

DEVELOPMENT AND INITIAL VALIDATION OF ADOLESCENT RESPONSES TO BODY
DISSATISFACTION

By

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CHAPTER I

INTRODUCTION

Mounting evidence shows that body dissatisfaction is epidemic among youth (Wood, Becker, & Thompson, 1996), affecting more than 80 % of females and 40 % of males in community samples (Kostanski & Gullone, 1998). Though increasingly referred to as “normative discontent” (Rodin, Silberstein, & Striegel-Moore, 1985), body dissatisfaction is more than a matter of vanity. Longitudinal evidence suggests that body dissatisfaction predicts the emergence of depression and disordered eating among children and adolescents (Holsen, Kraft, & Roysamb, 2001; Leon, Fulkerson, Perry, & Early-Zald, 1995; Ohring, Graber, & Brooks-Gunn, 2002; Paxton, Neumark-Sztainer, Hannan, Eisenberg, 2006; Stice & Bearman, 2001; Stice, Hayward, Cameron, Killen, & Taylor, 2000; Wertheim, Koerner, & Paxton, 2001; Wichstrom, 1999). As adolescence is a time of dramatic psychosocial, cognitive, and physical bodily changes, the influence of body image may be particularly dynamic throughout this period (see Maxwell & Cole, 2009).

Body image is linked inherently to developmental changes in adolescence. Across pubertal development, the average youth gains 50 % of total adult body weight (Stang & Story, 2005). The composition of this weight gain differs for males and females in ways that may differently impact body dissatisfaction (Lerner & Sternberg, 2004). Boys experience a noticeable increase in lean muscle mass and simultaneous decline in body fat (Stang & Story, 2005). In contrast, girls—the majority of whom in Westernized cultures already wish to be thinner before

puberty—experience weight gain that is marked by an increased proportion of body fat to lean mass (Schur, Sanders, & Steiner, 2000). At full physical maturity, females will have approximately 2/3 the lean muscle mass of males and twice the body fat (Warren & Petersen, 1983). Many researchers (e.g., Croll, 2005; O’Dea & Abraham, 1999; Smolak, 2004) have noted that pubertal development brings males closer to their cultural ideal, but moves females away from theirs. As a result, males and females may experience pubertal changes differently. Longitudinal evidence suggests that between ages 13 to 15, girls’ body image worsens whereas boys’ improves (Rosenblum & Lewis, 1999). Clearly, conclusions about sex differences in body dissatisfaction are incomplete without consideration of developmental influences.

Not only does the transition through puberty bring dramatic changes in body shape and composition, but the social significance of one’s body (and body image) is likely to undergo a shift as well. Puberty heralds unprecedented surges of gonadal hormones that motivate increased sexual interest (Udry & Talbert, 1988). This heightened sexuality may further intensify both the evaluation of one’s body and the importance placed on these evaluations. As youth experience pubertal morphological changes, their sensitivity to body related feedback is likely to change. If the meaning attached to body image shifts, the strategies individuals use to cope with body dissatisfaction may change as well. Indeed, longitudinal evidence reveals that extreme weight-change behaviors peak in late adolescence and then steadily decline throughout adulthood, particularly for females (Keel, Baxter, Heatherton, & Joiner, 2007). Whether a decline in body dissatisfaction or a developmental shift in coping with body dissatisfaction is responsible for this behavioral change remains unclear. Very clear is that development matters: the ways in which adolescents cope with body dissatisfaction are qualitatively, as well as quantitatively, different from adults.

Dual-Process Model of Responses to Stress

Before delving into the specifics of coping with body dissatisfaction, we describe a more general model of responding to and coping with stress. Compas and colleagues (Compas, Connor, Osoviecki, & Welch, 1997; Compas, Connor, Saltzman, Thomsen, & Wadsworth, 1999; Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman, 2000) have outlined and provided empirical support for a dual-process model of responses to stress. Within this model, dual processes consist of a system of automatic, involuntary responses and a second system of controlled, volitional responses. Coping is defined as the subset of responses to stressors that are volitional and effortful. The model presents three types of coping: direct efforts to change the situation or one's response to it (i.e., primary control engagement coping), efforts to adapt to the current situation or one's reaction to it (i.e., secondary control engagement coping), and efforts to avoid the situation or one's response to it (i.e., disengagement coping). The distinction between voluntary (i.e. coping) and involuntary processes hinges on whether or not the individual experiences a sense of control over the response. Coping responses and involuntary responses to stress can both be characterized as either engaging with, or disengaging from, the stressor and one's reaction the stressor. In the following sections, we examine body dissatisfaction from a stress and coping perspective and apply this dual-process model to distress related to body dissatisfaction.

Conceptualizing Body Dissatisfaction in the Dual-Process Model

What is stressful about body dissatisfaction? With what is the individual coping?

Answering these questions requires clear operational definitions of terms such as *stressors*, *responses*, and *coping*.

We want to avoid accidentally confounding the identified stressor with phenomena that we label an “outcome” of this stressor (e.g., depression; Monroe & Simons, 1991). Thus, our application of the model requires an operational definition of the term stressor. The literature has often used a transactional definition of stressor (i.e., stressors based on an individual’s cognitive appraisal of harm, loss, or threat; Lazarus & Folkman, 1984). In child and adolescent research, however, Grant et al. (2003) pointed out the advantages of adopting a stimulus-based definition of stressor (i.e., stressors as objectively threatening events, changes, or conditions; Grant, Compas, Stuhlmacher, Thurm, McMahon, & Halpert, 2003). The stimulus-based definition offers unique clarity in that the stressor is inherently distinct from moderators, mediators, and effects of the stressor.

Identifying body dissatisfaction as the stressor in our model would confound the stressor and the individual’s response to it. Accordingly, for this paper, we will adopt the definition of stressors proposed by Grant et al. (2003): “environmental events or conditions that objectively threaten the physical and/or psychological health or well-being of individuals of a particular age in a particular society.” Based on this definition, body dissatisfaction itself is not the external event in the environment identified as the stressor, but rather an almost immediate response to this activating stressor.

Identified Stressor

Under a stimulus-based definition, a stressor is an objective change in, or characteristic of, an individual's circumstance that in turn triggers a cognitive appraisal of threat, loss, or harm. Based on this definition, body dissatisfaction is a response to some triggering stressor rather than the identified stressor itself (though, admittedly, the response of body dissatisfaction may be the primary determinant of the *distress* resulting from the identified stressor). This means that the identified stressor in our model is some event that occurs before—and results in—body dissatisfaction. Some body-related activating event, feedback, or cue elicits body dissatisfaction (i.e., evaluative dissatisfaction, the processing of which is then impacted by body image investment).

What are the triggers that represent the identified stressor in our model? Cognitive-behavioral models of body image development (Cash, 2002) suggest that body dissatisfaction can be triggered by relevant proximal factors, known as activating events. These activating events can include body-related feedback, contextual events, and situational cues (Cash, 2002). The body-related feedback or cues that serve as proximal triggers for body dissatisfaction are highly individual; these triggers are influenced by historical and developmental factors such as temperament, social learning, cultural standards, and physical characteristics (Cash, 2002). Because of so much individual variation in historical, developmental influences, activating events for body dissatisfaction encompass a wide variety of stimuli (e.g., seeing one's image in the mirror, hearing a body-related comment from a friend or family member, noticing the way clothing fits or tugs, noting pubertal changes, seeing one's shadow, stepping on a scale, observing other people's bodies), any of which can serve as an initiating stressor. When an

individual experiences such body-related cues or feedback, the stress is processed on both an automatic, uncontrolled level and on a strategic, volitional level, even in children (Compas, 2004). Body dissatisfaction represents an involuntary response to the activating event.

Body Dissatisfaction as an Involuntary Response to Activating Stressors

What makes body dissatisfaction an involuntary response and what type of involuntary response is it? Body dissatisfaction represents an involuntary response because it is an unwanted or unintended response to the activating event. The dual-process model of responses to stress (Compas et al., 1997; Compas et al., 1999; Connor-Smith et al., 2000) classifies responses that are initiated and sustained without effortful control as involuntary. The dual-process model suggests that involuntary responses fall into two broad categories: uncontrolled engagement (e.g., rumination, intrusive thoughts, emotional arousal) and uncontrolled disengagement (e.g., numbing, inaction, escape). Body dissatisfaction falls into the category of involuntary engagement.

The nature of automatic responses is that they become more entrenched as well as more easily activated with time and repetition. For a given person, body dissatisfaction may initially represent an involuntary response in a limited sense (i.e., a response that is only automatic in the context of or initiated exclusively by a specific type of body-related feedback), but over time, the reaction may both generalize to other associated stimuli and also become more automatic. With repetition and increasing generality, body dissatisfaction may come to represent a cognitive schema so entrenched that it automatically affects attention, memory, and interpretation of information (Williamson, Stewart, White, & York-Crowe, 2002). The involuntary engagement response of body dissatisfaction may not only extend the duration of the effects of the identified

stressor (i.e., the activating event), it may also exacerbate distress to such an extent that the involuntary response of body dissatisfaction overshadows the initiating stressor (i.e., the body-related feedback or cue) altogether. Although body dissatisfaction is not the activating stressor in our model, it is a key ingredient due to its potential to initiate a cascade of distress. Coping (i.e., volitional efforts towards self-regulation) is not confined to activating stressors. Individuals cope not only with stressors themselves, but also with our involuntary responses to stressors (i.e., the unwanted toll activating stressors take on our bodies and minds).

Responding to and Coping with Body Dissatisfaction

Among youth in Western cultures, satisfaction with body image is the strongest predictor of global self-worth across ethnic groups (Verkuyten, 1990; Wood, Becker, & Thompson, 1996). Puberty heralds major morphological changes and a period of transition in body image (e.g., Fabian & Thompson, 1989). Successfully accommodating and adapting to these changes in a way that promotes body satisfaction and self-worth is a central developmental challenge. Body dissatisfaction is strongly related to both depression and eating disturbance in children and adolescents (e.g., Wood, Becker, & Thompson, 1996). Clearly, the ways an individual responds to and copes with body image threats have the potential either to amplify or diminish these risks. Although body dissatisfaction is related to the emergence of psychopathology, this is just one of many possible outcomes. Body dissatisfaction may also serve as a catalyst for engaging in various weight-management behaviors, both healthy and not.

Recent research by Neumark-Sztainer, Paxton, Hannan, Haines, and Story (2006) suggests that, in general, body dissatisfaction predicts unhealthy more than healthy behaviors (e.g., higher levels of dieting, unhealthy weight control practices, binge eating, and smoking, and

lower levels of physical activity). Though a strong case has been made linking body dissatisfaction to a variety of negative outcomes, ranging from psychopathology to health-compromising behaviors, we have yet to untangle what drives individuals in different directions. Not all individuals who experience stress related to body dissatisfaction develop maladaptive outcomes related to self-concept, mood, or eating behaviors. Understanding the different ways that individuals respond to and cope with body dissatisfaction may shed light on this multifinality (i.e., diverse outcomes despite a similar starting point; Cicchetti & Rogosch, 1996).

Rationale for Measure Creation

Compas, Jaser, and Benson (2009) have called for a moratorium on the development of more self-report measures of coping. Nevertheless, the narrow-band assessment of coping in the context of body dissatisfaction may be worthwhile. Currently, only one measure of coping with body dissatisfaction exists. The Body Image Coping Strategies Inventory (BICSI; Cash, Santos, & Williams, 2004) is an adult measure originally adapted from an existing broad-band coping questionnaire (i.e., the Coping Inventory of Stressful Situations, CISS; Endler & Parker, 1990). The BICSI represents the top-down approach to measurement design. Measure development has generally followed one of two approaches: inductive bottom-up approaches, in which the structure of items is empirically derived, and deductive top-down approaches in which the structure of items is theoretically derived (Skinner, Edge, Altman, & Sherwood, 2003). From an empirical standpoint, it is important that we test the convergence of top-down and bottom-up approaches before assuming that top-down methods capture all that is important in a new domain, such as coping with body dissatisfaction. Additionally, measures need to be age-appropriate and able to assess both stability and change with development (Compas, 2009).

Given the salience of body dissatisfaction during adolescence and given the dramatic physical changes during puberty, the lack of a measure specific to adolescents represents an important gap in the field. To address the need for a developmentally-sensitive measure, as well as the need for a bottom-up measure of coping with body dissatisfaction, the current paper presents a new instrument designed for these purposes. In the following sections, we describe the development and preliminary validation of the Adolescent Responses to Body Dissatisfaction (ARBD), which is designed to assess the ways adolescents respond to body dissatisfaction.

Variables Related to Body Dissatisfaction

The current study represents a developmentally-sensitive approach to measuring a range of adaptive and unhelpful responses to adolescent body dissatisfaction. By focusing on puberty, the study explores whether emergent factors on a new instrument are predictive of important psychological outcomes tied to body dissatisfaction, particularly depression and disordered eating. Moreover, the study investigates key variables highlighted in the literature as having a meaningful relation to body dissatisfaction (e.g., sex, ethnicity, psychopathology, and body mass index). We turn our attention to these variables and their interplay with body dissatisfaction next.

Sex

The majority of work on body dissatisfaction has been focused on females. Until recently male body dissatisfaction has been relatively neglected. Studies that have included both male and female participants have found that up to about twice as many adolescent females as males report body dissatisfaction (e.g., Barker & Galambos, 2003; Eisenberg, Neumark-Sztainer, & Paxton, 2006; Kostanski, Fisher, & Gullone, 2004). Although females report higher average levels of

body dissatisfaction than do males, the correlations between negative body image and symptoms of psychopathology tend to be just as strong for males as for females (e.g., Holsen, Kraft, & Roysamb, 2001). Thus, body dissatisfaction may occur less often in males, but when it does, it appears to create equal risk.

In addition to sex differences in prevalence, the literature on male body image suggests that the nature of body dissatisfaction tends to be qualitatively different for males than for females; the majority of girls prefer a thinner ideal, whereas boys tend to be split between a thinner and a more muscular ideal (Cohane & Pope, 2001; Ricciardelli & McCabe, 2001). Thus, body dissatisfaction seems to differ both quantitatively and qualitatively for males and females. Research is only just beginning to reveal factors that contribute to these sex differences in body dissatisfaction (e.g., Knauss, Paxton, & Alsaker, 2007). The present study will add to this literature in a new way by examining whether males and females show consistent differences in the ways they respond to body dissatisfaction.

Ethnicity

Although findings about racial/ethnic differences in body dissatisfaction tend to stir debate, one of the more consistent findings in the literature is that African-American females tend to report lower rates of body dissatisfaction than do their Caucasian counterparts (e.g., Story, French, Resnick, & Blum, 1995; Powell, & Kahn, 1995; Desmond, Price, Hallinan, & Smith, 1989). Evidence also suggests that Hispanic girls report as much body dissatisfaction as do Caucasian girls (Robinson, Chang, Haydel, & Killen, 2001). To date, less attention has focused on comparisons among males of other ethnicities.

Few studies have had large enough samples to make meaningful comparisons among multiple racial/ethnic groups; however, preliminary findings call into question the notion that body dissatisfaction is primarily a Caucasian problem. For instance, in a large population-based study of adolescents, Neumark-Sztainer et al. (2002) found that Hispanic and Asian-American girls reported significantly higher rates of body dissatisfaction than did Caucasian girls. In contrast, African-American and biracial girls were significantly less likely to express body dissatisfaction than were Caucasian, Asian, and Hispanic girls. Among boys, Asian American boys endorsed more body dissatisfaction than did Caucasian boys. Much remains to be understood about ethnic differences in body dissatisfaction, but the myth that body dissatisfaction is unique to Caucasian females is already being dispelled (Neumark-Sztainer et al., 2002). The current study will contribute to this growing literature by examining whether there are ethnic differences in the ways adolescents cope with body dissatisfaction.

Depression and Disordered Eating

As noted previously, body dissatisfaction is associated with psychopathology in children and adolescents, particularly depression and eating pathology. Body dissatisfaction is an important cognitive vulnerability factor for depression (Hyde, Mezulius, & Abramson, 2008). Some researchers have suggested the gender difference in rates of depression, which emerges during early adolescence, may be at least partly due to body dissatisfaction (Nolen-Hoeksema & Girgus, 1994). In line with this, gender differences in adolescent rates of depression disappear once body dissatisfaction and self-esteem are statistically controlled (Allgood-Merten, Lewinsohn, & Hops, 1990). Although females report higher average levels of body dissatisfaction than do males, the correlation between negative body image and symptoms of

depression is as strong for males as females (Holsen, Kraft, & Roysamb, 2001). Thus, although body dissatisfaction may be at least partly responsible for sex differences in adolescent depression, it is a potent risk factor for either sex. At least two longitudinal studies have demonstrated that body dissatisfaction predicts the onset of depressive symptoms in adolescents (Holsen et al., 2001; Paxton et al., 2006). Depressed mood, in contrast, had no longitudinal effect on body dissatisfaction in either study. This lends support to the theory that body dissatisfaction is more a predictor than a consequence of depression in adolescents.

With regard to eating pathology, body dissatisfaction is so entwined with eating disorders that it has become a diagnostic criterion. Evidence suggests that body dissatisfaction is central to the development and maintenance of disordered eating behaviors at both clinical and subthreshold levels (Attie & Brooks-Bunn, 1989; Cash & Deagle, 1997; Graber, Brooks-Gunn, Paikoff, & Warren, 1994; Killen et al., 1996; Stice & Agras, 1998; Thompson, 1992). Body dissatisfaction predicts the onset of various disordered behaviors, including restricted eating (Cattarin & Thompson, 1994), binge eating (Stice, Killen, Hayward, & Taylor, 1999), and purging (Stice et al., 1999). The range of eating pathology is just one illustration of the many different ways youth may respond to body dissatisfaction. A primary goal in our measure development was to elucidate the range of such problematic responses.

Body Mass Index (BMI)

Although body dissatisfaction is an internal, subjective phenomenon, it can clearly be affected by various biological factors (e.g., BMI) and the social responses that they can trigger (e.g., teasing, criticism, physical victimization, social exclusion; Smolak, 2004). Higher BMI is linked to body dissatisfaction in children and adolescents, an association that is at least partially

mediated by weight-related teasing and criticism (Thompson, Coover, Richards, Johnson, & Cattarin, 1995; Lunner, Wertheim, Thompson, Paxton, McDonald, Halvaarson, 2000; van den Berg, Wertheim, Thompson, & Paxton, 2001). The impact of social bias may be heightened during puberty (Smolak, 2004). The current study will attempt to disentangle the extent to which body dissatisfaction stems from distorted self-perceptions as opposed to actual physical characteristics. Specifically, the present study will examine BMI, subjective body dissatisfaction, and their interactions with coping as predictors of depressive symptoms and disordered eating.

Aims of the Present Study

We adopted an inductive, or bottom up, approach to the creation of a developmentally sensitive self-report measure. Specifically, we relied on children and adolescents for item generation, asking them to inform us of the ways in which they respond to and cope with body dissatisfaction. Because our measure is designed to be relevant and appropriate to youth, our goal was to involve children and adolescents in both the preliminary content development of the measure as well as later efforts towards its refinement. We had six goals. Our first aim was to develop a measure of adolescent responses to body dissatisfaction (Study 1). Our second aim was to analyze the emergent factor structure of this measure (the ARBD) using exploratory factor analysis (Study 2). Though our analyses were exploratory, we anticipated that emergent factors on the ARBD would correspond with factors suggested by the dual-process model of coping (Compas, Connor, Osowiecki, & Welch, 1997), particularly the volitional factors (i.e., primary and secondary control engagement coping, disengagement coping). Aim three was to investigate age, BMI, ethnic, and sex differences in responses to body dissatisfaction. We

hypothesized that several of the emergent ARBD factors would demonstrate significant relations with BMI, sex, and ethnicity. Fourth, we examined the convergent validity of our emergent factors, their relation to psychopathology, and their incremental predictive utility relative to depression and eating disorders. We hypothesized that the emergent ARBD factors would account for significant variance in measures of depression and disordered eating. We also expected that ARBD factors would demonstrate incremental utility over other coping instruments on these psychological outcomes. Aim five was to examine whether the emergent factors significantly moderated the relation of measured body dissatisfaction to symptoms of depression and disordered eating. We hypothesized that the relation between body dissatisfaction and both of these psychological outcomes would be moderated by ARBD factors. Finally, we examined three-way interactions between BMI, body dissatisfaction, and our emergent factors in the prediction of depressive symptoms and disordered eating. We anticipated that BMI would further moderate the interaction of body dissatisfaction and ARBD factors on our psychological outcomes.

CHAPTER II

METHOD

Study 1: Item Generation

Participants

A total of 607 children and adolescents aged 9-17 years ($M = 11.5$, $SD = 2.0$) participated in item generation (Aim 1) as part of two larger studies, one on body image and one on targeted peer victimization. The research team recruited participants from school districts in small suburban Southern towns. We sent consent forms to classrooms representing grades 3 through 12 in these school districts. Of the 1050 students contacted, 607 parents consented to their children participating in this study. Cumulatively, the combined sample was 80.5% Caucasian, 10.1% African-American, 5.6% Hispanic, 1.2% Asian, and 2.6% other ethnicity. The sample was gender-balanced (46.5% male, 53.5% female).

Measures

To generate items, we used three different open-ended formats, designed to elicit coping responses to body dissatisfaction. We used three slightly different formats to pull for a more representative range of responses and reduce the chances of particular demand effects. Our format followed the dual-process model of stress and coping outlined by Compas and colleagues (Compas, Connor, Osowiecki, & Welch, 1997; Compas, Connor, Saltzman, Thomsen, & Wadsworth, 1999; Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman, 2000). Each

student read one of the following scenarios, chosen randomly, and then generated open-ended responses.

