

## Exploring the link between self-compassion and body image in university women

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### ABSTRACT

The purpose of the present research was to examine the relationships between self-compassion and women's body image. In Study 1, female undergraduates ( $N = 142$ ) completed three measures of body image and measures of self-esteem and self-compassion. Results showed that high self-compassion predicted fewer body concerns independently of self-esteem. Moreover, when both self-compassion and self-esteem were included as predictors, self-compassion accounted for unique variance in body preoccupation and weight concerns whereas self-esteem did not. In Study 2, this finding was partially replicated with one component (self-judgment) of self-compassion uniquely predicting body preoccupation in undergraduate women ( $N = 187$ ). High scores on self-compassion also predicted less eating guilt independent of self-esteem. Additionally, self-compassion was shown to partially mediate the relationship between body preoccupation and depressive symptoms. The findings highlight the possibility that a consideration of self-compassion for body image may contribute to identifying who is most at risk for body/shape concerns.

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### Introduction

Consistent with calls to focus on positive body image (e.g., Grogan, 2010), the research reported here explores whether self-compassion is linked to women's body image and eating attitudes and behaviors when controlling for self-esteem. Self-compassion refers to "being touched by and open to one's own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one's suffering and to heal oneself with kindness. Self-compassion also involves offering nonjudgmental understanding to one's pain, inadequacies and failures, so that one's experience is seen as part of the larger human experience" (Neff, 2003a, p. 87). In other words, being compassionate towards oneself is similar to having compassion towards others, especially in times of distress. We begin by providing background information on the role of self-esteem in women's body image and argue that self-compassion may contribute to understanding the nature of these relationships. Finally, we present data from two studies in support of our stance.

### The Role of Self-Esteem in Body Image

Many studies document the ubiquity of body concerns among women from Western cultures, and within this literature there is a long history of linking self-esteem to women's body concerns.

Self-esteem, a general overall evaluation of oneself, has been associated with being dissatisfied with one's appearance such that the more dissatisfied a woman is with her body and/or shape, the lower her self-esteem (e.g., Cash & Fleming, 2002; Cooley & Toray, 2001; Stice, 2002; Stice & Whitenton, 2002). Whereas much of the research examines the link between self-esteem and body dissatisfaction, a similar pattern emerges when considering positive body image. Specifically, women with high self-esteem tend to evaluate their bodies positively (e.g., Connors & Casey, 2006; Paxton, Neumark-Sztainer, Hannan, & Eisenberg, 2006; Swami, Airs, Chouhan, Leon, & Towell, 2009; Tiggemann, 2005). Moreover, although the association between self-esteem and body image has largely been examined using non-clinical samples, there is evidence that the severity of symptoms of body dysmorphic disorder is negatively associated with self-esteem (e.g., Phillips, Pinto, & Jain, 2004). Thus, the research demonstrates a link between self-esteem and women's body concerns.

Research shows that self-esteem predicts body concerns (e.g., Button, Sonuga-Barke, Davies, & Thompson, 1996) as well as shows that self-esteem is an outcome of body concerns (e.g., Paxton et al., 2006). Thus, low self-esteem is both a predictor and a consequence of body concerns (e.g., Grogan, 2008; Tiggemann, 2005). Although there remain some questions about the direction of the association between self-esteem and body concerns, the evidence supports a reliable link enough so that some researchers have suggested that interventions aimed at improving self-esteem improve body image concerns. For example, O'Dea (2004) describes a program that focuses on developing young students' self-esteem with the ultimate goal to prevent body image concerns, and she

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reports significant improvements in body image for female students.

In addition to linking high self-esteem to positive body views, other documented benefits of high self-esteem include happiness (Lucas, Diener, & Suh, 1996), initiative, resilience, and pleasant feelings (Baumeister, Campbell, Krueger, & Vohs, 2003). Despite these benefits, high self-esteem is related to a number of negative outcomes including distortions in self-knowledge and increased aggression (e.g., Baumeister et al., 2003; Crocker & Park, 2004), in part because self-esteem relies on meeting standards and favorable comparisons with others (Neff, 2009). One argument is that a healthy perspective on the self should not entail evaluations based on comparisons to others. Neff (2003a, 2011a) and Neff and Vonk (2009) suggest that feeling good about oneself because the self is better than others is problematic because only a few people can achieve this. According to Leary (1999), self-esteem is a gauge by which people monitor how others appraise them. If one perceives herself or himself as falling short on traits valued by others, self-esteem decreases. As a barometer, self-esteem then is reactive to people's perceptions of their attractiveness to others, and for women, physical appearance is often perceived as being important. This view suggests that self-esteem can be maintained by meeting prescribed standards. Given the cultural standards for women's appearance, viewing oneself positively may be impossible for many women because these standards are unrealistic and, typically, unachievable. Because of the drawbacks of self-esteem, it is not surprising that some researchers like Neff (2003a) propose an approach to the self that is qualitatively different.

### Self-Compassion

As introduced by Neff (2003a, 2003b), self-compassion comprises three core components including kindness to one's self versus harsh self-judgment, a recognition that one's experiences are common to all versus a sense of isolation, and a mindful awareness versus over-identification of one's shortcomings. It follows then that those high in self-compassion are accepting of themselves. When they experience failures or perceive themselves as falling short, rather than being self-critical, they treat themselves with kindness and understanding.

