

WHEN THE BODY DEFINES THE SELF: SELF-CONCEPT CLARITY, INTERNALIZATION, AND BODY IMAGE

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Without a clearly defined sense of self, individuals might seek out external sources to provide coherence to their identity. One such external source is society's standards of attractiveness (i.e., thinness for women, muscularity for men). The present research examined the link between self-concept clarity, internalization of societal standards, and body image and dieting concerns. Study 1 ($n = 322$) showed that lower self-concept clarity predicted a greater degree of internalization of societal standards for women, but not for men. Internalization for women and men predicted body image and dieting concerns, which in turn predicted dieting behavior. Study 2 ($n = 175$) showed that factors such as conformity and body weight contingency of self-worth mediated the associations that were observed in Study 1. Women's self-concept can play a role in the development of body image problems by making them vulnerable to (or by buffering them against) the internalization of societal standards of attractiveness.

Sociocultural factors are important contributors to the development and maintenance of body image problems and disordered eating behavior. For example, media images portray a thin-ideal for women's bodies that is unachievable for most women, and these media images can contribute to women's dissatisfaction with their own bodies. Indeed, numerous studies have now demonstrated that exposure to thin-ideal media leads to negative feelings about one's own body (see Grabe, Ward, & Hyde, 2008; Groesz, Levine, & Murnen, 2002). Perhaps of equal importance, however, are the characteristics of the

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individuals who are exposed to these sociocultural factors, insofar as such characteristics can mitigate or exacerbate the effects of sociocultural norms. Most people are exposed to the same media images and the same societal pressures to be thin (for women) or lean and muscular (for men), but not everyone internalizes those standards to the same degree (Thompson & Stice, 2001). Internalization of societal standards of attractiveness predicts body dissatisfaction among women (Cafri, Yamamiya, Brannick, & Thompson, 2005), which in turn contributes to disordered eating behavior (Stice, 1994, 2002). Internalization has also been shown to mediate the relation between parental, peer, and media influence and body dissatisfaction (e.g., Keery, van den Berg, & Thompson, 2004; Stice, Schupak-Neuberg, Shaw, & Stein, 1994; Tiggemann, 2003). Indeed, a number of experimental studies have demonstrated that only those individuals who have internalized societal standards of attractiveness are affected by exposure to thin-ideal media images (e.g., Dittmar & Howard, 2004; Halliwell & Dittmar, 2004). A vast majority of the research on internalization and body image has focused on women and girls; research among men and boys has yielded more mixed results (as discussed below). The purpose of the present study is to examine some of the factors that might determine who is most likely to internalize societal standards of attractiveness.

PREDICTORS OF INTERNALIZATION OF SOCIETAL STANDARDS OF ATTRACTIVENESS

Internalization of societal standards of attractiveness plays a major role in the development of body image problems and disordered eating, but not everyone internalizes those standards to the same degree. Therefore, it is important to determine whether there are identifiable factors that can protect individuals against, or make them vulnerable to, internalization of those societal standards. A number of studies have examined specific individual-difference variables that are related to internalization.

Self-Esteem and Internalization. Self-esteem is an individual-difference variable that has a rich history in the dieting and eating disorder literature, as it does in other domains of psychopathology. For

example, eating disorder patients have lower global self-esteem than do non-eating-disordered individuals (e.g., Moor, Vartanian, Touyz, & Beumont, 2004), and low self-esteem has been identified as a risk factor for the development of eating disorders (Polivy & Herman, 2002). Indeed, longitudinal studies have found that self-esteem prospectively predicts body dissatisfaction (Paxton, Eisenberg, & Neumark-Sztainer, 2006) and disordered eating (Button, Sonuga-Barke, Davies, & Thompson, 1996; Ghaderi, 2003; Stice, Presnell, & Spangler, 2002; for an exception, see Shaw, Stice, & Springer, 2004). Of particular relevance, models of sociocultural influences on disordered eating have pointed to self-esteem as a determinant of internalization of societal standards of attractiveness (e.g., Stice, 1994), with a number of studies showing a negative association between self-esteem and internalization of societal standards of attractiveness (e.g., Clay, Vignoles, & Dittmar, 2005; Cusumano & Thompson, 1997; Fingeret & Gleaves, 2004). In addition, internalization has been shown to at least partially mediate the link between self-esteem and body dissatisfaction (e.g., Fingeret & Gleaves, 2004).

Gender and Internalization. Gender differences in the prevalence of body image problems and disordered eating behavior have been well documented. Historically, the literature on body image and disordered eating has focused on women because of the observed gender asymmetry in the prevalence of body image and eating problems. Much of the discourse related to this asymmetry has centered on the different sociocultural pressures that women and men face, and in particular the notion that the pressures for women are more ubiquitous (e.g., Polivy & Herman, 2002). More recently, researchers have recognized that there is an increasing focus on male body image in society and in the media (Pope, Phillips, & Olivardia, 2000). For example, studies have shown that media representations of the male body are increasingly lean and muscular and increasingly unrealistic to attain without the use of anabolic steroids and other extreme measures (Leit, Pope, & Gray, 2001; Pope, Olivardia, Gruber, & Borowiecki, 1999). Thus, the focus of the discourse on gender differences has shifted from the relative frequency of the social pressures to the nature of those social pressures; whereas the standard of attractiveness for women is an unrealistically thin body, the standard of attractiveness for men is a lean and muscular body

that is similarly unrealistic for most men to achieve. As in studies of female body image, there is some evidence that exposure to the ideal male (i.e., lean and muscular) body results in negative affect and negative body-related perceptions among boys and men (Halliwell, Dittmar, & Orsborn, 2007; Leit, Gray, & Pope, 2002), but the impact of such exposure might depend on the nature of the images presented (e.g., aesthetic vs. performance focus; Farquhar & Wasylikiw, 2007). Finally, there is also evidence that body dissatisfaction among men leads to unhealthy weight-control behaviors (e.g., Keel, Klump, Leon, & Fulkerson, 1998; Smolak, Levine, & Thompson, 2001). Overall, there seems to be an increase in societal pressures regarding men's body image, and these pressures have similar effects to those found among women.

Research examining gender differences in the internalization of societal standards of attractiveness has provided somewhat mixed findings. For example, Cashel, Cunningham, Landeros, Cokley, and Muhammad (2003) and Halliwell and Harvey (2006) found that females were more likely than males to have internalized societal standards of attractiveness when "attractiveness" was defined according to the thin-ideal body. Morry and Staska (2001), however, found no difference between men and women in terms of internalization when the "attractiveness" for men was defined in terms of a muscular ideal. Among men, just as among women, internalization of societal standards of attractiveness has consistently been related to body dissatisfaction, although the magnitude of the correlation for men is generally smaller (e.g., Cahill & Mussap, 2007; Cashel et al., 2003; Halliwell & Harvey, 2006; Jones, 2004; Morry & Staska, 2001; Smolak et al., 2001). In contrast, internalization is generally related to indices of eating pathology among females, but not among males (Cahill & Mussap, 2007; Cashel et al., 2003; Morry & Staska, 2001). Thus, although males may or may not exhibit a high degree of internalization of societal standards of attractiveness, those who do internalize those standards exhibit an increase in dissatisfaction with their bodies. The lack of a consistent effect for indices of eating pathology for men might reflect the nature of those measures; that is, measures of eating pathology might reflect behavioral tendencies that are more consistent with a desire to achieve a thin body, and might therefore be more relevant to women than to men. Consis-

tent with this suggestion is the finding that internalization among men is related to concerns with muscularity and attempts to build muscle mass (Cahill & Mussap, 2007; Smolak et al., 2001).

Body Mass Index and Internalization. The literature on the relation between body mass index (BMI) and internalization of societal standards of attractiveness has produced inconclusive findings. The majority of studies find no association between BMI and the degree of internalization of societal standards of attractiveness (Engeln-Maddox, 2005; Fingeret & Gleaves, 2004; Low et al., 2003; Matz, Foster, Faith, & Wadden, 2002; Stice, Mazotti, Krebs, & Martin, 1998; Stice, Shaw, & Nemeroff, 1998; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004). A small number of studies did find a positive correlation between BMI and degree of internalization, but those studies were generally conducted among adolescents (e.g., Keery et al., 2004; Sands & Wardle, 2003; Smolak et al., 2001), and not all studies among adolescents have found significant associations (e.g., Halliwell & Harvey, 2006).

