

# The body compassion scale: Development and initial validation

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## Abstract

As the newer mindfulness and acceptance-based cognitive behavioral therapies continue to grow, it is important that corresponding valid and reliable assessment tools are developed and evaluated. This article describes the initial development and validation of the body compassion scale. The body compassion scale is a theoretically derived measure designed to bridge the constructs of body image and self-compassion to provide a targeted measure of underlying mindfulness and acceptance-based constructs. Herein, two studies using exploratory and confirmatory factor analysis and examining subsequent relationships among other health-related constructs in college-age samples are presented.

## Keywords

body compassion, body image, measurement, self-compassion, mindfulness

Individuals with negative/poor body image are more likely to avoid participation in positive health behaviors (Vartanian and Novak, 2011), experience mood disorders (Jackson et al., 2014), eating disorders (Stice, 2002), poor interpersonal functioning (Cash et al., 2004), and to engage in risky sexual behaviors (Woertman and van den Brink, 2012). Taken together, these are among the most costly health-related risk factors and conditions (World Health Organization, 2009).

Treatment of body image-related disturbances has strong empirical support in cognitive behavioral therapies (CBTs; Jarry and Cash, 2011), including the newer “Third Wave” mindfulness and acceptance-oriented interventions: acceptance and commitment therapy (ACT; Pearson et al., 2012), dialectical behavior therapy (Telch et al., 2001), mindfulness-based cognitive therapy (Alberts et al., 2012), and mindfulness-based stress reduction (Katterman et al., 2014). These

approaches have adapted assessment and intervention protocols to body and body image-related disturbances such as body dissatisfaction and eating disorders as well as chronic pain and chronic illnesses with promising results. In mindfulness and acceptance-oriented treatments, it can be said the focus is on how one relates to one’s own thoughts and experiences, acknowledging that both joys and sorrows are part of the human experience (Hayes et al., 2012).

As treatment paradigms shift from a goal of manipulating the content or nature of thoughts

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to a stance of increased awareness and acceptance of thoughts, new ways of conceptualizing the constructs related to mindfulness and acceptance are emerging. Therefore, it is important that the corresponding assessment and valid and reliable tools of measurement are developed and evaluated (Baer et al., 2006; Smolak and Cash, 2011).

The aim of the studies presented herein was the initial development and validation of the body compassion scale (BCS). The BCS bridges two constructs, body image and self-compassion, which are grounded in two distinct theoretical foundations—cognitive behavioral and Buddhist psychology. The BCS is a measure anchored in mindfulness and acceptance, while incorporating the multidimensionality of body image.

## **Body image**

Body image is a broad and clearly defined multidimensional construct capturing perceptions and attitudes toward one's body or physical self (Cash, 2004; Cash and Pruzinsky, 1990), including one's evaluation of and orientation or level of investment in appearance, fitness, and health/illness (Cash, 2000). There are well-established measures assessing various components of body image with the Multidimensional Body Self Relations Questionnaire (MBSRQ) considered to be the most comprehensive and widely used measure; it taps into each of the aforementioned dimensions of body image (Cash, 2000). More recent work in the study of body image and related constructs resulted in a call for body image measures with a more positive focus. "A growth in conceptual perspectives and research on positive, adaptive, or healthy body image is essential to the future of the field" (Smolak and Cash, 2011: 471). This shift in focus has been associated with the development of measures with a more positive valence such as the Body Appreciation Scale-II which examines the characteristics identified as qualities of positive body image (Tylka and Wood-Barcalow, 2015). However, there remains a paucity of body image-related measures directly reflecting the

shift toward mindfulness and acceptance-based approaches, with the notable exception of the recently developed Body Image–Acceptance and Action Questionnaire (BI-AAQ; Sandoz et al., 2013) and the Body Image Psychological Inflexibility Scale (Callaghan et al., 2015), both centered in the ACT model. For a more extensive review of ACT theory and core processes, see Hayes et al. (2012).

