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The Relationship of Self- and Other-Compassion with Body Dissatisfaction

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The Relationship of Self- and Other-Compassion with Body Dissatisfaction

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B.S., B.A., University of Georgia, 2008

Advisor: Linda Craighead, Ph.D.

An abstract of

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Abstract

The Relationship of Self- and Other-Compassion with Body Dissatisfaction
By Deirdre A. Rudat

A recent influx of Eastern philosophical thought to Western psychology has brought attention to the relationship between self-compassion, a Buddhist concept, and self-esteem. Self-compassion has been linked to more positive and fewer negative psychological outcomes (e.g., narcissism) compared to self-esteem, theoretically because self-worth is less contingent upon circumstances and would be more stable. The role of self-esteem in the eating disorder literature has been investigated, but little has been done to examine self-compassion. The positive psychological benefits of self-compassion suggest that would be negatively correlated to body dissatisfaction, one of the precursors to eating disorders. Further, self-compassion was hypothesized to be negatively correlated with body dissatisfaction even after controlling for self-esteem and depressive symptoms. The discrepancy between self-compassion and other-compassion is also investigated to determine its relationship to body dissatisfaction. Seventy-one female college students participated in a self-report-based study with a correlational design. Results indicate that self-compassion is significantly negatively related to body dissatisfaction, even after controlling for self-esteem and depressive symptoms. The discrepancy between self-compassion and other-compassion is significantly correlated to body dissatisfaction, although it does not remain significant after controlling for self-esteem and depressive symptoms. Other-compassion is not significantly related to body dissatisfaction. Implications of these findings for Fairburn's model of eating disorders are discussed.

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The Relationship of Self- and Other-Compassion with Body Dissatisfaction

The ultimate goal of this study is to investigate maladaptive thought patterns associated with eating disorders, which may inform the development of treatments that would address these thought patterns. Specifically, the study investigates low self-compassion as a maladaptive thought pattern that may increase risk for eating disorders. The primary research goals of the study are to investigate the potential protective effects of high self-compassion by examining the relationship between self-compassion and body dissatisfaction, a risk factor for eating disorders. The relationship between self-compassion and other-compassion will also be explored, as a discrepancy between those constructs and may pinpoint one relevant maladaptive thought process (i.e., being less forgiving to oneself than toward another in a similar situation). The study investigates the role of self-compassion and other-compassion among young women along a continuum of body dissatisfaction.

Eating disorders are increasingly prevalent in today's society and may affect as many as 24 million Americans, not including people with subclinical eating disorders, who may increase the prevalence rate twentyfold (Favaro, Ferrara, & Santonastaso, 2003). Collegiate women are particularly at risk for eating disorders because of the greater prevalence on college campuses (Crowther, Armey, Luce, Dalton, & Leahey, 2008). Eating disorders often have serious physiological consequences, including cardiovascular effects, that are chronic and may even outlast the course of the psychological disorder—and, if the condition persists, may lead to an early death (Pomeroy, 2004). Although treatment outcomes are steadily improving, aspects of

disordered eating (particularly weight, shape, and eating-related cognitive distortions) often remain after individuals no longer qualify for eating disorder diagnoses (Sullivan, 2002).

Perhaps even more alarming is the prevalence of body dissatisfaction, which one study cites as present in 46% of a collegiate sample (Williams, Cash, & Santos, 2004). This may range from mild to moderate feelings of inadequacy of physical form to more extreme distress that impairs the capacity to perform in everyday situations. What may begin as negative body image may eventually become disordered eating, particularly for people who first engage in dieting (Cash, 2008). This is especially likely when shape, weight, and appearance become an integral part of evaluation of self-worth (over-evaluation). Maintenance of body image disturbance (a more extreme form of body dissatisfaction) is linked to relapses of eating disorder behavior (Fairburn, 2008). What begins as relatively normative body "discontent," then, may become a significant part of self-evaluation and eventually lead to disordered eating.

Fairburn's (2008) oft-cited model of eating behavior (see figures available in Fairburn's work) includes "over-evaluation of shape and weight and their control" as a predecessor to disordered eating behavior (including restricting, bingeing, and purging). He elaborates on this section of the model to explore what he refers to as "clinical perfectionism," as well as comorbid depression. The model using clinical perfectionism expands the "over-evaluation of shape and weight and their control" to include "over-evaluation of achieving and achievement" and "pursuit of personally demanding standards in valued areas of life" as what could roughly be considered a predecessor to disordered eating. The model that adds core low self-esteem, on the other hand, places

core negative beliefs about the self in a position as a global predecessor, indicating that it is these core beliefs that lead to all of the eating-related actions, feelings, and thoughts in the model. While these are helpful additions to Fairburn's basic model, they focus on the harmful behavioral effects of perfectionism and negative self-evaluation rather than exploring the inverse conditions (i.e., a lack of perfectionism or a lack of negative self-evaluation) as points of intervention or possible protective factors. Instead, clinical perfectionism and core low self-esteem are identified as particular targets for treatment, although the focus is ultimately upon reducing the disordered eating behavior. Investigation of related positive, protective factors that might reduce risk for eating disorders could add to the model and potentially serve as points of intervention or prevention.

Self-compassion

Derived from the Buddhist tradition, the construct of self-compassion recently been investigated empirically and evidence supports the existence of three factors in the most widely used measure that has been developed: self-kindness, common humanity, and mindfulness (Neff, 2003b; Neff, 2003a). Self-kindness is an absence of harsh self-criticism and a forgiveness toward oneself, while common humanity is the recognition that all events are part of a greater human experience, and mindfulness is the awareness of one's thoughts and emotions (both positive and negative) without over-identification. This is distinct from self-pity, which focuses on one's own problems (over-identification) while ignoring that the experience is common to all of humanity; it is also distinct from self-esteem, which focuses on the judgment of others and on having a positive self-view

by ignoring negative feedback. Instead, self-compassion theoretically uses a holistic view to provide non-judgmental awareness and acceptance of the self.