A growing literature suggests that being compassionate towards oneself is positively associated with desired outcomes and negatively associated with undesired outcomes. For example, self-compassion is positively correlated with social connectedness and life satisfaction (Neff, 2003b) as well as perceived competence and intrinsic motivation (Neff, Hsieh, & Dejitterat, 2005). Additionally, self-compassion is negatively associated with self-criticism, anxiety, and depression (e.g., Leary, Tate, Adams, Allen, & Hancock, 2007; Neff, 2003a, 2003b, 2009; Neff, Kirkpatrick, & Rude, 2007; Neff & McGehee, 2010; Neff & Vonk, 2009). The evidence supporting self-compassion as a beneficial approach to the self encompasses circumstances of perceived academic failure (Neff et al., 2005), ego threat (Neff et al., 2007), and daily distress (Leary et al., 2007). In each situation, higher self-compassion predicted fewer negative emotional reactions and, importantly, such reactions did not come about because people high in self-compassion failed to be accountable for their own actions. Rather, those high in self-compassion appear to be accepting of things they cannot change and try to change things that they can (Leary et al., 2007).

Not surprising, self-compassion overlaps with self-esteem such that people who are self-compassionate also tend to report having high self-esteem. Indeed, correlation coefficients between self-esteem and self-compassion range from .56 (Leary et al., 2007) to .68 (Neff & Vonk, 2009) suggesting that the two constructs share much in common. Yet, the correlations that are documented between self-compassion and other constructs hold true even

when controlling for existing levels of self-esteem. Moreover, self-esteem has significant links to narcissism whereas self-compassion does not, and self-compassion is linked to self-worth stability whereas self-esteem is not (Neff & Vonk, 2009). Thus, self-esteem appears to be reactive to negative events (i.e., by leading people to maintain or enhance their self views when negative events occur), but self-compassion appears to buffer the impact of those negative events (Neff, 2009; Neff & Vonk, 2009). Although research shows that self-compassion and self-esteem are linked, the patterns of relationships with other constructs suggest that self-compassion is distinct from self-esteem. Neff (2003a, 2011a) and Neff and Vonk (2009) suggest that when accounting for the overlap between the two constructs, the variance accounted for by self-esteem reflects positivity of self-representations whereas what is accounted for by self-compassion reflects acceptance of oneself.

Overall, the literature appears to support the claim that self-compassion benefits people, especially when they experience failures or shortcomings. Given this evidence, it seems reasonable to expect that self-compassion might also be linked to women's body concerns. That is, holding a compassionate view of one's self may contribute to positive evaluations of one's body. There is some research supporting this idea. Specifically, women classified as having a positive body image were described as having compassion towards themselves by accepting their bodies in spite of their perceived appearance flaws, holding favorable attitudes towards their bodies, and rejecting unrealistic media ideals (Wood-Barcalow, Tylka, & Augustus-Horvath, 2010). Furthermore, Neff and Vonk (2009) found that self-compassion predicted self-worth that is less dependent on appearance compared to self-esteem. Additionally, some intervention programs (e.g., O'Dea, 2004; Steiner-Adair & Sjostrom, 2006) incorporate principles of compassion to promote positive body image amongst young women. For example, the "Everybody's Different" program (O'Dea, 2004) includes activities designed to increase awareness and acceptance that nobody is perfect, which appears to be consistent with the conceptual definition of self-compassion.

Further evidence in support of the idea that self-compassion is linked to body concerns comes from research showing that self-compassion buffers negative reactions to diet breaking. Adams and Leary (2007) showed that experimentally inducing self-compassion reduced the amount of distress dieters experienced after eating high calorie foods. Moreover, these same participants were less likely to overeat following diet breaking. Participants induced to be self-compassionate experienced less distress and less maladaptive eating likely because they were less judgmental and more accepting of themselves, even when they behaved in ways that were inconsistent with their own goals.

More recent studies show that self-compassion is negatively associated with social physique anxiety among women who regularly exercise (Magnus, Kowalski, & McHugh, 2010) as well as among women athletes (Mosewich, Kowalski, Sabiston, Sedgwick, & Tracy, 2011). Mosewich et al. (2011) also showed that self-compassion was negatively related to self-evaluations including body surveillance and body shame even when controlling for self-esteem. Additionally, Dijkstra and Barelds (2011) showed that mindfulness (one aspect of self-compassion) was positively associated with body satisfaction among women.

The current investigation was undertaken to further explore the relationship between self-compassion and women's body image. Self-compassion may be one factor that has the potential to offset the negative consequences of being concerned about one's appearance (e.g., Johnson & Wardle, 2005; Paxton et al., 2006; Polivy & Herman, 2002; Stice & Shaw, 2002). Whereas the extant literature suggests that self-compassion is linked to body concerns, the present study would add to what is currently known in at least three ways. First, the present study examines the overarching construct

of self-compassion and, therefore, is not limited to only one aspect and will likely account for more variance in body image than specific aspects of self-compassion would. Second, the present study uses several different operationalizations of body image. Because there are a number of different measures that are used to assess body image related constructs, it is important to document that the relationship is robust across various measures. Third, the present study investigates whether self-compassion mediates the relationship between body preoccupation and depressive symptoms thereby broadening the understanding of why body preoccupation contributes to some outcomes.

## Overview of the Current Investigation

The current investigation aims to contribute to the literature by examining the relationship between self-compassion and women's body image concerns. Although body image concerns also affect men, we limit our focus to women because of the overwhelming evidence that women are socialized to tie their self-worth with their appearance more than men are (Furnham & Greaves, 1994). Indeed, Grabe, Ward, and Hyde (2008) estimate that 50% of North American women are plagued by body image concerns. Although only a subset of these women will experience severe consequences, even minor concerns over one's body may lead to unhealthy eating behaviors, exercise avoidance, continued smoking, and a desire to alter one's appearance through the use of drugs and/or surgery (Grogan, 2010).

Our primary goal was to demonstrate the incremental contribution of self-compassion in predicting body image when controlling for self-esteem. In Study 1, we examined this issue using three indices of body image. In Study 2, we examined the contribution of self-compassion for predicting women's self-reported eating behaviors. Our second goal was to determine whether the link between body preoccupation and depressive symptoms is, in part, explained by self-compassion. We specifically focus on depressive symptoms in Study 2 because of depression's prevalence among women (e.g., Culbertson, 1997) and because of the documented relationship between body image concerns and depression (e.g., Stice, Hayward, Cameron, Killen, & Taylor, 2000).