Other Predictors of Internalization. A number of other individual differences have been examined as they relate to internalization of societal standards of attractiveness. Tester and Gleaves (2005), for example, found that self-deceptive enhancement (the tendency to have a positively-biased sense of self) predicted internalization of the thin-ideal. Specifically, individuals high in self-deceptive enhancement were less likely to have internalized societal standards of attractiveness, suggesting that self-deceptive enhancement is a protective factor against internalization. Pelletier, Dion, and Lévesque (2004) showed that individuals who were highly self-determined (that is, individuals whose actions are determined by their own motives and interests as opposed to external pressures) were less likely to have internalized societal standards of attractiveness. Other research has found that women who are generally nonconformist are less likely to have internalized societal standards of attractiveness (Twamley & Davis, 1999). Finally, endorsement of traditional feminine values versus a feminist identity has been investigated as a potential protective or risk factor, but this factor has not been consistently supported by the research evidence (Fingeret & Gleaves, 2004; Myers & Crowther, 2007; Stice et al., 1994; Twamley & Davis, 1999).

SELF-CONCEPT CLARITY

An individual difference that might be particularly relevant as a protective or risk factor with respect to internalization of societal standards of attractiveness is the extent to which individuals have a clear sense of their own identity. Campbell and colleagues (1996) developed a self-report measure of the extent to which individuals have a well defined, coherent, and stable sense of self (the Self-Concept Clarity Scale; SCCS). These researchers found that individuals who scored low on the SCCS (indicating low self-concept clarity) also had lower self-esteem, and higher levels of depression and neuroticism. Campbell (1990) also argued that individuals who have low self-concept clarity "should be more dependent on, susceptible to, and influenced by external" forces (p. 539).

Self-concept clarity can be differentiated from some other conceptually related constructs, such as self-complexity and self-monitoring. Self-complexity refers to the extent to which individuals have multi-faceted self-definitions (e.g., Lineville, 1985). Self-concept clarity, in contrast, refers to the extent to which the facets of self-definition are stable and well defined, regardless of how many facets there are. Campbell, Assanand, and Di Paula (2003) found no association between measures of self-complexity and measures of self-concept clarity, suggesting that they are somewhat independent constructs. Self-monitoring refers to the tendency to monitor social situations and to regulate one's self-presentation to meet the demands of the situation, as opposed to relying on one's own inner attitudes, feelings, and beliefs (e.g., Gangestad & Snyder, 2000). Thus, like individuals with low self-concept clarity, high self-monitors should also be more easily influenced by external factors. High self-monitors, however, do not necessarily lack a clear and coherent sense of self; rather, they are motivated to adapt to social situations and adjust their behavior accordingly, regardless of whether or not they have a clear sense of self. Thus, self-concept clarity is a unique construct that focuses on the coherence and stability of the self, which is particularly relevant in the current context.

Discussions of the role of identity disturbance in disordered eating are not new (e.g., Bruch, 1973). Empirically, a handful of studies

have demonstrated that dieters and eating-disordered individuals have less clearly defined and less stable self-concepts. Schupak-Neuberg and Nemeroff (1993), for example, found that individuals with bulimic symptoms had higher levels of identity confusion (e.g., "I feel confused as to who I am") than did normal controls, and they also showed less stability in their self-definitions over a two-week period. More recently, Wheeler and colleagues (Wheeler, Winter, & Polivy, 2003) found that identity confusion (defined as having a "diffuse-avoidant identity") was correlated with the psychological subscales (e.g., ineffectiveness, perfectionism) of the Eating Disorder Inventory (EDI; Garner, Olmstead, & Polivy, 1983), but not with the food/shape subscales (i.e., bulimia, drive for thinness, body dissatisfaction). Wheeler and Polivy (2002, as cited in Polivy & Herman, 2007) further showed that, for restrained eaters (chronic dieters), their diet- and weight-related goals are central to their self-definition. Considering this body of research, Polivy and Herman (2007) concluded that dieting is a means through which some individuals can define themselves.

Thus, there is some evidence that individuals with body image and eating problems also have less clear self-concepts. It has also been suggested that identity disturbance might lead to internalization of societal standards of attractiveness (Stice, 1994), a notion that is consistent with Campbell's (1990) proposition that individuals with low self-concept clarity should be more influenced by external factors. Perhaps individuals who have a less clear sense of their own identity seek external sources to help them define themselves, and internalization of societal standards of attractiveness represents a manifestation of their attempt to define themselves. Examining the link between identity disturbance and internalization of societal standards of attractiveness, body dissatisfaction, and eating behaviors could help to isolate the locus of the association with self-concept clarity.

THE PRESENT RESEARCH

The primary purpose of the present research is to further explore some of the individual-difference variables that can contribute to the internalization of societal standards of attractiveness. Study 1 focused on self-esteem and self-concept clarity as elements of the

self that can be protective factors against internalization. The inclusion of both self-esteem and self-concept clarity follows from Stice's (1994) suggestion that these variables can be important determinants of internalization, as well as from Campbell's (1990) differentiation of self-esteem and self-concept clarity as reflecting the evaluative and knowledge components of the self, respectively. It was hypothesized that low self-concept clarity and low self-esteem would predict a high degree of internalization. Study 1 also sought to replicate the previously established association between internalization and body image concerns, and between body image concerns and dieting behaviors. Study 2 further explored the predictors of internalization by focusing on possible mediators of the observed effects.

STUDY 1

METHOD

Participants

Participants were 322 individuals (249 women, 73 men) who took part in an online survey about "attitudes, beliefs, and health behaviors." Their mean age was 24.8 years (range = 14 to 59), and their mean BMI was 24.7 (range = 12 to 60). Of those who reported their ethnicity, 223 (70.6%) were White, 22 (7.0%) were African American, 15 (4.7%) were Hispanic, 29 (9.2%) were Asian, and 27 (8.5%) identified as biracial/mixed or "other." Ninety-four percent of the sample ($n = 296$) had graduated from high school, and 45% ($n = 142$) had a college degree. Participation was voluntary.

Measures and Procedure

A link to the Internet survey was posted on the Social Psychology Network's website (<http://www.socialpsychology.org>) and was open to the general public. This website contains a section for online psychology studies where interested visitors have the opportunity to take part in a variety of research studies. Participants signed up for the present study on their own volition. Data were collected between March 2006 and February 2007. After reading the consent form, participants proceeded through the questionnaires at their

own pace. In addition to some filler measures, participants completed the following questionnaires:

Self-Esteem. Self-esteem was assessed using the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). Each item was rated on a 7-point scale (1 = *Strongly disagree*, 7 = *Strongly agree*). Higher scores indicated higher self-esteem. Cronbach's alpha was .87.

Self-Concept Clarity. The Self-Concept Clarity Scale (SCCS; Campbell et al., 1996) was used as a measure of the clarity of one's identity. The SCCS assesses the extent to which an individual's self-beliefs are "clearly and confidently defined, internally consistent, and temporally stable" (Campbell et al., 1996, p. 141). Sample items include "My beliefs about myself seem to change very frequently" and "In general, I have a clear sense of who I am and what I am." Each item was rated on a 7-point scale (1 = *Strongly disagree*, 7 = *Strongly agree*). Higher scale scores indicated a greater degree of self-concept clarity. Cronbach's alpha was .90.

Internalization of Societal Standards of Attractiveness. The Sociocultural Attitudes Toward Appearance Questionnaire (SATAQ; Heinberg, Thompson, & Stormer, 1995) is a 14-item scale that assesses the degree to which people are aware of societal standards of attractiveness, as well as the extent to which individuals internalize those standards as self-relevant beliefs. The original scale was designed to assess these constructs among women (referring, for example, to "thin models in magazines"). An alternate version of the measure was created for male participants following the suggestion of Smolak et al. (2001). For items that made specific reference to "thinness" or "thin women," the wording was modified to refer to "muscularity" or "muscular" men. For the present study, only the 8 items of the internalization subscale were included. Each item was rated on a 7-point scale (1 = *Completely disagree*, 7 = *Completely agree*), and higher scores indicated a greater degree of internalization. Cronbach's alphas were .89 for women and .88 for men.