Self-compassion has been linked to positive psychological functioning in both everyday activities and psychopathology. At a broad level, high self-compassion is associated with greater life satisfaction (Neff, 2003a; Neff, Pisitsungkagarn, & Hsieh, 2008), happiness, and optimism (Neff, Rude, & Kirkpatrick, 2007). More specifically, people with high self-compassion show greater self-kindness and equanimity following a negative event (e.g., receiving negative feedback from a public speech), and inducing a sense of self-compassion also leads to greater self-kindness (Leary et al., 2007; Adams & Leary, 2007; Neff, Kirkpatrick, & Rude, 2007). Additionally, self-compassion is linked to better emotion-focused coping skills (Neff, Hsieh, & Dejiterrat, 2005; Leary et al., 2007; Neff, 2003a; Gilbert, 2005) and an acceptance of responsibility for events without subsequent negative affect (Leary et al., 2007; Neff, Hsieh, & Dejiterrat, 2005). Altogether, self-compassion seems to promote psychological well-being.

Two studies approach eating disorders-related topics in conjunction with self-compassion. Adams & Leary (2007) recently investigated the role of self-compassion in eating patterns of non-clinical participants with a preload of food. This food preload has been used with restricting eaters, who tend to overeat after consuming the preload (typically high-carbohydrate food), a phenomenon known as the disinhibition effect. For restrictive eaters in this study (those on a restricted-calorie diet and not anorexic-type restrictors), inducing a feeling of self-compassion following the preload of food significantly reduced negative affect and food consumption. For participants high in eating-related guilt, however, inducing self-compassion did not diminish negative affect

following food consumption. The authors believe that self-compassion induction of greater length would be more beneficial to those with high guilt. These results denote the potential power of self-compassion training in those with eating pathology, since it might reduce the disinhibition effect, bingeing, and potentially even negative affect or cognition associated with eating.

In another investigation of the application of self-compassion, self-compassionate thoughts were applied by participants to a specific perception of the body (such as a specific body part or area). Body image distortion was reduced following the training (Berry, Kowalski, & Fleming, 2007). This revealed that specific training in self-compassion (as conceptualized by Neff, 2003b) can help improve negative attitudes toward specific areas of the body. Body compassion is particularly important in the eating disorders, and this specific application may be most useful in cases of extreme body dysmorphia. No other published information is currently available about the role of self-compassion in eating disorders, but substantial information exists about closely related concepts.

Self-esteem

Self-compassion is closely tied to several well-established measures of psychological functioning, such as self-esteem, but it is theoretically different from each of those concepts. Self-esteem has become one of the primary measures of psychological health in the United States, but Neff (2003a) argues that this measure, traditionally, is based on judgments and contingent self-worth, which may become problematic with greater elevation. Although high self-esteem has generally been associated with positive outcomes, the connection is not as strong as would be expected from popular

conceptualization. High self-esteem is only moderately or weakly correlated with objective outcome measures (e.g., grades in school) and may actually foster some risky behavior that it is expected to prevent (e.g., sexual experimentation in teenagers). On the other hand, high self-esteem is associated with greater subjective reports of happiness, which seem primarily driven by increased agency and experience of positive feelings. The positive effects, however, must be balanced with a concern for narcissistic tendencies, which may promote negative outcomes such as aggression and other relational issues (Baumeister, Campbell, Krueger, & Vohs, 2003).

Self-compassion, on the other hand, is not contingent upon performance or opinions of others, and flaws can be acknowledged without threatening the self-concept (Gilbert & Irons, 2005; Neff, 2003b). Unlike self-esteem, self-compassion includes components of common humanity and mindfulness, and focuses upon a positive (but realistic) evaluation of self, regardless of performance (Neff, 2003b). Self-compassion is negatively associated with contingent self-esteem, self-worth contingencies of social comparison, performance, and appearance, self-rumination, negative self-consciousness, anger, and unstable self-esteem above and beyond self-esteem; self-compassion is also negatively related to narcissism, while self-esteem is positively related. In relation to positive mental states, self-compassion and self-esteem were equivalent predictors, but the associations with negative mental states underline the contingent—and therefore fragile—nature of self-esteem (Neff & Vonk, 2009).

Self-esteem and eating disorders. Self-esteem in women with eating disorders is significantly lower than those without eating disorders (e.g., Beren & Chrisler, 1990; Fisher, Pastore, Schneider, Pegler, & Napolitano, 1994; Thomas, James, & Bachman,

2002). Longitudinal studies suggest that low self-esteem occurs prior to bulimic symptoms and may be a risk factor for bulimia and other eating disorder development (e.g., Wood, Waller, & Gowers, 1994; Button et al., 1996; Steinhausen, Gavez, & Winkler-Metzke, 2005). Patients and therapists agree that improvement in self-esteem is a core component of treatment (Vanderlinden et al., 2007), and some current treatments focus on improving self-esteem (Shiina et al., 2005; Newns, Bell, & Thomas, 2003). Low self-esteem, however, may pose a barrier to treatment (Fairburn, Cooper, & Shafran, 2003).

Because of the relationship between self-esteem and self-compassion, it is expected that the relationships found between self-esteem and eating disorders can be cautiously applied to self-compassion and eating disorders. In addition, it is important to distinguish the effects of self-compassion from the effects of self-esteem, since there are partially overlapping beneficial psychological processes. For the purposes of this study, it is important to remain aware of the similarities between the constructs and the possible confounds introduced by the overlap.

Depression and eating disorders

Depression is frequently comorbid with eating disorders, with point prevalence ranging from 20% in bulimia nervosa to 33% in anorexia nervosa, and lifetime prevalence ranging from 50% in bulimia to 60% in anorexia (Agras, 2001). Depression is the most frequent comorbid diagnosis in both anorexia and bulimia (Bulik, 2002). Due to the frequent comorbidity of depression and eating disorders, it is important to distinguish the effects of depression from the effects of eating pathology on self-compassion and other-compassion. Low self-compassion has been linked to depression

(Neff, 2003a; Neff, Kirkpatrick, & Rude, 2007; Neff, Pisitsungkagarn, & Hsieh, 2008), so comorbid depression in eating disorders may account for lower levels of self-compassion. Although low self-compassion may be an underlying causal factor for both eating disorders and depression, especially if they are comorbid, it is essential to distinguish the role of self-compassion in eating disorders alone.