## **Self-compassion**

Self-compassion is conceptualized as

being open to and moved by one's own suffering, experiencing feelings of caring and kindness toward oneself, taking an understanding, nonjudgmental attitude toward one's inadequacies and failures, and recognizing that one's own experience is part of the common human experience. (Neff, 2003a: 224)

Interest in self-compassion has increased markedly in the past decade and has been associated with meaningful outcomes and multiple facets of human experience, such as physiological functioning (Arch et al., 2014), psychological well-being (Hall et al., 2013), motivation (Williams et al., 2008), health behaviors (Sirois et al., 2015), athletics (Mosewich et al., 2011), and many more. Self-compassion scales (SCSs) have also been utilized in assessment of body image-related disturbances including body image dissatisfaction, shame, drive for thinness (Ferreira et al., 2013), distress associated with bodily changes after breast cancer (Przedziecki et al., 2013), and weight concerns (Wasylikiw et al., 2012). There may be a distinct advantage in adding measurement of a body-focused construct to account for a ubiquitous, but context-specific, experience not otherwise captured by the more general assessment of global self-compassion.

## **Body compassion**

In an effort to bridge the somewhat disparate foundations of the constructs of body image (grounded in the cognitive model) and self-compassion (grounded in Buddhist psychology), we propose a

new construct—"body compassion." Body compassion is largely informed by both the multidimensional construct of body image and self-compassion. The three components of self-compassion identified by Neff (2003a)—(1) kindness toward oneself (vs judgment), (2) seeing one's experiences as part of the common humanity (vs isolation), and (3) mindfulness (vs over-identification)—were applied with a shift in emphasis from the overall or general "self" to the physical self (i.e. the body). To further define the construct reference to the physical self, body compassion also incorporates Cash's (2002) concept of body image as "one's attitudinal dispositions toward the physical self"; these include evaluative, cognitive, and behavioral components, and the physical self refers to appearance, competence/fitness, and health/illness. The resultant body compassion construct provides a conceptualization of body-related disturbances and well-being appropriate to mindfulness and acceptance-based approaches. The two studies presented herein illustrate an effort to develop a measure of body compassion. The measure was designed for use in research, clinical assessment, and intervention regarding the role of body compassion in understanding and enhancing health-promoting behaviors, psychological well-being, and/or quality of life.

## Method

### Procedure

The study received institutional review board (IRB) approval from each of the data collection sites. Participants signed up for the studies online through each university's psychology department's organized undergraduate research program. Upon signing up, participants received a link to the online survey portal "SurveyMonkey" where the study website contained a description of the study, procedures, and preamble informed consent. The introductory page was followed by the collection of self-report questionnaires for each study and a concluding page, which thanked participants.

To control for potential error associated with careless or nonsensical responding, we randomly

inserted three items in each survey stating, "This item is here to be sure you are paying attention as you respond. If you just read this, choose '5'" (Tylka and Wood-Barcalow, 2015). This resulted in the invalidation and elimination of 59 participant surveys in Study 1 and 85 participant surveys in Study 2. In addition, surveys which were less than 90 percent complete were excluded from analyses.

## Study 1

The primary aims of Study 1 were to (1) generate and select potential items for the BCS and (2) conduct a preliminary appraisal of the resultant scale's validity.

### Method

The structure of the BCS was modeled after the SCS (Neff, 2003b) while also addressing the multiple dimensions of body image (Cash, 2000). Eighty-three theoretically based Likert-style items were generated from the initial definition of body compassion, "the regarding of one's own body, in appearance, competence and health, with mindfulness, kindness and awareness of common humanity." Items were created specifically to represent content of each of the three subscales of self-compassion (mindfulness vs over-identification, kindness vs judgment, and common humanity vs isolation; Neff, 2003b) and each of the three major components of the physical self from body image assessment—appearance, competence, and health (Cash, 2002). This resulted in nine groupings: appearance-mindfulness/overidentification, appearance-kindness/judgment, appearance-common humanity/isolation, competence-mindfulness/overidentification, competence-kindness/judgment, competence-common humanity/isolation, health-mindfulness/overidentification, health-kindness/judgment, and health-common humanity/isolation. Items were written using language and stylings derived from the MBSRQ and the SCS. Each grouping had 9–10 potential items with roughly half of the items in each grouping representing a negative valence and half a positive valence.