### Study 1

The primary purpose of Study 1 was to provide evidence of the relationship between women's body image and self-compassion when controlling for self-esteem.

### Method

#### Participants and Procedure

One hundred and forty-two female undergraduates participated in the current study in return for course credit. The mean age of the participants was 19 years ( $SD = 1.13$ ), and ages ranged between 17 and 22 years. Approximately 76% of participants indicated they were enrolled in their first year, with an additional 14% indicating they were in their second year of study. Although information about ethnicity was not collected, participants were sampled from a small Eastern Canadian university with a primarily Caucasian demographic.

The online recruitment advertisement using an experiment management system specified that the study focused on women's perceptions of their bodies and appearance and their feelings towards themselves. Participants were invited to a classroom in groups of 20–25 persons. After providing their consent, participants completed the measures described below in one of two orders

to minimize order bias because we suspected that completion of the index of body preoccupation might influence responses on the measure of positive body image. Thus, approximately half of the participants ( $n = 74$ ) completed the questionnaires in the order as they are described in the *materials* section. The remaining participants ( $n = 68$ ) completed questionnaires in the same order with the exception that the Body Appreciation Scale (Avalos, Tylka, & Wood-Barcalow, 2005) was presented before the Body Shape Questionnaire (Evans & Dolan, 1993).

### Materials

**Self-esteem.** The Rosenberg Self-Esteem Scale (Rosenberg, 1965) is a 10-item questionnaire that assesses global self-esteem. For this measure, respondents indicate their extent of agreement to each item (e.g., "On the whole, I am satisfied with myself") on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). The total score has a possible range from 10 to 40, with higher scores indicating higher self-esteem. Fleming and Courtney (1984) reported a test–retest correlation of .82 with a 1-week interval, and Byrne (1983) reported a test–retest correlation of .61 with a 7-month interval. Moreover, this index of global self-esteem has been widely used with college women and there is evidence of its predictive validity and internal consistency reliability (e.g., Sinclair, Blais, Gansler, Sandberg, Bistis, & LoCicero, 2010; Twenge & Campbell, 2001). Cronbach's alpha in the present study was .84.

**Self-compassion.** The Self-Compassion Scale (Neff, 2003b) is a 26-item self-report measure in which participants respond to each item (e.g., "I'm tolerant of my own flaws and inadequacies") on a scale from 1 (*almost never*) to 5 (*almost always*). Scores on this scale are averaged and can range from 1 to 5, with higher scores indicating greater self-compassion. Neff (2003b) reported a test–retest reliability of .93 in a sample of undergraduates for an interval of approximately three weeks as well as evidence of construct validity. This scale can yield scores for six subscales. Three of the subscales (i.e., self-kindness, common humanity, mindfulness) correspond to the three defining components of self-compassion whereas the remaining three subscales (i.e., self-judgment, isolation, and over-identification) reflect the opposites of those components. Consistent with Neff's (2011b) recommendations, we used the total score in our primary analyses. However, because of recent evidence showing the importance of aspects of self-compassion (e.g., Dijkstra & Barelds, 2011), we also present the subscale scores. The subscales of self-kindness and self-judgment each comprise five items whereas the remaining four subscales each comprise four items. Cronbach's alpha in the present study was .93 for the total score and .83, .75, .77, .75, .67, and .73 for self-kindness, self-judgment, common humanity, isolation, mindfulness and over-identification, respectively.

**Body image.** Three scales were used to assess body image related constructs. The first scale was a 16-item version (Evans & Dolan, 1993) of the Body Shape Questionnaire (BSQ; Cooper, Taylor, Cooper, & Fairburn, 1987), chosen because of its focus on body preoccupation. Respondents rate the frequency of each feeling or behavior (e.g., "Have you worried about your thighs spreading out when sitting down?") over the past four weeks on a scale from 1 (*never*) to 6 (*always*). Scores were summed and yielded a possible range from 16 to 96, with higher scores indicating more concerns about weight/shape. Evans and Dolan reported Cronbach's alpha of .87 in a non-clinical sample of women. Cronbach's alpha in the present study was .94.

The second scale used was the Body Appreciation Scale (BAS; Avalos et al., 2005), chosen because of its focus on positive body image. This 13-item self-report measure requires participants to

indicate the frequency of each item on a scale from 1 (*never*) to 5 (*always*). Examples of items include: “I respect my body” and “On the whole, I am satisfied with my body.” Items are averaged to yield a possible score between 1 and 5 with higher scores indicating a greater appreciation of the body. Avalos et al. provided evidence in support of the internal consistency of the scores (e.g., Cronbach’s  $\alpha$  ranged from .91 to .94), test–retest reliability ( $r = .90$  over three weeks), and construct validity. Cronbach’s alpha in the present study was .91.

The third scale used was the 10-item weight concern subscale from the Body Esteem Scale (BES; Franzoi & Shields, 1984), which assesses attitudes to body parts (e.g., waist, thighs) and body functions (e.g., appetite) using a scale from 1 (*have strong negative feelings*) to 5 (*have strong positive feelings*). Items are summed with a possible range of scores from 10 to 50 where higher scores indicate a more favorable attitude towards one’s weight. Franzoi and Shields demonstrated adequate internal consistency reliability with a Cronbach’s alpha of .87, and Franzoi (1994) reported a test–retest correlation of .81 over three months. Cronbach’s alpha in the present study was .90.

## Results

Descriptive statistics and intercorrelations for all scales are shown in Table 1. All of the measures were significantly correlated with each other. Importantly, the body image constructs were significantly related to both self-esteem and self-compassion. Thus, women who report being self-compassionate also tend to report greater satisfaction with their physical selves.