A) Sometimes people like what they see when they look in the mirror. Other times they don't. If you looked in the mirror and didn't like what you saw, what are some things you might you say to yourself to keep from feeling so bad?

B) Some people like what their bodies look like. Other people don't. I'd like you to imagine that you didn't like what your body looked like. What sorts of things would you say to yourself to make you feel OK?

C) When kids look in the mirror, some of them like their bodies. Others don't. I'd like you to imagine that you did not like how your body looked in the mirror. Please write the sorts of things that you would try to do or think or feel if you did not like how your body looked.

Procedure

On the day of testing, we asked all students whose parents had consented to their participation to give their assent. During administration of our body dissatisfaction and other questionnaires, doctoral psychology students and advanced undergraduate students read the prompts aloud to elementary and middle school students, one group at a time. Research assistants circulated to answer questions and aid participants who requested clarification. Research assistants explained there were no right or wrong responses, and encouraged participants to list as many responses as came to mind. During administration with high school students, we handed out packets including the body dissatisfaction questionnaire to the students and the participants

were able to complete the packet at their own pace. Research assistants were available to answer questions during the testing.

Aim 1: Item Generation Results

Collectively, participants generated over 1000 responses. A few incomprehensible responses were deleted. Then, the principal investigator (PI) and a research assistant independently rationally sorted all remaining responses, grouping items that shared similar themes and content. This classification system resulted in over 50 clusters of related responses. The PI and research assistant discussed discrepancies in their rational classification schemes until they agreed. Responses were collapsed if they were overlapping in content (e.g., "I will run three miles" and "I need to start running more") and deleted if deemed idiosyncratic (e.g., "Every morning I do not look cranky"), or incomprehensible (e.g., "I have an open body" and "I have body"). The final items consisted of 78 self-statements covering a broad range of response strategies (see Appendix F8).

Study 2: Refinement and Initial Validation of the Questionnaire

Participants

Participants for the validation study consisted of high school students in two schools just outside a midsize Southeastern city. To recruit students, we sent informed consent forms and letters to the families of all students in the 9-12th grades (N=1,811) at these schools a few weeks before expected participation. A total of 830 students aged 13-21 ($M = 15.5$ year, $SD = 1.3$) took part in the study; 57% were female. Reflective of the demographics of the local district, 81%

were Caucasian, 11% were African American, 5% were Hispanic, 2% were Biracial/Other, and 1% was Asian. These adolescents reported that approximately 25% of their mothers and 19% of their fathers had finished college. Approximately a third of students at each high school were eligible for reduced/free lunch programs. Self-reported heights and weights suggested that body mass indices (BMI) of participants ranged from 16.3 to 47.1 ($M = 23.6$, $SD = 5.3$) for males and from 13.7 to 46.8 ($M = 23.8$, $SD = 5.5$) for females.

Measures

Coping. We used two instruments to assess coping. The first was the Responses to Stress Questionnaire (RSQ; Connor-Smith et al., 2000) adapted, with consultation from Dr. Bruce Compas, to address stress related to body dissatisfaction. The RSQ is a 57-item self-report questionnaire that measures both coping and involuntary responses to stress in adolescents and older children, and asks individuals to rate the frequency of a given coping response or involuntary reaction on a 4-point scale. The RSQ is comprised of five factors, three of which represent voluntary coping (primary control engagement, secondary control engagement, and disengagement coping) and two of which capture involuntary reactions (involuntary engagement and involuntary disengagement). Solid psychometric properties have been demonstrated in multiple samples (Connor-Smith et al., 2000), with the internal consistency of RSQ factors ranging from $\alpha = .80$ to $\alpha = .87$ across samples. Two-week test-retest reliabilities for the five RSQ factors ranged from $r = .69$ to $r = .81$ (mean $r = .77$). Finally, convergent validity values were all within or above the range recommended by Fiske and Campbell (1992), and Fisher's z transformations for comparing correlations revealed that the majority of convergent correlations were significantly greater than discriminant correlations across RSQ coping factors (Connor-

Smith et al., 2000). In the current sample, internal reliabilities were high for all five RSQ factors, ranging from $\alpha = .74$ (i.e., RSQ Disengagement Coping) to $\alpha = .92$ (i.e., RSQ Involuntary Engagement).

The second coping measure was the BICSI (Cash et al., 2005). The BICSI is a 29-item self-report questionnaire, in which each item contains an example of a coping response. Participants indicate how characteristic an item is of how they would cope on a 4-point scale from 0 (*not at all*) to 3 (*definitely like me*). The BICSI has good psychometric properties in a large college student sample (Cash et al., 2005) and has three internally reliable factors: Avoidance ($\alpha = .74$ for men and women), Appearance Fixing ($\alpha = .91$ for men, $\alpha = .90$ for women), and Positive Rational Acceptance ($\alpha = .85$ for men, $\alpha = .80$ for women). Though the BICSI was not designed specifically for youth, its internal consistency in this sample was good for all three subscales (i.e., $\alpha = .73$ for Avoidance, $\alpha = .85$ for Positive Rational Acceptance, and $\alpha = .88$ for Appearance Fixing).

Body Dissatisfaction. The Silhouette Assessment of Body Shape (SABS; Felton, Cole, Tilghman-Osborne, & Maxwell, 2010) provides a self-report of body shape using an array of figure drawings specifically designed for an adolescent population. In both male and female instruments, seven figures are arranged in order of increasing size from skinny to overweight (adapted from Stunkard, Sorensen, & Schulsinger, 1983; Tiggemann, 2005; Collins, 1991). Beneath the figures is a horizontal line with equally spaced numbers ranging from 0 (*thinnest*) to 18 (*heaviest*). The SABS instructs participants to make an “x” on the line to indicate which silhouette best represents their current body shape. Marks that fall between anchor numbers received fractional scores based on the measured distance.

Participants also completed a second set of silhouettes on which they were asked to mark the body shape that they would ideally like to have. Subtracting ideal body shape from perceived actual body shape produces a Silhouette Assessment of Body Dissatisfaction (SABD). Positive scores on the SABD indicate that participants perceive themselves as overweight, negative scores signal they perceive themselves as underweight, and zeros suggest that their real and ideal body shapes are the same. The seven-silhouette version of this measure has good psychometric properties in adults, adolescents, and children (Ambrosi-Randic, Pokrajac-Bulian, & Taksic, 2005; Collins, 1991).

Body Mass Index (BMI). Estimated BMI was obtained through self-reported height and weight. BMI was calculated by dividing weight (*kg*) by height (*m*) squared ($BMI = kg/m^2$). Epidemiological data suggest that, though some adolescents may underestimate their weights or overestimate their heights, self-reported BMI is an overall valid representation of its objectively measured counterpart (Himes, Hannan, Wall, & Neumark-Sztainer, 2005).

Depressive Symptoms. The Children's Depression Inventory (CDI; Kovacs, 1981) is a 27-item self-report questionnaire assessing number and severity of depressive symptoms. Item responses range from 0 (*no experience of the symptom*) to 2 (*frequent or intense experience of the symptom*) over the last two weeks. The CDI has strong psychometric properties in both clinic and non-clinic populations, including a high degree of internal consistency, test-retest reliability, predictive, convergent, and construct validity (Cole, Hoffman, Tram, & Maxwell, 2000; Kazdin, French, & Unis, 1983; Kovacs, 1985; Lobovits & Handal, 1985; Mattison, Handford, Kales, Goodman, & McLaughlin, 1990; Smucker, Craighead, Craighead, & Green, 1986). The internal consistency for CDI Total in the current sample was excellent ($\alpha = .89$).

Disordered Eating Behaviors. Participants completed the Eating Disorder Diagnostic Scale (Stice, Telch, & Rizvi, 2000) to assess disordered eating behaviors. This 22-item self-report measure is designed to screen individuals for DSM-IV diagnoses of anorexia nervosa, bulimia nervosa, and binge eating disorder. The EDDS can be used diagnostically or to assess disordered eating symptomatology continuously with a total composite score (Stice et al., 2000). The EDDS has been used with participants as young as 13, and the overall symptom composite has shown good test-retest reliability ($r = .87$) and high internal consistency ($\alpha = .89$). Work by Stice, Fisher, and Martinez (2004) suggests that both diagnoses and the total symptom composite on the EDDS have high concordance with diagnoses and total symptom composites based on semistructured clinical interviews. The EDDS Composite demonstrated high internal consistency in the current sample ($\alpha = .78$).

Demographic Questionnaire. Participants also completed a 9-item demographic questionnaire regarding age, grade, ethnicity, family constellation, and caregivers' educational levels.

Procedure

Consented students completed a battery of questionnaires in school locations designated by the principal (e.g., in their classrooms, auditorium, or library). Trained research assistants were available to describe questionnaires, monitor activities, and address questions. After completing the study, students were given \$10 gift cards for their participation.

CHAPTER III

RESULTS

Aim 2: Factor Structure

We used principal axis factor analysis with oblique rotation to extract factors from the 78 ARBD items. In determining the number of factors to retain, we sought convergence among three criteria. First, examination of eigenvalues for the ARBD based on the Kaiser criterion (i.e., the number of eigenvalues greater than one; Kaiser, 1960) suggested 17 factors; however, Monte Carlo studies suggest that the Kaiser criterion frequently results in over-factoring (e.g., Zwick & Velicer, 1986). Second, a scree plot revealed support for eight factors. And third, parallel analysis (Fabrigar, Wegener, MacCallum, & Strahan, 1999; Horn, 1965)¹ suggested a six-factor model. Examination of the six-, seven-, and eight-factor solutions revealed that the seven-factor model was the most interpretable, had the fewest cross-loadings, had no singlets or doublets, and had moderate to high factor reliabilities (see Appendix A).

We re-ran the seven-factor model, dropping 8 items that did not load at least 0.3 on any factor. This solution accounted for 44.8% of the total variance of all the ARBD variables (see Table 1, Appendix B, and Appendix F9). The seven-factor model yielded highly interpretable factors with small to moderate factor correlations and moderate to high internal reliabilities (see Table 2). Factor 1, Avoidant Responses, was composed of items reflecting manifestations of avoidance, rumination, and cognitive interference (e.g., I would tell myself that I will go as long as I can without eating; I would avoid being around people; I would refuse to go anywhere so I

am not embarrassed). Factor 2, Distraction/Cognitive Shift, is comprised of items reflecting shifting attention, either by engaging in an activity or by focusing on more favorable aspects of

Table 1

Factor Loadings for 70 ARBD items

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
68. I would tell myself that I will go as long as I can without eating	0.63	-0.18	-0.21	0.13	0.04	-0.06	-0.04
77. If I had a problem with my looks, I would avoid being around people	0.63	0.01	0.12	-0.07	0.01	0.01	0.02
7. I would refuse to go out anywhere so I will not be embarrassed	0.58	0.01	0.09	-0.05	-0.02	-0.08	0.01
18. I would wear baggy clothes to hide my body	0.57	0.16	-0.10	-0.12	-0.01	-0.08	0.18
36. I would break my mirror so I never have to see myself	0.63	-0.05	-0.01	0.15	-0.01	-0.19	-0.09
74. I would wish I could rewind to the past when I looked different	0.52	-0.05	-0.21	-0.08	0.05	0.19	0.10
19. If I felt unhappy with my looks, I would get upset and overeat	0.51	0.06	0.04	-0.13	-0.07	0.04	-0.03
31. I would not be able to concentrate on anything else	0.50	-0.10	0.12	-0.16	0.04	0.14	-0.10
33. I would skip meals	0.48	-0.18	-0.29	0.08	0.18	-0.01	-0.07
54. I would worry that people would not want to hang around me	0.45	-0.02	0.11	-0.19	0.10	0.01	-0.16
73. I would worry about eating	0.43	-0.11	-0.27	-0.04	0.21	0.05	-0.09
30. If I had a problem with my appearance, my face would turn red with embarrassment	0.42	0.17	0.05	-0.17	-0.01	0.04	-0.09
44. I would stop looking in full-body mirrors	0.41	0.02	0.00	0.06	0.06	-0.03	-0.01
72. If I felt unhappy with my body, I would tell myself that I will get plastic surgery or	0.40	-0.18	-0.19	-0.05	-0.05	0.08	-0.15

liposuction someday							
53. If I had a problem with my looks, I wouldn't be able to stop staring at myself in the mirror	0.38	-0.09	0.09	-0.05	0.02	0.14	-0.22
50. I would eat something to help me feel better	0.36	0.13	0.24	-0.03	0.03	0.05	-0.20
66. I would worry about the shape of my body	0.32	0.01	-0.13	-0.22	0.13	0.22	-0.07
64. If I had a problem with my appearance, I would try not to think about it	-0.07	0.56	0.03	-0.02	-0.07	-0.03	-0.08
43. If I had problems with my appearance, I would tell myself to stop thinking about it	0.04	0.55	0.09	0.15	-0.07	-0.02	-0.05
52. I would get my mind off of my body by doing something else	-0.03	0.54	-0.02	-0.05	0.06	-0.02	-0.02
65. I would say to myself, I do not have to be perfect	-0.01	0.52	-0.05	0.25	-0.10	0.04	0.02
41. I would tell myself to focus on aspects of my appearance that I like rather than things I don't like	-0.09	0.50	-0.07	0.05	0.06	0.14	-0.13
16. I would tell myself that a good attitude will make me look a lot better than if I worry about it	-0.10	0.47	0.02	0.13	0.07	0.10	0.00
55. I would talk to other people to feel better	0.04	0.46	-0.04	0.08	0.02	-0.03	-0.26
39. I would remind myself that nobody else feels completely confident about their body, and I am not the only one who feels this way	0.05	0.43	-0.11	-0.02	0.05	0.26	-0.04
61. I would say to myself, how I look now is only temporary	0.06	0.41	0.10	-0.03	0.25	0.19	0.09
46. If other people were around, I would try to act confident about my body	-0.07	0.39	0.04	-0.08	0.13	0.10	-0.12
17. I would tell myself that my looks do not define me	-0.04	0.38	0.01	0.29	0.07	0.04	0.22
35. I would tell myself a joke to take my mind off of it	0.19	0.35	0.07	0.13	0.05	0.07	0.05
69. I would tell myself that I will feel better if I take a bath/shower	0.06	0.33	-0.05	0.04	0.03	0.03	-0.17
24. I would remind myself that I am still growing, and I am not	0.06	0.32	0.10	0.16	0.17	0.31	0.14

going to look like this forever							
25. I would wish I were thinner	0.22	-0.01	0.60	-0.26	0.05	0.27	0.08
62. I would tell myself that I need to put on weight (R)	0.18	-0.02	-0.53	0.05	0.02	0.04	-0.08
57. I would go on a diet	0.19	-0.10	0.49	0.06	0.44	-0.07	-0.13
42. I would keep telling myself over and over that I need to lose weight	0.31	-0.08	0.49	-0.13	0.19	0.17	0.04
2. I would say to myself that I am perfect the way I am	-0.02	-0.01	0.03	0.70	0.03	0.00	-0.01
10. I would say to myself this is who I am	0.01	0.11	-0.04	0.60	0.03	0.08	0.04
27. I would tell myself that I like the way I look	-0.13	0.10	0.20	0.59	-0.01	0.01	-0.10
5. I would say to myself that I do not need to change.	0.03	0.01	0.14	0.53	-0.20	0.03	-0.07
32. I would think to myself that I should love myself the way I am and make the best of it	-0.01	0.35	-0.02	0.49	-0.03	0.19	0.01
78. I would say to myself, nothing is wrong with me	-0.06	0.26	0.11	0.49	-0.10	0.08	0.00
14. I would tell myself that people like me for who I am	-0.16	0.16	-0.03	0.46	0.03	0.27	0.07
28. I would tell myself everybody comes in different shapes and sizes, and this is mine	0.04	0.35	-0.05	0.46	-0.08	0.22	0.05
9. I would worry about what other people think of me (R)	0.20	0.12	-0.01	-0.44	-0.04	0.15	-0.20
22. I would say to myself, I will be a success, no matter how much I weigh	0.01	0.28	-0.03	0.42	0.03	0.18	0.10
40. I would wish I had a better body (R)	0.26	-0.02	-0.28	-0.41	0.10	0.38	-0.01
63. I would wish I could trade bodies with someone else (R)	0.31	-0.03	-0.20	-0.38	-0.04	0.25	-0.11
23. I would think about the blessings I have in my life instead	-0.02	0.21	-0.04	0.34	0.05	0.21	0.13
20. I would say to myself, at least I have a wonderful personality	-0.02	0.19	-0.08	0.34	0.04	0.24	0.07
21. I would exercise to boost my confidence	-0.11	0.08	0.06	-0.03	0.63	0.07	0.02
60. I would tell myself that I will change the foods I eat	-0.01	0.14	-0.34	-0.06	0.59	-0.06	-0.12
4. I would lift weights to get	0.03	-0.06	0.28	0.04	0.58	-0.03	0.14

stronger

3. If I felt unhappy with my body, I would stop eating so much junk food.	0.03	0.02	-0.29	0.05	0.54	-0.08	-0.08
59. I would worry about getting exercise	0.03	0.00	-0.10	-0.19	0.51	0.08	-0.03
75. I would start eating healthier	-0.09	0.23	-0.28	0.04	0.51	-0.11	-0.16
49. I would weigh myself	0.15	-0.07	0.01	0.07	0.36	0.06	-0.15
29. I would say to myself, I am not the worst looking person	-0.06	0.15	-0.01	0.05	-0.01	0.41	-0.09
12. I would tell myself that not everyone can have the body of a model	-0.01	0.16	-0.18	0.20	-0.05	0.41	-0.05
13. I would say to myself, a lot of people like the way I look	-0.13	-0.03	0.02	0.29	-0.02	0.40	-0.10
67. I would say to myself, I look better than some people	-0.12	0.06	0.08	0.00	0.02	0.37	-0.26
11. I would say to myself that other people look like this too	-0.09	0.01	-0.01	0.15	0.07	0.33	-0.07
34. I would say to myself, I might look better once I get older	0.20	0.31	0.08	-0.15	0.12	0.32	0.05
47. I would compare myself to good-looking people	0.16	-0.05	0.01	-0.17	0.10	0.31	-0.29
48. I would wear tight clothes to show off my body	-0.06	-0.05	0.18	0.19	0.02	0.08	0.47
70. I would say to myself, I will change my hair (the style, color, etc)	0.22	0.13	-0.04	-0.03	-0.04	-0.08	0.47
76. I would ask other people if they think I look good	0.18	0.13	0.00	-0.01	-0.01	0.11	0.42
71. I would say to myself, I will get a tan	0.08	-0.04	-0.01	-0.04	0.16	0.06	0.39
1. I would ask my friends to help me out with ideas to look better	-0.03	0.20	-0.16	-0.12	-0.02	0.06	0.38
56. I would tell myself that I will put more effort into my appearance in the morning from now on	0.04	0.26	-0.08	-0.22	0.22	-0.06	0.34
6. I would start wearing more stylish clothes	-0.01	0.03	0.12	-0.11	0.13	0.19	0.32

Table 2

Correlations among Seven ARBD Factors

Factor	1	2	3	4	5	6	7	Cronbach's alpha
1. Avoidant Responses	1							.85
2. Distraction/ Cognitive Shift	-.01	1						.86
3. Focus on Weight Loss	.43**	.01	1					.84
4. Self-Affirmation	-.45**	.50**	-.37**	1				.75
5. Lifestyle Strategies	.30**	.26**	.48**	-.13**	1			.89
6. Social Comparison	.14**	.56**	.15**	.24**	.27**	1		.66
7. Self-Presentation & Appearance Efforts	.42**	.33**	.25**	-.13**	.36**	.44**	1	.69

Note: ** $p < .01$

self (e.g., I would get my mind off of my body by doing something else; I would tell myself to focus on aspects of my appearance that I like rather than things I do not like; I would tell myself to stop thinking about it). Factor 3, Focus on Weight Loss, reflects a desire to lose weight, be thinner, or (reverse-scored) put on weight (e.g., I would go on a diet; I would wish I were thinner; I would tell myself over and over that I need to lose weight). Factor 4, Self-Affirmation, pertains to self-acceptance and cognitive restructuring about positive attributes (e.g., I would say to myself I am perfect the way I am; I would tell myself that I like the way I look; I would tell myself that people like me for who I am). Factor 5, Lifestyle Strategies, reflects the intention to change dietary or exercise habits (e.g., I would exercise to boost my confidence; I would lift weights to get stronger; I would start eating healthier). Factor 6, Social Comparison, reflects self-evaluation against others (e.g., I would tell myself that I look better than some people; I would say to myself, that other people look like this, too; I would tell myself that not everyone can have the body of a model). Factor 7, Self-Presentation and Appearance Efforts describes efforts to tailor one's appearance or seek style advice in order to achieve a certain effect (e.g., I would wear clothes to show off my body; I would ask my friends to help me with ideas to look better; I would tell myself that I will put more effort into my appearance in the morning from now on).

Aim 3: Relation of Age, BMI, SABD, Sex, and Ethnicity to ARBD Factors

Next, we examined the relations of ARBD factors to age, BMI, SABD, sex, and ethnicity. As shown in Table 3, age was not significantly correlated with any of the ARBD factors. BMI was positively correlated with Avoidant Responses and Focus on Weight Loss. The

SABD was positively related to Avoidant Responses, Focus on Weight Loss, and Lifestyle Strategies, and negatively related to Self-Affirmation.