Overall, research indicates mixed results for the interpretation of the comorbidity of eating disorders and depression, which emphasizes the need to distinguish the effects of self-compassion from the effects of depression. Evidence suggests underlying common causal factors (note: evidence does not suggest a single factor) for eating disorders and depression, possibly with a genetic basis (Strober & Bulik, 2002; Bulik, 2002). Some evidence suggests that the onset of depression predates the onset of eating disorders (Bulik, 2002), while other evidence suggests that the onset of comorbid depression follows the development of eating disorders (Hsu, 1990). Some researchers conclude that semi-starvation from anorexic restriction mimics depressive symptoms (Beumont, 2002), possibly from a dietary reduction of tryptophan, the precursor to serotonin (Kaye, 2002). Antidepressant treatments for eating disorders have shown mixed results: selective serotonin reuptake inhibitors (SSRIs) have been somewhat helpful for people with bulimia (Walsh, 2002) and binge-eating disorder (Devlin, 2002) in the reduction of binges, but not helpful with anorexia (Walsh, 2002). Bulik (2002) advocates against causal interpretations of common factors based on treatment response, so the antidepressant research should be interpreted with caution.

Further research should be conducted on the role of self-compassion (and other-compassion) as a potential mutual causal factor for comorbid eating disorders and

depression, but this study will help distinguish the specific role of self- and other-compassion in eating disorders.

Other-compassion

Conceptually, other-compassion is closely related to the definition of "compassion"

("a feeling of deep sympathy and sorrow for another who isstricken by misfortune, accom panied by a strong desire to alleviate the suffering"), but it lacks an element of commiseration. In the Buddhist tradition, this is a selfless, joyous act (Aung, 1996), characterized by kindness toward others and forgiveness of others' mistakes. The conceptualization for other-compassion used here is loosely based upon the Buddhist concept of *metta*, or loving kindness, which should be distinguished from *karuna*, which is generally translated as "compassion." *Metta*, in the Theravada Buddhist tradition, is associated with general positive feelings and understanding toward others, while *karuna* focuses more specifically on relieving the suffering of others (perhaps closer to what we consider altruism; Kristeller & Johnson, 2005).

Minimal research has been conducted about the specific role of other-compassion in eating disorders. Research on the role of related concepts, such as criticism (negative relation) and kindness has been focused on the individual's feelings toward the self rather than toward others, perhaps because it is assumed that the problems lie in self-perception rather than a critical judgment of all people. Even so, some related research on selflessness and social comparison indicates a pattern of greater compassion toward others than the self.

Selflessness, the abandonment of one's needs and desires in favor of the needs and desires of others, is found in people with eating disorders (Bachar et al., 2002), particularly those with anorexia (Bachner-Melman, Zohar, Ebstein, & Bachar, 2007; Geller, Cockell, Goldner, & Flett, 2000). This tendency often leads to guilt when self-desires are promoted (Goodsit, 1997). Additionally, eating disorders have been linked to downward social comparison (Troop et al., 2003), indicating that the core problem is not a lack of forgiveness toward *everyone* but a lack of forgiveness toward the self. This leads us to theorize that a discrepancy between compassion toward others and compassion toward the self exists in eating disorders, and may be among the maladaptive thought processes that should be addressed in treatment.

Clinical significance

If self-compassion is a particular deficit in eating disorders, it may act as a barrier to treatment unless specific care is taken to address this deficit. Interventions specific to self-esteem (Newns, Bell, & Thomas, 2003) in eating disorders have helped to alleviate eating pathology symptoms, which means that a self-compassion intervention is likely to show some positive effects. A compassionate mind training (CMT) intervention was developed for high self-criticism and has been effective (Gilbert & Irons, 2004; Gilbert & Proctor, 2006); based on the positive results from brief self-compassion induction in people with pathological eating behavior (Adams & Leary, 2007), this treatment may be particularly helpful. Mindfulness-based treatment was effective in a small study of bulimia nervosa patients (Proulx, 2008) and may also be useful. Meditation, which increases feelings of compassion and empathy through mindfulness-type awareness, may also reduce self-criticism (Kristeller & Johnson, 2005).

The current study investigates the relationships of these concepts with body dissatisfaction using an exploratory correlational design. It is particularly intended to establish the nature of the relationship between self-compassion and body dissatisfaction, and to explore the relationship of other-compassion and body dissatisfaction. Given the established possible confounds of self-esteem and depressive symptoms, those variables are also considered.

Specific hypotheses are as follows:

1. *Self-compassion and body dissatisfaction are negatively correlated.*
2. *Self-compassion correlates negatively with body dissatisfaction after controlling for self-esteem and depressive symptoms.*
3. *The discrepancy between other-compassion and self-compassion is positively correlated to body dissatisfaction (exploratory).*
4. *The discrepancy between other-compassion and self-compassion is positively correlated to body dissatisfaction after controlling for self-esteem and depressive symptoms (exploratory).*

Method

Participants

Female Emory University students enrolled in the Psychology Research Pool were eligible for this study. The collegiate population is a sample of convenience that is appropriate to the exploratory nature of the study. Additionally, the prevalence of eating disorders is particularly high among college women, indicating an increased risk for development in that population (Makino, Tsuboi, & Dennerstein, 2004). In an already at-

risk population, any additional risk (i.e., risk from low self-compassion or other-compassion) or an explanation of already known risk is important to identify so that preventions and interventions can be implemented. A total of 71 collegiate women participated in the study.

The majority of participants were ages 18 to 20 (mean age = 19, mode age = 18), consistent with expectations. The Psychology Research Pool consists of undergraduates in the introductory psychology courses, which are generally taken by students in their first two years of college. Although the restricted age range is a limitation of the study, it is important to note that many young women in college (up to approximately 60%) engage in disordered eating behavior (Mintz & Betz, 1988), so this particular age limitation may enhance the likelihood of finding effects by increasing the baseline prevalence rates.