With respect to the ordering of measures, BAS scores did not differ as a function of ordering of the questionnaires,  $t(140) = 0.82$ ,  $p = .41$  nor did BSQ scores,  $t(140) = 0.11$ ,  $p = .92$ . Thus, order was not taken into account in subsequent analyses.

To determine whether self-compassion predicted body image over and above global self-esteem, hierarchical regression analyses were conducted. For each index of body image, a model was specified whereby self-esteem scores were entered into the equation at Step 1 and self-compassion scores were entered at Step 2. As can be seen in the top portion of Table 2, self-esteem was a significant negative predictor of BSQ scores but dropped to a non-significant value when self-compassion was included in the model. Thus, when controlling for self-esteem, as self-compassion increased, body preoccupation decreased.

As can be seen in the center of Table 2, the regression coefficient for self-esteem was substantially reduced when self-compassion was entered into a model predicting BAS scores. The results showed that when controlling for self-esteem, self-compassion was a significant positive predictor of body appreciation. A similar pattern emerged for the prediction of weight concerns. The results of this analysis are seen in the bottom portion of Table 2 and show that the regression weight for self-esteem dropped to a non-significant value when self-compassion was included in the model.

## Discussion

The results of Study 1 supported our hypotheses that increased self-compassion was associated with less body preoccupation, fewer concerns about weight, and greater appreciation towards one’s body. Interestingly, the pattern of correlations showed that all aspects of self-compassion significantly correlated with women’s perceptions of their bodies suggesting that the relationships uncovered are not driven by one aspect of self-compassion. Consistent with Neff (2003b), our results also showed a strong positive correlation between self-compassion and trait self-esteem.

Importantly, self-compassion predicted women’s body image even when controlling for self-esteem. Indeed, this was true for the three separate measures used to assess body image demonstrating the robustness of the relationship. Moreover, for two of the three regression analyses, when both self-compassion and self-esteem were included as predictors, self-compassion accounted for unique variance whereas self-esteem did not. This result is important insofar that it demonstrates that the role of self-compassion in women’s body image is likely independent of that for self-esteem.

Although Study 1 supported our key predictions, there remain several important questions. One question that arises concerns the role of self-compassion in women’s perceptions of their bodies. Specifically, could self-compassion account for the relationship between body preoccupation and psychological distress? That is, given the research showing that having concerns about weight/shape can lead to negative outcomes (e.g., Stice, 2001; Stice & Bearman, 2001; Stice et al., 2000), one might imagine that such outcomes occur because of low levels of self-compassion. We address this issue in Study 2.

## Study 2

The purpose of Study 2 was to further explore the nature of the relationship between self-compassion and women’s body image. We had three goals. First, we aimed to replicate the unique contribution of self-compassion for the prediction of women’s body preoccupation.

Second, we sought to extend our understanding of the role of self-compassion by exploring whether it contributes to the prediction of women’s eating behaviors. One outcome associated with body image concerns is restrictive eating (i.e., dieting; Krahnstoever Davison, Markey, & Birch, 2003; Ohring, Graber, & Brooks-Gunn, 2002). One possible consequence of dieting is the tendency to feel guilty and be self-critical when a diet is perceived to be broken (Heatherton, 1993). To date, there is no evidence that women high in self-compassion eat more healthfully than women low in self-compassion. However, self-compassion is associated with lessened negative responses to perceived failure (e.g., Leary et al., 2007) and diet breaking (Adams & Leary, 2007). Given the extant literature, we did not expect women who differ on self-compassion to necessarily differ in their tendency to engage in dieting. However, we did expect that self-compassionate women would not feel as blameworthy compared to less self-compassionate women in response to eating perceived unhealthy foods. If it can be shown that self-compassionate women experience less guilt following diet breaking, it follows that such women may also be less likely to engage in other potentially maladaptive responses when they do break their diets such as disinhibited eating (e.g., the tendency to overeat after eating personally perceived forbidden foods).

The third goal for Study 2 was to explore whether the relationship between body preoccupation and depression is, in part, attributable to self-compassion. Previous research shows a robust link between body image concerns and depressed mood (e.g., Dohnt & Tiggemann, 2006; Paxton et al., 2006; Stice et al., 2000). Indeed, some scholars such as Striegel-Moore and Franko (2004) have suggested that the high rates of depression among females are, in part, attributable to body image concerns. Research also shows that self-compassion is inversely related to depression (e.g., Neff, 2003b; Neff et al., 2007; Neff & McGehee, 2010). Given the relationship between self-compassion and body image constructs uncovered in Study 1, one might expect that women preoccupied with their bodies are more likely to experience depressive symptoms because they are less self-compassionate.

**Table 1**  
Descriptive statistics and intercorrelations among variables (Study 1).

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. RSE	29.57	4.07	.84										
2. SC	2.92	0.63	.71	.93									
3. SK	2.90	0.78	.56	.82	.83								
4. SJ	3.21	0.75	-.66	-.84	-.60	.75							
5. CH	3.18	0.80	.43	.76	.68	-.53	.77						
6. ISO	3.20	0.82	-.63	-.76	-.47	.66	-.39	.75					
7. M	3.18	0.69	.48	.78	.62	-.50	.64	-.45	.67				
8. OI	3.27	0.82	-.59	-.82	-.52	.68	-.43	.65	-.64	.73			
9. BSQ	45.99	17.51	-.41	-.49	-.38	.52	-.32	.47	-.24	.40	.94		
10. BAS	3.54	0.72	.54	.60	.55	-.53	.46	-.43	.46	-.42	-.68	.91	
11. WC	27.40	8.91	.42	.48	.43	-.47	.42	-.36	.32	-.32	-.68	.77	.90

Note.  $N = 142$ . RSE = Rosenberg Self-Esteem Scale; SC = Self-Compassion Scale; SK = Self-kindness subscale; SJ = Self-judgment subscale; CH = Common Humanity subscale; ISO = Isolation subscale; M = Mindfulness subscale; OI = Over-identification subscale; BSQ = Body Shape Questionnaire; BAS = Body Appreciation Scale; WC = Weight Concerns subscale of the Body Esteem Scale. Cronbach's alphas are italicized and presented in the diagonal. All bivariate correlations have  $p$ -values  $< .01$ .