Following the initial item generation, we conducted an informal discussion and qualitative analysis—judging each item for clarity, simplicity of language, social desirability, transparency and palatability, and, finally, face validity (Green, 1981)—revising and rewording as necessary. Following this process, the measure items were reviewed by a co-author and an undergraduate research assistant who each independently provided input regarding item clarity, consistency with the construct(s) being assessed, and ease of understanding.

**Participants.** Participants were 662 undergraduate college students (mean age = 20.49 years, standard deviation (*SD*) = 3.86 years) who received course credit for study completion. The sample was 70.8 percent female, 76.9 percent White, 11.6 percent Black, 4.4 percent Asian, and 3.5 percent Hispanic. The average body mass index (BMI) was 24.13 which is classified as normal weight.

There were 89 cases with missing values for one ( $n=72$ ), two ( $n=12$ ), three ( $n=4$ ), or five ( $n=1$ ) items. We computed person-mean *z*-scores for all valid items scores and then imputed scores for the missing values.

## Measures

**BCS.** The initial pool of 83 BCS items was written to capture mindfulness/over-identification, kindness/judgment, and common humanity/isolation within appearance, competence, and health, creating nine initial groupings, consistent with the wording of the SCS and MBSRQ from which the subscales and wording were drawn. Items were constructed to represent these nine groupings and to allow the exploratory factor analysis to identify items most salient to the experience of having compassion for one's body, and how those items would group into factors—then determining the key factors of body compassion. The use of the BCS is appropriate for ages 15 years and older, with a minimum of an eighth-grade reading level (Cash, 2002; Neff, 2003b). Participants were instructed to indicate how often they believe or

behave in the stated manner on each of the items on a scale of 1 (*almost never*) to 5 (*almost always*).

**Self-Compassion Scale—Short Form.** Self-Compassion Scale—Short Form (SCS-sf) is a 12-item measure which has a near-perfect correlation ( $r \geq .97$ ) with the longer 26-item SCS. Participants were instructed to indicate how often they behave in the stated manner on each of the items on a scale of 1 (*almost never*) to 5 (*almost always*; Raes et al., 2011).

**BI-AAQ.** The BI-AAQ is a 12-item measure of body image flexibility (the capacity to experience the ongoing perceptions, sensations, feelings, thoughts, and beliefs associated with one's body fully and intentionally while pursuing chosen values), a potential change process in acceptance-oriented treatments (Sandoz et al., 2013).

**Eating Attitudes Test-26.** The Eating Attitudes Test-26 (EAT-26) is a 26-item measure used to assess disordered eating behavior (Garner et al., 1982).

## Results

**Exploratory factor analysis.** Preliminary exploratory factor analysis resulted in a Kaiser–Meyer–Olkin measure of sampling adequacy of .929, showing enough common variability between items to warrant exploratory factor analysis. Items were checked for skewness, and none was highly skewed—all skew values were less than absolute value of .35. For comparison, values greater than absolute value 1.0 or even more extreme are considered problematic. Bartlett's test of sphericity was significant ( $\chi^2(3403) = 26870.18, p < .001$ ), indicating the R-matrix is not an identity matrix, and initial communalities range from .37 to .76, suggesting acceptable shared variance between items. The *minimum* number of participants needed for an exploratory factor analysis is five participants per item (Gorsuch, 1990); therefore, the current sample of 662 (greater than  $5 \times 83$  items = 415)

had sufficient power to provide useful data in evaluation of this new instrument.