Racial and ethnic breakdown of the participants was consistent with expectations based upon the Emory College's (a division of Emory University that contains the psychology department) demographic information. The majority of participants (N= 40, 56%) self-identified as non-Hispanic Caucasian, while 21% (N= 15) identified as Asian, 8.5% (N= 6) as African-American, 7% (N= 5) as Hispanic/Latino, 3% (N= 2) as biracial, and 3% (N= 2) as "other".

Additional information about household income and SAT and ACT scores was gathered as proxies for socioeconomic status and IQ. Over half of the participants (N= 41) reported a household income (either parents' combined income or independent income) of over $100,000 per year. Mean SAT math score was approximately 700 (SD= 60) and mean SAT verbal was approximately 690 (SD= 59); the ACT was not highly

reported (N= 32), but the mean score was approximately 31 (SD= 2.5). Generally speaking, these statistics indicate that the participants in this study (perhaps representative of Emory in general) perform above average on standardized testing and have above average household incomes.

Measures

Demographic information. Participants reported age, gender, ethnicity, race, SAT and/or ACT scores, income (indicated by parents' earnings for dependent children and income for independent participants), and personal history of psychotic or autistic spectrum disorders.

Body dissatisfaction. Participants' body dissatisfaction was measured by the Body Shape Questionnaire (BSQ; Cooper, Taylor, Cooper, & Fairburn, 1987), a 34-item, self-report questionnaire that assesses body shape concerns through 6-point Likert scale forced-choice answers. Items include questions such as "Have you felt ashamed of your body?" Higher scores indicate greater body dissatisfaction, which has been linked to the development of disordered eating and may be the best predictor of eating disorders (Phelps, Dempsey, Sapia, & Nelson, 1999). Body dissatisfaction was expected to be more prevalent than disordered eating in the sample and therefore more readily measurable. Internal consistency (α=0.97), test-retest reliability (0.88) and concurrent validity (0.66) have been satisfactory (Rosen, Jones, Romirez, & Waxman, 1996). Internal consistency for the current study was high (Cronbach's α= 0.97).

Self-compassion. The Self-Compassion Scale (SCS) developed by Neff (2003a) was used to determine levels of compassion toward the self. The 26-item, self-report questionnaire includes three factors (supported by a confirmatory factor analysis): self-

kindness, common humanity, and mindful awareness. Items include questions such as, "I try to be understanding and patient towards those aspects of my personality I don't like," which are rated on a 5-point Likert scale. Internal consistency (α=0.92), test-retest reliability (0.93), and discriminant validity have been satisfactory (Neff, 2003a). Internal consistency for the current study was consistent with previous studies (α= 0.92).

Other-compassion. The Other-Compassion Scale (OCS) is a modified version of the Self-Compassion Scale, designed to assess compassion toward other people. The 26 items of the Self-Compassion Scale were modified to refer to others instead of the self. For example, "I try to be understanding and patient towards those aspects of other people's personality that I don't like." Like the Self-Compassion Scale, the Other-Compassion Scale is a self-report measure that uses a 5-point Likert scale. Reliability and validity of this measure have not yet been established.

Item total correlations were evaluated to determine if the modified items should be scored in the same direction as the original self-compassion measure. Several items that were originally expected to be reverse scored were more highly correlated with the total score when not reverse scored. Item-total correlations ranged from -0.393 to 0.588 using the initial scoring procedure. Investigation of the scale corroborated the decision to change the initial scoring of those items, since internal consistency was at an acceptable level (α= 0.86).

Views toward self and other. The Self-Other Four Immeasurables (SOFI; Kraus & Sears, 2009) scale was developed to assess four concepts as translated from Buddhist texts: loving-kindness (*metta*), compassion (*karuna*), joy (*mundita*), and equanimity (*upekkha*). The scale consists of 16 items, which are rated using a five-point Likert scale.

Items ask the individual to rate a particular state (e.g., compassion) and how often that was exhibited toward others and (separately) toward the self during the past week. The distinction between feelings toward the self and feelings toward others was made based upon some Buddhist practices, which extend these "immeasurables" (also referred to as Divine Abodes, Boundless States, or Brahmaviharas) first to the self and then to others. There are four subscales of this measure: positive qualities toward self, positive qualities toward others, negative qualities toward self, and negative qualities toward others. In its current form, the authors suggest that the scale is more useful as a state rather than a trait measure. In the initial validation study (N= 124; male and female students from a small liberal arts college), concurrent, discriminant, and construct validity were demonstrated, and internal consistency values were high for the subscales (overall, α=0.60; positive self, α=0.86; negative self, α=0.85; positive other, α=0.80; negative other, α=0.82). The current study demonstrated lower internal consistency than the initial validation study (overall, α=0.46; positive self, α=0.76; negative self, α=0.70; positive others, α=0.67; negative others, α=0.59).

Depression. The Beck Depression Inventory (BDI-II), a 21-item self-report measure of depressive symptoms, was used to assess depressive mood. The BDI-II (Beck, Steer, & Brown, 1996) is an updated version of the BDI, which is widely used and has demonstrated reliability and validity. Internal consistency for the current study was high (α=0.87).

Self-esteem. The Rosenberg Self-Esteem Scale (RSES), a 10-item self-report measure, was used to assess self-esteem. The RSES (Rosenberg, 1965) has been widely

used and has demonstrated reliability and construct validity (Crandall, 1973). Internal consistency for the current study was high (α=0.89).

Self- and other-compassion discrepancy. The discrepancy between self-compassion and other-compassion was calculated by subtracting the self-compassion scale score from the other-compassion scale score, providing an index of relative self- versus other-compassion. A positive score indicates the individual reports more compassion for others compared to self.

Procedure

The procedure was administered by the researcher and a trained research assistant. Prior to the study, measures were counterbalanced and numbered. Participants received and signed consent forms briefly explaining the study before completing the questionnaires. The measures were included in one packet (counterbalanced), anonymously numbered. The researcher or research assistant administered the questionnaires to groups of participants; pencils were provided. Following completion of the study, participants received a debriefing form with more information about the study and contact information for both the researchers and counseling services. Course credit for the Psychology Research Pool was granted. The procedures took approximately 60 minutes for the majority of participants.