Table 3

Correlations of ARBD Factors with Age, BMI, and Silhouette Assessment of Body Dissatisfaction (SABD)

	Age	BMI	SABD
Avoidant Responses	-.01	.15*	.25*
Distraction/Cognitive Shift	-.03	.00	-.09
Focus on Weight Loss	.03	.40*	.59*
Self-Affirmation	-.05	-.06	-.26*
Lifestyle Strategies	.09	.08	.18*
Social Comparison	.05	.05	-.01
Self-Presentation & Appearance Efforts	-.01	-.04	.05

Note: To control for the family-wise error rate, we corrected alpha ($\alpha = .05/7 = .007$).

* $p < .007$

With regard to sex, females had higher scores than males on Avoidant Responses, Distraction/Cognitive Restructuring, Focus on Weight Loss, Social Comparison, and Self-Presentation and Appearance Efforts; Cohen's *ds* reflected small to medium effect sizes (see Table 4). Even after controlling for the effects of BMI, all of these sex differences remained significant (see Appendixes C1, C2, C3, and D). Additionally, there was a significant effect for sex on the SABD, $t(794) = 5.298$, $p < .001$, with females perceiving themselves as more overweight in comparison to their ideal ($M = 1.21$, $SD = 1.72$) than did males ($M = .51$, $SD = 1.99$).

We used one way analysis of variance (ANOVA) with the Games-Howell procedure for post-hoc comparisons² to investigate the effects of ethnicity on ARBD factors. These analyses

Table 4
Examining Sex Differences on ARBD Factors

	<i>t</i>	Males		Females		Cohen's δ
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Avoidant Responses	-3.26*	25.64	6.88	27.35	7.66	.235
Distraction/Cognitive Shift	-4.37*	35.53	7.33	37.68	6.45	.311
Focus on Weight Loss	-7.26*	4.11	2.77	5.62	3.10	.514
Self-Affirmation	0.61	27.29	7.75	26.92	8.95	.044
Lifestyle Strategies	-0.13	18.71	4.26	18.75	4.30	.009
Social Comparison	-4.14*	17.62	3.84	18.67	3.33	.292
Self-Presentation and Appearance Efforts	-8.64*	14.58	3.62	16.77	3.56	.610

Note: To control for the family-wise error rate, we corrected alpha ($\alpha = .05/7 = .007$).

* $p < .007$

revealed a significant effect of ethnicity on Avoidant Responses [$F(4, 783) = 3.53, p < .01$], Focus on Weight Loss [$F(4, 807) = 5.84, p < .001$], Lifestyle Strategies [$F(4, 798) = 4.99, p < .001$], and Self-Affirmation [$F(4, 787) = 7.25, p < .001$]. Hispanic adolescents endorsed significantly greater Avoidant Responses than did Caucasian, African-American, or biracial adolescents (see Table 5). Caucasian adolescents endorsed greater Focus on Weight Loss as well as more Lifestyle Strategies than did African-American adolescents. Finally, African-American adolescents reported greater Self-Affirmation than did either Caucasian or Hispanic adolescents (see Table 5). Notably, the effect of ethnicity remained significant on all four of these factors

even after controlling for both BMI and sex (see Appendix E for these additional analyses). Additionally, there was a significant main effect for ethnicity on the SABD, $F(4, 782) = 2.61, p < .05$, with post hoc comparisons using the Games Howell procedure revealing that Caucasian adolescents endorsed significantly greater body dissatisfaction ($M = .99, SD = 1.86$) than did African-American adolescents ($M = .32, SD = 1.98$).

Table 5

Post Hoc Comparisons of Significant Effects of Ethnicity on ARBD Factors with Games-Howell Procedure

Factor	Ethnic Group (A)	Ethnic Group (B)	Mean Difference (A – B)	SE
Avoidant Responses	Hispanic	Caucasian	4.01*	1.29
		African American	4.64*	1.49
		Asian	1.32	3.60
		Other	2.78*	2.37
Focus on Weight Loss	Caucasian	African American	1.61***	.33
		Hispanic	.492	.50
		Asian	.39	1.07
		Other	1.19	1.09
Self-Affirmation	African American	Caucasian	5.13***	.93
		Hispanic	4.35*	1.52
		Asian	4.21	3.30
		Other	2.62	4.75
Lifestyle Strategies	Caucasian	African American	1.68**	.44
		Hispanic	-.34	.64
		Asian	1.27	1.19
		Other	5.47	3.18

* $p < .05$, ** $p < .01$, *** $p < .001$

Aim 4: Examining ARBD Factors in Terms of Evidence of Convergent Validity, Relation to Psychological Outcomes, and Incremental Predictive Utility

Convergent validity. Some evidence of convergent validity emerged between the ARBD and both the RSQ and the BICSI. Although correlations with the RSQ factors were highly variable (ranging from $-.34$ to $.67$; see Table 6), the ARBD Avoidant Responses scale was strongly correlated with the RSQ Disengagement Coping, Involuntary Engagement, and Involuntary Disengagement scales, and the ARBD Distraction/Cognitive Restructuring scale correlated strongly with the RSQ Secondary Control Coping scale. Correlations with BICSI scales ranged from $-.42$ to $.60$ with strong correlations emerging between ARBD Avoidant Responses and BICSI Appearance Fixing, ARBD Distraction/Cognitive Restructuring and BICSI Rational Acceptance, and ARBD Self-Presentation and Appearance Efforts with BICSI Appearance Fixing.

Relation to Psychological Adjustment. Regression analyses demonstrated that ARBD factors significantly predicted depressive symptoms as assessed by the CDI, accounting for 32.9% of its total variance, with a significant positive β for Avoidant Responses and significant negative β s for Self-Affirmation and Lifestyle Strategies (see Table 7). ARBD factors also significantly predicted disordered eating behaviors and attitudes on the EDDS Composite, accounting for 48.1% of its total variance with significant positive β s for Avoidant Responses and Focus on Weight Loss and a significant negative β for Self-Affirmation (see Table 8).

Incremental Predictive Utility. Hierarchical regressions revealed that ARBD factors showed significant incremental validity in the prediction of both the CDI and EDDS. The change in R-squared for the ARBD factors over-and-above the RSQ factors was $.037$ in the prediction of

Table 6

Correlations of ARBD Factors with RSQ Factors and BICSI Factors

ARBD Factor	RSQ Primary Control Coping	RSQ Secondary Control Coping	RSQ Disengagement Coping	RSQ Involuntary Engagement	RSQ Involuntary Disengagement	BICSI Appearance Fixing	BICSI Avoidance	BICSI Rational Acceptance
Avoidant Responses	.11*	-.17*	.52*	.67*	.66*	.54*	.47*	-.01
Distraction/ Cognitive Restructuring	.40*	.63*	.22*	-.028	.01	.10	.07	.61*
Focus on Weight Loss	.11*	-.05	.27*	.32*	.28*	.38*	.10*	.04
Self- Affirmation	.13*	.47*	-.20*	-.34*	-.27*	-.42*	-.14*	.33*
Lifestyle Strategies	.19*	.10*	.18*	.18*	.15*	.30*	.04	.19*
Social Comparison	.28*	.34*	.30*	.16*	.15*	.31*	.16*	.42*
Self-Presenta- tion & Appear- ance Efforts	.40*	.19*	.37*	.36*	.32*	.60*	.22*	.27*

Note: To control for family-wise error, we corrected alpha ($\alpha = .05/7 = .007$). * $p < .007$

Table 7

Summary of Multiple Regression Analysis for ARBD Factors Predicting CDI Total

Variable	B	Std. Error	β	r
Constant	0.05	0.23		
ARBD Avoidant Responses	0.40	0.04	0.41*	0.51*
ARBD Distraction/ Cognitive Restructuring	-0.01	0.05	0.01	-0.14*
ARBD Focus on Weight Loss	0.04	0.09	0.02	0.24*
ARBD Self-Affirmation	-0.25	0.05	-0.25*	-0.41*
ARBD Lifestyle Strategies	-0.27	0.06	-0.16*	0.03
ARBD Social Comparison	-0.03	0.08	-0.02	-0.02
ARBD Self-Presentation & Appearance Efforts	0.04	0.08	0.02	0.18*

Note: To control for family-wise error, we corrected alpha ($\alpha = .05/7 = .007$).

* $p < .007$

Table 8

Summary of Multiple Regression Analysis for ARBD Factors Predicting EDDS Composite

Variable	B	Std. Error	β	r
Constant	0.03	0.30		
ARBD Avoidant Responses	0.47	0.05	0.32*	0.57*
ARBD Distraction/ Cognitive Restructuring	-0.05	0.06	-0.04	-0.02
ARBD Focus on Weight Loss	1.21	0.12	0.34*	0.55*
ARBD Self-Affirmation	-0.18	0.06	-0.12*	-0.38*
ARBD Lifestyle Strategies	0.04	0.08	0.02	0.32*
ARBD Social Comparison	0.16	0.11	0.05	0.15*
ARBD Self-Presentation & Appearance Efforts	0.23	0.10	0.08	0.34*

Note: To control for family-wise error, we corrected alpha ($\alpha = .05/7 = .007$).

* $p < .007$

the CDI and .173 in the prediction of the EDDS (see Tables 9 and 10). Cohen's f^2 were .037 and .400, reflecting small and large effect sizes, respectively. The ARBD Avoidant Responses, Focus on Weight Loss, and Self-Affirmation scales were primarily responsible for these effects.

Similarly, the change in R-squared for the ARBD factors over-and-above the BICSI factors was .098 in the prediction of the CDI and .162 in the prediction of the EDDS (see Tables 11 and 12). Cohen's f^2 were .159 and .383, reflecting medium and large effect sizes, respectively. Avoidant Responses, Focus on Weight Loss, Self-Affirmation and Lifestyle Strategies scales were primarily responsible for these effects.

Aim 5: Examining ARBD Factors as Moderators of the Relation between Body Dissatisfaction and Psychological Outcomes

Next, we investigated whether ARBD factors significantly moderated the relation of SABD scores to the CDI and the EDDS. In one series of analyses, we regressed CDI scores onto an ARBD factor, the SABD, and their interaction (see Table 13). Three out of seven of these interactions were significant. Distraction/Cognitive Restructuring, Focus on Weight Loss, and Social Comparison moderated the relation of body dissatisfaction to CDI. As shown in Figure 1, body dissatisfaction was more strongly related to depressive symptoms for participants who reported using less Distraction/Cognitive Restructuring, less Social Comparison, and greater Focus on Weight Loss. In a second set of analyses, we regressed EDDS scores onto an ARBD factor, the SABD, and their interaction (see Table 14). As shown in Figure 2, body dissatisfaction was more strongly related to the EDDS for participants who reported greater Focus on Weight Loss, Lifestyle Strategies, and Self-Presentation and Appearance Efforts.

Table 9

Hierarchical Regression Examining Incremental Predictive Utility of ARBD over RSQ on CDI Total

		B	Std. Error	β	R^2	ΔR^2
Step1	Constant	0.04	0.21			
	RSQ Primary Control Coping	-0.05	0.05	-0.04		
	RSQ Secondary Control Coping	-0.26	0.04	-0.27**		
	RSQ Disengagement Coping	0.43	0.07	0.29**		
	RSQ Involuntary Engagement	0.18	0.05	0.23**		
	RSQ Involuntary Disengagement	0.19	0.08	0.16*	.41	.41**
Step2	Constant	0.05	0.21			
	RSQ Primary Control Coping	-0.06	0.05	-0.04		
	RSQ Secondary Control Coping	-0.17	0.04	-0.17**		
	RSQ Disengagement Coping	0.34	0.07	0.23**		
	RSQ Involuntary Engagement	0.12	0.05	0.15*		
	RSQ Involuntary Disengagement	0.19	0.08	0.17*		
	ARBD Avoidant Responses	0.1	0.05	0.1*		
	ARBD Distraction/ Cognitive Restructuring	0.08	0.05	0.08		
	ARBD Focus on Weight Loss	0.08	0.09	0.03		
	ARBD Self-Affirmation	-0.17	0.04	-0.17**		
	ARBD Lifestyle Strategies	-0.2	0.06	-0.12*		
	ARBD Social Comparison	-0.15	0.08	-0.07*		
	ARBD Self-Presentation & Appearance Efforts	0.02	0.07	0.01	.45	.04**

Note: * $p < .05$, ** $p < .01$

Table 10

Hierarchical Regression Examining Incremental Predictive Utility of ARBD over RSQ on EDDS Composite

		B	Std. Error	β	R^2	ΔR^2
Step 1	Constant	0.04	0.32			
	RSQ Primary Control Coping	0.19	0.08	0.09*		
	RSQ Secondary Control Coping	-0.18	0.06	-0.13**		
	RSQ Disengagement Coping	0.5	0.1	0.22**		
	RSQ Involuntary Engagement	0.46	0.08	0.39**		
	RSQ Involuntary Disengagement	0.07	0.12	0.04	.39	.39**
Step 2	Constant	-0.01	0.27			
	RSQ Primary Control Coping	0.1	0.07	0.05		
	RSQ Secondary Control Coping	0.04	0.06	0.03		
	RSQ Disengagement Coping	0.23	0.09	0.11*		
	RSQ Involuntary Engagement	0.23	0.07	0.19**		
	RSQ Involuntary Disengagement	0.17	0.1	0.1		
	ARBD Avoidant Responses	0.15	0.06	0.1*		
	ARBD Distraction/ Cognitive Restructuring	-0.11	0.06	-0.07		
	ARBD Focus on Weight Loss	1.17	0.12	0.33**		
	ARBD Self-Affirmation	-0.14	0.06	-0.1*		
	ARBD Lifestyle Strategies	0.14	0.08	0.06		
	ARBD Social Comparison	0.07	0.1	0.02		
	ARBD Self-Presentation & Appearance Efforts	0.06	0.1	0.02	.57	.17**

Note: * $p < .05$, ** $p < .01$

Table 11

Hierarchical Regression Examining Incremental Predictive Utility of ARBD over BICSI on CDI Total

		B	Std. Error	β	R^2	ΔR^2
Step 1	Constant	0.01	0.24			
	BICSI Appearance Fixing	0.36	0.04	0.34**		
	BICSI Avoidance	0.61	0.06	0.34**		
	BICSI Rational Acceptance	-0.28	0.04	-0.24**	.29	.29**
Step 2	Constant	0.05	0.22			
	BICSI Appearance Fixing	0.14	0.05	0.14		
	BICSI Avoidance	0.40	0.07	0.22**		
	BICSI Rational Acceptance	-0.04	0.05	-0.04		
	ARBD Avoidant Responses	0.27	0.05	0.28**		
	ARBD Distraction/ Cognitive Restructuring	0.01	0.05	0.01		
	ARBD Focus on Weight Loss	0.08	0.09	0.03		
	ARBD Self-Affirmation	-0.20	0.05	-0.20**		
	ARBD Lifestyle Strategies	-0.23	0.06	-0.13**		
	ARBD Social Comparison	-0.13	0.08	-0.06		
ARBD Self-Presentation & Appearance Efforts	-0.06	0.08	-0.03	.39	.10**	

Note: * $p < .05$, ** $p < .01$

Table 12

Hierarchical Regression Examining Incremental Predictive Utility of ARBD over BICSI on EDDS Composite

	B	Std. Error	β	R^2	ΔR^2
Step 1					
Constant	0.1	0.32			
BICSI Appearance Fixing	0.85	0.05	0.55**		
BICSI Avoidance	0.62	0.09	0.23**		
BICSI Rational Acceptance	-0.22	0.06	-0.13**	.41	.41**
Step 2					
Constant	0.1	0.27			
BICSI Appearance Fixing	0.52	0.07	0.34**		
BICSI Avoidance	0.49	0.08	0.18**		
BICSI Rational Acceptance	-0.02	0.06	-0.01		
ARBD Avoidant Responses	0.28	0.06	0.19**		
ARBD Distraction/ Cognitive Restructuring	-0.07	0.06	-0.04		
ARBD Focus on Weight Loss	1.23	0.11	0.35**		
ARBD Self-Affirmation	0.02	0.06	0.02		
ARBD Lifestyle Strategies	0.1	0.08	0.04		
ARBD Social Comparison	-0.08	0.1	-0.03		
ARBD Self-Presentation & Appearance Efforts	-0.13	0.1	-0.05	.58	.16**

Note: * $p < .05$, ** $p < .01$

Table 13

Results from Hierarchical Regressions Testing ARBD Factors as Moderators of Relation between Measured Body Dissatisfaction (SABD) and CDI Total

Effect	B	Std. Error	β	R^2	ΔR^2
(Constant)	8.36	0.23			
SABD	0.50	0.14	0.13*		
ARBD Avoidant Responses	0.47	0.03	0.47*		
SABD x ARBD Avoidant Responses	0.00	0.01	0.00	.27	.00
(Constant)	8.37	0.26			
SABD	0.84	0.14	0.22*		
ARBD Distraction/ Cognitive Restructuring	-0.13	0.04	-0.12*		
SABD x ARBD Distraction/ Cognitive Restructuring	-0.04	0.02	-0.09*	.09	.01*
(Constant)	7.77	0.28			
SABD	0.54	0.16	0.14*		
ARBD Focus on Weight Loss	0.38	0.1	0.16*		
SABD x ARBD Focus on Weight Loss	0.17	0.04	0.16*	.10	.03*
(Constant)	8.23	0.24			
SABD	0.39	0.15	0.10*		
ARBD Self-Affirmation	-0.41	0.03	-0.41**		
SABD x ARBD Self-Affirmation	-0.03	0.02	-0.07	.23	.00
(Constant)	8.37	0.26			
SABD	1.02	0.14	0.26*		
ARBD Lifestyle Strategies	-0.04	0.06	-0.02		
SABD x ARBD Lifestyle Strategies	0.01	0.03	0.01	.07	.000
(Constant)	8.38	0.25			
SABD	0.89	0.14	0.23*		
ARBD Social Comparison	-0.04	0.07	-0.02		
SABD x ARBD Social Comparison	-0.09	0.03	-0.10*	.27	.01*
(Constant)	8.40	0.25			
SABD	0.98	0.13	0.25**		
ARBD Self- Presentation & Appearance Efforts	0.32	0.07	0.17**		
SABD x ARBD Self- Presentation & Appearance Efforts	-0.04	0.03	-0.04	.10	.00

Note: To control for family-wise error, we corrected alpha ($\alpha = .05/7 = .007$).

* $p < .007$

Table 14

Results from Hierarchical Regressions Testing ARBD Factors as Moderators of Relation between Measured Body Dissatisfaction (SABD) and EDDS Composite

Effect	B	Std. Error	β	R^2	ΔR^2
(Constant)	12.32	0.31			
SABD	1.96	0.18	0.34		
ARBD Avoidant Responses	0.7	0.04	0.47		
SABD x ARBD Avoidant Responses	0.03	0.02	0.05	.45	.00
(Constant)	1.42	0.35			
SABD	2.95	0.19	0.51*		
ARBD Distraction/ Cognitive Restructuring	0.01	0.05	0.01		
SABD x ARBD Distraction/ Cognitive Restructuring	0.03	0.02	0.05	.25	.00
(Constant)	10.89	0.34			
SABD	1.12	0.2	0.19*		
ARBD Focus on Weight Loss	1.57	0.12	0.44*		
SABD x ARBD Focus on Weight Loss	0.44	0.04	0.28*	.42	.07*
(Constant)	12.18	0.33			
SABD	2.04	0.2	0.35*		
ARBD Self-Affirmation	-0.51	0.05	-0.34*		
SABD x ARBD Self-Affirmation	-0.04	0.02	-0.06	.35	.00
(Constant)	12.08	0.34			
SABD	2.6	0.18	0.44*		
ARBD Lifestyle Strategies	0.61	0.08	0.24*		
SABD x ARBD Lifestyle Strategies	0.21	0.04	0.16*	.31	.03*
(Constant)	12.35	0.34			
SABD	2.93	0.19	0.50*		
ARBD Social Comparison	0.41	0.1	0.13*		
SABD x ARBD Social Comparison	0.11	0.05	0.08	.25	.01
(Constant)	12.18	0.32			
SABD	2.75	0.17	0.48*		
ARBD Self- Presentation and Appearance Efforts	0.91	0.09	0.31*		
SABD x ARBD Self- Presentation and Appearance Efforts	0.13	0.04	0.09*	.35	.02*

Note: To control for family-wise error, we corrected alpha ($\alpha = .05/7 = .007$).