## Method

### Participants and Procedure

One-hundred-and-eighty-nine female undergraduates were recruited from an Introductory Psychology class to participate in return for course credit. Participants signed up via an online recruitment system as used in Study 1. To maintain a relatively homogeneous sample of women, two participants were removed from the analyses, one who was over the age of 40 and the second who was 29 years of age, resulting in a final sample of 187 women. The ages of participants ranged from 17 to 24 years ( $M_{age} = 18.41$  years,  $SD = 1.04$ ) with 75% of participants being in their first year of university and an additional 19.7% in their second year. The sample was drawn from the same university as Study 1. After providing their consent, participants completed the measures described below in groups of 20–25 persons in classrooms, in the order presented here.

### Materials

**Self-esteem.** The Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used to assess trait self-esteem, and the scale is described in Study 1. Cronbach's alpha in the present study was .89.

**Self-compassion.** The Self-Compassion Scale (Neff, 2003b), as described in Study 1, was used to assess participants' level of self-compassion. Cronbach's alpha in the present study for the total

score was .92. Cronbach's alphas were .83, .78, .76, .72, .69, and .67 for the subscales of self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification, respectively.

**Body preoccupation.** As described in Study 1, participants also completed the shortened 16-item version (Evans & Dolan, 1993) of the Body Shape Questionnaire (Cooper et al., 1987). This questionnaire was chosen for use in Study 2 because of the existing evidence that scores on the BSQ predict depressive symptoms (Dowson & Henderson, 2001). Cronbach's alpha in the present study was .94.

**Restrained eating.** The Revised Rigid Restraint Scale (Adams & Leary, 2007) is a 12-item self-report measure designed to assess two dimensions of restrained eating including restrictive eating (the conscious effort to avoid eating perceived unhealthy or 'forbidden' foods) and eating guilt (the tendency to feel guilty after eating perceived 'forbidden' foods). The restrictive eating subscale comprises items such as "I avoid some foods on principle even though I like them," and an example of an item from the eating guilt subscale would be "I feel really bad when I eat unhealthily." Respondents indicate how often each item describes them on a scale from 1 (*never*) to 5 (*always*) with possible scores for the restrictive eating subscale ranging from 5 to 25 and the possible scores for the eating guilt subscale ranging from 7 to 25. Adams and Leary (2007) reported Cronbach's alphas of .82 and .92 for restrictive eating and eating guilt, respectively. Cronbach's alphas in the present study were .83 and .90 for restrictive eating and eating guilt, respectively.

**Table 2**  
Hierarchical regression analyses summaries for self-esteem and self-compassion predicting body image constructs in Study 1.

Criterion	Predictor	$B$	$SEB$	$\beta$	$t$ -Values	$\Delta R^2$
BSQ	Step 1					.17**
	RSE	-1.78	0.33	-.41	-5.38**	
	Step 2					.08**
	RSE	-.057	0.45	-.13	-1.28	
BAS	SC	-11.29	2.93	-.40	-3.86**	
	Step 1					.29**
	RSE	0.10	0.01	.54	7.59**	
	Step 2					.09**
WC	RSE	0.04	0.02	.24	2.58*	
	SC	0.50	0.11	.43	4.54**	
	Step 1					.18**
	RSE	0.93	0.17	.42	5.54**	
WC	Step 2					.07**
	RSE	0.36	0.23	.17	1.60	
	SC	5.29	1.50	.37	3.53**	

Note.  $N = 142$ . RSE = Rosenberg Self-Esteem Scale; SC = Self-Compassion Scale; BSQ = Body Shape Questionnaire; BAS = Body Appreciation Scale; WC = Weight concerns subscale of the Body Esteem Scale.

\*  $p < .05$ .

\*\*  $p < .01$ .

**Depressive symptoms.** The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) is a 20-item questionnaire designed to assess the frequency and severity of depressive symptoms in the general population. Participants are asked to indicate how often they experienced each emotional state (e.g., “I felt depressed”) on a scale from 0 (*rarely or none of the time, less than 1 day*) to 3 (*most or all of the time, 5–7 days*). Total scores can range from 0 to 60 with higher scores indicating higher levels of depressed mood. Devins et al. (1988) reported internal consistency (alpha) coefficients ranging from .63 to .93 and a 3-month test–retest reliability coefficient of .61. Cronbach’s alpha in the present study was .92.

## Results

Descriptive statistics and intercorrelations among all variables are provided in Table 3. The means for self-esteem and self-compassion for Study 2 were within one standard deviation of those for Study 1. Consistent with Adams and Leary (2007), scores on restricted eating were at the midpoint of the scale and scores for eating guilt were negatively skewed suggesting that women generally feel guilty when eating perceived unhealthy foods. The pattern of correlations was consistent with our expectations such that increased self-compassion was associated with less body preoccupation, less eating guilt, and fewer depressive symptoms.

### Self-Compassion and Body Preoccupation

To determine whether self-compassion predicted body preoccupation over and above self-esteem, a hierarchical regression analysis was specified whereby self-esteem scores were entered into the equation at Step 1 and self-compassion scores were entered at Step 2. The results are shown in Table 4. In the first step of the analysis, self-esteem was a significant negative predictor of body preoccupation. Contrary to what was found in Study 1, the inclusion of self-compassion scores in the second step of the analysis failed to account for any additional variance. One possible explanation for this finding concerns the relatively large correlation between self-esteem and body preoccupation. Although the correlation coefficient did not significantly differ from that uncovered in Study 1,  $z = 1.25, p = .21$ , the overlap between the constructs suggests that there is substantially less remaining variance for self-compassion to make a unique contribution. Additionally, the correlation between self-compassion and body preoccupation was substantially smaller than that found for Study 1, although the coefficients did not differ significantly,  $z = 1.00, p = .32$ .