Recruitment. Recruitment from the Psychology Research Pool included a listing of the study as "attitudes toward self, appearance, and others," along with a brief description. Students registered for participation in the study in exchange for course credit. The Psychological Research Pool consists of undergraduates enrolled in one of

the two introductory psychology courses. All recruitment and procedures were approved by the Emory University IRB.

Counterbalancing design. Measures most likely to contaminate others were placed last in all questionnaire packets. Several measures included in the packets were not part of the current investigation, but were counterbalanced with the measures for this study. The BSQ, PEWS, and Stice Eating Screen, as measures of body image and eating pathology, were placed last in the questionnaire packets.

Four questionnaire orders were randomly assigned to the remaining measures. Orders were determined using a random list generator (www.random.org/lists). The four counterbalancing conditions were mixed into each study administration to the extent possible. This design is intended to reduce fatigue and contamination effects.

Counterbalancing conditions:

1. CLS, RSES, MPS, BDI, Demographics, SCS, OCS
2. CSW, OCS, RSES, BDI, SCS, Demographics, CLS, MPS
3. RSES, CLS, MPS, CSW, BDI, SCS, OCS, Demographics
4. SCS, BDI, OCS, MPS, Demographics, CSW, CLS, RSES

BSQ= Body Shape Questionnaire, PEWS= Perceptions of Eating and Weight Scale, CLS= Compassionate Love Scale, RSES= Rosenberg Self-Esteem Scale, MPS= Multidimensional Perfectionism Scale, BDI= Beck Depression Inventory (II), SCS= Self-Compassion Scale, OCS= Other-Compassion Scale

The current sample had 36.6% (N= 26) in the first condition, 22.5% (N= 16) in the second condition, 21.1% (N= 15) in the third condition, and 19.7% (N= 14) in the

fourth condition. Although the first condition is slightly overrepresented in the sample, no significant differences among mean scores were found between the conditions.

Analyses

Step 1: Zero-order correlations. Before investigating the primary outcomes (partial correlations), hypotheses regarding zero-order Pearson's correlations were examined. Pearson's product-moment correlations for all of the measures in the study were calculated using SPSS 16.0.

Step 2: Partial correlations. After establishing zero-order correlations, partial correlations were calculated to investigate the primary hypotheses. These correlations were computed using the partial correlation function of SPSS 16.0 and simultaneously controlling for the total scale values of the RSES and BDI-II. The partial correlation function removes the variance of the controlled variables shared with the variables of interest from the analysis of the relationship. By doing so, it uncovers the unique association between two variables (i.e., that part not accounted for by the overlap between those constructs). This type of analysis is appropriate for the exploratory nature of the study, the method of data collection (self-report only, single time point), and the hypothesized relationships between the variables.

Results

Descriptive statistics

Table 1 summarizes means, standard deviations, and minimum and maximum scores of scales in the study.

Self-compassion measures

The relationships between the measures of self-compassion used for this study are shown in Table 2. The three subscales of the more established scale, the Self-Compassion Scale (SCS), were highly correlated with each other, consistent with prior work on the scale. Investigating the relationships of the individual subscales and the other variables of interest, however, helps illuminate the nature of the overall relationships of the variables with self-compassion. Similarly, examining the relationships of the other measure of self-compassion, the SOFI, can assist general understanding of the concepts. The total score of the SCS was correlated significantly (r= 0.496, p<0.01) with the positive self subscale of the more recently developed measure the SOFI, but not with its negative self subscale (r= -0.13, p=0.30). This relationship was clearly strongest for the SCS self-kindness scale (r= 0.55, p<0.01) indicating those two subscales were likely assessing the most similar constructs. Surprisingly, the SOFI negative self subscale was not significantly correlated with any of the SCS subscales, although it was negatively correlated with the SOFI positive self (r= -0.40, p<0.01).

Examination of the items of the SOFI negative self subscale suggests that it is assessing the active presence of clearly negative, affectively-laden feelings towards self. The SCS self-kindness subscale appears to more specifically assess cognitions reflecting lower self-criticism and was therefore less distinctly affective in nature. For instance, the SOFI negative self subscale includes items such as “Hateful— toward myself,” while the self-kindness subscale of the SCS includes items such as “When I’m going through a very hard time, I give myself the caring and tenderness I need.” Because the SOFI scale is written with direct affective statements, the positive self subscale appears to reflect the positive affect that is associated with less judgmental attitudes towards the self (self-

compassion). On the other hand, the negative self subscale appears to reflect more than just the affect that would be expected to correspond to being more harshly self-critical. The distinction between more cognitive and more affective concepts may be more critical for the negative attitudes than for the positive attitudes.

As noted in Table 3, the relationship between the BDI-II and RSES was significant (r= -0.58, p<0.01), consistent with prior literature documenting significant overlap between the constructs of depression and self-esteem. Similarly, the relationships between the BDI-II, RSES, and measures of self compassion were generally significant, highlighting both the overlap among the constructs and the need to determine what is uniquely assessed by self-compassion that might be useful in understanding the relationship of these constructs to other variables, particularly body dissatisfaction.

Self-compassion and body dissatisfaction

See Table 4 for a summary of the relevant correlations. The Pearson's product-moment correlation between the Self-Compassion Scale (SCS) and Body Shape Questionnaire (BSQ) was significant at -0.47 (p<0.01), falling in the range of a large effect size by Cohen's standards. The subscales of the SCS were differently related to the BSQ: the self-kindness subscale was most strongly associated (r= -0.58, p<0.01), then the common humanity subscale (r= -0.37, p<0.01), with the mindfulness subscale even lower— only a trend towards significance (r= -0.24, p=0.06).

The self scales of the Self-Other Four Immeasurables Scale (SOFI) were used for further examination of this hypothesis. The positive self subscale from the SOFI was significantly negatively correlated with the BSQ (r= -0.34, p<0.05) with a moderate

effect size, and the negative self subscale from the SOFI was significantly positively correlated with the BSQ (r= 0.45, p<0.01) with a large effect size.