* $p < .007$

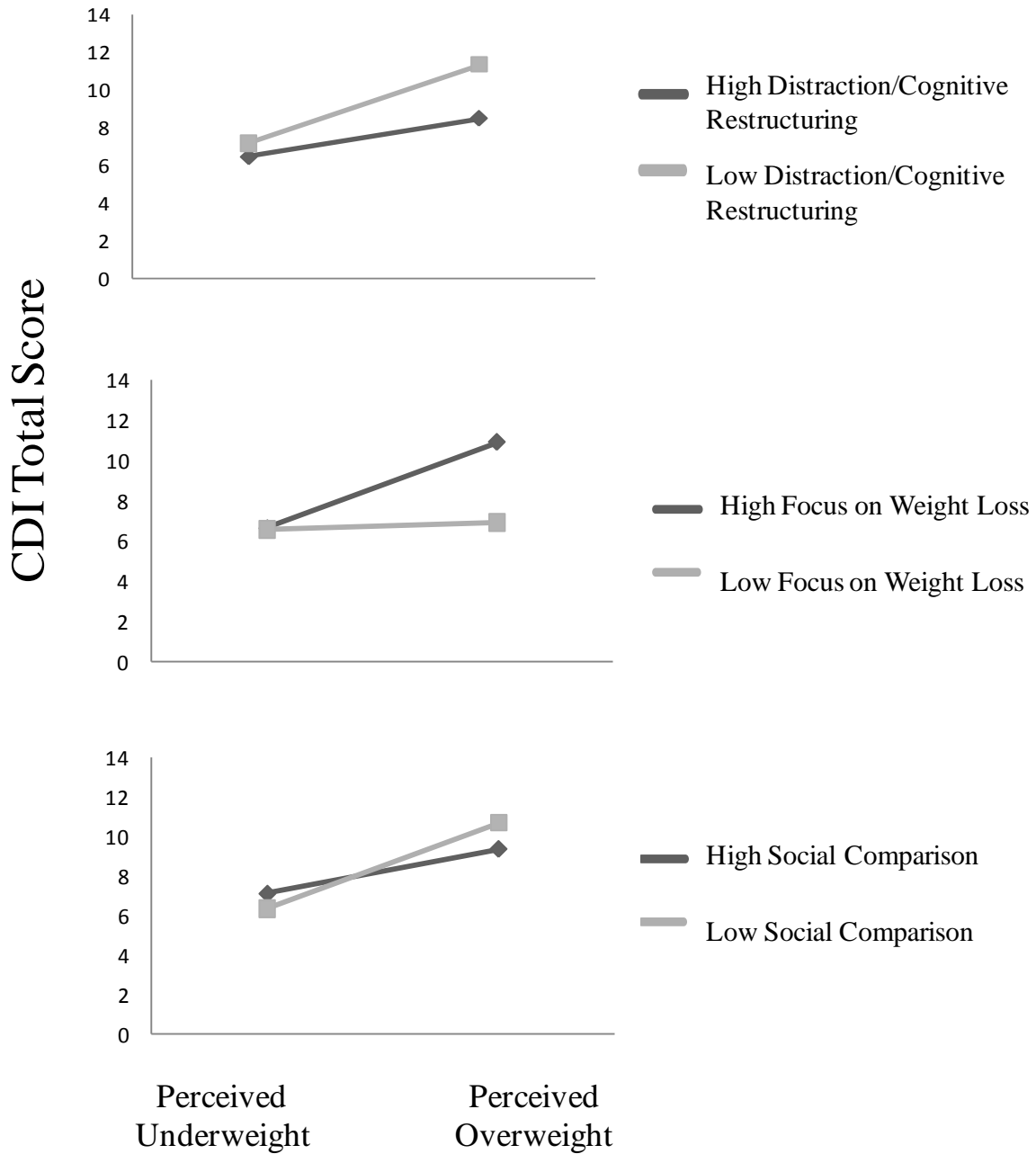


Figure 1.

Note: High ARBD Factor corresponds to 1 SD above the factor *M*; Low ARBD Factor corresponds to 1 SD below the factor *M*.

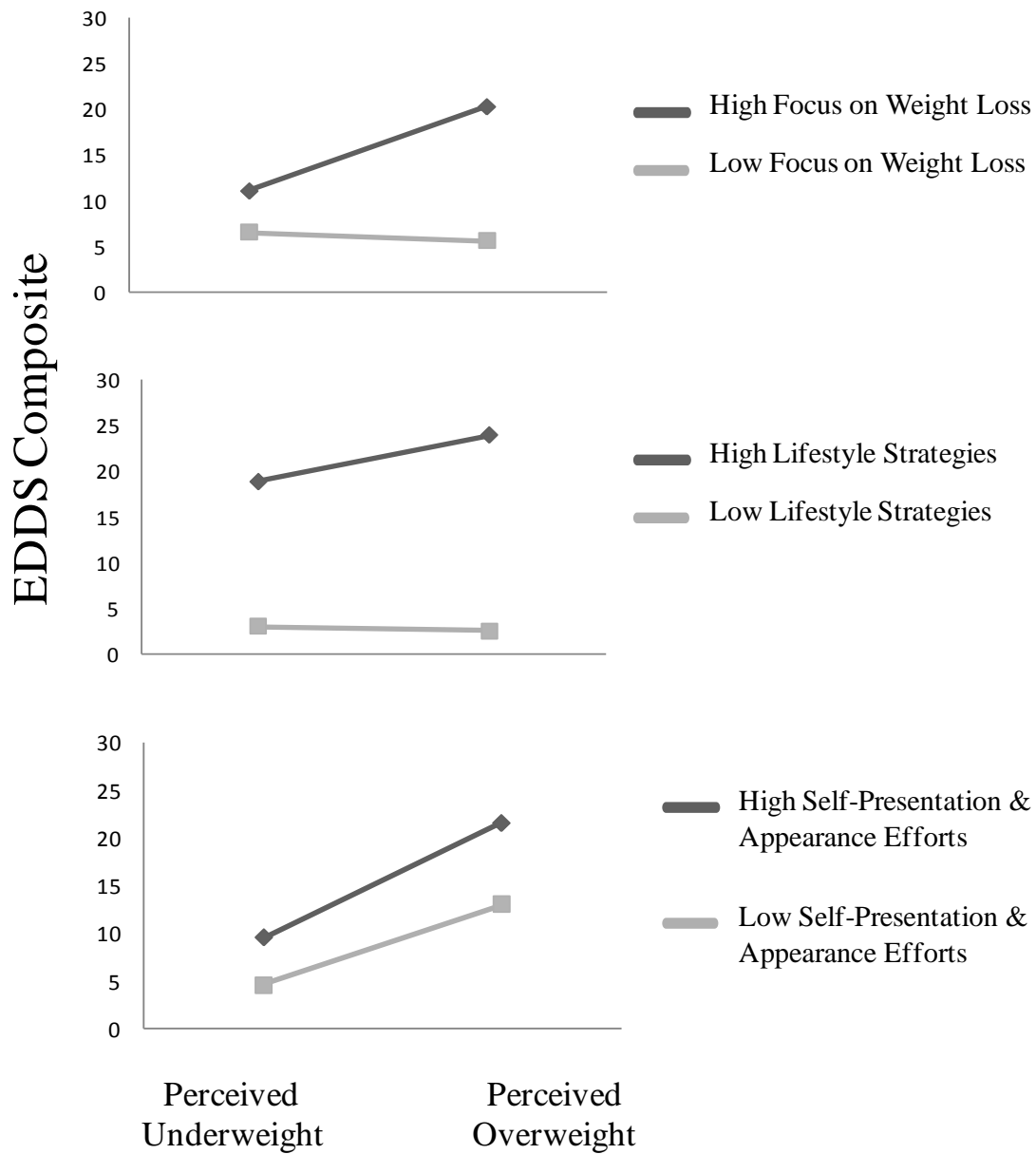


Figure 2.

Note: High ARBD Factor corresponds to 1 SD above the factor *M*; Low ARBD Factor corresponds to 1 SD below the factor *M*.

Aim 6: Three-way Interaction for BMI, Body Dissatisfaction, and ARBD Factors in the Prediction of Depressive Symptoms and Eating Pathology

Additionally, we examined whether BMI further moderated the body dissatisfaction by ARBD factor interactions. As shown in Table 15, four three-way interactions (BMI x ARBD factor x SABD) were significant in the prediction of CDI scores. As shown in Figure 3, three ARBD factors were more strongly related to depressive symptoms for adolescents with low BMI than for adolescents with high BMI. For low BMI participants, SABD scores were generally more strongly related to the CDI for participants who reported more Avoidant Responses, greater Focus on Weight Loss, greater focus on Lifestyle Changes, and made more Self-Presentation and Appearance Efforts. For high BMI participants, however, only main effects emerged for SABD, Focus on Weight Loss, and Avoidant Responses. (See Tables 15, 16, and 17).

We next examined whether BMI moderated the interaction of body dissatisfaction with ARBD factor in predicting the EDDS. As shown in Table 18, BMI significantly moderated four ARBD factor x SABD interactions. As shown in Figure 4, the interaction of SABD with Avoidant Responses, Focus on Weight Loss, Lifestyle Strategies, and Self-Presentation and Appearance Efforts was stronger for low BMI than high BMI participants. For high BMI participants, main effects for SABD and all four ARBD factors were significant ($ps < .0125$). (See Tables 18, 19, and 20).

Table 15

Testing Moderation by BMI of SABD x ARBD Factor Interaction on CDI

Effect	B	Std. Error	β	R ²	ΔR^2
(Constant)	8.08	0.26			
Avoidant Responses	0.50	0.03	0.50*		
SABD	0.57	0.17	0.15*		
BMI	-0.09	0.06	-0.07		
SABD x Avoidant Responses	0.03	0.02	0.07		
SABD x BMI	0.06	0.02	0.12*		
BMI x Avoidant Responses	0.00	0.01	-0.01		
BMI x Avoidant Responses x SABD	-0.01	0.00	-0.16*	.29	.01*
(Constant)	8.24	0.29			
Distraction/Cognitive Restructuring	-0.10	0.04	-0.09*		
SABD	0.84	0.18	0.22*		
BMI	-0.05	0.06	-0.04		
SABD x Distraction/Cognitive Restructuring	-0.02	0.02	-0.05		
SABD x BMI	0.03	0.02	0.06		
BMI x Distraction/Cognitive Restructuring	0.00	0.01	-0.01		
BMI x Distraction/Cognitive Restructuring x SABD	-0.01	0.00	-0.08	.10	.00
(Constant)	7.48	0.28			
Focus on Weight Loss	0.56	0.11	0.24*		
SABD	0.93	0.20	0.24*		
BMI	-0.06	0.06	-0.05		
SABD x Focus on Weight Loss	0.19	0.05	0.18*		
SABD x BMI	0.09	0.03	0.18*		
BMI x Focus on Weight Loss	-0.02	0.02	-0.06		
BMI x Focus on Weight Loss x SABD	-0.03	0.01	-0.31*	.15	.04*
(Constant)	8.07	0.27			
Self-Affirmation	-0.4	0.04	-0.40*		
SABD	0.36	0.18	0.09		
BMI	-0.02	0.06	-0.01		
SABD x Self-Affirmation	-0.04	0.02	-0.10		
SABD x BMI	0.03	0.02	0.06		

BMI x Self-Affirmation	0.01	0.01	0.05		
BMI x Self-Affirmation x SABD	0.00	0.00	0.01	.23	.00
(Constant)	8.04	0.28			
Lifestyle Strategies	0.07	0.07	0.04		
SABD	1.1	0.17	0.28*		
BMI	-0.1	0.06	-0.07		
SABD x Lifestyle Strategies	0.09	0.04	0.11		
SABD x BMI	0.04	0.02	0.07		
BMI x Lifestyle Strategies	-0.02	0.01	-0.07		
BMI x Lifestyle Strategies x SABD	-0.02	0.01	-0.17*	.10	.02*
(Constant)	8.17	0.28			
Social Comparison	0.05	0.08	0.02		
SABD	0.92	0.17	0.24*		
BMI	-0.08	0.06	-0.06		
SABD x Social Comparison	-0.06	0.04	-0.06		
SABD x BMI	0.03	0.02	0.06		
BMI x Social Comparison	0.01	0.02	0.04		
BMI x Social Comparison x SABD	-0.01	0.00	-0.10	.08	.01
(Constant)	8.10	0.28			
Self-Presentation & Appearance Efforts	0.41	0.07	0.21*		
SABD	0.94	0.17	0.24*		
BMI	-0.08	0.06	-0.06		
SABD x Self-Presentation & Appearance Efforts	0.02	0.04	0.02		
SABD x BMI	0.05	0.02	0.10		
BMI x Self-Presentation & Appearance Efforts	0.00	0.02	-0.01		
BMI x Self-Presentation & Appearance Efforts x SABD	-0.01	0.00	-0.13*	.11	.01*

Note: To control for family-wise error, we corrected alpha ($\alpha = .05/7 = .007$).

* $p < .007$

Table 16

*Follow-up to Significant Three-Way Interaction of BMI x SABD x ARBD Factors on CDI Total:
Centered at High BMI (i.e., one standard deviation above the mean)*

Effect	B	Std. Error	β
(Constant)	7.59	0.42	
Avoidant Responses	0.49	0.05	0.49*
SABD	0.9	0.2	0.23*
BMI	-0.09	0.06	-0.07
SABD x Avoidant Responses	0.00	0.02	-0.01
SABD x BMI	0.00	0.01	-0.01
BMI x Avoidant Responses	0.06	0.02	0.12*
BMI x Avoidant Responses x SABD	-0.01	0	-0.13*
(Constant)	7.14	0.45	
Focus on Weight Loss	0.43	0.17	0.18*
SABD	1.43	0.22	0.37*
BMI	-0.06	0.06	-0.05
SABD x Focus on Weight Loss	0.01	0.06	0.01
SABD x BMI	-0.02	0.02	-0.08
BMI x Focus on Weight Loss	0.09	0.03	0.18*
BMI x Focus on Weight Loss x SABD	-0.03	0.01	-0.31*
(Constant)	7.5	0.47	
Lifestyle Strategies	-0.05	0.11	-0.03
SABD	1.29	0.19	0.33*
BMI	-0.1	0.06	-0.07
SABD x Lifestyle Strategies	0.00	0.04	0.00
SABD x BMI	-0.02	0.01	-0.10
BMI x Lifestyle Strategies	0.04	0.02	0.07
BMI x Lifestyle Strategies x SABD	-0.02	0.01	-0.16*
(Constant)	7.7	0.44	
Self-Presentation & Appearance Efforts	0.4	0.11	0.20
SABD	1.21	0.18	0.31*
BMI	-0.08	0.06	-0.06
SABD x Self-Presentation & Appearance Efforts	-0.06	0.04	-0.06
SABD x BMI	0.00	0.02	-0.01
BMI x Self-Presentation & Appearance Efforts	0.05	0.02	0.10*
BMI x Self-Presentation & Appearance Efforts x SABD	-0.01	0.00	-0.12*

Note: To control for multiple comparisons above, we corrected alpha ($\alpha = .05/4 = .0125$). * $p < .0125$

Table 17

*Follow-up to Significant Three-Way Interaction of BMI x SABD x ARBD Factors on CDI Total:
Centered at Low BMI (i.e., one standard deviation below the mean)*

Effect	B	Std. Error	β
(Constant)	8.57	0.38	
Avoidant Responses	0.51	0.05	0.51*
SABD	0.23	0.21	0.06
BMI	-0.09	0.06	-0.07
SABD x Avoidant Responses	0.06	0.02	0.15*
SABD x BMI	0.00	0.01	-0.02
BMI x Avoidant Responses	0.06	0.02	0.17*
BMI x Avoidant Responses x SABD	-0.01	0.00	-0.22*
(Constant)	7.83	0.41	
Focus on Weight Loss	0.69	0.15	0.29*
SABD	0.44	0.26	0.11*
BMI	-0.06	0.06	-0.05
SABD x Focus on Weight Loss	0.38	0.05	0.35*
SABD x BMI	-0.02	0.02	-0.08
BMI x Focus on Weight Loss	0.09	0.03	0.26*
BMI x Focus on Weight Loss x SABD	-0.03	0.01	-0.39*
(Constant)	8.59	0.42	
Lifestyle Strategies	0.18	0.09	0.11
SABD	0.91	0.22	0.23*
BMI	-0.1	0.06	-0.07
SABD x Lifestyle Strategies	0.19	0.05	0.22*
SABD x BMI	-0.02	0.01	-0.09
BMI x Lifestyle Strategies	0.04	0.02	0.10
BMI x Lifestyle Strategies x SABD	-0.02	0.01	-0.24*
(Constant)	8.51	0.40	
Self-Presentation & Appearance Efforts	0.43	0.10	0.22*
SABD	0.67	0.21	0.17*
BMI	-0.08	0.06	-0.06
SABD x Self-Presentation & Appearance Efforts	0.09	0.06	0.09
SABD x BMI	0.00	0.02	-0.01
BMI x Self-Presentation & Appearance Efforts	0.05	0.02	0.14*
BMI x Self-Presentation & Appearance Efforts x SABD	-0.01	0.00	-0.18*

Note: To control for multiple comparisons above, we corrected alpha ($\alpha = .05/4 = .0125$). * $p < .0125$

Table 18

Testing Moderation by BMI of SABD x ARBD Interaction on EDDS Composite

Effect	B	Std. Error	β	R^2	ΔR^2
(Constant)	12.13	0.34			
Avoidant Responses	0.74	0.04	0.50*		
SABD	1.7	0.22	0.29*		
BMI	0.12	0.08	0.06		
SABD x Avoidant Responses	0.08	0.02	0.13*		
SABD x BMI	0.03	0.03	0.03		
BMI x Avoidant Responses	0.00	0.01	0.00		
BMI x Avoidant Responses x SABD	-0.01	0.00	-0.14*	.46	.01*
(Constant)	12.09	0.39			
Distraction/Cognitive Restructuring	-0.01	0.06	-0.01		
SABD	2.69	0.25	0.46*		
BMI	0.05	0.09	0.03		
SABD x Distraction/Cognitive Restructuring	0.02	0.03	0.03		
SABD x BMI	0.05	0.03	0.07		
BMI x Distraction/Cognitive Restructuring	0.01	0.01	0.03		
BMI x Distraction/Cognitive Restructuring x SABD	0.00	0.00	0.05	.24	.00
(Constant)	10.6	0.35			
Focus on Weight Loss	1.7	0.13	0.47*		
SABD	1.58	0.24	0.27*		
BMI	0.05	0.07	0.03		
SABD x Focus on Weight Loss	0.46	0.06	0.28*		
SABD x BMI	0.00	0.03	0.00		
BMI x Focus on Weight Loss	0.05	0.03	0.07		
BMI x Focus on Weight Loss x SABD	-0.03	0.01	-0.21*	.43	.02*
(Constant)	12.04	0.37			
Self-Affirmation	-0.57	0.05	-0.38*		
SABD	1.61	0.25	0.28*		
BMI	0.23	0.08	0.11		
SABD x Self-Affirmation	-0.06	0.03	-0.09		
SABD x BMI	0.03	0.03	0.04		
BMI x Self-Affirmation	-0.01	0.01	-0.05		
BMI x Self-Affirmation x SABD	0.01	0.00	0.12	.35	.01
(Constant)	11.73	0.37			

Lifestyle Strategies	0.72	0.09	0.28*		
SABD	2.3	0.23	0.39*		
BMI	0.14	0.08	0.07		
SABD x Lifestyle Strategies	0.3	0.05	0.23		
SABD x BMI	0.03	0.03	0.04		
BMI x Lifestyle Strategies	-0.02	0.02	-0.03		
BMI x Lifestyle Strategies x SABD	-0.02	0.01	-0.12*	.31	.01*
<hr/>					
(Constant)	12.01	0.38			
Social Comparison	0.49	0.11	0.16*		
SABD	2.69	0.24	0.45*		
BMI	0.03	0.08	0.02		
SABD x Social Comparison	0.16	0.06	0.11		
SABD x BMI	0.04	0.03	0.06		
BMI x Social Comparison	0.01	0.02	0.02		
BMI x Social Comparison x SABD	-0.01	0.01	-0.06	.26	.00
<hr/>					
(Constant)	12.07	0.35			
Self-Presentation & Appearance Efforts	1.04	0.09	0.35*		
SABD	2.37	0.21	0.41*		
BMI	0.17	0.07	0.09		
SABD x Self-Presentation & Appearance Efforts	0.22	0.06	0.15*		
SABD x BMI	0.03	0.02	0.04		
BMI x Self-Presentation & Appearance Efforts	-0.01	0.02	-0.02		
BMI x Self-Presentation & Appearance Efforts x SABD	-0.02	0.01	-0.10*	.26	.01*

Note: To control for family-wise error, we corrected alpha ($\alpha = .05/7 = .007$).