Body Image and Dieting Concerns. Two subscales of the Eating Disorder Inventory (EDI; Garner et al., 1983) were used to assess individuals' concerns with body weight and shape: the Body Dissatisfaction (EDI-BD) subscale and the Drive for Thinness (EDI-DFT) subscale. For both subscales, items were rated on a 6-point scale (1 = *Never*, 6 = *Always*), with higher scores indicating greater body

dissatisfaction and greater drive for thinness. Cronbach's alpha was .91 for both scales. Participants also completed the Restraint Scale (Herman & Polivy, 1980), a 10-item self-report measure of dietary concerns, eating habits, and weight fluctuations. Higher scores indicated a greater degree of dietary restraint. Cronbach's alpha was .81.

Dieting Behaviors. Participants were also asked to report the frequency with which they engage in a variety of dieting-related behaviors (limiting daily intake, planning daily intake carefully, eating low-fat foods, avoiding desserts, and avoiding overeating). Each item was rated on a 5-point scale (1 = *Never*, 5 = *Always*). Higher scores indicated a greater frequency of engaging in these dieting behaviors. Cronbach's alpha was .87.

Demographics. Finally, participants were asked to report their height, weight, and ideal weight, as well as their ethnicity and their highest level of education obtained. BMI was calculated as kg/m². Discrepancy from ideal weight was calculated by subtracting individuals' ideal weight from their self-reported weight such that positive values indicated a higher-than-ideal weight and negative values indicated a lower-than-ideal weight.

RESULTS

Gender Differences

Table 1 presents the means and standard deviations for each variable separately for men and women. Compared to male respondents, female respondents reported higher levels of body dissatisfaction, drive for thinness, and dietary restraint. Female respondents also reported being more discrepant from their ideal weight (specifically, they reported a higher-than-ideal weight), and reported more frequently engaging in dieting behaviors. Consistent with previous research (e.g., Campbell et al., 1996), women had somewhat lower self-concept scores than did men, although the difference was not statistically significant ($p = .09$). There were no significant differences between female and male respondents in terms of self-esteem, internalization of societal standards of attractiveness, and BMI.

TABLE 1. Study 1 Means (SD) for Women and Men

	Women	Men
Self-esteem	50.78 (10.58)	53.95 (8.92)
Self-concept clarity	49.97 (14.18)	53.13 (13.39)
Internalization	31.17 (11.09)	28.08 (10.33)
Body dissatisfaction	32.16 (10.98) ^a	22.39 (8.07) ^b
Drive for thinness	22.04 (9.00) ^a	14.93 (6.59) ^b
Restraint	13.76 (6.47) ^a	8.66 (5.19) ^b
Dieting behaviors	2.96 (1.00) ^a	2.19 (0.90) ^b
BMI	24.88 (6.74)	24.10 (4.52)
Weight discrepancy	21.51 (31.58) ^a	3.37 (18.87) ^b

Note. Means within a row with different superscripts are significantly different at $p < .0056$ (adjusted for multiple comparisons).

Correlational Analyses

Table 2 shows the bivariate correlations among all of the variables of interest, separately for women and men. Correlations for female respondents appear below the diagonal, and correlations for male respondents appear above the diagonal. Because body dissatisfaction, drive for thinness, and dietary restraint were all highly correlated ($r_s \geq .50$, $p_s < .001$), a composite measure of body image and dieting concerns was created. Each of the measures was standardized, and then the standardized measures were averaged together. This composite measure was used in the relevant analyses below (Cronbach's alpha = .86 for women and .79 for men). Of particular note, self-esteem and self-concept clarity were both negatively correlated with internalization of societal standards of attractiveness for women, but not for men. For women, self-esteem and self-concept clarity were negatively correlated with body image and dieting concerns, and internalization was positively correlated with body image and dieting concerns; for men, self-esteem was negatively correlated and internalization was positively correlated with body image and dieting concerns, but the negative correlation between self-concept clarity and body image and dieting concerns was only marginally significant ($p = .09$). Body image and dieting concerns were positively correlated with dieting behaviors for both women and men.

TABLE 2. Bivariate Correlations for Study 1

	1	2	3	4	5	6	7
1. SE	—	.55***	.03	-.30*	-.02	-.07	-.27*
2. SCC	.63***	—	-.10	-.20	.09	.14	.08
3. INT	-.26***	-.37***	—	.31**	.25*	.15	-.01
4. BodyDiet	-.44***	-.43***	.59***	—	.65***	.45***	.60***
5. Diet	-.22***	-.25***	.43***	.66***	—	.29*	.34***
6. BMI	-.11	-.06	-.01	.42***	.13*	—	.66***
7. WDis	-.24***	-.19**	.11	.47***	.17*	.88***	—

Note. Correlations for female respondents appear below the diagonal and for male respondents appear above the diagonal. SE = Self-esteem; SCC = Self-concept clarity; INT = Internalization of societal standards of attractiveness; BodyDiet = Body image and dieting concerns; Diet = Dieting behaviors; BMI = Body mass index; WDis = Discrepancy from ideal weight. * $p < .05$, ** $p < .01$, *** $p < .001$.

Regression Analyses

A series of regression analyses was conducted to predict body image and weight-related variables. Regressions are presented separately for women and men (Table 3). Where appropriate, mediational analyses were also conducted following the procedure outlined by Baron and Kenny (1986). The Sobel test for mediation was computed using the SPSS syntax provided by Preacher and Hayes (2004).

Predictors of Internalization. First, internalization was regressed on self-esteem and self-concept clarity. For women, the overall model was significant, $F(2, 246) = 19.27$, $p < .001$, explaining 14% of the variance in internalization, but self-concept clarity was the only independent predictor. Controlling for BMI and weight discrepancy did not change the pattern of results. Furthermore, mediational analysis indicated a significant indirect path from self-esteem through self-concept clarity to internalization, Sobel's $Z = -4.12$, $p < .001$. That is, self-concept clarity mediated the observed bivariate correlation between self-esteem and internalization. For men, the overall model predicting internalization was not significant, $F(2, 70) = 0.81$, $p = .45$.

Predictors of Body Image and Dieting Concerns. Next, the body image and dieting concerns composite was regressed on internalization (Step 1) and self-concept clarity and self-esteem (Step 2). For women, internalization by itself was a significant predictor of body

TABLE 3. Hierarchical Regression Analyses for Study 1.

Outcome	Predictors	Women		Men	
		β	p	β	p
Internalization					
	Self-esteem	-.05	.48	.13	.36
	Self-concept clarity	-.33	< .001	-.18	.22
Body image/dieting concerns					
	Internalization	.49	< .001	.33	.004
	Self-esteem	-.25	< .001	-.31	.02
	Self-concept clarity	-.09	.14	.01	.95
Dieting behaviors					
	Body image/dieting concerns	.67	< .001	.70	< .001
	Internalization	.06	.32	.04	.68
	Self-esteem	.08	.21	.09	.43
	Self-concept clarity	.01	.91	.18	.09

Note. β = Standardized beta coefficients.

image and dieting concerns, $F(1, 247) = 134.25, p < .001$, explaining 35% of the variance in body image and dieting concerns. Adding self-esteem and self-concept clarity to the model explained an additional 9% of the variance ($p < .001$). Internalization was still a significant predictor in this model, as was self-esteem, but self-concept clarity was not. Controlling for BMI and weight discrepancy did not change the pattern of results. Furthermore, a test of mediation was conducted to determine whether internalization mediated the observed bivariate correlation between self-concept clarity and body image and dieting concerns for women. The indirect path from self-concept clarity through internalization to body image and dieting concerns was significant (Sobel's $Z = -5.16, p < .001$), although the direct path between self-concept clarity and body image and dieting concerns remained highly significant ($\beta = -.25, p < .001$).

For men, internalization by itself was a significant predictor of body image and dieting concerns, $F(1, 71) = 7.75, p = .007$, explaining 10% of the variance. Adding self-esteem and self-concept clarity to the model explained an additional 10% of the variance ($p = .02$). Internalization remained a significant predictor of body image and dieting concerns, and self-esteem was also a significant predictor, but self-concept clarity was not. Controlling for BMI and weight discrepancy did not change the pattern of results, except that self-

esteem was no longer a statistically significant predictor ($\beta = -.04$, $p = .76$) but self-concept clarity was ($\beta = -.24$, $p < .05$).