Because the contribution of self-compassion to body preoccupation was not as expected, we conducted a further analysis using the subscales of the self-compassion measure. The follow-up analysis entailed a hierarchical regression whereby self-esteem was entered in the first step. In the second step, we included the six subscale scores of self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. The results of this analysis are shown in the lower half of Table 4. As before, self-esteem was a significant negative predictor of BSQ scores in the first step. The inclusion of the subscale scores in the second step of the analysis accounted for an additional 7% of the variance. Examination of the regression weights reveals that only the self-judgment subscale was significant in the second step. Thus, when controlling for self-esteem, as self-judgment increased, body preoccupation also increased.

### Self-Compassion and Restrained Eating

We conducted a similar analysis for the two subscales of the Revised Rigid Restraint Scale. The results of the analysis for

restrictive eating are presented in Table 5. In the first step of the hierarchical multiple regression equation, self-esteem was a significant negative predictor of restrictive eating, and the inclusion of self-compassion scores at Step 2 failed to account for any additional variance. Interestingly, in Step 2, the regression weight for self-esteem was no longer significant, and the regression weight for self-compassion was also not significant.

As can be seen in Table 5, for eating guilt, in the first step, self-esteem was a significant negative predictor. The inclusion of self-compassion scores at Step 2 accounted for significantly more variance. Thus, when controlling for self-esteem, increased self-compassion was associated with less guilt following eating foods perceived to be unhealthy.

### Self-Compassion as a Mediator

To address whether the link between body preoccupation and depressive symptoms was, in part, explained by women’s level of self-compassion, we used regression analyses to test mediation following Baron and Kenny’s (1986) recommendations. In the first regression analysis, body preoccupation ( $B = 0.33, SE = 0.04, t = 8.02, p < .01$ ) significantly predicted depressive symptoms,  $F(1,186) = 64.24, p < .01, \text{adj. } R^2 = .25$ . In a second regression equation, body preoccupation ( $B = -0.01, SE < .01, t = -5.86, p < .01$ ) significantly and negatively predicted self-compassion,  $F(1,186) = 34.31, p < .01, \text{adj. } R^2 = .15$ . In a third regression equation, self-compassion ( $B = -11.26, SE = 1.15, t = -9.77, p < .01$ ) was a significant negative predictor of depressive symptoms,  $F(1,186) = 95.36, p < .01, \text{adj. } R^2 = .34$ . In the final analysis, both body preoccupation ( $B = .21, SE = .04, t = 5.43, p < .01$ ) and self-compassion ( $B = -8.76, SE = 1.17, t = -7.49, p < .01$ ) significantly predicted depressive symptoms,  $F(2,185) = 69.71, p < .01, \text{adj. } R^2 = .42$ . Importantly, the reduction of .1158 in the size of the regression coefficient for body preoccupation from the third equation ( $B = .33$ ) to the last equation ( $B = .21$ ) was significant with a 95% CI of .07 to .17 ( $z = 4.59, p < .01$ ). As can be seen in Fig. 1, self-compassion, in part, accounted for the relationship between body preoccupation and depressive symptoms.

## Discussion

The purpose of Study 2 was to further demonstrate that self-compassion contributed to body image related constructs. In contrast to Study 1, the results failed to support unique contributions of total self-compassion to women’s body preoccupation. Although the correlation coefficients did not significantly differ across the two studies, it is possible that the overlap between self-esteem and body preoccupation left little variance to be accounted for by self-compassion. Our follow-up analyses using the subscale scores of the self-compassion measure suggested that women who were highly judgmental and critical of themselves experienced more body preoccupation. This analysis provides partial support for our hypothesis. The disparity in the results across the two studies suggests that there may be some aspects of self-compassion that are more relevant for some body image constructs than others are. Whereas Neff (2011b) supports the use of self-compassion total scores because of the overlap among subscales, other research (e.g., Dijkstra & Barelds, 2011) focuses on specific components.

For both studies, participants completed the measure of self-esteem before the measure of self-compassion, and both of these measures were completed before the body-image indices. Thus, it is unlikely that the ordering of these questionnaires contributed to the discrepancy in findings between Study 1 and Study 2. However, future studies varying ordering of the constructs may find differing results. Small differences in the means across the two samples were

**Table 3**  
Descriptive statistics and intercorrelations among variables (Study 2).

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. RSE	29.04	5.07	.89											
2. SC	2.75	0.59	.64**	.92										
3. SK	2.66	0.77	.63**	.81**	.83									
4. SJ	3.34	0.76	-.68**	-.82**	-.70**	.78								
5. CH	2.92	0.78	.34**	.71**	.49**	-.35**	.76							
6. ISO	3.28	0.82	-.53**	-.77**	-.48**	.63**	-.46**	.72						
7. M	3.01	0.71	.38**	.74**	.57**	-.41**	.62**	-.39**	.69					
8. OI	3.43	0.78	-.35**	-.75**	-.42**	.58**	-.43**	.56**	-.52**	.67				
9. BSQ	51.36	17.67	-.52**	-.40**	-.38**	.51**	-.09	.36**	-.14	.27**	.94			
10. RE	15.82	4.78	-.18*	-.12	-.19*	.21**	.08	.17*	-.02	-.02	.52**	.83		
11. EG	23.05	7.06	-.39**	-.37**	-.35**	.43**	-.09	.33**	-.21**	.27**	.76**	.67**	.90	
12. CESD	19.95	11.45	-.71**	-.58**	-.49**	.59**	-.27	.48**	-.33**	.47	.51**	.16*	.39**	.92

Note. N = 187. RSE = Rosenberg Self-Esteem Scale; SC = Self-Compassion Scale; SK = Self-kindness subscale; SJ = Self-judgment subscale; CH = Common Humanity subscale; ISO = Isolation subscale; M = Mindfulness subscale; OI = Over-identification subscale; BSQ = Body Shape Questionnaire; RE = Restrictive Eating subscale from the Revised Rigid Restraint Scale; EG = Eating Guilt subscale from the Revised Rigid Restraint Scale; CESD = Center for Epidemiologic Studies Depression Scale. Cronbach's alphas are italicized and presented in the diagonal.