Parallel analysis indicated that although five components had eigenvalues greater than 1.0, only four components had eigenvalues greater than what would be found in 95 percent of random rearrangements of the data. In addition, a varimax rotated solution with Kaiser normalization of the first four components had only 2 of the 83 items loading substantially on the fourth factor, indicating that a three-factor solution, accounting for 51.9 percent of the variance, was the best. A varimax rotation with Kaiser normalization converged in five iterations. Only items with minimum loadings of .60 on one factor were retained in the final factor structure. This resulted in a scale comprising 23 items. Given that there is no absolute standard in determining a factor loading cutoff criterion, we utilized a more stringent cutoff than would be necessary to obtain significance ( $p < .01$  two-tailed) for the size of our sample (Field, 2013: 681). This was done primarily to create a reasonably brief scale which could be utilized across a variety of settings and populations from its inception.

From the 23-item scale, the three factors were subsequently labeled: Defusion, Common Humanity, and Acceptance (Table 1). We reverse-scored the defusion subscale to maintain a consistent valence among the three factors for ease of application and communication. The factors were assigned these theoretically consistent labels at this juncture as a way of creating baseline meaning of the subscales and the preliminary psychometrics prior to the confirmatory factor analysis (CFA) thus providing an avenue for comparison with post-CFA results.

**Calculation and descriptive statistics.** Body compassion scores were calculated by reverse-scoring the defusion subscale, scoring the common humanity and acceptance subscales, and summing responses on the 23-item BCS. BCS scores ranged from 26 to 114, with a mean of 72.16 and an  $SD$  of 15.83. The BCS scores were normally distributed (Kolmogorov–Smirnov = .03,  $p = .152$ ).

**Internal consistency and intercorrelations.** The following alpha coefficients were obtained for the three subscales/factors of the BCS and suggest good to excellent internal consistency: Defusion = .90, Common Humanity = .91, and Acceptance = .88. Intercorrelations among the factors/subscales were significantly positively correlated with each other, with  $r$ s of .29 (Defusion with Common Humanity), .39 (Common Humanity with Acceptance), and .67 (Defusion with Acceptance).

**Concurrent validity.** Correlations between body compassion total and subscale scores and other relevant constructs are presented in Table 2. All correlations were in the expected directions and were moderate to large. These findings indicate that body compassion and its factors/subscales show predicted relationships with other variables.

## Study 2

The objectives of study two were to (1) confirm the factor structure identified in Study 1, (2) evaluate the BCS as a valid and reliable scale that accurately assesses levels of body compassion, and (3) examine psychosocial factors associated with different levels of body compassion.

## Method

**Participants.** Participants were 256 undergraduates recruited through the psychology department's organized research program for class credit at a metropolitan university in the mid-western area of the United States. Participants were excluded from this study if they had participated in Study 1. Participants had an average age of 20.24 years ( $SD = 4.16$  years), and the mean BMI was 24.26. The sample was 72.1 percent female, 81.4 percent White, 8.5 percent Black, 4.3 percent Asian, 2.7 percent Hispanic, and 0.39 percent American Indian.

There were 17 cases with missing values for one ( $n = 16$ ) or two ( $n = 1$ ) items. We computed person-mean  $z$ -scores for all valid items