Predictors of Dieting Behaviors. Finally, frequency of dieting behaviors was regressed on body image and dieting concerns (Step 1), internalization (Step 2), and self-esteem and self-concept clarity (Step 3). For women, body image and dieting concerns by itself was a significant predictor of dieting behaviors, $F(1, 243) = 189.89$, $p < .001$, explaining 44% of the variance. Adding internalization ($\Delta R^2 = .002$, $p = .33$) and self-esteem and self-concept clarity ($\Delta R^2 = .006$, $p = .28$) to the model did not explain any additional variance in dieting behaviors. Controlling for BMI and weight discrepancy also did not change the pattern of results.

For men, body image and dieting concerns by itself was a significant predictor of dieting behaviors, $F(1, 70) = 52.10$, $p < .001$, explaining 43% of the variance. Adding internalization ($\Delta R^2 = .002$, $p = .60$) to the model did not predict any additional variance in dieting behaviors, but adding self-esteem and self-concept clarity explained an additional 5% of the variance ($p = .04$). Body image and dieting concerns was still a significant predictor of dieting behaviors, but no other variable was a significant independent predictor. Controlling for BMI and weight discrepancy did not change the pattern of results, except that self-concept clarity emerged as a significant independent predictor of dieting behaviors ($\beta = .24$, $p = .05$).

For women, mediational analysis revealed that body image and dieting concerns mediated the relation between internalization and dieting behaviors, Sobel's $Z = 7.74$, $p < .001$, and that the relation between internalization and dieting behaviors was no longer significant after controlling for the mediator ($\beta = .06$, $p = .33$). For men, the mediational analysis also showed that body image and dieting concerns mediated the relation between internalization and dieting behaviors, Sobel's $Z = 2.55$, $p = .01$. When body image and dieting concerns was added to the model, the relation between internalization and dieting behaviors was no longer significant ($\beta = .05$, $p = .60$).

DISCUSSION

Study 1 examined self-concept clarity and self-esteem as predictors of internalization of societal standards of attractiveness. For women, self-esteem and self-concept clarity were negatively correlated with internalization of societal standards of attractiveness. Surprisingly, when self-esteem and self-concept clarity were included in a regression model simultaneously, only self-concept clarity emerged as an independent predictor of internalization. Campbell (1990) distinguished between an evaluative component of the self (i.e., self-esteem) and a knowledge component of the self (i.e., self-concept clarity). The findings of Study 1, then, suggest that deficits in the knowledge of one's self, rather than negative self-evaluation, are important in determining the degree of internalization of societal standards of attractiveness. For men, there was no association between either self-esteem and internalization or self-concept clarity and internalization, suggesting that neither the evaluative component nor the content of men's self-concepts are important determinants of internalization. This finding was unexpected given that there were no significant gender differences in the overall level of self-esteem, self-concept clarity, and internalization, and given that there is some recent evidence that self-concept clarity is related to internalization among Australian men and boys (Cahill & Mussap, 2007; Humphreys & Paxton, 2004).

As predicted, internalization of societal standards was related to body image and dieting concerns for both men and women, and body image and dieting concerns in turn predicted dieting behaviors. Self-concept clarity did not predict any additional variance in body image and dieting concerns above internalization of societal standards, nor did self-concept clarity predict any additional variance in dieting behaviors above body image and dieting concerns. Although BMI and weight discrepancy were significant predictors of body image and dieting for women and men, controlling for BMI and weight discrepancy in the regression analyses had no impact on the overall pattern of results. Thus, the contribution of self-concept clarity to understanding body image difficulties appears to be specific to the internalization of societal standards of attractiveness, and it appears to be unique to women. Women who have low self-concept clarity might internalize societal standards of attractiveness

as a means of defining themselves. A consequence of internalization of societal standards for women *and* men is body image and dieting concerns, and those concerns can lead to unhealthy weight-control efforts.

The results of Study 1 provide some initial evidence that self-concept clarity can play an important role in the internalization of societal standards of attractiveness, at least for women. The goal of Study 2 was to build on this initial evidence by further examining the nature of these associations. If the association between self-concept clarity and internalization is based on the fact that those with low self-concept clarity are more reliant on external cues, then there are a number of factors that can be considered as potential mediators of the link between self-concept clarity and internalization. For example, individuals who have low self-concept clarity might be generally more conformist (i.e., they might be more generally influenced by external factors), and adopting societal standards of attractiveness as their own personal beliefs is simply a domain-specific manifestation of a more general tendency to conform. Consistent with this notion, there is some evidence that women who are nonconformist are less likely to have internalized societal standards of attractiveness (Twamley & Davis, 1999). Another related factor could be the extent to which individuals are sensitive to the opinions of others and the impressions that others have of them (i.e., their public self-consciousness). Campbell et al. (1996) found that individuals who have low self-concept clarity also tend to be high in public self-consciousness, and researchers have found that individuals with eating disturbances also have higher levels of public self-consciousness (e.g., Forbush & Watson, 2006). Finally, individuals with low self-concept clarity might be prone to base their self-worth on achievement in particular domains (that is, they might hold contingencies of self-worth; Crocker & Wolfe, 2001). Of particular relevance, individuals with low self-concept clarity who have internalized societal standards of attractiveness might base their self-worth on their body image (Clabaugh, Karpinski, & Griffin, 2008). These factors will be examined as possible mediators in Study 2.

STUDY 2

This study expanded on Study 1 by examining some of the potential mediators of the association between self-concept clarity and internalization of societal standards of attractiveness: specifically, conformity, public self-consciousness, and body weight contingency of self-worth. It was hypothesized that each of these variables will partially mediate the association between self-concept clarity and internalization. As in Study 1, this study also examined the predictors of body image and dieting concerns, and it was hypothesized that internalization would again be the strongest predictor. Finally, Study 1 focused on dieting behaviors as the ultimate behavioral outcome. Because these behaviors do not necessarily indicate a pathological state (and may in fact be healthy behaviors in certain contexts), Study 2 focused on more pathological bulimic behaviors.

METHOD

Participants

Participants were 175 individuals (124 women, 51 men) who took part in an online survey about "attitudes, beliefs, and health behaviors." Their mean age was 20.6 years (range = 18 to 45), and their mean BMI was 23.6 (range = 17 to 39). Of those who reported their ethnicity, 93 (53.8%) were White, 9 (5.2%) were African American, 13 (7.5%) were Hispanic, 49 (28.3%) were Asian, and 9 (5.2%) identified as biracial/mixed or "other." With respect to year in college, 19.5% ($n = 34$) of the sample consisted of first-year students, 21.3% ($n = 37$) of second-year students, 25.9% ($n = 45$) of third-year students, 28.7% ($n = 50$) of fourth-year students, and 4.6% ($n = 8$) indicated that they were "other."

Measures and Procedure

A link to the Internet survey was posted on an experiment sign-up website accessible to undergraduate students taking psychology courses at a private Northeastern university, and was also distributed by e-mail to students in other majors at the same university. Data were collected between February 2007 and May 2007. In exchange for completing the survey, participants were entered into a drawing

for a chance to win an MP3 player. After reading the consent form, participants proceeded through the questionnaires at their own pace. As in Study 1, participants completed the RSES (alpha = .89), the SCCS (alpha = .89), the SATAQ-INT (alpha_{women} = .92, alpha_{men} = .87), the EDI-DFT (alpha = .90) and EDI-BD (alpha = .90) subscales, and the Restraint Scale (alpha = .79). In addition, participants also completed the following measures:

Conformity. The Conformity Scale (Mehrabian, 2005) assesses the degree to which individuals have “a characteristic willingness to identify with others and emulate them, to give in to others so as to avoid negative interactions, and generally, to be a follower rather than a leader in terms of ideas, values, and behaviors” (p. 2). Participants indicated on a 7-point scale the extent to which they agreed or disagreed with each of 11 statements (1 = *Strongly disagree*, 7 = *Strongly agree*). A sample item is “I tend to rely on others when I have to make an important decision quickly.” Higher scores indicated a greater tendency to conform. Cronbach’s alpha was .80.