The relationship between the two compassion measures and body dissatisfaction was also examined using Pearson's correlation in which the Rosenberg Self-Esteem Scale (RSES) and Beck Depression Inventory (BDI-II) were partialed out (see Table 5 for a summary of the relevant correlations). The SCS remained significantly negatively correlated with the BSQ in the partial correlation (partial r= -0.29, p<0.05), although its effect was reduced to a moderate size. The strength of the correlations for the individual subscales were also reduced (self-kindness: partial r= -0.42, p<0.01; common humanity: partial r= -0.19, p=0.15; mindfulness: partial r= -0.10, p=0.43). Although the self-kindness subscale remained significant, the other subscales were not significant after controlling for self-esteem and depressive symptoms.

Findings from partial Pearson's correlations for the self scales of the SOFI and the BSQ, used for further investigation, were less consistent. The relationship between the positive self SOFI scale and the BSQ was no longer significant after controlling for RSES and BDI-II scores (partial r= -0.12, p=0.39). The relationship between the negative self SOFI scale and the BSQ remained significant after controlling for RSES and BDI-II scores (partial r= 0.37, p<0.01). The effect size remained large, although reduced in strength.

Body dissatisfaction and the discrepancy between other-compassion and self-compassion

See Tables 6 and 7 for a summary of the relevant correlations. The Other-Compassion Scale (OCS) was created to parallel the Self-Compassion Scale in part so that self- and other-compassion could be combined to form a discrepancy score. The

discrepancy score was created by subtracting the SCS scores from the OCS scores, so the hypothesized positive correlation with the BSQ would indicate women with greater body dissatisfaction were reporting greater other-compassion compared to self-compassion. The discrepancy between the OCS and the SCS was significantly and positively related to the BSQ (r= 0.45, p<0.01). However, after controlling for RSES and BDI-II scores (partial r= 0.25, p=0.06), the correlation was no longer significant, and the effect size was reduced to a moderate size by Cohen's standards.

Although the discrepancy reached statistical significance, some caution in interpretation is advised because of the non-significant association of the OCS with the BSQ.

Self-compassion and other-compassion

See Table 8 for a summary of the relevant correlations. A Pearson's correlation for the relationship of the SCS and the OCS was significant (r= 0.26, p<0.05), although moderate in size, and only the common humanity subscale of the individual subscales of the SCS was significant (r= 0.29, p<0.05). The SOFI negative others subscale was similarly related to the SCS (except negative): the overall correlation was significant but not extremely strong (r= -0.30, p<0.05), the common humanity subscale was the only subscale of the SCS that was significantly correlated (r= -0.35, p<0.01). On the other hand, the SOFI positive others subscale was strongly correlated to the SCS (r= 0.44, p<0.01) and significantly correlated to each of the subscales (self-kindness: r= 0.46, p<0.01; common humanity: r= 0.26, p<0.05; mindfulness: r= 0.39, p<0.01).

Investigating the relationship of self-compassion and other-compassion within the SOFI scales, there were significant, strong correlations. There was a particularly strong

correlation between the SOFI positive self and the SOFI positive others subscales (r= 0.61, p<0.01), although there were also significant correlations between the positive other and negative self subscales (r= -0.25, p<0.05) and the negative self and negative other subscales (r= 0.35, p<0.01). The strength of these correlations may perhaps be more indicative of similarity of measurement rather than strength of conceptual relationship, however, so this set of correlations should be interpreted with caution.

Other-compassion and body dissatisfaction

The exploration of the relationship of other-compassion and body dissatisfaction is worth noting, although there were no hypotheses regarding this relationship. The OCS is the primary measure of interest for this exploration, although the other scales of the SOFI scale are used to corroborate findings. The correlation of the OCS and the BSQ was not significant (r= -0.03, p=0.84) and close to zero. The correlation of the positive others scale of the SOFI and the BSQ was not significant (r= -0.23, p=0.07), although it trended toward significance. The correlation of the negative others scale of the SOFI and the BSQ was not significant (r= 0.18, p=0.16). See Table 9 for reference.

Discussion

The hypothesis that there would be a unique contribution of self-compassion to body dissatisfaction was generally supported. The self-kindness subscale of the self-compassion measure accounted for a considerable portion of the relationship, indicating its potential importance in understanding nature of the relationship. The two measures of self-compassion were correlated in surprising ways, suggesting that they have some overlap but assess unique components that warrant further investigation. The newly created measure of other-compassion was not related to body dissatisfaction, but it is

clear that the measure requires further development. Preliminary findings suggest some utility for the discrepancy between self- and other-compassion in understanding body dissatisfaction. Overall, the findings are promising but suggest the need to focus on the distinction between self-compassion and self-esteem.

Hypothesis 1: Self-compassion and body dissatisfaction are negatively correlated.

The hypothesized relationship between self-compassion and body dissatisfaction was supported in the zero-order correlations with both of the measures used to assess self-compassion. Although the correlations were all significant in the expected directions, it should be noted that the negative attitudes toward self (in the SOFI measure) was not significantly related to the primary measure used for this hypothesis, the Self-Compassion Scale (see Table 4). This may indicate that these measures are tapping different dimensions of one construct. One potential explanation may be that the SOFI subscales use more affectively laden terminology compared to the Self-Compassion scale, and that the affective elements should be separately assessed.

Hypothesis 2: Self-compassion correlates negatively with body dissatisfaction after controlling for self-esteem and depressive symptoms.

Beyond the simple zero-order correlations, self-compassion was significantly related to body dissatisfaction after controlling for self-esteem and depressive symptoms, supporting the hypothesis. Since it was expected that self-esteem would be closely related to self-compassion (e.g., Neff & Vonk, 2009), it was necessary to account for the effects of such a well-studied variable. In particular, this is important because self-compassion is linked to fewer negative psychological outcomes, including narcissism (Neff & Vonk, 2009). Although the current study cannot demonstrate conclusively the

precise nature of the relationship between self-compassion and body dissatisfaction, it may be the case that self-compassion, with its propensity toward forgiveness and less contingent self-worth, has some protective effects against body dissatisfaction.