**Table 1.** Factor structure of 23 BCS items retained from initial pool in Study 1.

Item content	Factor loading		
	1	2	3
<i>Factor 1: Defusion</i>			
When I feel frustrated with my body's inability to do something, I tend to feel separate and cut off from other people.	<b>.734</b>	.146	.188
When I think about my body's inadequacies, it tends to make me feel more separate and cut off from other people.	<b>.731</b>	.139	.299
When I fail at some form of physical activity that is important to me, I tend to feel alone in my failure.	<b>.729</b>	.140	.056
When my body fails at something important to me, I become consumed by feelings of inadequacy.	<b>.705</b>	.147	.203
When my body is not responding the way I want it to, I tend to be tough on myself.	<b>.678</b>	.127	.235
When I wish some aspect of my body looked different, it feels like no one else understands my struggle.	<b>.663</b>	.141	.192
When I have physical symptoms, illness, or injury, it tends to make me feel more separate and cut off from other people.	<b>.652</b>	.107	-.012
When I notice aspects of my body that I do not like, I get down on myself.	<b>.623</b>	.066	.537
When I am feeling physically uncomfortable, I tend to obsess and fixate on everything that is wrong.	<b>.620</b>	.061	.212
<i>Factor 2: Common Humanity</i>			
When I am frustrated with some aspect of my appearance, I try to remind myself most people feel this way at some time.	.036	<b>.804</b>	.175
When I doubt my ability to do a new physical activity, I try to remind myself that most people also feel this way at some point.	.085	<b>.763</b>	.060
When I feel out of shape, I try to remind myself that most people feel this way at some point.	.116	<b>.758</b>	.026
I try to see my body's failings as something everyone experiences in one way or another.	.163	<b>.755</b>	.114
When I am injured, ill, or have physical symptoms, I remind myself that there are lots of other people in the world feeling like me.	.056	<b>.749</b>	-.013
When I feel frustrated with my body's inability to do something, I try to remind myself that most people in my condition feel this way at some point.	.016	<b>.715</b>	.206
When I feel my body is inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.	.026	<b>.707</b>	.169
When I am at my lowest during times of physical symptoms, illness, or injury, I know I am not alone in feeling this way.	.222	<b>.693</b>	.019
When I am concerned if people would consider me good-looking, I remind myself that most everyone has the same concern.	-.003	<b>.611</b>	.243
<i>Factor 3: Acceptance</i>			
I am accepting of my looks just the way they are.	.386	.221	<b>.720</b>
I am accepting of the way I look without my clothes on.	.351	.138	<b>.711</b>
I feel okay in my body.	.418	.226	<b>.680</b>
I am tolerant of my body's flaws and inadequacies.	.337	.248	<b>.671</b>
I am tolerant of the way my clothes fit me.	.247	.138	<b>.607</b>

Note: Items retained on each factor are indicated in bold.

**Table 2.** Correlations between body compassion, subscales, and other measures in Studies 1 and 2.

Measures	Body compassion total	Defusion	Common Humanity	Acceptance
Study 1				
Predicted positive correlations				
SCS-sf	.790**	.717**	.491**	.677**
BI-AAQ	.689**	.726**	.207**	.728**
Predicted negative correlations				
BMI	-.208**	-.174**	-.082*	-.266**
EAT-26	-.550**	-.543**	-.250**	-.521**
Study 2				
Predicted positive correlations				
SCS-sf	.747***	.691***	.467***	.580***
BI-AAQ	.669**	.686**	.248**	.652**
FFMQ	.378***	.396***	.169*	.320***
PA	.354***	.246***	.253***	.371***
Predicted negative correlations				
BMI	-.281***	-.201**	-.192**	-.298***
EAT-26	-.415***	-.428***	-.126	-.431***
NA	-.436***	-.496***	-.180**	-.312***

SCS-sf: Self-Compassion Scale–Short Form; BI-AAQ: Body Image–Acceptance and Action Questionnaire; BMI: body mass index; EAT-26: Eating Attitudes Test-26; FFMQ: Five Facet Mindfulness Questionnaire; PA: PANAS Positive Affect; NA: PANAS Negative Affect.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

scores and then imputed scores for the missing values.

**Measures.** In Study 2, the Demographic Questionnaire, the 23-item BCS developed in Study 1, the SCS-sf, the BI-AAQ, and the EAT-26 were included in the online study survey which also included the following measures:

**BCS.** The BCS is a 23-item measure consisting of a total score and three subscales (Defusion, Common Humanity, and Acceptance). Internal consistencies (Cronbach's alpha) for this sample are as follows: .92, .91, and .87, respectively.