Self-Consciousness. Individual differences in self-consciousness were assessed with the Public and Private Self-Consciousness Scales (PPSCS; Fenigstein, Scheier, & Buss, 1975). The present study included only the public self-consciousness scale, which assesses the extent to which individuals are sensitive to the opinions and impressions of others. The scale consisted of 6 items (one item was inadvertently omitted from the online survey), and participants indicated their level of agreement on a 7-point scale (1 = *Strongly disagree*, 7 = *Strongly agree*). A sample item is “I’m concerned about the way I present myself.” Higher scores indicated a greater degree of public self-consciousness. Cronbach’s alpha was .74.

Body Weight Contingency of Self-Worth (BWC). The BWC (Clabaugh et al., 2008) was used to assess the extent to which individuals base their self-worth on their body weight. The scale consists of 8 items (e.g., “When I am at an ideal body weight, I feel good about myself”), each of which was rated on a 7-point scale (1 = *Strongly disagree*, 7 = *Strongly agree*). Higher scores indicated greater tendency to base self-worth on body weight. Cronbach’s alpha was .91.

Bulimic Symptoms. Participants completed the Bulimia subscale of the EDI (Garner et al., 1983). This subscale consists of 7 items, each of which was rated on a 6-point scale (1 = *Never*, 6 = *Always*).

TABLE 4. Study 2 Means (SD) for Women and Men

	Women	Men
Self-esteem	52.07 (10.99)	51.38 (9.66)
Self-concept clarity	51.45 (13.52)	48.49 (14.19)
Conformity	39.43 (10.03)	38.69 (8.05)
Public self-consciousness	29.98 (5.95)	29.78 (5.66)
Body weight contingency	39.24 (9.40) ^a	34.55 (10.48) ^b
Internalization	32.65 (11.62)	29.05 (9.92)
Body dissatisfaction	33.10 (9.93) ^a	25.28 (8.82) ^b
Drive for thinness	21.62 (8.23) ^a	15.99 (7.56) ^b
Restraint	14.21 (5.75) ^a	11.00 (5.59) ^b
Bulimia	15.48 (6.01)	13.14 (5.93)
BMI	23.28 (3.71)	24.30 (4.53)
Weight discrepancy	14.56 (15.39) ^a	3.93 (22.23) ^b

Note. Means within a row with different superscripts are significantly different at $p \leq .0042$ (adjusted for multiple comparisons).

Higher scores indicated greater frequency of bulimic symptoms. Cronbach's alpha was .85.

Finally, participants were asked to report their height, weight, and ideal weight, as well as their ethnicity and their current year in college.

RESULTS

Gender Differences

Table 4 presents the means and standard deviations for each of the variables separately for men and women. The pattern of results is identical to that in Study 1. With respect to the additional variables examined in this study, there were no gender differences in Conformity, Public Self-Consciousness, or the Bulimia subscale of the EDI. Women, however, had higher scores than men on the Body Weight Contingency scale.

Correlational Analyses

Table 5 shows the bivariate correlations among all of the variables of interest. Correlations for female respondents appear below the diagonal, and correlations for male respondents appear above the

diagonal. For ease of presentation, the composite measure of body image and dieting concerns used in Study 1 is reported in place of body dissatisfaction, drive for thinness, and dietary restraint. The pattern of correlations is similar to the pattern obtained in Study 1. Also noteworthy are the following correlations: For women, (a) self-concept clarity was negatively correlated with conformity and body weight contingency of self-worth, but the negative association with public self-consciousness was only marginally significant ($p = .07$); (b) conformity, public self-consciousness, and body weight contingency were all positively correlated with internalization; and (c) body weight contingency was positively correlated with body image and dieting concerns. For men, (a) self-concept clarity was unrelated to conformity, public self-consciousness, or body weight contingency; (b) public self-consciousness and body weight contingency were positively correlated with internalization, but conformity was not; and (c) body weight contingency was positively correlated with body image and dieting concerns.

Mediational Analyses

The primary purpose of Study 2 was to further explore some of the associations observed in Study 1 by examining potential mediators. The procedures for establishing mediation outlined by Baron and Kenny (1986) were used in the present study: (1) the IV (self-concept clarity) must significantly predict the DV (internalization); (2) the IV must significantly predict the mediator (conformity/public self-consciousness/body weight contingency); (3) the mediator must significantly predict the DV when the IV is also in the model; and (4) the impact of the IV on the DV must be smaller when the mediator is included in the model. The models are shown in Figure 1. The Sobel test for mediation was computed using the SPSS syntax provided by Preacher and Hayes (2004). Although the path coefficients for men are present in Figure 1, the mediational analyses were not conducted because self-concept clarity and internalization were not significantly correlated.

Self-Concept Clarity, Conformity, and Internalization. For women, self-concept clarity was a significant predictor of internalization, but when conformity was added to the model, self-concept clarity was no longer a significant predictor, indicating that conformity mediated the association between self-concept clarity and internal-

TABLE 5. Bivariate Correlations for Study 2

	1	2	3	4	5	6	7	8	9	10
1. SE	—	.57***	-.24	-.01	-.29*	-.13	-.49***	-.32*	-.19	-.24
2. SCC	.64***	—	-.11	.02	-.09	-.10	-.30*	-.23	-.31*	-.28*
3. Conf	-.27**	-.41***	—	.17	-.01	.06	.08	.44**	-.08	-.14
4. Public	-.17	-.17	.25**	—	.30*	.47***	.28*	.22	.17	-.01
5. BWC	-.29**	-.20*	.18*	.62***	—	.60***	.66***	.06	.43**	.53***
6. INT	-.21*	-.24**	.40***	.57***	.57***	—	.66***	.24	.48***	.28
7. BodyDiet	-.47***	-.38***	.32***	.52***	.58***	.61***	—	.45**	.61***	.56***
8. Bul	-.39***	-.44***	.29**	.41***	.34***	.48***	.72***	—	.28*	.09
9. BMI	-.20*	-.12	-.16	-.06	.09	-.10	.40***	.22*	—	.63***
10. WDis	-.29**	-.21*	-.06	.12	.21*	.09	.55***	.33***	.87***	—

Note. Correlations for female respondents appear below the diagonal and for male respondents appear above the diagonal. SE = Self-esteem; SCC = Self-concept clarity; Conf = Conformity; Public = Public self-consciousness; BCW = Body weight contingency of self worth; INT = Internalization of societal standards of attractiveness; BodyDiet = Body image and dieting concerns; Bul = Bulimic symptoms; BMI = Body mass index; WDis = Discrepancy from ideal weight. * $p \leq .05$, ** $p < .01$, *** $p < .001$.

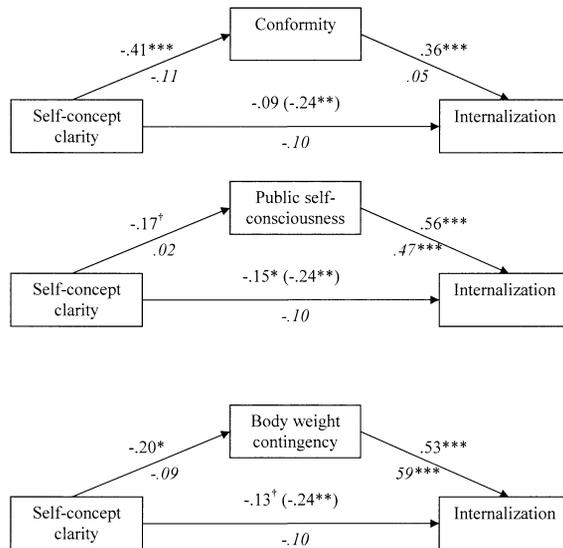


FIGURE 1. Mediational analyses for Study 2. All numbers represent standardized beta weights. Numbers in parentheses represent the unmediated effects. Numbers above the arrows represent the coefficients for women; numbers below the arrows (in italics) represent the coefficients for men. [†] $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.

ization, Sobel's $Z = -3.02$, $p = .003$. The alternate model, with self-concept clarity as a mediator of the association between conformity and internalization, was not significant, Sobel's $Z = 0.97$, $p = .33$.

Self-Concept Clarity, Public Self-Consciousness, and Internalization. In the next set of analyses, public self-consciousness was included as a mediator of the association between self-concept clarity and internalization. For women, when public self-consciousness was included in the model, the association between self-concept clarity and internalization was smaller, but still significant, and the Sobel test indicated that the mediation was only marginally significant, $Z = -1.77$, $p = .08$. As with conformity, the alternate model with self-concept clarity mediating the link between public self-consciousness and internalization was not significant, Sobel's $Z = 1.26$, $p = .21$.