\* p-Values < .05.

\*\* p-Values < .01.

**Table 4**  
Hierarchical regression analyses summaries for self-esteem and self-compassion predicting body preoccupation (Study 2).

Predictor	B	SEB	β	t-Values	ΔR <sup>2</sup>
Step 1					.26**
RSE	-1.80	0.22	-.52	-8.22**	
Step 2					.01
RSE	-1.56	0.29	-.45	-5.45**	
SC	-3.13	2.45	-.11	-1.28	
Step 1					.26**
RSE	-1.80	0.22	-.52	-8.22**	
Step 2					.07**
RSE	-1.18	0.31	-.34	-3.81**	
Self-kindness	-1.22	2.32	-.05	-.053	
Self-judgment	5.90	2.60	.25	2.27*	
Common Humanity	2.94	1.88	.13	1.57	
Isolation	1.47	1.87	.07	0.78	
Mindfulness	2.33	2.24	.09	1.04	
Over-identification	1.02	1.96	.05	0.52	

Note. N = 187. RSE = Rosenberg Self-Esteem Scale; SC = Self-Compassion Scale.

\* p < .05.

\*\* p < .01.

also evident. Although some variation in scores might be expected, more evidence derived from additional samples will be useful in understanding the robustness and nature of the relationships.

Results from Study 2 did show that self-compassion uniquely contributed to eating guilt, but not restrictive eating. This finding appears to correspond to the conceptual definition of self-compassion in that people who are self-compassionate are less likely to react with criticism and harshness (Adams & Leary,

2007; Neff, 2003a). In other words, self-compassion does not contribute to one's efforts at food restriction but does lessen the emotional impact of perceived diet breaking. Interestingly, correlational analyses using subscale scores suggests that some aspects of low self-compassion may be relevant for dieting. For example, women who are self-critical may be motivated to engage in dieting as a way to overcome their perceived shortcomings.

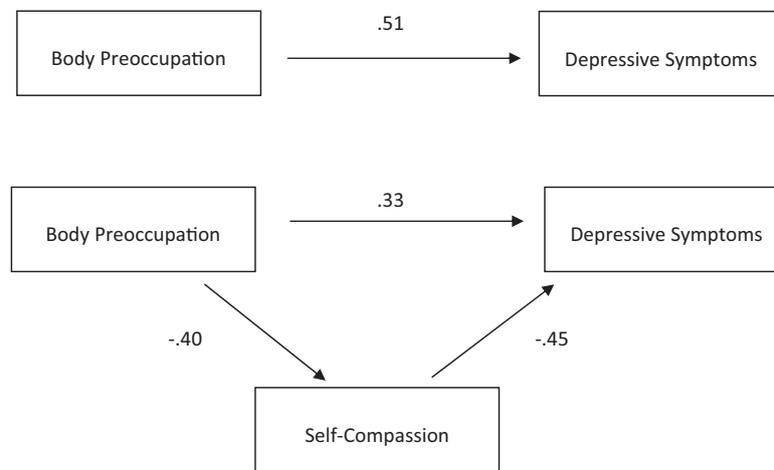
**Table 5**  
Hierarchical regression analyses summaries for self-esteem and self-compassion predicting restrained eating and eating guilt.

Criterion	Predictor	B	SEB	β	t-Values	ΔR <sup>2</sup>
RE	Step 1					.03*
	RSE	-0.17	0.07	-.18	-2.50*	
	Step 2					<.01
EG	RSE	-0.17	0.09	-.18	-1.87	
	SC	-0.04	0.77	-.01	-0.05	
	Step 1					.15**
EG	RSE	-0.54	0.09	-.39	-5.79**	
	Step 2					.03*
	RSE	-0.36	0.12	-.26	-2.94**	
	SC	-2.47	1.04	-.21	-2.38*	

Note. N = 187. RSE = Rosenberg Self-Esteem Scale; SC = Self-Compassion Scale; RE = Restricted Eating subscale from the Revised Rigid Restraint Scale; EG = Eating Guilt subscale from the Revised Rigid Restraint Scale.

\* p-Values < .05.

\*\* p-Values < .01.



**Fig. 1.** Relationship between body preoccupation and depressive symptoms as mediated by self-compassion. The top portion of the figure represents the results of a simple regression analysis whereas the bottom portion represents the mediation model. The values are (standardized) Beta coefficients and all were significant,  $p < .01$ .

Finally, we provided evidence that the link between body preoccupation and depressive symptoms was partially mediated by women's level of self-compassion. This analysis suggests that one reason why body preoccupation predicts depressive symptoms is because of variation in self-compassion. The ordering of the variables in this analysis was driven by the existing research showing that having concerns about one's weight and/or shape can lead to depression whereas the research linking self-compassion and depression is correlational in nature. Despite the causal sequence implied by the mediation analysis, the design of the study does not allow for such inferences. It is possible that the causal ordering of the constructs differs from what is proposed here and research employing longitudinal designs will help to untangle this issue.