**Five Facet Mindfulness Questionnaire.** The Five Facet Mindfulness Questionnaire (FFMQ) is a 39-item measure consisting of five subscales: Observing, Describing, Acting with Awareness, Non-judging of inner experience, and Non-reactivity to inner experience (Baer et al., 2006).

**Positive and Negative Affect Scales.** The Positive and Negative Affect Scales (PANAS) is a 20-item self-report measure of positive and negative affects. Each item is a mood state adjective (i.e. "distressed") and is rated on a scale of 1 (*very slightly or not at all*) to 5 (*extremely*). The negative items are summed to provide a NA result for negative affect, and the positive items are summed to provide a PA result for positive affect (Watson et al., 1988). This instrument was validated in studies using affect scales in relationship to psychopathology (Huebner and Dew, 1995).

## Results

**CFA.** Given the three-factor solution identified in Study 1, a CFA was conducted to examine the three-factor solution. The three-factor CFA solution was tested using AMOS software version 22. Overall, the results showed good fit to the data. Browne and Cudeck (1993) suggest

that the root mean square error of approximation (RMSEA) is one of the most useful indices of model fit, partly because it does not reward including additional parameters. For the three-factor CFA model, the RMSEA = .08 (90% confidence interval (CI) = .071–.085). As Browne and Cudeck (1993) note, “a value of about 0.08 or less for the RMSEA would indicate a reasonable error of approximation” (p. 144). The comparative fit index (CFI) for the three-factor model (with three modifications) was .924. Although Hu and Bentler (1999) specify CFI  $\geq$  .95 as a cutoff value for good fit, this result is consistent with the RMSEA as having adequate fit. Another criterion for a good fit is observed chi-square divided by degrees of freedom (*dfs*) equal to 2.0 or less. In this sample, the value was 2.62 (chi-square = 594.2, *df* = 227) which approached meeting the 2.0 criterion. The fit can be improved by allowing the errors for three pairs of items to be correlated—meaning that people tend to answer several pairs of questions in similar ways. The pairs are as follows: items 8 and 10, items 20 and 21, and items 21 and 22. When those changes are made, chi-square = 493.4, *df* = 224, and RMSEA = .069. The value of the observed chi-square divided by *dfs* improves to 2.20.

We also examined a one-factor solution (chi-square = 1832.4, *df* = 230, ratio: 8.0, RMSEA = .165) and a two-factor solution (chi-square = 890.5, *df* = 229, ratio: 3.9, RMSEA = .106). The three-factor solution is a significantly better fit than either the one- or the two-factor solution. In addition, the other fit indicators indicate the one- and two-factor solutions are not even close to an adequate fit to the data.

**Calculation and descriptive statistics.** The central tendency and spread of the distribution of BCS scores were again examined. Scores ranged from 30 to 115 with a mean of 72.88 and an *SD* of 16.46. Consistent with Study 1, the distribution of BCS scores was normally distributed (Kolmogorov–Smirnov = .056, *p* = .053).

**Internal consistency and intercorrelations.** The 23-item version of the BCS was again examined

for internal consistency. The following alpha coefficients were obtained for the three subscales/factors of the BCS, demonstrating excellent internal consistency: Defusion = .92, Common Humanity = .91, and Acceptance = .87. As in Study 1, all were significantly and positively correlated with each other, with *rs* of .25 (Defusion with Common Humanity), .43 (Common Humanity with Acceptance), and .61 (Defusion with Acceptance). Cronbach’s alpha of .92 for all 23 items is excellent, supporting use of a total score.

**Concurrent validity.** Body compassion was positively related to body image flexibility and self-compassion and negatively related to BMI and disordered eating in Study 1. As seen in Table 2, these relationships were replicated in this study. In addition, body compassion scores were positively related to mindfulness and positive affect, and negatively related to negative affect. See Table 2.