In addition to self-esteem, it was necessary to account for the effects of depressive symptoms, which can be characterized by self-criticism (for instance, self-criticism is assessed in the BDI-II). Since the measurement of self-compassion relies in part upon a lack of self-criticism (Neff, 2003a), depressive symptoms might artificially deflate or otherwise confound the relationship between self-compassion and body dissatisfaction, particularly given the controversy over whether comorbid depression predates eating disorders, is a result of eating disorders, or if they are derived from common factors (see Bulik, 2002, for a discussion of this debate). Interestingly, the subscale most closely related to self-criticism (or rather, a lack thereof) in the Self-Compassion Scale, self-kindness, was the only subscale that remained significant after partialing out self-esteem and depressive symptoms. Perhaps this is indicative of the importance of this dimension, since it was most closely related (of the subscales) to both self-esteem and depressive symptoms but remained significant even after controlling for both variables.

Hypothesis 3: The discrepancy between other-compassion and self-compassion is positively correlated to body dissatisfaction (exploratory).

Clinical observations form the basis of the hypothesis regarding the discrepancy between self-compassion and other-compassion and its relationship with body dissatisfaction. Observations suggest that people with eating disorders are more forgiving of others' flaws and inadequacies, while maintaining what often appear to be highly distorted judgments about the uniqueness or extent of their own negative

characteristics (particularly those related to appearance). Although this is not present in all people with eating disorders, it may be an important risk factor or even a clinical indicator of eating disorder symptomatology. In order to be useful for research, however, the observed discrepancy must be measurable. This hypothesis is an attempt to capture that characteristic and relate it to body dissatisfaction.

The significant correlation of body dissatisfaction and the discrepancy between self- and other-compassion (measured by subtracting self-compassion from other-compassion, since it is suggested that other-compassion would be greater than self-compassion in those with this characteristic) supports this initial hypothesis. Generally, the difference between self-compassion and other-compassion increases as body dissatisfaction increases.

Although this is promising, there are concerns regarding the statistical integrity of the finding. Since the other-compassion measure was not significantly related to body dissatisfaction (and additionally may have some concerns regarding the reliability and validity of the scale), the discrepancy score is likely to reflect only the association of the self-compassion measure with body dissatisfaction.

Hypothesis 4: The discrepancy between other-compassion and self-compassion is positively correlated to body dissatisfaction after controlling for self-esteem and depressive symptoms (exploratory).

Since the zero-order correlation was strong (and significant), the reduction of the partial correlation to a non-significant relationship indicates that the discrepancy variable explains some of the same variance already accounted for (and well-studied) by self-esteem and depressive symptoms. Although this may be theoretically interesting, the

statistical concerns of the discrepancy score (noted above) suggest caution in interpretation.

Exploratory: Self-compassion and other-compassion

This initial report on a measure of other compassion did indicate that the constructs were moderately correlated. The significant relationship between the common humanity subscale of the Self-Compassion Scale and the Other-Compassion Scale appears to drive the overall significant relationship between the two measures. Since the common humanity component of self-compassion stresses the understanding that all people experience difficulty in life, it seems reasonable to expect that individuals holding this view of the world might apply it to themselves as well as to others. However, the other-compassion measure did not turn out to be particularly useful in terms of illuminating the relationship between self-compassion and body dissatisfaction. The lack of a significant relationship between the mindfulness subscale of self-compassion and the total other-compassion score suggests that that particular aspect of self-compassion may not translate well into relating to others, possibly because the items generally inquire about awareness of and detachment from internal states.

There is an important note about the Other-Compassion Scale: concerns about social desirability were not specifically addressed and likely needs to be investigated. Neff (2003a) investigated the social desirability of the Self-Compassion Scale, and it was not a significant concern. Self-compassion may have fewer such demands because it is oriented entirely toward the self.

The partial correlations between the measures do reveal one interesting finding: the Self-Compassion Scale and Other-Compassion Scale are more strongly related after

controlling for self-esteem and depressive symptoms than they were in the zero-order correlations. In fact, the individual subscales of the SCS each became more strongly correlated with the OCS. This might indicate that the part of self-compassion not also explained by self-criticism and contingent self-worth (captured in the BDI-II and RSES) is closely related to compassionate attitudes toward others. The nature of this association should be explored further.

As already noted, the data do not necessarily support a strong relationship between the compassion measures and the SOFI scales, but it is worthwhile to mention a few associations. For instance, the Self-Compassion Scale is strongly correlated with the positive others SOFI subscale (but not with the negative self subscale), and the Other-Compassion Scale is not significantly associated with any of the SOFI subscales except the positive others subscale. Also, the associations of the OCS with the positive self and positive others subscales of the SOFI, like the relationship of the SCS and the OCS, became stronger after controlling for self-esteem and depressive symptoms.

Overall, the exploration of self- and other-compassion indicates that the two are moderately related, but considerable additional research is necessary.

Exploratory: Other-compassion and body dissatisfaction

Other-compassion was not significantly related to body dissatisfaction. The lack of relationship is important because it indicates that the association between body dissatisfaction and the self-other discrepancy score is not driven by a strong association between body dissatisfaction and other-compassion.

Integrating the current study with Fairburn's model

Given Fairburn's importance of Fairburn's model in the field of eating disorder research, the current findings were interpreted within his framework (see Fairburn's publications for a visualization of the basic model and others). The basic model with clinical perfectionism and core low self-esteem added provide a clearer understanding of how the current study is conceptualized within the model, since both additions to the basic model provide more cognitive and affective components than the largely behavior-driven basic model, and since self- and other-compassion are highly cognitive processes. Fairburn's conceptualization of clinical perfectionism may help elucidate the nature of contingent self-worth—in this case, self-worth contingent upon achievement, which might manifest itself as contingent upon appearance (as a form of achievement). It is in Fairburn's model using core low self-esteem, however, that the current study best fits. In particular, the current study and extant research on the relationship of self-compassion and self-esteem suggest that the concept of core low self-esteem might be better understood as low self-compassion. Instead of merely a "pervasive negative view of self-worth", low self-compassion would also indicate a lack of forgiveness of mistakes and flaws, a belief in the uniqueness of the mistakes and flaws, and a negative affective response associated with these negative thoughts. Although self-compassion incorporates a pervasive negative view of self, it expands and enriches the concept, allowing for concepts beyond self-criticism. While these ideas are not novel, they are not currently incorporated in measurement and understanding of self-esteem (Neff & Vonk, 2009), creating a gap in existing research.

