**	−.39**							
7. Personal Ideal Body Size Rating	.06	.47**	−.21**	−.15*	−.10	.66**						
8. Ethnic Group Ideal Body Size Rating	.06	−.00	−.07	.06	.05	.22**	.44**					
9. Typical Ethnic Female Peer Body Size Rating	.13*	.15*	−.05	−.11	−.13	.21**	.17**	.34**				
10. Current-Personal Ideal Discrepancy	.06	.79**	.03	−.52**	−.44**	.84**	.15*	−.03	.15*			
11. Current-Ethnic Group Ideal Discrepancy	.04	.81**	−.06	−.48**	−.39**	.83**	.38**	−.37**	−.00	.82**		
12. Current-Typical Ethnic Female Peer Discrepancy	−.01	.69**	−.06	−.37**	−.28**	.79**	.51**	−.01	−.43**	.68**	.76**	
Mean (SD)	17.8 (0.47)	25.4 (6.4)	14.1 (2.1)	67.9 (14.8)	4.14 (0.67)	3.83 (1.5)	3.31 (0.85)	3.61 (0.93)	4.37 (1.0)	0.52 (1.2)	0.22 (1.6)	−0.54 (1.7)

Note. N's ranged from 207–247 due to missing data.

* $p < .05$;

** $p < .01$.

BI-AAQ = Body Image-Acceptance and Action Questionnaire (Sandoz et al., 2013); BAS = Body Appreciation Scale (Avalos et al., 2005).

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Table 2

Summary of Regression Analyses for Body Appreciation (N = 223)

Variable	R^2	ΔR^2	B	*SE*B	β
Step 1	.19	.19			
Constant			4.14**	.04	
BMI			−.05**	.01	−.43**
Step 2	.22	.03			
Constant			4.14**	.04	
BMI			−.03*	.01	−.26*
Current-personal ideal BSD			−.16*	.07	−.28*
Current-ethnic group ideal BSD			−.02	.05	−.05
Current-typical ethnic peer BSD			.05	.04	.13
Step 3	.22	.00			
Constant			4.14**	.05	
BMI			−.03*	.01	−.27*
Current-personal ideal BSD			−.15*	.07	−.27*
Current-ethnic group ideal BSD			−.02	.06	−.06
Current-typical ethnic peer BSD			.05	.04	.13
BMI × Current-personal ideal BSD			−.01	.01	−.10
BMI × Current-ethnic group ideal BSD			.01	.01	.13
BMI × Current-typical ethnic peer BSD			−.00	.01	−.02

Note. BMI = body mass index. BSD = body size discrepancy.

* $p < .05$.

** $p < .01$.

Table 3

Summary of Regression Analyses for Body Image Flexibility (N = 221)

Variable	R^2	ΔR^2	B	*SE*B	β
Step 1	.30	.30			
Constant			68.0**	.84	
BMI			−1.3**	.13	−.55**
Step 2	.32	.02			
Constant			68.0**	.83	
BMI			−.86**	.24	−.37**
Current-personal ideal BSD			−3.2*	1.3	−.25*
Current-ethnic group ideal BSD			−.32	1.1	−.04
Current-typical ethnic peer BSD			.68	.78	.08
Step 3	.34	.01			
Constant			68.0**	1.1	
BMI			−.84**	.27	−.36**
Current-personal ideal BSD			−3.0*	1.4	−.24*
Current-ethnic group ideal BSD			−.67	1.1	−.08
Current-typical ethnic peer BSD			.97	.79	.11
BMI × Current-personal ideal BSD			−.12	.17	−.08
BMI ×Current-ethnic group ideal BSD			.25	.16	.22
BMI × Current-typical ethnic peer BSD			−.20	.12	−.19

Note. BMI = body mass index. BSD = body size discrepancy.

* $p < .05$.

** $p < .01$.