* $p < .007$

Table 19

Follow-up to Significant Three-Way Interaction of BMI x SABD x ARBD Factors on EDDS Composite: Centered at High BMI (i.e., one standard deviation above the mean)

Effect	B	Std. Error	β
(Constant)	12.8	0.56	
Avoidant Responses	0.75	0.07	0.50*
SABD	1.84	0.26	0.31*
BMI	0.12	0.08	0.06
SABD x Avoidant Responses	0.04	0.02	0.06
SABD x BMI	0.00	0.01	0.01
BMI x Avoidant Responses	0.03	0.03	0.03
BMI x Avoidant Responses x SABD	-0.01	0.00	-0.12*
(Constant)	10.88	0.55	
Focus on Weight Loss	1.97	0.21	0.55*
SABD	1.57	0.27	0.27*
BMI	0.05	0.07	0.03
SABD x Focus on Weight Loss	0.27	0.07	0.17*
SABD x BMI	0.05	0.03	0.11
BMI x Focus on Weight Loss	0.00	0.03	0.00
BMI x Focus on Weight Loss x SABD	-0.03	0.01	-0.21*
(Constant)	12.47	0.62	
Lifestyle Strategies	0.63	0.15	0.25*
SABD	2.46	0.25	0.42*
BMI	0.14	0.08	0.07
SABD x Lifestyle Strategies	0.2	0.05	0.15*
SABD x BMI	-0.02	0.02	-0.05
BMI x Lifestyle Strategies	0.03	0.03	0.04
BMI x Lifestyle Strategies x SABD	-0.02	0.01	-0.11*
(Constant)	13.00	0.56	
Self-Presentation & Appearance Efforts	1.00	0.14	0.34*
SABD	2.54	0.23	0.44*
BMI	0.17	0.07	0.09
SABD x Self-Presentation & Appearance Efforts	0.13	0.06	0.09
SABD x BMI	-0.01	0.02	-0.02
BMI x Self-Presentation & Appearance Efforts	0.03	0.02	0.04
BMI x Self-Presentation & Appearance Efforts x SABD	-0.02	0.01	-0.09*

Note: To control for multiple comparisons above, we corrected alpha ($\alpha = .05/4 = .0125$). * $p < .0125$

Table 20

Follow-up to Significant Three-Way Interaction of BMI x SABD x ARBD Factors on EDDS Composite: Centered at Low BMI (i.e., one standard deviation below the mean)

Effect	B	Std. Error	β
(Constant)	11.47	0.51	
Avoidant Responses	0.74	0.06	0.49*
SABD	1.56	0.27	0.27*
BMI	0.12	0.08	0.06
SABD x Avoidant Responses	0.12	0.03	0.20*
SABD x BMI	0.00	0.01	0.01
BMI x Avoidant Responses	0.03	0.03	0.05
BMI x Avoidant Responses x SABD	-0.01	0.00	-0.19*
(Constant)	10.32	0.51	
Focus on Weight Loss	1.43	0.18	0.40*
SABD	1.59	0.32	0.27*
BMI	0.05	0.07	0.03
SABD x Focus on Weight Loss	0.65	0.07	0.40*
SABD x BMI	0.05	0.03	0.10
BMI x Focus on Weight Loss	0.00	0.03	0.00
BMI x Focus on Weight Loss x SABD	-0.03	0.01	-0.27*
(Constant)	10.99	0.55	
Lifestyle Strategies	0.81	0.13	0.32*
SABD	2.13	0.29	0.36*
BMI	0.14	0.08	0.07
SABD x Lifestyle Strategies	0.40	0.07	0.31*
SABD x BMI	-0.02	0.02	-0.05
BMI x Lifestyle Strategies	0.03	0.03	0.06
BMI x Lifestyle Strategies x SABD	-0.02	0.01	-0.17*
(Constant)	11.15	0.51	
Self-Presentation & Appearance Efforts	1.08	0.13	0.37*
SABD	2.19	0.27	0.38*
BMI	0.17	0.07	0.09
SABD x Self-Presentation & Appearance Efforts	0.31	0.07	0.21*
SABD x BMI	-0.01	0.02	-0.02
BMI x Self-Presentation & Appearance Efforts	0.03	0.02	0.06
BMI x Self-Presentation & Appearance Efforts x SABD	-0.02	0.01	-0.14*

Note: To control for multiple comparisons above, we corrected alpha ($\alpha = .05/4 = .0125$). * $p < .0125$

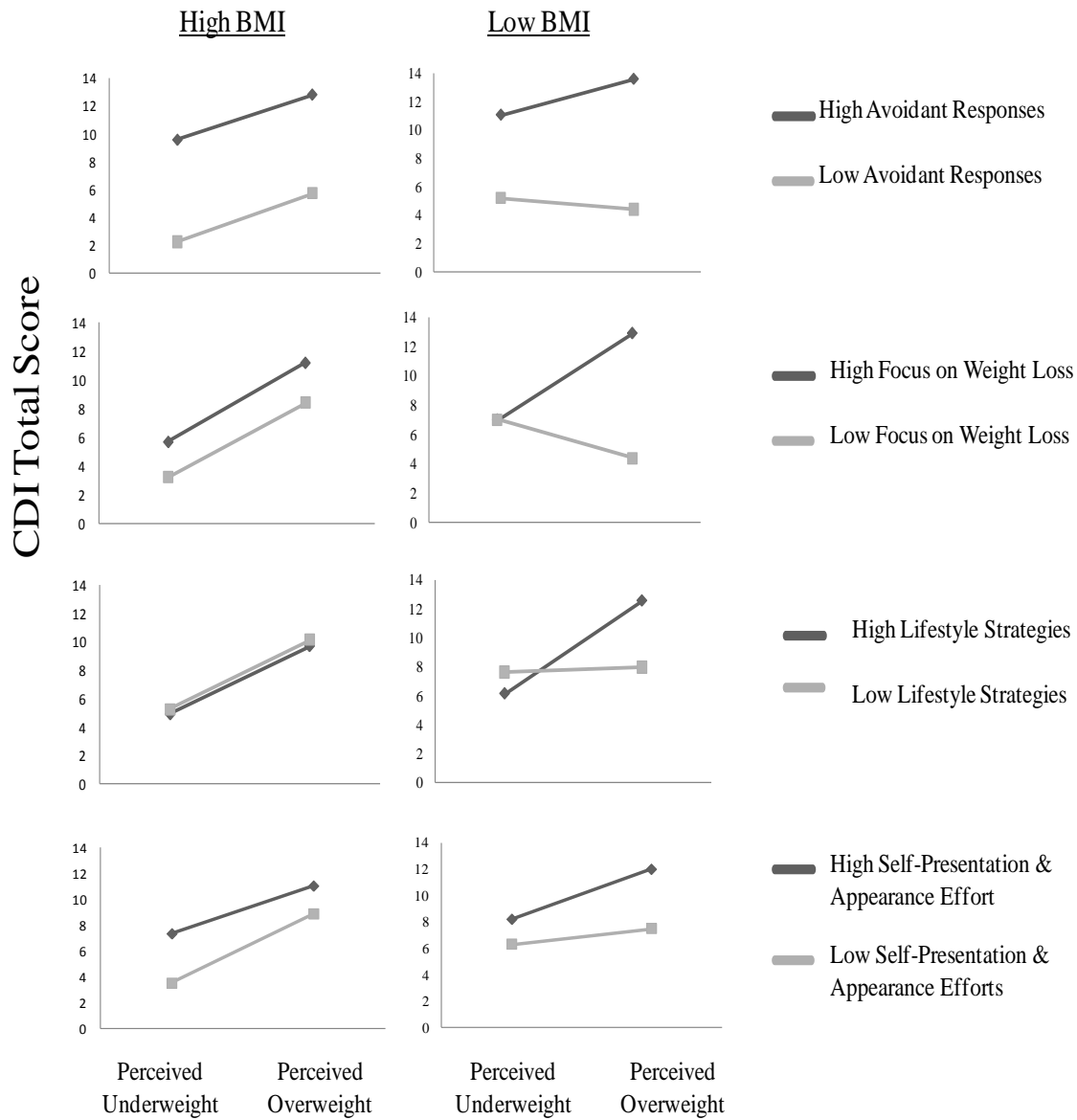


Figure 3.

Note: High ARBD Factor corresponds to 1 SD above the factor *M*; Low ARBD Factor corresponds to 1 SD below the factor *M*.

EDDS Composite

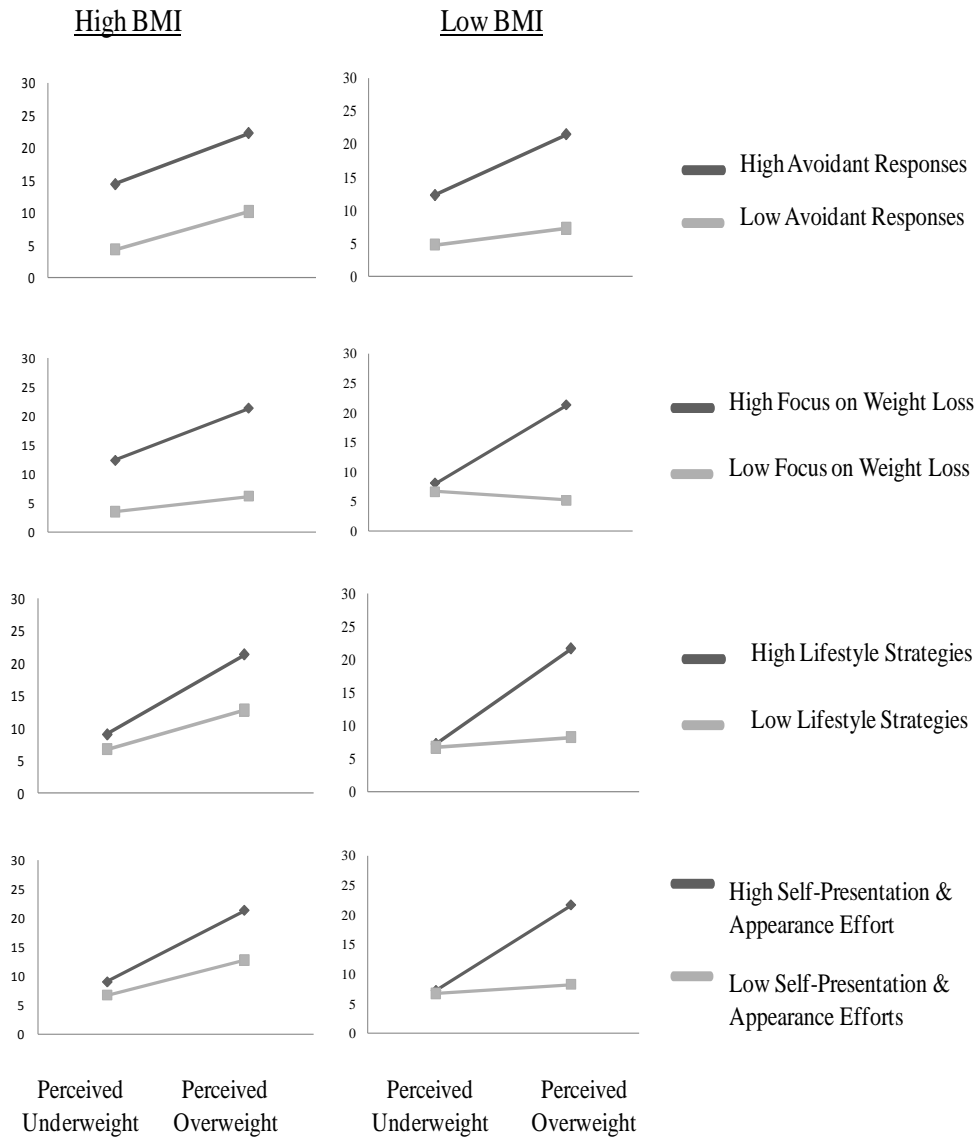


Figure 4.

Note: High ARBD Factor corresponds to 1 SD above the factor *M*; Low ARBD Factor corresponds to 1 SD below the factor *M*.

CHAPTER IV

DISCUSSION

Six major findings emerged from this study. First, a seven-factor structure emerged for the ARBD. Although there was evidence for some convergence of ARBD factors with other measures of coping, the factor-structure did not closely parallel either instrument and appeared to capture something distinctive. Second, mean sex differences (but not age differences) emerged on several of the ARBD factors, with females endorsing higher levels of all these factors than males -- a finding that is consistent with findings in the broader adolescent stress and coping literature (Connor-Smith et al., 2000; Silk Sternberg, & Morris, 2003). Third, we found significant ethnic differences on four ARBD factors, with Hispanics endorsing more Avoidant Responses, Caucasians endorsing more Focus on Weight Loss and Lifestyle Strategies, and African Americans endorsing more Self-Affirmation. Fourth, evidence of incremental validity emerged in that the ARBD factors correlated with self-reported depression and eating disorder symptoms over-and-above other measures of coping. Fifth, several of the ARBD factors moderated the relation of body dissatisfaction with depression and/or eating disorder symptoms. And sixth, BMI further moderated the effects of body dissatisfaction and the ARBD factors underscoring the distinction between objective and perceived body size. We will elaborate on each of these findings below.

Our first major finding pertained to the emergent factor structure of the ARBD, which demonstrated moderate convergence with other measures of coping, yet had a unique factor structure that seemed to assess different aspects of body dissatisfaction responses. Seven factors

emerged from the ARBD: Avoidant Responses, Distraction/Cognitive Restructuring, Focus on Weight Loss, Self-Affirmation, Lifestyle Strategies, and Self-Presentation and Appearance Efforts. These factors demonstrated a small to medium degree of overlap with scales on the RSQ and BICSI. This modest convergence may be due, at least in part, to the fact the ARBD was created through an inductive, bottom-up approach driven by data, whereas both the RSQ and BICSI were developed with deductive top-down approaches guided by theory. Both approaches have unique advantages. Deductive approaches provide greater control over content delineation in final scales and assure strong theoretical relevance (Hinkin, 1998; Skinner, Edge, Altman, & Sherwood, 2003). Deductive approaches also facilitate the inclusion of entire classes of items that participants might not be sufficiently aware of to spontaneously generate themselves; key examples in the dual-process model include involuntary responses that may occur outside conscious awareness. Nonetheless, deductive approaches can miss entire classes of items if the underlying theoretical foundation is not comprehensive. Thus, inductive approaches may reveal classes of items that fall between the theoretical cracks. As such, inductive strategies have the potential to reveal gaps in theory. Though each strategy has distinct advantages, comparative studies of inductive and deductive measures have indicated that neither has consistent superiority over the other in terms of validity or predictive utility (Burisch, 1984). Additionally, using inductive and deductive measures in concert may provide a wider picture of a phenomenon. Indeed, researchers have argued that both inductive bottom-up and deductive top-down approaches are necessary to adequately assess the structure of a construct such as coping (Skinner et al., 2003). Thus, our recommendation is that the two approaches are inherently complementary and best carried out iteratively, enabling theory and empirical data to inform and enrich each other.

Our second major finding was that sex differences, but no age differences, emerged on several ARBD factors. Females reported greater use of Avoidant Responses, Distraction/Cognitive Restructuring, Focus on Weight Loss, Social Comparison, and Self-Presentation and Appearance Efforts than did males. (All of these differences remained significant even after controlling for the effects of BMI.) This is consistent with broader stress and coping research among adolescents, which has found that girls tend to report higher mean levels of a variety of coping efforts and involuntary responses in the face of stress (e.g., Connor-Smith et al., 2000; Silk, Sternberg, & Morris, 2003). Additionally, a number of studies have suggested that adolescent females have a higher mean rate of body dissatisfaction than do adolescent males (e.g., Allgood-Merten et al., 1990; Holsen, Kraft, & Roysamb, 2001; Wichstrom, 1999), a pattern also seen in our sample. Thus, the greater coping efforts by females reflected in the sex differences on ARBD factors may be a reflection of their greater concern about body dissatisfaction.

Our third major finding provided preliminary evidence of ethnic differences in responses to body dissatisfaction. Ethnicity had significant effects on four ARBD factors as well as body dissatisfaction itself. In line with previous research (e.g., Altabe, 1998), Caucasian participants endorsed higher rates of body dissatisfaction than did African-American adolescents. We also found ethnic differences in responses to body image concerns. African-American participants endorsed higher rates of Self-Affirmation in response to body dissatisfaction than either Caucasian or Hispanic participants. A more novel finding from this project is that Hispanic adolescents endorsed significantly higher levels of Avoidant Responses than did Caucasian, African-American, or biracial adolescents. Although the literature has begun to investigate the effects of culture and ethnicity on body ideals and body dissatisfaction, many myths persist.

Among these is the idea that body dissatisfaction and related distress is primarily a Caucasian problem and that other groups are relatively impervious. Our results suggest that other ethnic groups have significant body dissatisfaction and evince different responses to this, some of which may be counterproductive. Given the fact that Avoidant Responses significantly contributed to the incremental predictive utility of the ARBD in the prediction of our depression and eating disorder measures, these results suggest that Hispanic adolescents may be at particular risk for depression and eating disorders. Indeed, population-based studies with adolescents have found that the frequency of dieting, use of laxatives, and binge eating is highest among Latinas (Croll, Neumark-Sztainer, Story, & Ireland, 2002; Story, Resnick, & Blum, 1995). Though the finding with the ARBD Avoidant Responses is preliminary, it warrants follow-up because of potential clinical implications.

Our fourth major finding was that the ARBD factors demonstrated significant incremental validity (relative to two extant coping measures) in the prediction of depression and eating disorder symptoms. The ARBD demonstrated incremental predictive utility over the RSQ and BICSI in the prediction of depressive and eating disorder symptoms. Part of our interest in creating the ARBD was to obtain preliminary evidence about which responses to body dissatisfaction appear to be adaptive, and which may actually put individuals at greater or lesser risk for depression and eating pathology. Overall, findings suggest that ARBD Avoidant Responses are associated with increased risk for depressive symptoms, whereas ARBD Self-Affirmation, Lifestyle Strategies, and Social Comparison are associated with reduced risk; in turn, ARBD Avoidant Responses and Focus on Weight Loss are tied to higher rates of eating pathology, whereas ARBD Self-Affirmation is tied to lower rates. With incremental predictive utility for important psychological outcomes over other validated instruments, as well as specific

factors that appear to tap risk and resilience, the ARBD adds something unique and valuable to our assessment arsenal.

Our fifth finding was that several ARBD factors significantly moderated the relation of body dissatisfaction to depression and disordered eating. Body dissatisfaction had a *weaker* relation to depression when adolescents used Distraction/Cognitive Restructuring or Social Comparison coping strategies, whereas the relation of body dissatisfaction to depression was *stronger* when adolescents endorsed Focus on Weight Loss. Body dissatisfaction was more strongly tied to disordered eating when adolescents endorsed Focus on Weight Loss, Self-Presentation and Appearance Efforts, and Lifestyle Strategies. Our findings suggest that some coping strategies assessed by the ARBD may be maladaptive, likely amplifying the relations between body dissatisfaction and mood or eating disorder symptoms, whereas other strategies are adaptive, likely diminishing these relations. Specifically, Distraction/Cognitive Restructuring and Social Comparison buffer these relations, whereas, Focus on Weight Loss, Self-Presentation and Appearance Efforts, and Lifestyle Strategies appear to intensify these relations.

Both ARBD strategies that diminished the relations between body dissatisfaction and depressive symptoms, Distraction/Cognitive Restructuring and Social Comparison, are comprised of items that reflected secondary control engagement coping. Both Distraction/Cognitive Restructuring and Social Comparison involve adapting to things that are uncontrollable about body image concerns and challenging negative cognitions, rather than either attempting to directly make changes to appearance or trying to ignore concerns altogether. In contrast, the three ARBD strategies that amplified the relation between body dissatisfaction and mood or eating disorder symptoms all fundamentally reflected primary control engagement coping attempts, or active efforts to address body image concerns through problem solving. In

the broader adolescent stress and coping literature, primary control coping has typically been associated with lower rates of psychopathology (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001). Our findings raise the interesting possibility that a subset of direct problem solving efforts may be less adaptive in the face of body image concerns than in response to general stress.

Our sixth finding pertains to the fact that BMI further moderated the interaction of body dissatisfaction and ARBD factors on depression and eating disorder symptoms. In particular, perceived overweight was frequently associated with higher levels of depression and disordered eating than perceived underweight, regardless of BMI. Thus, adolescents with high BMI who perhaps appropriately perceived themselves as overweight had higher rates of depression and eating pathology than adolescents with high BMI who perceived themselves, albeit somewhat inaccurately, as underweight. . Meanwhile, for adolescents with low BMI, several significant interactions emerged for ARBD factors and body dissatisfaction. Compared to adolescents with low BMI who accurately perceived themselves as underweight, adolescents with low BMI who inaccurately perceived themselves as overweight had higher rates of depression and disordered eating dependent on their endorsement of ARBD Avoidant Responses, Focus on Weight Loss, Lifestyle Strategies, and Self-Presentation and Appearance Efforts. All of this suggests that both objective and perceived body size have an influence on wellbeing. At a higher BMI, accurate perception of one's body size may actually be associated with poorer adolescent mental health outcomes. In the midst of outcries about the obesity epidemic in the United States, our finding raises the possibility that it may be better to address the issue from a wellness stance rather than as a matter of body size or weight control. Moreover, our findings suggest that even lean adolescents may be at risk for depression and eating pathology if they perceive themselves as

overweight, particularly if they utilize particular strategies in response to body dissatisfaction (e.g., Focus on Weight Loss, Lifestyle Strategies, Self-Presentation and Appearance Efforts). Though we cannot infer causality from our correlational data, these possibilities merit further attention.

Several shortcomings and limitations of the current study suggest important avenues for future research. First, more work will be required to evaluate fully the validity of the ARBD. Because analyses in the current study were exploratory, we did not have specific hypotheses about the emergent factors and their anticipated relations to other variables. Though we found modest evidence of convergence between the ARBD factors and other measures of coping, more work is necessary to examine discriminant validity. Independent samples should be used to cross validate findings of the current study, particularly in light of problems noted by other researchers (e.g., Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman, 2000; Skinner, Edge, Altman, & Sherwood, 2003). Confirmatory factor analysis will allow us to examine how well the factor model that emerged here fits new sample data relative to alternative factor solutions (Smith & McCarthy, 1995). Additionally, data on the ARBD's test-retest reliability has yet to be gathered and will be important in further validation. Second, although the current study reported on findings related to BMI, these were based on self-reported measures of BMI and should be replicated with BMI based on physical measurement given evidence that self-report assessment shows slight bias and inaccuracy (e.g., Goodman, Hinden, & Khandelwal, 2000; Himes & Faricy, 2001). Third, the current study was cross-sectional; consequently, our regression analyses do not reflect prospective (let alone causal) relations. It would be valuable to administer the ARBD as part of prospective studies in order to address prospective relations more adequately,

as well as to explore ARBD factors as potential mediators of psychopathology and health-compromising behaviors.

Finally, although deriving the ARBD's item pool from actual youth responses provides the instrument with an important developmental sensitivity, this inductive approach to measure creation also has inherent limitations. First, the responses we collected were based on hypothetical answers to an imagined scenario resulting in body dissatisfaction; responses to an actual event or experience may differ. Second, limiting our item pool to responses that youth spontaneously generated may have resulted in a restricted representation of involuntary responses. Indeed, the items generated through our inductive approach do not encompass as many examples of involuntary engagement responses (e.g., emotional arousal) or involuntary disengagement responses (e.g., numbing) as seen on a coping measure such as the RSQ, which was developed using a theory-driven top-down approach.

Despite these limitations, the ARBD demonstrated significant incremental utility over two other validated measures of coping for both depressive symptoms and disordered eating behaviors.

The emergent ARBD factor structure included scales suggestive of both risk and protective factors regarding symptoms of psychopathology. Several ARBD factors significantly moderated the relations between body dissatisfaction and these clinical outcomes. The ARBD also provided

insights into sex and ethnic differences in adolescents' responses to body dissatisfaction.