Self-Concept Clarity, Body Weight Contingency, and Internalization. In the next set of analyses, body weight contingency was included as a mediator of the association between self-concept clarity and internalization. For women, when body weight contingency was

included in the model, the association between self-concept clarity and internalization was no longer statistically significant, and the Sobel test indicated that the mediation was significant, $Z = -2.08, p = .04$. As with conformity and public self-consciousness, the alternate model with self-concept clarity mediating the link between body weight contingency and internalization was not significant, Sobel's $Z = 1.29, p = .20$.

Body Image and Dieting Concerns

Regression analyses were conducted to determine the predictors of body image and dieting concerns, separately for women and men. Internalization was entered at the first step, and the following predictors were entered at the second step: self-esteem, self-concept clarity, conformity, public self-consciousness, body weight contingency, BMI, and weight discrepancy. For women, internalization by itself was a significant predictor of body image and dieting concerns, explaining 38% of the variance, $F(1, 113) = 69.53, p < .001$. When all other variables were included in the model, internalization remained the strongest predictor ($\beta = .37, p < .001$). In addition, self-esteem ($\beta = -.15, p = .03$), public self-consciousness ($\beta = .16, p = .04$), and BMI ($\beta = .26, p = .03$) emerged as significant independent predictors. For men, internalization by itself was a significant predictor of body image and diet concerns, explaining 43% of the variance, $F(1, 46) = 34.42, p < .001$. When all other variables were included in the model, internalization remained the strongest predictor ($\beta = .39, p = .002$). In addition, self-esteem ($\beta = -.34, p = .003$) emerged as a significant independent predictor.

Bulimic Symptoms

Regression analyses were conducted to determine the predictors of bulimic symptoms, separately for women and men. Body image and dieting concerns was entered at the first step, and all of the remaining variables included in this study were entered at the second step. For women, body image and dieting concerns by itself was a significant predictor of bulimic symptoms, explaining 51% of the variance, $F(1, 113) = 117.11, p < .001$. When all other variables were included in the model, body image and dieting concerns remained the strongest predictor ($\beta = .75, p < .001$). In addition, self-concept clarity ($\beta = -.18, p < .05$) and body weight contingency ($\beta = -.21, p =$

.03) emerged as significant independent predictors. For men, body image and dieting concerns by itself was a significant predictor of bulimic symptoms, explaining 28% of the variance, $F(1, 46) = 18.23$, $p < .001$. When all other variables were included in the model, body image and dieting concerns remained the strongest predictor ($\beta = .69$, $p = .004$). In addition, conformity ($\beta = .34$, $p = .01$) emerged as a significant independent predictor.

DISCUSSION

This study further elucidated some of the factors that are important to understanding internalization of the societal standards of attractiveness, body dissatisfaction, and disordered eating behavior. As in Study 1, self-concept clarity was associated with internalization of societal standards of attractiveness for women, but not for men. Furthermore, the association between self-concept clarity and internalization for women was mediated by a general tendency to conform. This finding is consistent with Twamley and Davis's (1999) finding that women who were generally nonconformist were less likely to have internalized societal standards of attractiveness. Public self-consciousness and body weight contingency were also significant predictors of internalization, but only body weight contingency significantly mediated the association between self-concept clarity and internalization. Although the cross-sectional nature of these data do not allow for causal inferences, the overall pattern of results suggests that low self-concept clarity might lead to a general tendency to conform and to a tendency to base one's self-worth on one's body weight, which in turn leads individuals to adopt societal standards of attractiveness as personally relevant beliefs, values, or goals. None of the mediational models were conducted for men. Consistent with the results of Study 1, the strongest predictor of body image and dieting concerns was internalization of societal standards of attractiveness for both women and men, and the strongest predictor of bulimic behaviors was body image and dieting concerns for both women and men.

GENERAL DISCUSSION

Sociocultural models of body dissatisfaction and disordered eating have received considerable attention in recent years, with a particular emphasis on the degree to which individuals internalize societal standards of attractiveness (thinness for women, and muscularity for men). The present studies sought to build on earlier research by examining certain individual-difference characteristics as predictors of who is likely to internalize the societal standards. In particular, this research focused on self-concept clarity, or the degree to which one has a clear and coherent sense of self, as a predictor of internalization. Theoretically, individuals who do not have a clear sense of their own identity should seek out external sources to help define themselves (cf. Campbell, 1990; Stice, 1994). One particular external source that is available to women, and increasingly to men, is the societal standards of attractiveness. Consistent with this perspective, Studies 1 and 2 both found that women who had lower self-concept clarity were more likely to have internalized societal standards of attractiveness. In other words, for women, lacking a clear sense of self-identity can make them vulnerable to internalizing social standards of attractiveness, whereas having a clear sense of self-identity can buffer them against internalizing societal standards of attractiveness. These findings are consistent with previous research showing that dieters and eating-disordered women have less clear self-concepts (Schupak-Neuberg & Nemeroff, 1993; Wheeler & Polivy, 2002, as cited in Polivy & Herman, 2007; Wheeler et al., 2003), but also further contribute to earlier studies by specifically showing that self-concept clarity is associated with internalization of societal standards of attractiveness. Study 2 also found that the effects of self-concept clarity were mediated by other processes, including a general tendency to conform, public self-consciousness, and body weight contingency of self-worth. These findings add to the body of research indicating that some features of an individual's personality or identity can serve as a buffer or protective factor against internalization, including self-deceptive enhancement (Tester & Gleaves, 2005) and self-determination (Pelletier et al., 2004). Taken together, these research findings point to certain elements that are internal to the individual that could be the focus of intervention and preven-

tion efforts aimed at reducing the prevalence of body dissatisfaction and pathological eating behaviors (see below).

Surprisingly, although self-concept clarity appeared to play a role in internalization for women, the same pattern of results did not emerge for men. In both studies, there was a small negative correlation between self-concept clarity and internalization for men that was not statistically significant. This finding is in contrast to two other studies that found a significant negative correlation between self-concept clarity and internalization among Australian boys (Humphreys & Paxton, 2004) and Australian men (Cahill & Mussap, 2007), which may in part be due to the relatively small number of men in the present studies. It does not appear to be the case that internalization is simply less meaningful to men: In both studies, there was no significant difference between women and men in their overall degree of internalization (which is consistent with some other research using the modified SATAQ, e.g., Morry & Staska, 2001). More importantly, internalization among men (as with women) did predict body image and dieting concerns. Therefore, those men who have internalized societal standards of attractiveness (i.e., the lean and muscular ideal) are more dissatisfied with their bodies, and results also showed that body image and dieting concerns in turn predicted their dieting and eating disordered behavior. It seems, however, that the factors that predict internalization for women and men might differ. Whereas several potential individual-difference variables have been identified among women (e.g., self-concept clarity, self-determination, self-deceptive enhancement), the predictors of internalization among men remain unknown and would be an important avenue for future research. For example, it might be that external factors (e.g., social pressures, teasing by peers, personal or family history of weight problems, participation in weight-contingent athletics) or some as-yet-uninvestigated dimensions of personality (e.g., gender-role identification, neuroticism) are particularly relevant to internalization among men (cf. Ricciardelli & McCabe, 2004).

CLINICAL IMPLICATIONS

There is now accumulating evidence that certain individual-difference variables can either make women vulnerable to or serve as a

buffer against the internalization of societal standards of attractiveness. These individual differences not only contribute to our understanding of the development of body image and eating problems, but also have potential implications for clinical work. First, from a prevention standpoint, such individual differences can be particularly informative. In a recent meta-analytic review of eating-disorder prevention programs, Stice and Shaw (2004) found that outcomes of prevention programs were superior when the programs were targeted to vulnerable or high-risk populations. Identifying individual-difference risk factors such as low self-concept clarity or high conformity, then, might be useful as a means of identifying individuals for whom eating-disorder prevention programs would be most beneficial. Second, from an intervention standpoint, these individual differences can provide a focus for treatment of eating disorders. In addition to interventions that directly target eating disorder behaviors (e.g., normalizing eating, reducing bingeing and vomiting; Fairburn, Marcus, & Wilson, 1993), there is also considerable value in addressing risk factors (such as thin-ideal internalization) as a means of reducing eating disorder symptoms (Stice, 1999). Stice and colleagues (e.g., Stice, Presnell, Gau, & Shaw, 2007) demonstrated that a dissonance-based program that encouraged women to openly critique the thin-body ideal effectively reduced thin-ideal internalization, which in turn reduced other eating disorder symptoms. Similarly, targeting individual differences that leave individuals vulnerable to internalization could prove to be a useful means of reducing eating disorder symptoms. For example, helping patients develop a clearer sense of self-identity, and in particular a sense of self that does not hinge on body image, could ultimately improve eating disorder symptoms. Of course, these proposals regarding intervention and prevention efforts are speculative and would need to be tested empirically.