## Discussion

The two studies reported here provide initial psychometric support for a self-report measure of body compassion, the BCS. In Study 1, the development of the BCS was informed by Neff’s (2003b) SCS, while incorporating the multiple dimensions of body image proposed by Cash (2000). To be useful, such an instrument would need to demonstrate both that it does, indeed, measure body compassion (validity) and that it does so consistently (reliability). From the initial pool of 83 items, three factors (i.e. subscales) emerged: Defusion, Common Humanity, and Acceptance.

One explicit goal of the formation of the BCS was to reflect the two theoretical constructs from which the scale was derived. Notably, items retained for the three BCS subscales included items that were originally thought to comprise elements of both self-compassion and body image. Toward this end, within the BCS subscale items retained in the exploratory factor analysis, the content of each of the three previously identified subscales of self-compassion (Neff, 2003b) is represented. Similarly, items

representing the three major components of the physical self from body image assessment are also reflected (Cash, 2002). For example, within the Defusion subscale, the item “When I wish some aspect of my body looked different, it feels like no one else understands my struggle” reflects both the appearance component of body image and the common humanity/isolation subscale of self-compassion. In the Common Humanity subscale, the item “When I feel out of shape, I try to remind myself that most people feel this way at some point” captures the competence/fitness component of body image and the common humanity subscale of self-compassion. The Acceptance subscale item “I am accepting of the way I look without my clothes on” pulls primarily from the appearance component of body image and also the kindness subscale of self-compassion.

### *Reliability and validity*

The 23-item BCS was found to assess body compassion with good reliability between items and administrations across two different samples. As expected, body compassion was related positively to measures of body image flexibility and self-compassion (see Table 2).

BCS scores were positively related to the acceptance-related construct, body image flexibility, as measured by the BI-AAQ. This suggests that individuals higher in body compassion may also have increased capacity for flexibility and change in processes related to health and appearance. Furthermore, BCS scores were highly negatively related to disordered eating as assessed by the EAT-26. If body compassion measures self-compassion specific to the body, BCS scores would also be expected to have a positive correlation with measures of overall self-compassion. As seen in Table 2, correlation coefficients provided initial support for the hypothesized relationships. BCS scores were positively related to self-compassion.

In Study 2, the 23-item BCS scale was examined relative to mindfulness, positive and negative affects, body image flexibility, self-compassion, and disordered eating. As we hypothesized, higher

levels of body compassion were associated with higher positive affect and lower negative affect.

### *Methodological considerations and future directions*

Taken together, the findings in Studies 1 and 2 support our initial hypotheses and goal of demonstrating the properties and attributes of the BCS. Body compassion is an emerging construct that may inform our understanding of how individuals relate to their bodies. The findings presented herein represent the first in a series of steps to explore the utility of the BCS in clinical research and application and to provide a preliminary empirical base for future research.

The next steps in BCS development include completion of examination of test–retest reliability and further cross-validation studies in a variety of clinical and non-clinical samples which are currently underway. The BCS is designed to measure one facet of the many pertaining to multiple issues involving the physical body. Alone it will not provide the answer in its entirety. Hence, a series of studies are planned to employ and refine the scale for use in a variety of clinical and non-clinical samples, especially as they relate to health behavior and outcomes.

Regarding analyses, we selected an orthogonal rotation because while an oblique rotation has the benefit of assuming correlation of factors, it runs the risk of overstating fit because of chance associations. Future analyses may benefit from utilizing an oblique rotation in examination of the factor structure of the BCS.

The ultimate utility of the BCS will be its ability to predict outcomes and guide interventions for health and health-related behavior change beyond what has been previously demonstrated through other constructs such as self-compassion (Neff, 2003b) and body image flexibility (Sandoz et al., 2013). Our hope is that the BCS will contribute to the prediction of outcomes and guide interventions in health behavior change. We believe that body compassion has widespread applicability in populations

ranging from persons with chronic illness to fitness-related application in apparently healthy persons and athletes. The evaluation of the use of body compassion with mindfulness and acceptance-based interventions is the penultimate goal of this area of inquiry.

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