Ultimately, a more refined understanding of these differences and their clinical implications may allow for more appropriate and effective prevention and intervention services. Thus, although further work is required for more complete validation, this initial study shows the ARBD to be a promising new instrument with potential utility for both research and clinical settings.

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Appendix A

Factor Loadings and Internal Consistency for EFA with 78 ARBD items

Item	Factor 1 $\alpha = .85$	Factor 2 $\alpha = .83$	Factor 3 $\alpha = .75$	Factor 4 $\alpha = .87$	Factor 5 $\alpha = .74$	Factor 6 $\alpha = .73$	Factor 7 $\alpha = .74$
68. I would tell myself that I will go as long as I can without eating	0.64	-0.17	-0.22	0.10	0.02	0.02	-0.04
77. If I had a problem with my looks, I would avoid being around people	0.61	-0.01	0.12	-0.07	0.05	-0.01	0.01
7. I would refuse to go out anywhere so I will not be embarrassed	0.57	0.01	0.10	-0.04	0.03	-0.02	-0.09
18. I would wear baggy clothes to hide my body	0.56	0.16	-0.1	-0.15	-0.02	-0.2	-0.06
36. I would break my mirror so I never have to see myself	0.55	-0.02	-0.03	0.16	-0.02	0.06	-0.18
74. I would wish I could rewind to the past when I looked different	0.51	-0.05	-0.18	-0.16	0.04	-0.10	0.20
19. If I felt unhappy with my looks, I would get upset and overeat	0.49	0.04	0.05	-0.13	-0.06	0.04	0.03
33. I would skip meals	0.48	-0.15	-0.35	0.050	0.11	0.06	-0.01
31. I would not be able to concentrate on anything else	0.48	-0.13	0.12	-0.18	0.08	0.14	0.11
54. I would worry that people would not want to hang around me	0.44	-0.04	0.08	-0.18	0.12	0.17	-0.01
44. I would stop looking in full-body mirrors	0.42	0.01	-0.03	0.08	0.06	0.01	-0.01
73. I would worry about eating	0.42	-0.08	-0.33	-0.08	0.15	0.09	0.03
72. If I felt unhappy with my body, I would tell myself that I will get plastic surgery or liposuction someday	0.40	-0.16	-0.18	-0.08	-0.08	0.15	0.07
30. If I had a problem with my appearance, my face would turn red with embarrassment	0.39	0.17	0.07	-0.18	0.02	0.09	0.01
53. If I had a problem with my looks, I wouldn't be able to stop staring at myself in the mirror	0.37	-0.10	0.07	-0.07	0.02	0.28	0.12
50. I would eat something to help me feel better	0.34	0.15	0.23	-0.02	0.07	0.21	-0.01
38. I would say to myself that lots of models and movies starts do unhealthy things-like starving	0.26	0.11	-0.17	0.17	-0.12	0.07	0.25
8. I would wish I had better teeth	0.24	0.14	0.17	-0.17	0.07	0.04	-0.04
64. If I had a problem with my appearance, I would try not to think about it	-0.07	0.56	0.03	-0.01	-0.08	0.06	-0.02
52. I would get my mind off of my body by doing something else	-0.05	0.54	-0.03	-0.05	0.04	-0.01	0.01

43. If I had problems with my appearance, I would tell myself to stop thinking about it	0.04	0.54	0.10	0.16	-0.07	0.01	0.02
65. I would say to myself, I do not have to be perfect	-0.01	0.50	-0.03	0.24	-0.11	-0.06	0.11
41. I would tell myself to focus on aspects of my appearance that I like rather than things I don't like	-0.1	0.49	-0.08	0.02	0.03	0.11	0.16
55. I would talk to other people to feel better	0.04	0.47	-0.06	0.09	-0.01	0.22	-0.02
16. I would tell myself that a good attitude will make me look a lot better than if I worry about it	-0.11	0.45	0.02	0.10	0.09	-0.02	0.15
39. I would remind myself that nobody else feels completely confident about their body, and I am not the only one who feels this way	0.04	0.44	-0.10	-0.08	0.03	0.03	0.29
61. I would say to myself, how I look now is only temporary	0.03	0.41	0.06	-0.07	0.25	-0.08	0.2
46. If other people were around, I would try to act confident about my body	-0.08	0.37	0.01	-0.08	0.11	0.12	0.1
69. I would tell myself that I will feel better if I take a bath/shower	0.06	0.36	-0.08	0.04	-0.01	0.25	-0.01
35. I would tell myself a joke to take my mind off of it	0.17	0.36	0.08	0.11	0.06	-0.05	0.08
17. I would tell myself that my looks do not define me	-0.05	0.34	0.01	0.27	0.09	-0.25	0.13
15. I would say to myself, that I would look better if I got more sleep	0.10	0.28	0.02	-0.02	0.18	0.14	-0.04
58. I would say to myself, I don't look so bad	-0.04	0.17	0.01	0.14	-0.02	0.08	0.05
57. I would go on a diet	0.19	-0.05	0.60	0.02	0.33	0.10	-0.08
25. I would wish I were thinner	0.22	0.00	0.55	-0.36	-0.04	-0.08	0.28
62. I would tell myself that I need to put on weight (R)	0.15	-0.02	-0.53	0.07	0.13	0.13	-0.01
42. I would keep telling myself over and over that I need to lose weight	0.31	-0.07	0.50	-0.21	0.11	-0.05	0.18
2. I would say to myself that I am perfect the way I am	0.01	-0.02	0.01	0.69	0.04	0.01	0.07
27. I would tell myself that I like the way I look	-0.12	0.08	0.17	0.61	0.02	0.12	0.07
10. I would say to myself this is who I am	0.02	0.11	-0.06	0.58	0.02	-0.04	0.14
5. I would say to myself that I do not need to change.	0.04	0.01	0.18	0.53	-0.15	0.08	0.08
40. I would wish I had a better body (R)	0.23	-0.03	-0.25	-0.51	0.07	0.05	0.36
78. I would say to myself, nothing is wrong with me	-0.06	0.22	0.13	0.49	-0.06	-0.01	0.16
9. I would worry about what other people think of me (R)	0.19	0.09	0.03	-0.46	-0.01	0.20	0.12
32. I would think to myself that I should love myself the way I am and make the best of it	0.01	0.32	0.01	0.46	-0.02	-0.03	0.28
63. I would wish I could trade bodies with someone else (R)	0.3	-0.03	-0.16	-0.44	-0.06	0.12	0.24
28. I would tell myself everybody comes in different shapes and sizes, and this is mine	0.05	0.31	-0.03	0.42	-0.08	-0.06	0.31

14. I would tell myself that people like me for who I am	-0.17	0.13	-0.02	0.41	0.05	-0.06	0.33
22. I would say to myself, I will be a success, no matter how much I weigh	0.01	0.24	-0.03	0.38	0.04	-0.11	0.26
66. I would worry about the shape of my body (R)	0.3	0.01	-0.13	-0.37	0.11	0.09	0.19
26. I would tell myself that God made me the way I look, and God does not make mistakes	-0.02	0.21	0.04	0.27	0.08	-0.04	0.25
4. I would lift weights to get stronger	0	-0.08	0.13	0.08	0.60	-0.09	-0.05
21. I would exercise to boost my confidence	-0.15	0.05	-0.11	-0.01	0.59	0.02	0.07
60. I would tell myself that I will change the foods I eat	-0.02	0.18	-0.27	-0.09	0.50	0.09	-0.06
59. I would worry about getting exercise	0.01	-0.01	-0.23	-0.2	0.46	0.05	0.06
3. If I felt unhappy with my body, I would stop eating so much junk food.	0.03	0.05	-0.22	0.04	0.45	0.06	-0.07
75. I would start eating healthier	-0.09	0.26	-0.30	0.03	0.41	0.11	-0.09
49. I would weigh myself	0.14	-0.07	-0.09	0.06	0.33	0.18	0.03
51. I would wish I were taller	0.14	-0.01	0.11	-0.01	0.25	0.01	0.03
48. I would wear tight clothes to show off my body	-0.04	-0.01	0.14	0.2	0.03	0.50	0.03
76. I would ask other people if they think I look good	0.18	0.13	-0.02	-0.02	-0.02	0.43	0.09
70. I would say to myself, I will change my hair (the style, color, etc)	0.23	0.17	-0.07	-0.02	-0.05	0.43	-0.12
71. I would say to myself, I will get a tan	0.07	-0.02	-0.08	-0.03	0.14	0.42	0.02
1. I would ask my friends to help me out with ideas to look better	-0.02	0.22	-0.17	-0.14	-0.07	0.36	0.02
6. I would start wearing more stylish clothes	-0.02	0.04	0.10	-0.12	0.16	0.35	0.13
67. I would say to myself, I look better than some people	-0.13	0.04	0.07	-0.03	0.01	0.34	0.34
47. I would compare myself to good-looking people	0.14	-0.06	0.01	-0.31	0.10	0.34	0.26
56. I would tell myself that I will put more effort into my appearance in the morning from now on	0.04	0.3	-0.16	-0.21	0.17	0.32	-0.10
37. I would tell myself that my friends are about the same size I am	-0.04	0.23	0.05	0.03	0.05	0.24	0.19
12. I would tell myself that not everyone can have the body of a model	-0.01	0.15	-0.15	0.12	-0.07	0.07	0.44
13. I would say to myself, a lot of people like the way I look	-0.13	-0.03	0.04	0.31	0.01	0.13	0.41
29. I would say to myself, I am not the worst looking person	-0.07	0.13	0.01	-0.01	-0.02	0.15	0.41
24. I would remind myself that I am still growing, and I am not going to look like this forever	0.05	0.26	0.11	0.10	0.21	-0.15	0.39
11. I would say to myself that other people look like this too	-0.09	-0.01	-0.02	0.10	0.07	0.12	0.35
34. I would say to myself, I might look better once I get older	0.16	0.30	0.10	-0.22	0.14	-0.01	0.32

23. I would think about the blessings I have in my life instead	-0.02	0.25	-0.01	0.30	0.08	-0.16	0.32
20. I would say to myself, at least I have a wonderful personality	-0.02	0.27	-0.06	0.28	0.04	-0.08	0.31
45. I would say to myself that anyone who judges me for not having a perfect body is not worth knowing	0.03	0.28	0.01	0.18	0.05	-0.12	0.28

Note. Items loading on each factor are in boldface; reverse-scored items indicated by **(R)**.

Appendix B

Eigenvalues and Percentage of Variance Accounted for by the Seven ARBD Factors in EFA with 70 items

Factor	Initial eigenvalues		Extraction sums of squared loadings		Rotation sums of squared loadings
	Total	% Variance	Total	% Variance	Total
1	11.42	16.31	10.87	15.53	7.59
2	9.12	13.02	8.5	12.15	6.88
3	3.14	4.49	2.57	3.67	3.55
4	2.44	3.48	1.83	2.61	7.59
5	1.99	2.84	1.41	2.01	4.73
6	1.71	2.44	1.06	1.52	4.78
7	1.53	2.19	0.89	1.27	3.99

Appendix C1

Male Factor Loadings for 70 ARBD items

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
43. If I had problems with my appearance, I would tell myself to stop thinking about it	0.69	0.1	0.02	0.02	0.08	-0.13	-0.08
64. If I had a problem with my appearance, I would try not to think about it	0.60	-0.02	0.01	-0.02	0.03	-0.05	-0.06
65. I would say to myself, I do not have to be perfect	0.59	0.16	0.02	0.05	-0.08	0.12	0.01
52. I would get my mind off of my body by doing something else	0.50	-0.1	0.01	-0.06	-0.02	-0.04	0.12
46. If other people were around, I would try to act confident about my body	0.50	-0.12	0.09	-0.1	0.12	0.07	0.17
55. I would talk to other people to feel better	0.50	0.05	0.02	0.11	0.15	0.05	0.07
61. I would say to myself, how I look now is only temporary	0.47	-0.12	0.04	0.08	-0.05	0.12	0.26
34. I would say to myself, I might look better once I get older	0.46	-0.23	-0.08	0.08	0.11	0.12	0.06
20. I would say to myself, at least I have a wonderful personality	0.45	0.06	-0.06	-0.09	-0.12	0.22	-0.02
41. I would tell myself to focus on aspects of my appearance that I like rather than things I don't like	0.44	-0.04	0.16	0.08	0.01	0.1	0.29
24. I would remind myself that I am still growing, and I am not going to look like this forever	0.41	-0.09	-0.13	-0.12	0.06	0.3	0.02
23. I would think about the blessings I have in my life instead	0.40	0.15	-0.1	-0.11	-0.02	0.28	-0.08
32. I would think to myself that I should love myself the way I am and make the best of it	0.38	0.26	-0.05	-0.05	0.01	0.34	0.02
35. I would tell myself a joke to take my mind off of it	0.38	0.05	-0.12	0.15	0.01	0.1	-0.02
16. I would tell myself that a good attitude will make me look a lot better than if I worry about it	0.37	0.08	0.26	0.02	-0.04	0.14	0.27
17. I would tell myself that my looks do not define me	0.37	0.2	0.01	0.05	-0.32	0.15	0.18
22. I would say to myself, I will be a success, no matter how much I weigh	0.36	0.24	-0.04	-0.06	-0.05	0.3	-0.01
78. I would say to myself, nothing is wrong with me	0.36	0.3	-0.09	-0.09	0.09	0.25	-0.19
69. I would tell myself that I will feel better if I take a bath/shower	0.34	0.05	0.09	0.11	0.13	0.08	0.11
39. I would remind myself that nobody else feels completely confident about their body, and I am not the only one who feels this way	0.33	-0.08	0.04	0.16	-0.04	0.19	0.27
67. I would say to myself, I look better than some people	0.32	-0.13	0.08	-0.06	0.22	0.18	0.03
2. I would say to myself that I am perfect the way I am	0.03	0.56	-0.13	-0.1	0.07	0.25	-0.06

10. I would say to myself this is who I am	0.02	0.55	0.1	0.14	-0.16	0.35	0.13
27. I would tell myself that I like the way I look	0.19	0.48	0.18	-0.04	0.09	0.17	-0.04
40. I would wish I had a better body	-0.03	-0.46	-0.15	0.26	-0.07	0.26	0.25
9. I would worry about what other people think of me	0.03	-0.45	-0.02	0.18	0.27	0.05	-0.06
63. I would wish I could trade bodies with someone else	0.05	-0.36	-0.16	0.32	0.17	0.04	-0.01
5. I would say to myself that I do not need to change.	0.1	0.36	-0.03	0.03	0.07	0.22	-0.35
66. I would worry about the shape of my body	0.12	-0.34	-0.01	0.32	-0.01	0.04	0.2
57. I would go on a diet	-0.02	0.14	-0.54	-0.02	0.06	-0.09	0.53
25. I would wish I were thinner	0.03	-0.38	-0.51	0.11	-0.14	0.25	0.13
33. I would skip meals	-0.11	0.13	-0.49	0.24	0.09	0.02	0.18
74. I would wish I could rewind to the past when I looked different	0.08	-0.23	-0.49	0.3	0.08	0.07	-0.02
42. I would keep telling myself over and over that I need to lose weight	0.02	-0.23	-0.48	0.13	-0.1	0.11	0.26
68. I would tell myself that I will go as long as I can without eating	-0.08	0.11	-0.43	0.42	0.09	-0.03	-0.03
62. I would tell myself that I need to put on weight	0.01	0.09	0.41	0.35	0.18	0.05	-0.03
44. I would stop looking in full-body mirrors	0.05	0.05	-0.26	0.18	0.15	0.07	-0.02
19. If I felt unhappy with my looks, I would get upset and overeat	-0.01	-0.05	0.01	0.68	-0.07	-0.04	0.03
18. I would wear baggy clothes to hide my body	0.14	-0.04	-0.13	0.57	-0.21	0.01	-0.01
77. If I had a problem with my looks, I would avoid being around people	0.04	-0.15	-0.01	0.57	0.03	-0.01	-0.01
36. I would break my mirror so I never have to see myself	-0.01	0.29	-0.1	0.56	0.02	-0.08	-0.02
7. I would refuse to go out anywhere so I will not be embarrassed	-0.05	-0.03	-0.07	0.52	0.04	0.01	-0.04
53. If I had a problem with my looks, I wouldn't be able to stop staring at myself in the mirror	-0.07	-0.15	0.13	0.49	0.18	0.15	0.07
31. I would not be able to concentrate on anything else	-0.02	-0.2	0.03	0.49	0.27	0.01	-0.04
30. If I had a problem with my appearance, my face would turn red with embarrassment	0.09	-0.14	0.03	0.46	0.1	-0.01	0.05
73. I would worry about eating	-0.03	0.04	-0.3	0.42	0.01	-0.02	0.33
54. I would worry that people would not want to hang around me	-0.04	-0.18	-0.06	0.41	0.38	0.02	-0.01
72. If I felt unhappy with my body, I would tell myself that I will get plastic surgery or liposuction someday	-0.06	0.04	-0.17	0.34	0.07	-0.04	-0.05
50. I would eat something to help me feel better	0.11	0.04	0.11	0.34	0.25	0.08	0.1
48. I would wear tight clothes to show off my body	-0.02	0.15	0.11	-0.08	0.48	0.1	0.11
71. I would say to myself, I will get a tan	-0.07	0.12	-0.02	0.18	0.48	0.05	0.22
70. I would say to myself, I will change my hair (the style, color, etc)	0.05	0.06	-0.09	0.16	0.46	-0.09	0.08
6. I would start wearing more stylish clothes	0.07	-0.12	-0.05	-0.11	0.43	0.06	0.06
76. I would ask other people if they think I look good	0.29	-0.08	-0.06	0.21	0.42	-0.05	0.04

47. I would compare myself to good-looking people	-0.01	-0.27	0.1	0.1	0.36	0.32	0.1
1. I would ask my friends to help me out with ideas to look better	0.2	-0.05	0.02	0.12	0.26	-0.03	-0.03
12. I would tell myself that not everyone can have the body of a model	0.01	-0.02	-0.07	0.03	-0.04	0.66	0.02
11. I would say to myself that other people look like this too	-0.09	0.07	0.01	-0.01	0.12	0.56	0.04
29. I would say to myself, I am not the worst looking person	0.1	-0.08	0.05	0.06	-0.03	0.50	0.15
13. I would say to myself, a lot of people like the way I look	0.15	0.06	-0.02	-0.23	0.14	0.50	-0.11
28. I would tell myself everybody comes in different shapes and sizes, and this is mine	0.31	0.24	-0.04	0.04	-0.08	0.40	-0.04
14. I would tell myself that people like me for who I am	0.31	0.24	0.03	-0.09	-0.1	0.39	-0.05
60. I would tell myself that I will change the foods I eat	0.21	-0.01	-0.24	-0.03	0.06	-0.05	0.61
75. I would start eating healthier	0.28	0.14	-0.14	-0.08	0.05	-0.17	0.60
3. If I felt unhappy with my body, I would stop eating so much junk food.	-0.07	0.06	-0.2	-0.01	0.03	0.03	0.60
21. I would exercise to boost my confidence	-0.02	-0.06	0.05	-0.03	0.06	0.1	0.59
59. I would worry about getting exercise	-0.07	-0.18	0.02	0.06	-0.03	0.09	0.48
4. I would lift weights to get stronger	0.03	0.04	0.09	-0.07	0.09	0.06	0.43
49. I would weigh myself	0.02	0.08	-0.12	0.08	0.20	0.05	0.41
56. I would tell myself that I will put more effort into my appearance in the morning from now on	0.25	-0.10	0.01	0.03	0.26	-0.07	0.36

Appendix C2

Female Factor Loadings for 70 ARBD items

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
77. If I had a problem with my looks, I would avoid being around people	0.69	-0.04	0.01	0.03	0.01	-0.03	-0.06
68. I would tell myself that I will go as long as I can without eating	0.62	-0.13	-0.17	0.17	-0.11	-0.01	0.07
7. I would refuse to go out anywhere so I will not be embarrassed	0.61	-0.02	0.02	-0.02	0.05	-0.16	0.01
36. I would break my mirror so I never have to see myself	0.50	0.04	-0.1	0.11	0.1	-0.09	0.16
31. I would not be able to concentrate on anything else	0.49	-0.13	-0.02	-0.14	-0.1	0.11	0.01
33. I would skip meals	0.48	-0.06	-0.28	0.15	-0.18	0.07	0.15
19. If I felt unhappy with my looks, I would get upset and overeat	0.47	0.07	0.1	-0.06	-0.06	0.04	0.05
18. I would wear baggy clothes to hide my body	0.47	0.13	-0.02	0.05	-0.26	-0.22	0.07
74. I would wish I could rewind to the past when I looked different	0.46	-0.06	-0.07	0.1	-0.32	0.11	-0.01
54. I would worry that people would not want to hang around me	0.44	-0.08	-0.09	-0.29	-0.04	-0.11	-0.01
44. I would stop looking in full-body mirrors	0.43	-0.03	-0.04	-0.08	0.01	-0.13	-0.09
72. If I felt unhappy with my body, I would tell myself that I will get plastic surgery or liposuction someday	0.42	-0.2	-0.07	-0.09	-0.17	0.13	0.06
50. I would eat something to help me feel better	0.41	0.15	0.11	-0.18	0.15	0.05	0.02
30. If I had a problem with my appearance, my face would turn red with embarrassment	0.41	0.17	0.04	-0.14	-0.08	-0.02	0.01
53. If I had a problem with my looks, I wouldn't be able to stop staring at myself in the mirror	0.39	-0.12	-0.03	-0.11	0.1	0.18	0.06
66. I would worry about the shape of my body	0.37	0.01	-0.13	-0.11	-0.32	0.21	0.14
73. I would worry about eating	0.37	-0.06	-0.28	0.06	-0.21	0.13	0.18
70. I would say to myself, I will change my hair (the style, color, etc)	0.28	0.21	-0.03	-0.18	0.13	0.09	0.15
64. If I had a problem with my appearance, I would try not to think about it	-0.12	0.57	0.06	0.01	0.05	-0.02	0.01
52. I would get my mind off of my body by doing something else	-0.03	0.52	-0.04	0.01	0.01	-0.08	-0.12
43. If I had problems with my appearance, I would tell myself to stop thinking about it	0.03	0.44	0.11	0.09	0.1	0.04	-0.22
39. I would remind myself that nobody else feels completely confident about their body, and I am not the only one who feels this way	0.07	0.43	0.01	0.05	-0.21	0.2	-0.22
69. I would tell myself that I will feel better if I take a bath/shower	0.07	0.40	-0.11	-0.01	0.05	0.09	0.06