LIMITATIONS AND FUTURE DIRECTIONS

There are some limitations of the present research that should be noted. First, the cross-sectional nature of the data precludes any temporal or causal statements. For example, although the progression from low self-concept clarity, through a general tendency to conform, to internalization of societal standards of attractiveness

may seem logical, it is possible that there are reverse (or even bi-directional) effects that would be important to consider. Low self-concept clarity might lead to reliance on external factors for self-definition, and a reliance on external factors for self-definition might, in turn, lead to a decreased sense of one's own self-concept. Future research using longitudinal and experimental designs are needed to establish the temporal and causal effects.

Another potential limitation is that the samples used in the present studies might somewhat limit the generalizability of the findings. First, the sample in Study 1 was comprised of self-selected volunteers who found the link to the study via a public domain website, although the respondents did represent a wide age and BMI range. The sample for Study 2 consisted solely of college students. Given that neither sample was drawn from a clinical population, the number of people who displayed body image and eating problems serious enough to be of clinical significance was probably quite low. It would be worthwhile for future research to examine the role of self-concept clarity, conformity, and other related constructs among eating disorder patients. Second, the samples of men in both studies were relatively small, which might limit the conclusions that can be drawn from the present data with respect to gender differences. In addition, although the measure of internalization was modified to include a focus on muscularity for men, some of the outcome measures (e.g., Drive for Thinness) still emphasized thinness. Therefore, the outcome measures used in the present study likely overlook significant portions of men's body image concerns, and this is an issue that should be addressed in future research. Third, the majority of the respondents in the present studies were 18 years and older. Given that adolescence is a period during which individuals' identities are still being formed, and that adolescence is also a period during which body image and eating concerns begin to emerge, it would be worthwhile to examine these processes in a longitudinal study with adolescent girls and boys.

CONCLUSION

Women's self-concept can play a role in the development of body image problems by making them vulnerable to or by buffering them against the internalization of societal standards of attractive-

ness. Women, but not men, who have low self-concept clarity are likely to be generally more conformist, more concerned with public impressions, and more likely to base their self-worth on their body weight, and all of these factors are in turn associated with internalization of societal standards of attractiveness. Self-concept clarity, therefore, can be a protective or risk factor for women that should be considered in developmental models of disordered eating, as well as in prevention and intervention efforts aimed at reducing the prevalence of disordered eating.

REFERENCES

- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Bruch, H. (1973). *Eating disorders: Obesity, anorexia nervosa, and the person within*. New York: Basic Books.
- Button, E. J., Sonuga-Barke, E. J. S., Davies, J., & Thompson, M. (1996). A prospective study of self-esteem in the prediction of eating problems in adolescent schoolgirls: Questionnaire findings. *British Journal of Clinical Psychology, 35*, 193-203.
- Cafri, G., Yamamiya, Y., Brannick, M., & Thompson, J. K. (2005). The influence of sociocultural factors on body image: A meta-analytic review. *Clinical Psychology: Science and Practice, 12*, 421-433.
- Cahill, S., & Mussap, A. J. (2007). Emotional reactions following exposure to idealized bodies predict unhealthy body change attitudes and behaviors in women and men. *Journal of Psychosomatic Research, 62*, 631-639.
- Campbell, J. D. (1990). Self-esteem and clarity of the self-concept. *Journal of Personality and Social Psychology, 59*, 538-549.
- Campbell, J. D., Assanand, S., & Di Paula, A. (2003). The structure of the self-concept and its relation to psychological adjustment. *Journal of Personality, 71*, 115-140.
- Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., Lavallee, L. F., & Lehman, D. R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology, 70*, 141-156.
- Cashel, M. L., Cunningham, D., Landeros, C., Cokley, K. O., & Muhammad, G. (2003). Sociocultural attitudes and symptoms of bulimia: Evaluating the SATAQ with diverse college groups. *Journal of Counseling Psychology, 50*, 287-296.

- Clabaugh, A., Karpinski, A., & Griffin, K. (2008). Body weight contingency of self-worth. *Self and Identity, 7*, 337-359.
- Clay, D., Vignoles, V. L., & Dittmar, H. (2005). Body image and self-esteem among adolescent girls: Testing the influence of sociocultural factors. *Journal of Research on Adolescence, 14*, 451-477.
- Crocker, J., & Wolfe, C. T. (2001). Contingencies of self-worth. *Psychological Review, 108*, 593-623.
- Cusumano, D. L., & Thompson, J. K. (1997). Body image and body shape ideals in magazines: Exposure, awareness, and internalization. *Sex Roles, 37*, 701-721.
- Dittmar, H., & Howard, S. (2004). Thin-ideal internalization and social comparison tendency as moderators of media models' impact on women's body-focused anxiety. *Journal of Social and Clinical Psychology, 23*, 768-791.
- Engeln-Maddox, R. (2005). Cognitive responses to idealized media images of women: The relationship of social comparison and critical processing to body image disturbance in college women. *Journal of Social and Clinical Psychology, 24*, 1114-1138.
- Fairburn, C. G., Marcus, M. D., & Wilson, G. T. (1993). Cognitive behaviour therapy for binge eating and bulimia nervosa: A comprehensive treatment manual. In C. G. Fairburn & G. T. Wilson (Eds.). *Binge eating: Nature, assessment, and treatment* (pp. 361-404). New York: Guilford.
- Farquhar, J. C., & Wasylkiw, L. (2007). Media images of men: Trends and consequences of body conceptualization. *Psychology of Men and Masculinity, 8*, 145-160.
- Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975). Public and private self-consciousness: Assessment and theory. *Journal of Consulting and Clinical Psychology, 43*, 522-527.
- Fingeret, M. C., & Gleaves, D. H. (2004). Sociocultural, feminist, and psychological influences on women's body satisfaction: A structural modeling analysis. *Psychology of Women Quarterly, 28*, 370-380.
- Forbush, K., & Watson, D. (2006). Emotional inhibition and personality traits: A comparison of women with anorexia, bulimia, and normal controls. *Annals of Clinical Psychiatry, 18*, 115-121.
- Gangestad, S. W., & Snyder, M. (2000). Self-monitoring: Appraisal and reappraisal. *Psychological Bulletin, 126*, 530-555.
- Garner, D. M., Olmstead, M. P., & Polivy, J. (1983). Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia. *International Journal of Eating Disorders, 2*, 15-34.
- Ghaderi, A. (2003). Structural modeling analysis of prospective risk factors for eating disorder. *Eating Behaviors, 3*, 387-396.
- Grabe, S., Ward, M. L., & Hyde, J. S. (2008). The role of the media in body image concerns among women: A meta-analysis of experimental and correlation studies. *Psychological Bulletin, 134*, 460-476.
- Groesz, L. M., Levine, M. P., & Murnen, S. K. (2002). The effects of experimental presentation of thin media images on body satisfaction: A meta-analytic review. *International Journal of Eating Disorders, 31*, 1-16.
- Halliwell, E., & Dittmar, H. (2004). Does size matter? The impact of model's body size on advertising effectiveness and women's body-focused anxiety. *Journal of Social and Clinical Psychology, 23*, 104-122.