### General Discussion

The primary contribution of the current research to the existing literature is its focus on the unique role that self-compassion has in women's body image. First, evidence was found to support the hypothesis that self-compassion is inversely related to women's concerns about their bodies and this finding is notable not only because it replicated across three different measures, but also in its implications. Given that, by definition, self-compassion entails less harsh judgments of the self, it seems intuitive that, regardless of body size, shape, or discrepancy from societal ideals, those who are self-compassionate are more accepting of their physical selves. Although the results for Study 2 provided only partial support for this hypothesis in that a specific aspect of self-compassion, low self-judgment, uniquely predicted body preoccupation, the pattern of relationships uncovered strongly suggests that self-compassion is indeed linked to women's body concerns.

It has long been recognized that self-esteem is linked to women's body concerns; yet, very little is known about whether self-compassion has a unique role in these concerns. Importantly, we showed that the link between self-compassion and women's body concerns exists even when controlling for self-esteem, demonstrating that it is not merely the overlap of the constructs that accounts for the relationship. Although one might attribute the relationship between self-esteem and body concerns to its shared meaning with self-compassion, we would suggest that this may be true for some measures but not all. In other words, it seems more reasonable to expect that self-compassion can work in conjunction with self-esteem. For example, the link between self-esteem and women's body concerns may be attributable to

the process of comparing oneself to others. In contrast, the process of being self-compassionate may complement that by allowing one to be accepting of one's self when one perceives herself or himself as not being superior (and maybe even inferior). These two processes together may provide additional insight into when and why concerns about one's weight and/or shape occur among women.

A second key finding is the link between self-compassion and eating guilt uncovered in Study 2. This finding is consistent with Adams and Leary's (2007) demonstration that when induced to respond compassionately following eating of 'forbidden' foods, women experienced less self-criticism. Additionally, the pattern of relationships uncovered using subscales scores of self-compassion coincides with the findings from Study 1. That is, it appears that some aspects of self-compassion such as self-judgment may be more (or less) relevant for some body image related constructs than others.

The relationships uncovered for restricted eating and eating guilt also provide evidence that self-compassion and self-esteem differ in the extent that they relate to incidents of unhealthy eating. This raises the possibility that self-compassion may be related to other psychological constructs relevant for women's body concerns. Indeed, a relatively recent study suggests that self-compassion contributes to women's motivations to exercise (e.g., Magnus et al., 2010).

Yet a third key finding of the present studies is self-compassion's mediating role in the relationship between body preoccupation and depressive symptoms. Whereas studies might focus on the negative outcomes associated with body image (e.g., Dohnt & Tiggemann, 2006; Paxton et al., 2006), our results suggest that variations in self-compassion may contribute to the likelihood of such outcomes.

### Limitations and Future Directions

Although the present findings constitute a useful step in documenting the relations that self-compassion has with body image, there are limitations that highlight the need for further research. First, the findings of this investigation may not generalize to other groups. Although young women in Western societies are vulnerable to having concerns about their appearance making the current sample an appropriate one for study, additional populations need to be sampled. Future research aimed at older women may demonstrate that self-compassion is more closely associated with body image in one group versus the other. Additionally, research sampling from

a population of men may demonstrate similar or different patterns of relationships as those uncovered here.

A second limitation of both Study 1 and Study 2 is the reliance on self-reports for all constructs. In addition to the potential for biases in participants' responses, we did not include specific validity questions that may have controlled for careless responding. Researchers employing self-report measures may want to have participants respond to items such as "To ensure you are paying attention, please answer 'agree' for this item" and remove those participants who answer incorrectly to these validity items.

A third limitation of the current study concerns the directionality of the relationship between self-compassion and body image. Given the design of the studies presented here, it is not possible to determine whether body image leads to self-compassion or whether self-compassion leads to body image. Moreover, just as self-esteem has been shown to be both a predictor and a consequence of body image concerns, this could be the case for self-compassion. Of course there is always the possibility that a construct not considered in this investigation accounts for both levels of self-compassion and body concerns. For example, women who internalize the cultural thin ideal may engage in behavioral and cognitive processes that decrease self-acceptance and self-compassion and that also lead to having concerns about their bodies. Research employing longitudinal designs would be particularly useful in uncovering the directionality of the relationships found here.

Overall, the results reported here add to the existing literature. For the growing literature on self-compassion, the current research provides evidence that self-compassion is associated with indices of body image when controlling for self-esteem. Future research exploring the underlying processes responsible for this link would constitute a useful next step. One process that may account for why both self-esteem and self-compassion relate to body image is social comparison. A sizable literature emphasizes that women who engage in upward social comparisons are particularly vulnerable to having concerns about their physical appearance (e.g., Halliwell & Dittmar, 2004). Neff (2009) argues that self-esteem relies on being better than others whereas self-compassion does not. If it can be shown that those high in self-compassion are less likely to engage in social comparison compared to those low in self-compassion, this might contribute to understanding why self-compassion predicts positive views.

Additionally, there are likely unique aspects of self-compassion that are most relevant for body image and these might tap the acceptance and non-judgmental components of self-compassion. Because there is empirical evidence that being self-compassionate is beneficial in times of perceived failure, one outstanding question is what aspect of self-compassion is responsible for these reactions. Other literatures demonstrate the utility of examining specificity of predictors (e.g., Paunonen, 1998; Wasylikiw & Fekken, 2002) suggesting that it may be useful to consider individual components of self-compassion.

One applied implication of the current study concerns the inclusion of self-compassion training in young girls. Indeed, it appears that some programs (e.g., O'Dea, 2004) incorporate aspects of self-compassion in the promotion of positive body image. Our results appear to support the benefits of self-compassion for promoting positive body image. Although additional empirical evidence is needed to support the effectiveness of intervention programs, it seems likely that self-compassion can contribute to reducing both appearance concerns and the ensuing consequences. Indeed, if it can be shown that self-compassionate women are not bothered by comparisons with those judged to be better-off, self-compassion training will meaningfully contribute to prevention and treatment of body image concerns.

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