41. I would tell myself to focus on aspects of my appearance that I like rather than things I don't like	-0.09	0.39	-0.06	0.05	-0.01	0.13	-0.25
55. I would talk to other people to feel better	-0.03	0.39	-0.11	-0.05	0.12	0.07	-0.03
65. I would say to myself, I do not have to be perfect	-0.1	0.33	0.14	0.14	0.01	0.01	-0.3
46. If other people were around, I would try to act confident about my body	-0.03	0.31	-0.07	-0.15	-0.02	0.01	-0.08
56. I would tell myself that I will put more effort into my appearance in the morning from now on	0.1	0.30	-0.24	-0.16	-0.02	0.08	0.28
61. I would say to myself, how I look now is only temporary	0.05	0.29	-0.1	0.01	-0.07	0.16	-0.23
60. I would tell myself that I will change the foods I eat	-0.06	0.04	-0.76	-0.04	-0.15	-0.03	0.06
3. If I felt unhappy with my body, I would stop eating so much junk food.	0.04	0.13	-0.71	0.16	-0.06	-0.01	0.09
75. I would start eating healthier	-0.1	0.19	-0.64	0.03	-0.05	0.01	0.01
57. I would go on a diet	0.16	-0.06	-0.59	0.08	-0.25	0.1	0.13
59. I would worry about getting exercise	0.07	0.06	-0.57	-0.09	-0.11	0.03	0.07
21. I would exercise to boost my confidence	-0.12	-0.03	-0.54	-0.21	0.05	-0.07	-0.28
4. I would lift weights to get stronger	0.05	-0.05	-0.48	-0.18	0.13	-0.11	-0.18
49. I would weigh myself	0.15	-0.1	-0.25	-0.14	0.06	0.09	-0.05
1. I would ask my friends to help me out with ideas to look better	-0.1	0.11	-0.16	-0.41	-0.06	0.07	-0.03
6. I would start wearing more stylish clothes	0.05	0.07	-0.08	-0.40	0.13	0.2	-0.01
71. I would say to myself, I will get a tan	-0.02	-0.03	-0.18	-0.39	0.02	0.06	0.03
9. I would worry about what other people think of me	0.23	0.16	0.02	-0.38	-0.21	0.03	0.16
47. I would compare myself to good-looking people	0.25	0.02	-0.09	-0.34	-0.12	0.16	0.18
25. I would wish I were thinner	0.12	-0.07	-0.2	-0.04	-0.68	0.07	0.06
40. I would wish I had a better body	0.26	0.01	-0.09	-0.23	-0.54	0.22	0.13
42. I would keep telling myself over and over that I need to lose weight	0.27	-0.11	-0.29	0.01	-0.50	0.12	0.05
63. I would wish I could trade bodies with someone else	0.26	-0.08	0.03	-0.28	-0.44	0.13	0.1
48. I would wear tight clothes to show off my body	0.08	0.08	0.01	-0.04	0.42	0.29	0.08
27. I would tell myself that I like the way I look	-0.15	0.01	0.01	0.23	0.42	0.21	-0.33
5. I would say to myself that I do not need to change.	-0.02	0.01	0.1	0.24	0.40	0.14	-0.23
62. I would tell myself that I need to put on weight	0.25	0.05	0.2	-0.08	0.36	0.08	-0.02
67. I would say to myself, I look better than some people	-0.13	0.01	0.04	-0.13	0.06	0.55	0.04
13. I would say to myself, a lot of people like the way I look	-0.07	-0.04	-0.02	0.23	0.14	0.47	-0.25
29. I would say to myself, I am not the worst looking person	-0.11	0.14	0.13	-0.07	-0.06	0.40	-0.09
76. I would ask other people if they think I look good	0.19	0.07	-0.06	-0.15	0.12	0.31	0.04

11. I would say to myself that other people look like this too	-0.17	0.11	-0.07	0.01	-0.08	0.29	-0.09
34. I would say to myself, I might look better once I get older	0.21	0.19	0.05	-0.2	-0.24	0.25	-0.22
23. I would think about the blessings I have in my life instead	-0.05	0.02	-0.03	-0.09	-0.05	-0.07	-0.72
20. I would say to myself, at least I have a wonderful personality	0.04	-0.01	-0.09	0.02	0.03	0.12	-0.67
22. I would say to myself, I will be a success, no matter how much I weigh	-0.02	-0.01	-0.01	0.03	0.02	-0.01	-0.66
28. I would tell myself everybody comes in different shapes and sizes, and this is mine	0.02	0.13	0.06	0.14	0.08	0.08	-0.63
32. I would think to myself that I should love myself the way I am and make the best of it	-0.02	0.14	0.07	0.13	0.12	0.1	-0.63
24. I would remind myself that I am still growing, and I am not going to look like this forever	0.09	0.09	-0.03	-0.13	-0.03	0.06	-0.59
16. I would tell myself that a good attitude will make me look a lot better than if I worry about it	-0.05	0.26	0.03	-0.04	-0.02	-0.08	-0.50
17. I would tell myself that my looks do not define me	-0.1	0.16	0.05	0.09	0.04	-0.08	-0.47
14. I would tell myself that people like me for who I am	-0.24	0.02	-0.06	0.16	0.06	0.21	-0.46
78. I would say to myself, nothing is wrong with me	-0.16	0.09	0.12	0.15	0.27	0.08	-0.40
10. I would say to myself this is who I am	-0.03	0.12	-0.06	0.35	0.13	0.10	-0.39
2. I would say to myself that I am perfect the way I am	-0.04	0.01	-0.10	0.35	0.32	0.09	-0.38
35. I would tell myself a joke to take my mind off of it	0.16	0.27	0.01	-0.03	0.02	-0.01	-0.29
12. I would tell myself that not everyone can have the body of a model	-0.04	0.23	0.01	0.05	-0.17	0.23	-0.27

Appendix C3

Congruence between Male and Female Seven-Factor Models using Principal Axis Factoring and Direct Oblimin Rotation

	Female Factor 1	Female Factor 2	Female Factor 3	Female Factor 4	Female Factor 5	Female Factor 6	Female Factor 7
Male Factor 1	.75*	-.11	.24	.07	-.09	-.32*	.22
Male Factor 2	.10	.06	.09	-.07	.08	.05	-.03
Male Factor 3	.18	.01	.56**	.01	.13	.09	-.11
Male Factor 4	-.18	-.09	-.23	-.48**	-.18	.12	.30
Male Factor 5	-.24	.02	.23	.10	.18	.46**	-.03
Male Factor 6	-.03	.89**	.11	.11	.04	-.11	-.37*
Male Factor 7	-.29	.04	.00	.27	.10	-.07	-.26

* $p < .01$, ** $p < .001$

Appendix D

Effect of Sex on ARBD Factors after controlling for BMI

Factor	Source	Type III Sum of Squares	df	Mean Square	F
Avoidant Responses	Corrected Model	1444.28	2	722.14	13.89*
	Intercept	17486.12	1	17486.12	336.39*
	BMI	894.61	1	894.61	17.21*
	Sex	517.41	1	517.41	9.95*
	Error	40337.93	776	51.98	
	Total	591196.00	779		
	Corrected Total	41782.21	778		
Distraction/Cognitive Restructuring	Corrected Model	1009.53	2	504.77	10.82*
	Intercept	50720.41	1	50720.41	1087.01*
	BMI	0.1	1	0.1	.01
	Sex	1008.9	1	1008.9	21.62*
	Error	35695.16	765	46.66	
	Total	1075775	768		
	Corrected Total	36704.69	767		
Focus on Weight Loss	Corrected Model	1608.51	2	804.26	109.49*
	Intercept	9.68	1	9.68	1.32
	BMI	1166.71	1	1166.71	158.84*
	Sex	409.54	1	409.54	55.76*
	Error	5861.49	798	7.35	
	Total	27008	801		
	Corrected Total	7470	800		
Social Comparison	Corrected Model	264.24	2	132.12	10.45*
	Intercept	11664.22	1	11664.22	922.54*
	BMI	27.17	1	27.17	2.15
	Sex	233.81	1	233.81	18.49*
	Error	9963.16	788	12.64	
	Total	272923	791		
	Corrected Total	10227.39	790		
Self-Presentation & Appearance Efforts	Corrected Model	952.36	2	476.18	37.39*
	Intercept	10541.85	1	10541.85	827.78*
	BMI	25.53	1	25.53	2.00

Sex	932.93	1	932.93	73.26
Error	10086.24	792	12.74	
Total	209534	795		
Corrected				
Total	11038.6	794		

Note: To control for multiple comparisons, we corrected alpha ($\alpha = .05/5 = .01$).

$p < .01$

Appendix E

Effect of Ethnicity on ARBD Factors after Controlling for BMI and Sex

Factor	Source	Type III Sum of Squares	df	Mean Square	F
Avoidant Responses	Corrected Model	2143.33	10	214.33	4.14*
	Intercept	10910.24	1	10910.24	210.82*
	BMI	855.97	1	855.97	16.54*
	Sex	15.89	1	15.89	.31
	Ethnicity	721.86	4	180.47	3.49*
	Sex x Ethnicity	67.49	4	16.87	.33
	Error	39331.5	760	51.75	
	Total	58492	771		
	Corrected Total	41474.83	770		
Focus on Weight Loss	Corrected Model	1922.28	10	192.23	27.42*
	Intercept	36.17	1	36.17	5.16*
	BMI	1207.31	1	1207.31	172.19*
	Sex	28.89	1	28.89	4.12
	Ethnicity	259.1	4	64.77	9.24*
	Sex x Ethnicity	27.75	4	6.94	.99
	Error	5482.9	782	7.01	
	Total	26684	793		
	Corrected Total	7405.19	792		
Self-Affirmation	Corrected Model	2561.72	10	256.17	3.77*
	Intercept	20529.95	1	20529.95	301.80*
	BMI	253.27	1	253.27	3.72
	Sex	158.08	1	158.08	2.32
	Ethnicity	1789.7	4	447.43	6.58*
	Sex x Ethnicity	378.9	4	94.73	1.39
	Error	51971.8	764	68.03	
	Total	626333	775		
	Corrected Total	54533.52	774		
Lifestyle Strategies	Corrected Model	558.16	10	55.82	3.13*
	Intercept	5151.14	1	5151.14	288.58*
	BMI	109.14	1	109.14	6.11
	Sex	96.46	1	96.46	5.40
	Ethnicity	394.12	4	98.53	5.52*
	Sex x Ethnicity	116.84	4	29.21	1.64
	Error	13797.8	773	17.85	
	Total	290206	784		
	Corrected Total	14355.95	783		

Note: To control for multiple comparisons, we corrected alpha ($\alpha = .05/4 = .0125$).

* $p < .0125$

Appendix F1
ABOUT YOU

1. Are you a _____ Boy _____ Girl

2. How old are you? _____

3. What grade are you in? _____

4. What is your birthdate? _____
_____ (month) _____ (day) (year)

5. Your race? Check all that apply

_____ Black _____ White _____ Hispanic or Mexican-American

_____ Asian or Asian-American _____ American Indian or Native-American

_____ Other: _____

6. How tall are you? If not sure, give your best guess. _____
(feet) (inches)

7. What is your weight? If not sure, give your best guess. _____
(pounds)

8. How much education do you think your **mother** has?

_____ did not finish high school

_____ received a high school diploma or GED

_____ had some college

_____ finished college

_____ finished graduate school, law school, or medical school

_____ do not know

9. How much education do you think your **father** has?

_____ did not finish high school

_____ received a high school diploma or general equivalency diploma (GED)

_____ had some college

_____ finished college

_____ finished graduate school, law school, or medical school

_____ do not know

Appendix F2

RESPONSES TO STRESS*

*Note: Edited by Dr. David Cole and Melissa Maxwell, M.S., with the assistance and approval of Dr. Bruce Compas, to pertain by Body Dissatisfaction.

Even when things are going well, almost everyone still has some times when they don't like how they look. For example, you might get upset when you ...

See your reflection in the mirror	Feel like you're getting "checked out"
Try on clothes	Get teased about how you look
Weigh yourself	Get "advice" from others on how to improve your looks
Compare yourself to others	Feel like your body is developing either faster or slower than others'
Have to wear a bathing suit	

Below is a list of things that people sometimes do, think, or feel when something stressful happens. Everybody deals with problems in their own way. Think about times when you did not like the way you looked. What do you do? How much do you **think, do, or feel** the following things (even if they don't make you feel better)?

How much do you do this?	Not at all	A little	Some	A lot
1. I try not to feel anything.	1	2	3	4
2. I feel sick to my stomach or get headaches.	1	2	3	4
3. I try to think of different ways to change the problem or fix the situation.	1	2	3	4
4. If I don't like the way I look, I don't feel anything at all -- it's like I have no feelings.	1	2	3	4
5. I wish that I were stronger, better looking, or more popular so that things would be different.	1	2	3	4
6. I keep thinking about how I look. I can't stop thinking about it.	1	2	3	4
7. I let someone or something know how I feel.	1	2	3	4
8. I decide I'm okay the way I am, even though I'm not perfect.	1	2	3	4
9. When I'm around other people I act like the problem never happened.	1	2	3	4
10. When I don't like how I look, I just have to get away -- I can't stop myself.	1	2	3	4
11. I deal with the problem by wishing it would just go away, that everything would work itself out.	1	2	3	4
12. I get really jumpy when I'm having problems with how I look.	1	2	3	4
13. I realize that I just have to live with things the way they are.	1	2	3	4
14. When I have problems with how I look, I just can't be near anything that reminds me of my appearance.	1	2	3	4

How much do you do this?	Not at all	A little	Some	A lot
15. I try not to think about it, to forget all about it.	1	2	3	4
16. When problems with my appearance come up, I really don't know what I feel.	1	2	3	4
17. I ask other people for help or for ideas about how to make the problem better.	1	2	3	4
18. I can't stop thinking about the problem with my appearance, when I try to sleep, or I have bad dreams about it.	1	2	3	4
19. I tell myself that I can get through this, or that I'll look better next time.	1	2	3	4
20. I let my feelings out.	1	2	3	4
21. I get help from other people when I'm trying to figure out how to deal with my feelings.	1	2	3	4
22. I just can't get myself to face the problem with my physical appearance..	1	2	3	4
23. I wish that someone would just come and fix the problem with my looks.	1	2	3	4
24. I do something to try to fix the problem or take action to change things.	1	2	3	4
25. Thoughts about the problem with my looks just pop into my head.	1	2	3	4
26. When I have problems my appearance, I feel it in my body.	1	2	3	4
27. I try to stay away from people and things that make me feel upset or remind me of how I look.	1	2	3	4
28. I don't feel like myself when I have problems with my looks, it's like I'm far away from everything.	1	2	3	4
29. I just take things as they are, I go with the flow.	1	2	3	4
30. I think about happy things to take my mind off the problem or how I'm feeling.	1	2	3	4
31. When problems with my appearance come up, I can't stop thinking about how I am feeling.	1	2	3	4
32. I get sympathy, understanding, or support from someone.	1	2	3	4
33. When problems with my looks happen, I can't always control what I do.	1	2	3	4
34. I tell myself that things could be worse.	1	2	3	4
35. My mind just goes blank when I have problems with my looks, I can't think at all.	1	2	3	4
36. I tell myself that it doesn't matter, that it isn't a big deal.	1	2	3	4
37. When I have problems with looks, right away I feel really angry or sad or scared or worried.	1	2	3	4
38. It's really hard for me to concentrate or pay attention when I have problems with how I look.	1	2	3	4
39. I think about the things I'm learning from the situation, or something good that will come from it.	1	2	3	4
40. When I have problems my looks, I can't stop thinking it.	1	2	3	4
41. When something goes wrong with how I look, I say to myself, "This isn't real."	1	2	3	4

How much do you do this?	Not at all	A little	Some	A lot
42. When I'm having problems with how I look, I end up just lying around or sleeping a lot.	1	2	3	4
43. I keep my mind off problems about my appearance by exercising, seeing friends, playing video games, watching TV, or doing a hobby.	1	2	3	4
44. When problems with my looks come up, I get upset by things that don't usually bother me.	1	2	3	4
45. I do something to calm myself down when I'm having problems with my appearance.	1	2	3	4
46. I just freeze when I think of a problem with how I look, I can't do anything.	1	2	3	4
47. When I have a problem with my looks, sometimes I act without thinking.	1	2	3	4
48. I keep my feelings under control when I have to, then let them out when they won't make things worse.	1	2	3	4
49. When problems with my appearance happen, I can't seem to get around to doing things I'm supposed to do.	1	2	3	4
50. I tell myself that everything will be all right.	1	2	3	4
51. When I have a problem with how I look, I can't stop thinking about why it happened to me.	1	2	3	4
52. I think of ways to laugh about it so that it won't seem so bad.	1	2	3	4
53. My thoughts start racing when I'm having a tough time with how I look.	1	2	3	4
54. I imagine something really fun or exciting happening in my life.	1	2	3	4
55. When I really don't like how I look, I can get so upset that I can't remember things I'm supposed to do.	1	2	3	4
56. I try to believe the problem never happened.	1	2	3	4
57. When I have problems with my looks, sometimes I can't control what I do or say.	1	2	3	4

Appendix F3
COPING WITH BODY IMAGE CHALLENGES (BICSI)

“Body image” refers to how we think and feel about our own physical appearance. In the course of everyday life, there are situations and events that occur which can negatively affect our body image. These situations and events are called “body image threats or challenges,” because they threaten or challenge our ability to feel okay about our looks.

People do lots of different things to cope or deal with these challenges or threats. Listed below are some of the ways that people may try to cope with body image threats or challenges. For each item, think about how much it is characteristic of how you usually cope or would probably cope with an event or situation that poses a threat or challenge to your body image feelings.

Using the scale below, enter a number from 0 to 3 in the space to indicate how well each way of coping describes what you actually do or would do. There are no right or wrong answers. It doesn’t matter how helpful or unhelpful your ways of coping are. Don’t answer based on how you wish you usually reacted. Just be completely truthful.

0	1	2	3
Definitely Not Like Me	Mostly Not Like Me	Mostly Like Me	Definitely Like Me

1. I spend extra time trying to fix what I don’t like about my looks.			

2. I consciously do something that might make me feel good about myself as a person.			

3. I try to tune out my thoughts and feelings.			

4. I seek reassurance about my looks from other people.			

5. I do something to try to look more attractive.			

6. I spend more time in front of the mirror.			

7. I try to ignore the situation and my feelings.			

8. I think about what I should do to change my looks.			

9. I avoid looking at myself in the mirror.			

10. I remind myself of my good qualities.			

11. I eat something to help me deal with the situation.			

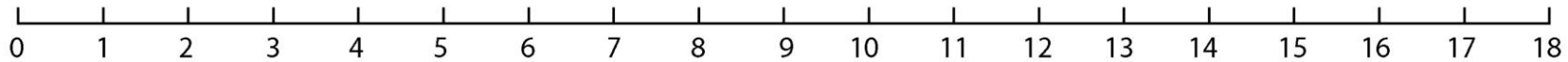
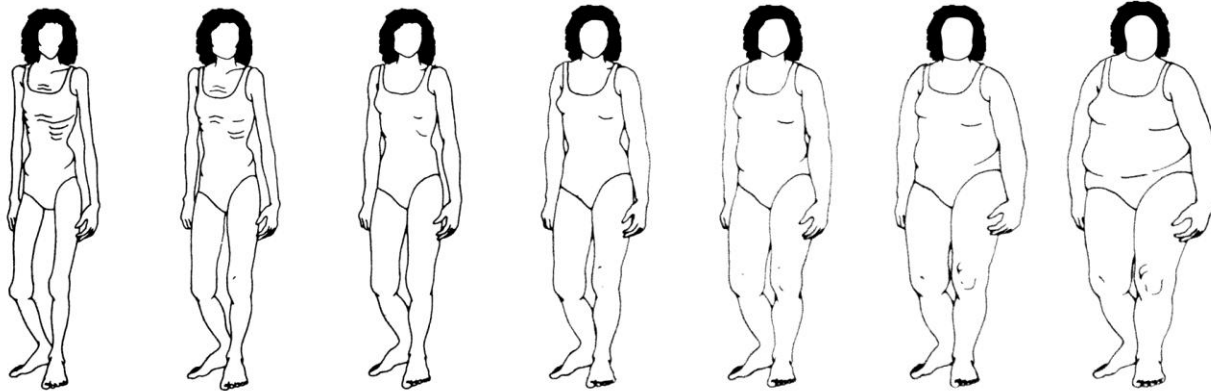
12. I tell myself that I’m just being irrational about things.			