- Halliwell, E., Dittmar, H., & Orsborn, A. (2007). The effects of exposure to muscular male models among men: Exploring the moderating role of gym use and exercise motivation. *Body Image, 4*, 278-287.
- Halliwell, E., & Harvey, M. (2006). Examination of the sociocultural model of disordered eating among male and female adolescents. *British Journal of Health Psychology, 11*, 235-248.
- Heinberg, L. J., Thompson, J. K., & Stormer, S. (1995). Development and validation of the Sociocultural Attitudes Toward Appearance Questionnaire. *International Journal of Eating Disorders, 17*, 81-89.
- Herman, C. P., & Polivy, J. (1980). Restrained eating. In A. J. Stunkard (Ed.), *Obesity* (pp. 208-225). Philadelphia: Saunders.
- Humphreys, P., & Paxton, S. J. (2004). Impact of exposure to idealised male images on adolescent boys' body image. *Body Image, 1*, 253-266.
- Jones, D. C. (2004). Body image among adolescent boys and girls: A longitudinal study. *Developmental Psychology, 40*, 823-835.
- Keel, P. K., Klump, K. L., Leon, G. R., & Fulkerson, J. A. (1998). Disordered eating in adolescent males from a school-based sample. *International Journal of Eating Disorders, 23*, 125-132.
- Keery, H., van den Berg, P., & Thompson, J. K. (2004). An evaluation of the Tripartite Influence Model of body dissatisfaction and eating disturbance with adolescent girls. *Body Image, 1*, 237-251.
- Leit, R. A., Gray, J. J., & Pope, H. G., Jr. (2002). The media's representation of the ideal male body: A cause for muscle dysmorphia? *International Journal of Eating Disorders, 31*, 334-338.
- Leit, R. A., Pope, H. G., Jr., & Gray, J. J. (2001). Cultural expectations of muscularity in men: The evolution of Playgirl centerfolds. *International Journal of Eating Disorders, 29*, 90-93.
- Linville, P. W. (1985). Self-complexity and affective extremity: Don't put all of your eggs in one cognitive basket. *Social Cognition, 3*, 94-120.
- Low, K. G., Charanasomboon, S., Brown, C., Hiltunen, G., Long, K., & Reinhalter, K. (2003). Internalization of the thin ideal, weight and body image concerns. *Social Behavior and Personality, 31*, 81-90.
- Matz, P. E., Foster, G. D., Faith, M. S., & Wadden, T. F. (2002). Correlates of body image dissatisfaction among overweight women seeking weight loss. *Journal of Consulting and Clinical Psychology, 70*, 1040-1044.
- Mehrabian, A. (2005). *Manual for the Conformity Scale*. (Available from Albert Mehrabian, 1130 Alta Mesa Road, Monterey, CA, 93940.)
- Moor, S., Vartanian, L. R., Touyz, S. W., & Beumont, P. J. V. (2004). Psychopathology of EDNOS patients: To whom do they compare? *Clinical Psychologist, 8*, 70-75.
- Morry, M. M., & Staska, S. L. (2001). Magazine exposure: Internalization, self-objectification, eating attitudes, and body satisfaction in male and female university students. *Canadian Journal of Behavioural Science, 33*, 269-279.
- Myers, T. A., & Crowther, J. H. (2007). Sociocultural pressures, thin-ideal internalization, self-objectification, and body dissatisfaction: Could feminist beliefs be a moderating factor? *Body Image, 4*, 296-308.
- Paxton, S. J., Eisenberg, M. E., & Neumark-Sztainer, D. (2006). Prospective predictors of body dissatisfaction in adolescent girls and boys: A five-year longitudinal study. *Developmental Psychology, 42*, 888-889.

- Pelletier, L. G., Dion, S., & Lévesque, C. (2004). Can self-determination help protect women against sociocultural influences about body image and reduce their risk of experiencing bulimic symptoms? *Journal of Social and Clinical Psychology, 23*, 61-88.
- Polivy, J., & Herman, C. P. (2002). Causes of eating disorders. *Annual Review of Psychology, 53*, 187-213.
- Polivy, J., & Herman, C. P. (2007). Is the body the self? Women and body image. *Collegium Anthropologicum, 31*, 63-67.
- Pope, H. G., Jr., Olivardia, R., Gruber, A., & Borowiecki, J. (1999). Evolving ideals of male body image as seen through action toys. *International Journal of Eating Disorders, 26*, 65-72.
- Pope, H. G., Jr., Phillips, K. A., & Olivardia, R. (2000). *The Adonis complex: The secret crisis of male body obsession*. New York: Free Press.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers, 36*, 717-731.
- Ricciardelli, L. A., & McCabe, M. P. (2004). A biopsychosocial model of disordered eating and the pursuit of muscularity in adolescent boys. *Psychological Bulletin, 130*, 179-205.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Sands, E. R., & Wardle, J. (2003). Internalization of ideal body shapes in 9-12-year-old girls. *International Journal of Eating Disorders, 33*, 193-204.
- Schupak-Neuberg, E., & Nemeroff, C. J. (1993). Disturbances in identity and self-regulation in bulimia nervosa: Implications for a metaphorical perspective of "body as self." *International Journal of Eating Disorders, 13*, 335-347.
- Shaw, H., Stice, E., & Springer, D. W. (2004). Perfectionism, body dissatisfaction, and self-esteem in predicting bulimic symptomatology: Lack of replication. *International Journal of Eating Disorders, 36*, 41-47.
- Smolak, L., Levine, M. P., & Thompson, J. K. (2001). The use of the Sociocultural Attitudes Toward Appearance Questionnaire (SATAQ) with middle school boys and girls. *International Journal of Eating Disorders, 29*, 216-223.
- Stice, E. (1994). Review of the evidence for a sociocultural model of bulimia nervosa and an exploration of the mechanisms of action. *Clinical Psychology Review, 14*, 633-661.
- Stice, E. (1999). Clinical implications of psychosocial research on bulimia and binge-eating disorder. *Journal of Clinical Psychology, 55*, 675-683.
- Stice, E. (2002). Risk and maintenance factors for eating pathology: A meta-analytic review. *Psychological Bulletin, 128*, 825-848.
- Stice, E., Mazotti, L., Krebs, M., & Martin, S. (1998). Predictors of adolescent dieting behaviors: A longitudinal study. *Psychology of Addictive Behaviors, 12*, 195-205.
- Stice, E., Presnell, K., Gau, J., & Shaw, H. (2007). Testing mediators of intervention effects in randomized controlled trials: An evaluation of two eating disorder prevention programs. *Journal of Consulting and Clinical Psychology, 75*, 20-32.
- Stice, E., Presnell, K., & Spangler, D. (2002). Risk factors for binge eating onset: A prospective investigation. *Health Psychology, 21*, 131-138.

- Stice, E., Schupak-Neuberg, E., Shaw, H. E., & Stein, R. I. (1994). Relation of media exposure to eating disorder symptomatology: An examination of the mediating mechanisms. *Journal of Abnormal Psychology, 103*, 836-840.
- Stice, E., & Shaw, H. (2004). Eating disorder prevention programs: A meta-analytic review. *Psychological Bulletin, 130*, 206-227.
- Stice, E., Shaw, H., & Nemeroff, C. (1998). Dual pathway model of bulimia nervosa: Longitudinal support for dietary restraint and affect-regulation mechanisms. *Journal of Social and Clinical Psychology, 17*, 129-149.
- Tester, M. L., & Gleaves, D. H. (2005). Self-deceptive enhancement and family environment: Possible protective factors against internalization of the thin ideal. *Eating Disorders, 13*, 187-199.
- Thompson, J. K., & Stice, E. (2001). Thin-ideal internalization: Mounting evidence for a new risk factor for body-image disturbance and eating pathology. *Current Directions in Psychological Science, 10*, 181-183.
- Thompson, J. K., van den Berg, P., Roehrig, M., Guarda, A. S., & Heinberg, L. J. (2004). The Sociocultural Attitudes Toward Appearance Scale-3 (SATAQ-3): Development and validation. *International Journal of Eating Disorders, 35*, 293-304.
- Tiggemann, M. (2003). Media exposure, body dissatisfaction, and disordered eating: Television and magazines are not the same! *European Eating Disorders Review, 11*, 418-430.
- Twamley, E. W., & Davis, M. C. (1999). The sociocultural model of eating disturbance in young women: The effects of personal attributes and family environment. *Journal of Social and Clinical Psychology, 18*, 467-489.
- Wheeler, H. A., Winter, M. G., & Polivy, J. (2003). The association of low parent-adolescent reciprocity, a sense of incompetence, and identity confusion with disordered eating. *Journal of Adolescent Research, 18*, 405-429.