0	1	2	3
Definitely Not Like Me	Mostly Not Like Me	Mostly Like Me	Definitely Like Me

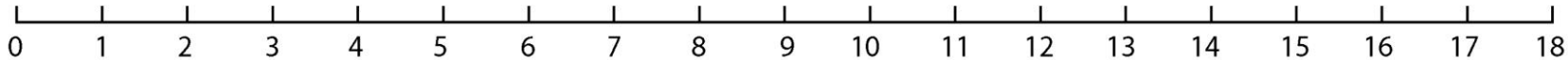
- _____ 13. I fantasize about looking different.
- _____ 14. I think about how I could “cover up” what’s troublesome about my looks.
- _____ 15. I tell myself that the situation will pass.
- _____ 16. I try to figure out why I am challenged or threatened by the situation.
- _____ 17. I tell myself that I am helpless to do anything about the situation.
- _____ 18. I tell myself that I am probably just overreacting to the situation.
- _____ 19. I compare my appearance to that of physically attractive people.
- _____ 20. I remind myself that I will feel better after awhile.
- _____ 21. I react by overeating.
- _____ 22. I tell myself that there are more important things than what I look like.
- _____ 23. I tell myself that I probably look better than I feel I that do.
- _____ 24. I make a special effort to look my best.
- _____ 25. I withdraw and interact less with others.
- _____ 26. I make a special effort to hide or “cover up” what’s troublesome about my looks.
- _____ 27. I react by being especially patient with myself.
- _____ 28. I make no attempt to cope or deal with the situation.
- _____ 29. I tell myself that the situation is not that important.

(BICSI □ Thomas F. Cash, Ph.D., 2003)

Please look at the pictures below to answer all questions...



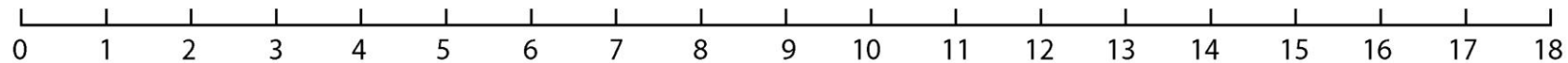
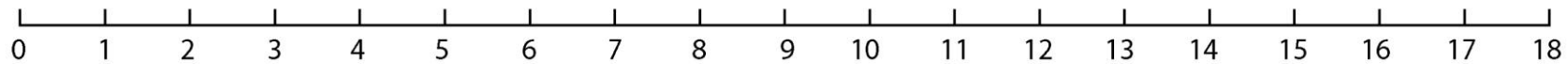
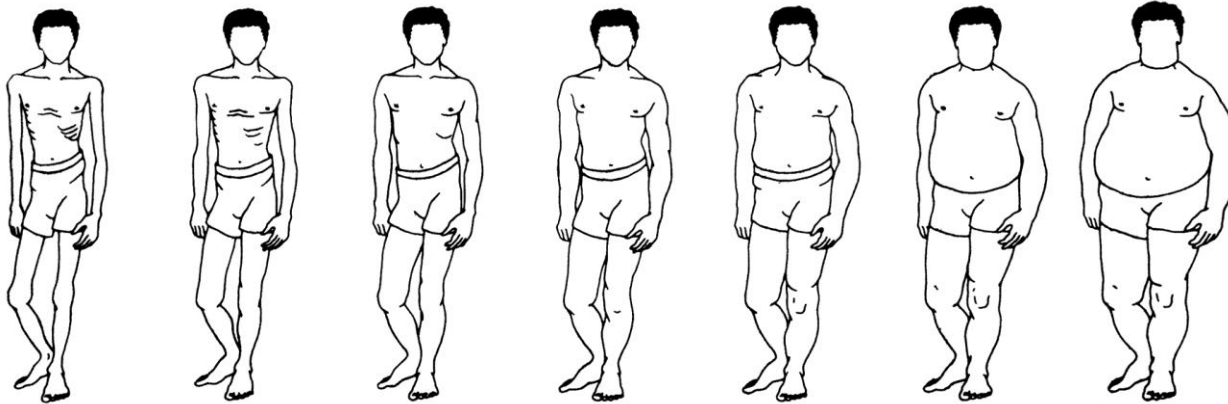
What you look like now



What you wish you looked like now

1. On the upper line, make an **X** to show what you think your body looks like right now. The **X** can be in between two numbers if you want.
2. On the lower line, make an **X** to show what you wished your body looked like right now. Again, the **X** can be in between two numbers if you want.

Please look at the pictures below to answer all questions...



What you wish you looked like now

1. On the upper line, make an **X** to show what you think your body looks like right now. The **X** can be in between two numbers if you want.
2. On the lower line, make an **X** to show what you wished your body looked like right now. Again, the **X** can be in between two numbers if you want.

Appendix F6

Mark one sentence from each group that best fits you for the past two weeks. There are no right or wrong answers. Just be as honest as possible.

1. I am sad once in a while
 I am sad many times
 I am sad all the time
2. Nothing will ever work out for me
 I am not sure if things will work out for me
 Things will work out for me O.K.
3. I do most things O.K.
 I do many things wrong
 I do everything wrong
4. I have fun in many things
 I have fun in some things
 Nothing is fun at all
5. I am bad all the time
 I am bad many times
 I am bad once in a while
6. I think about bad things happening to me once in a while
 I worry that bad things will happen to me
 I am sure that terrible things will happen to me
7. I hate myself
 I do not like myself
 I like myself
8. All bad things are my fault
 Many bad things are my fault
 Bad things are not usually my fault
9. I feel like crying everyday
 I feel like crying many days
 I feel like crying once in a while
10. Things bother me all the time
 Things bother me many times
 Things bother me once in a while
11. I like being with people
 I do not like being with people many times
 I do not want to be with people at all
12. I cannot make up my mind about things
 It is hard to make up my mind about things
 I make up my mind about things easily
13. I look O.K.
 There are some bad things about my looks

- ___ I look ugly
14. ___ I have to push myself all the time to do my schoolwork
 ___ I have to push myself many times to do my schoolwork
 ___ Doing schoolwork is not a big problem
15. ___ I have trouble sleeping every night
 ___ I have trouble sleeping many nights
 ___ I sleep pretty well
16. ___ I am tired once in a while
 ___ I am tired many days
 ___ I am tired all the time
17. ___ Most days I do not feel like eating
 ___ Many days I do not feel like eating
 ___ I eat pretty well.
18. ___ I do not worry about aches and pains
 ___ I worry about aches and pains many times
 ___ I worry about aches and pains all the time
19. ___ I do not feel alone
 ___ I feel alone many times
 ___ I feel alone all the time
20. ___ I never have fun at school
 ___ I have fun at school only once in a while
 ___ I have fun at school many times
21. ___ I have plenty of friends
 ___ I have some friends but I wish I had more
 ___ I do not have any friends
22. ___ My schoolwork is alright
 ___ My schoolwork is not as good as before
 ___ I do very badly in subjects I used to be good in
23. ___ I can never be as good as other kids
 ___ I can be as good as other kids if I want to
 ___ I am just as good as other kids
24. ___ Nobody really loves me
 ___ I am not sure if anybody loves me
 ___ I am sure that somebody loves me
25. ___ I usually do what I am told
 ___ I do not do what I am told most times
 ___ I never do what I am told
26. ___ I get along with people
 ___ I get into fights many times
 ___ I get into fights all the time

Appendix F7

Eating Habits (EDDS)

Over the past 3 months...

Not at all Slightly Moderately Extremely

- | | | | | | | | |
|---|-------------------------------|---|-----|---|---|----|-----|
| 1. Have you felt fat? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. Been afraid that you might gain weight or become fat? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. Have you thought bad thoughts about yourself because
of your weight?..... | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. Have you gotten down on yourself as a person because
of your body shape?..... | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. During the past 6 months have there been times when you have eaten what others would say was an unusually large amount of food (like a quart of ice cream)? | NO | | YES | | | | |
| 6. During these times, did you feel like you lost control over how much you were eating? .. | | | | | | NO | YES |
| 7. In a typical week , how many days do you lose control and eat an unusually large amount of food? | 0 1 2 3 4 5 6 7 | | | | | | |

When you lost control and ate too much, did you ...

(circle one)

- | | | | |
|---|----|-----|---------------------------|
| 8. Eat much more rapidly than normal? | NO | YES | THIS DID NOT HAPPEN TO ME |
| 9. Eat until you felt too full? | NO | YES | THIS DID NOT HAPPEN TO ME |
| 10. Keep eating even when you didn't feel hungry? | NO | YES | THIS DID NOT HAPPEN TO ME |
| 11. Eat alone because you were embarrassed
by how much you were eating? | NO | YES | THIS DID NOT HAPPEN TO ME |
| 12. Feel disgusted with yourself, depressed, or very
guilty after eating too much? | NO | YES | THIS DID NOT HAPPEN TO ME |
| 13. Get really upset about overeating or gaining weight? | NO | YES | THIS DID NOT HAPPEN TO ME |
| 14. In a typical week , how many times have you made yourself throw up after eating? | | | |

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

15. In a typical week, how many times do you take pills to keep yourself from gaining weight?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

16. On average, how many times per week do you skip at least 2 meals in a row to keep yourself from gaining weight?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

17. On average, how many times per week do you exercise really hard to make up for overeating?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

18. **Girls only:** over the past **3 months**, how many menstrual periods have you missed?

0 1 2 3 does not apply

Adolescent Responses to Body Dissatisfaction (ARBD)

Original 78-item Version

Take a look at the list below. Think back over the past year. Check all the things on this list that have bothered you. Which things made you wish you looked different?

- Seeing my reflection in the mirror
- Trying on clothes
- Getting weighed or weighing myself
- Comparing my looks to others'
- Noticing that my clothes are not fitting right
- Getting teased about how I look
- Reading fitness or fashion magazines
- Having to wear a bathing suit
- Feeling like my body is developing faster than my friends'
- Feeling like I am getting "checked out"
- Feeling like my body is developing more slowly than my friends'
- Hearing my friends complain about how they look
- Hearing "advice" from friends/family on how to improve my appearance
- Wishing I could impress someone I like
- Other **Describe:** _____

In general, how often do things like these bother you?

1 2 3 4 5

Never	Rarely	Sometimes	Often	All the time
-------	--------	-----------	-------	--------------

Think of these situations and the way they made you feel about your body and your looks. When things like this happen, do you think or do the following things?

1. None 2. A little 3. Some (Moderately) 4. A lot (Very Much) 5. Always (Extremely)

1. I ask my friends to help me out with ideas to look better.	1	2	3	4
2. I say to myself that I am perfect the way I am.	1	2	3	4
3. I stop eating so much junk food.	1	2	3	4
4. I lift weights to get stronger.	1	2	3	4
5. I say to myself that I do not need to change.	1	2	3	4
6. I start wearing more stylish clothes.	1	2	3	4
7. I refuse to go out anywhere so I will not be embarrassed.	1	2	3	4
8. I wish I had better teeth.	1	2	3	4
9. I worry about what other people think of me.	1	2	3	4
10. I say to myself this is who I am.	1	2	3	4
11. I say to myself that other people look like this, too.	1	2	3	4
12. I tell myself that not everyone can have the body of a model.	1	2	3	4
13. I say to myself, a lot of people like the way I look.	1	2	3	4
14. I tell myself that people like me for who I am.	1	2	3	4
15. I say to myself, I would look better if I got more sleep.	1	2	3	4
16. I tell myself that a good attitude will make me look a lot better than if I worry about it.	1	2	3	4
17. I tell myself that my looks do not define me.	1	2	3	4
18. I wear baggy clothes to hide my body.	1	2	3	4
19. I get upset and overeat.	1	2	3	4

20. I say to myself, at least I have a wonderful personality.	1	2	3	4
21. I exercise to boost my confidence.	1	2	3	4
22. I say to myself, I will be a success, no matter what size	1	2	3	4
23. I think about the blessings I have in my life instead.	1	2	3	4
24. I remind myself that I am still growing, and I am not going to look like this forever.	1	2	3	4
25. I wish I were thinner.	1	2	3	4
26. I tell myself that God made me the way I look, and God does not make mistakes.	1	2	3	4
27. I tell myself that I like the way I look.	1	2	3	4
28. I tell myself everybody comes in different shapes and sizes, and this is mine.	1	2	3	4
29. I say to myself, I'm not the worst looking person.	1	2	3	4
30. When I think about not liking my body, my face turns red with embarrassment.	1	2	3	4
31. When I get upset about my body, I cannot concentrate on anything else.	1	2	3	4
32. I think to myself that I should love myself the way I am and make the best of it.	1	2	3	4
33. I skip meals.	1	2	3	4
34. I say to myself, I might look better once I get older.	1	2	3	4
35. I tell myself a joke to take my mind off of it.	1	2	3	4
36. I break my mirror so I never have to see myself.	1	2	3	4
37. I tell myself that my friends are about the same size I am.	1	2	3	4
38. I say to myself that lots of models and movie stars do unhealthy things--like starving themselves or using drugs--just to look good.	1	2	3	4
39. I remind myself that nobody else feels completely confident about their body, and I am not the only one who feels this way.	1	2	3	4

40. I wish I had a better body.	1	2	3	4
41. I tell myself to focus on aspects of my appearance I like rather than the things I don't like.	1	2	3	4
42. I keep telling myself over and over that I need to lose weight.	1	2	3	4
43. I tell myself to stop thinking about it.	1	2	3	4
44. I stop looking in full-body mirrors.	1	2	3	4
45. I say to myself that anyone who judges me for not having a perfect body is not worth knowing.	1	2	3	4
46. If other people are around, I try to act confident about my body.	1	2	3	4
47. I compare myself to good-looking people.	1	2	3	4
48. I wear tight clothes to show off my body.	1	2	3	4
49. I weigh myself.	1	2	3	4
50. I eat something to help me feel better.	1	2	3	4
51. I wish I were taller.	1	2	3	4
52. I get my mind off of my body by doing something else.	1	2	3	4
53. When I'm not happy with my body, I cannot stop staring at myself in the mirror.	1	2	3	4
54. I worry that people will not want to hang around me.	1	2	3	4
55. I will talk to other people to feel better.	1	2	3	4
56. I tell myself that I will put more effort into my appearance in the morning.	1	2	3	4
57. I go on a diet.	1	2	3	4
58. I say to myself, I don't look so bad.	1	2	3	4
59. When I don't feel good about my body, I worry about getting exercise.	1	2	3	4
60. I tell myself that I will change the foods I eat.	1	2	3	4

61. I say to myself, how I look now is only temporary.	1	2	3	4
62. I tell myself that I need to put on weight.	1	2	3	4
63. I wish I could trade bodies with someone else.	1	2	3	4
64. When I feel unhappy about my body, I try not to think about it.	1	2	3	4
65. I say to myself, I do not have to be perfect.	1	2	3	4
66. I worry about the shape of my body.	1	2	3	4
67. I say to myself, I look better than some people.	1	2	3	4
68. I tell myself that I will go as long as I can without eating.	1	2	3	4
69. I tell myself that I will feel better if I take a bath/shower.	1	2	3	4
70. I say to myself, I will change my hair (the style, color, etc.).	1	2	3	4
71. I say to myself, I will get a tan.	1	2	3	4
72. When I feel unhappy with my body, I tell myself that I will get plastic surgery or liposuction someday.	1	2	3	4
73. I worry about eating.	1	2	3	4
74. I wish I could rewind to the past when I looked different.	1	2	3	4
75. I start eating healthier.	1	2	3	4
76. I ask other people if they think I look good.	1	2	3	4
77. When I feel bad about how my body looks, I avoid being around people.	1	2	3	4
78. I say to myself, nothing is wrong with me.	1	2	3	4

Adolescent Responses to Body Dissatisfaction (ARBD)

Revised 70-item Version

Take a look at the list below. Think back over the past year. Check all the things on this list that have bothered you. Which things made you wish you looked different?

- Seeing my reflection in the mirror
- Trying on clothes
- Getting weighed or weighing myself
- Comparing my looks to others'
- Noticing that my clothes are not fitting right
- Getting teased about how I look
- Reading fitness or fashion magazines
- Having to wear a bathing suit
- Feeling like my body is developing faster than my friends'
- Feeling like I am getting "checked out"
- Feeling like my body is developing more slowly than my friends'
- Hearing my friends complain about how they look
- Hearing "advice" from friends/family on how to improve my appearance
- Wishing I could impress someone I like
- Other **Describe:** _____

In general, how often do things like these bother you?

1	2	3	4	5
Never	Rarely	Sometimes	Often	All the time

Think of these situations and the way they made you feel about your body and your looks. When things like this happen, do you think or do the following things?

1. None 2. A little 3. Some (Moderately) 4. A lot (Very Much) 5. Always (Extremely)

1. I ask my friends to help me out with ideas to look better.	1	2	3	4
2. I say to myself that I am perfect the way I am.	1	2	3	4
3. I stop eating so much junk food.	1	2	3	4
4. I lift weights to get stronger.	1	2	3	4
5. I say to myself that I do not need to change.	1	2	3	4
6. I start wearing more stylish clothes.	1	2	3	4
7. I refuse to go out anywhere so I will not be embarrassed.	1	2	3	4
8. I worry about what other people think of me.	1	2	3	4
9. I say to myself this is who I am.	1	2	3	4
10. I say to myself that other people look like this, too.	1	2	3	4
11. I tell myself that not everyone can have the body of a model.	1	2	3	4
12. I say to myself, a lot of people like the way I look.	1	2	3	4
13. I tell myself that people like me for who I am.	1	2	3	4
14. I tell myself that a good attitude will make me look a lot better than if I worry about it.	1	2	3	4
15. I tell myself that my looks do not define me.	1	2	3	4
16. I wear baggy clothes to hide my body.	1	2	3	4
17. I get upset and overeat.	1	2	3	4
18. I say to myself, at least I have a wonderful personality.	1	2	3	4
19. I exercise to boost my confidence.	1	2	3	4
20. I say to myself, I will be a success, no matter what size	1	2	3	4

21. I think about the blessings I have in my life instead.	1	2	3	4
22. I remind myself that I am still growing, and I am not going to look like this forever.	1	2	3	4
23. I wish I were thinner.	1	2	3	4
24. I tell myself that I like the way I look.	1	2	3	4
25. I tell myself everybody comes in different shapes and sizes, and this is mine.	1	2	3	4
26. I say to myself, I'm not the worst looking person.	1	2	3	4
27. When I think about not liking my body, my face turns red with embarrassment.	1	2	3	4
28. When I get upset about my body, I cannot concentrate on anything else.	1	2	3	4
29. I skip meals.	1	2	3	4
30. I say to myself, I might look better once I get older.	1	2	3	4
31. I tell myself a joke to take my mind off of it.	1	2	3	4
32. I break my mirror so I never have to see myself.	1	2	3	4
33. I remind myself that nobody else feels completely confident about their body, and I am not the only one who feels this way.	1	2	3	4
34. I wish I had a better body.	1	2	3	4
35. I tell myself to focus on aspects of my appearance I like rather than the things I don't like.	1	2	3	4
36. I keep telling myself over and over that I need to lose weight.	1	2	3	4
37. I tell myself to stop thinking about it.	1	2	3	4
38. I stop looking in full-body mirrors.	1	2	3	4
39. If other people are around, I try to act confident about my body.	1	2	3	4
40. I compare myself to good-looking people.	1	2	3	4

41. I wear tight clothes to show off my body.	1	2	3	4
42. I weigh myself.	1	2	3	4
43. I eat something to help me feel better.	1	2	3	4
44. I wish I were taller.	1	2	3	4
45. I get my mind off of my body by doing something else.	1	2	3	4
46. When I'm not happy with my body, I cannot stop staring at myself in the mirror.	1	2	3	4
47. I worry that people will not want to hang around me.	1	2	3	4
48. I will talk to other people to feel better.	1	2	3	4
49. I tell myself that I will put more effort into my appearance in the morning.	1	2	3	4
50. I go on a diet.	1	2	3	4
51. When I don't feel good about my body, I worry about getting exercise.	1	2	3	4
52. I tell myself that I will change the foods I eat.	1	2	3	4
53. I say to myself, how I look now is only temporary.	1	2	3	4
54. I tell myself that I need to put on weight.	1	2	3	4
55. I wish I could trade bodies with someone else.	1	2	3	4
56. When I feel unhappy about my body, I try not to think about it.	1	2	3	4
57. I say to myself, I do not have to be perfect.	1	2	3	4
58. I worry about the shape of my body.	1	2	3	4
59. I say to myself, I look better than some people.	1	2	3	4
60. I tell myself that I will go as long as I can without eating.	1	2	3	4
61. I tell myself that I will feel better if I take a bath/shower.	1	2	3	4
62. I say to myself, I will change my hair (the style, color, etc.).	1	2	3	4

63. I say to myself, I will get a tan.	1	2	3	4
64. When I feel unhappy with my body, I tell myself that I will get plastic surgery or liposuction someday.	1	2	3	4
65. I worry about eating.	1	2	3	4
66. I wish I could rewind to the past when I looked different.	1	2	3	4
67. I start eating healthier.	1	2	3	4
68. I ask other people if they think I look good.	1	2	3	4
69. When I feel bad about how my body looks, I avoid being around people.	1	2	3	4
70. I say to myself, nothing is wrong with me.	1	2	3	4

Footnotes

¹ Parallel analysis compares eigenvalues from sample data to eigenvalues obtained from randomly generated data for a given sample size and number of variables and is based on the reasoning that eigenvalues from the actual data with an underlying latent structure should be greater than eigenvalues based on random data (Fabrigar, Wegener, MacCallum, & Strahan, 1999). The maximal number of factors to be retained is determined by the point at which the factors based on sample data explain less variance than factors based on random data (Floyd & Widaman, 1995). The parallel analysis was conducted using syntax developed by O'Connor (2000).

² Though our interest was in pairwise comparisons, the Games-Howell was preferable to Tukey's HSD for comparisons of ethnic groups in the sample, as the Games Howell test is appropriate for unequal group variances and also takes into account unequal group sizes.