In addition to the replacement of core low self-esteem with low self-compassion, the current study also suggests that Fairburn's model might ultimately benefit from the

eventual incorporation of an understanding of the discrepancy between self- and other-compassion. Although the construct is clinically compelling in terms of describing the difference in how such individuals tend to judge self and others, the current measure for this construct is not adequate and considerable work remains to be done for the construct to be usefully investigated.

Lastly, the current study supports the conclusion that increasing self-compassion may be a promising avenue of intervention. Although the research design cannot, by nature, support a causal relationship, it may be the case that an intervention designed to increase self-compassion may decrease body dissatisfaction. From a theoretical perspective, such an intervention would bolster equanimity, which would help detach the contingent link between self-worth and appearance, as well as fostering self-kindness, self-forgiveness, and a wider viewpoint regarding flaws and failings (including those related to appearance). Fairburn and colleagues suggest that the effectiveness of cognitive-behavioral treatment for eating disorders is based upon one or several behavioral mechanisms of change (see Murphy, Cooper, Hollon, & Fairburn, 2009), but perhaps a more effective conceptualization of cognitive components using the construct of self-compassion might additionally provide support for some cognitive mechanisms of change.

Limitations

There are several important limitations to consider in the interpretation of this study. Firstly, there is the limited research on many of the variables in question, which may result in erroneous conclusions reached on the basis of incomplete understanding of the potential implications. In particular, the other-compassion variable has only minimal

research support, and even self-compassion is not currently completely understood. In addition to the limited understanding of the variables in question, there is limited (preliminary at best) research on several of the measures, although what does exist is promising and can support very tentative conclusions.

In terms of the sample used in the study, there are some limitations. It is a convenience sample, which confines participants and related conclusions to female college students enrolled at a small private university in the Southeast. Although this is appropriate for the exploratory nature of the study, it does limit the generalizability of the findings. As might be expected from the sample, there are additional limitations in terms of age, race/ethnicity, and socioeconomic status. Because recruitment was conducted using the Psychology Research Pool, the majority of participants were within about two years of age (introductory psychology courses are largely populated by freshmen and sophomore students). Like the university, the majority of participants were of Caucasian ethnicity, although a substantial portion were of minority ethnicities; insufficient numbers of participants were available in each ethnic group to do an analysis with adequate power. Finally, variation in socioeconomic status is limited, with nearly 60% of participants reporting a total household income over $100,000 per year. Although the socioeconomic status is perhaps representative of the university and other small private universities, it does further limit the generalizability of the findings.

Finally, there are limitations introduced by the study's design. As a correlational study, no claims regarding causal or other time-sensitive relationships can be formed. Rather, the study's interpretations are limited to preliminary evidence regarding the relationships between the variables. Although this is appropriate for its exploratory

nature, it should be emphasized that future research in this area is essential in order to support these findings.

Future Research

Future research should include a thorough analysis of the Other-Compassion Scale in order to establish its reliability and validity (if possible); in particular, a factor analysis may be essential to determine if there is a similar subscale structure like that underlying the Self-Compassion Scale. Additional research is also needed for the SOFI scales to establish reliability and validity. The current results suggest a limited overlaps with the more established measure of self-compassion.

Other essential areas of future research include research with more variable samples, especially in terms of age, ethnicity, and socioeconomic status. Given the prevalence of disordered eating and body image concerns in college women, it may be less important for the next phase of research to include males and non-college samples (although eventually research should be expanded into these populations as well).

Perhaps most importantly, future research should include non-correlational designs with multiple time points and methods of measurement other than self-report. If self-compassion acts as a protective factor (or if lack of self-compassion acts as a risk factor) for body image or eating issues, then it is necessary to establish a temporal pattern with multiple time points. In order to reduce the potential confound introduced by exclusively using self-report data, other methods of measurement should be included for some future research. Potential other measurement methods may include observer reports from close friends and family members (particularly regarding the compassion variables), behavioral observations, or physiological measurements for affective

components. While these methods would not be expected to completely overlap with self-report measures, they would provide evidence to support more substantive conclusions than self-report measures alone.

From a theoretical perspective, the distinction between self-compassion and self-esteem (in terms of body dissatisfaction and other eating-related issues) may be the most promising avenue for research, particularly considering current available measures. Further analysis of the current study data is expected to contribute to this avenue of research, along with future studies designed specifically to investigate the nature of their differences.

In general, there are a variety of directions for future research, considering the lack of extant research, the exploratory nature of the current study, and the limitations of the study. The future research directions mentioned here represent suggestions for the next phase of research.

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Appendix

Table 1

Descriptive Statistics

Scale	Mean	SD	Min. – Max.	Cronbach's α	Description of higher scores
Self-Compassion Scale	74.59	17.137	36 - 128	0.922	Greater self-compassion
Other-Compassion Scale	95.62	12.397	52 - 120	0.856	Greater other-compassion
Body Dissatisfaction Questionnaire	91.1	35.045	34 - 180	0.972	Greater body dissatisfaction
Self-Other Four Immeasurables-positive self	14.09	2.543	8 - 20	0.76	Greater positive feelings toward self
Self-Other Four Immeasurables - positive other	15.56	2.198	11 - 20	0.67	Greater positive feelings toward others
Self-Other Four Immeasurables - negative self	6.8	2.178	4 - 13	0.695	Greater negative feelings toward self
Self-Other Four Immeasurables - negative other	6.44	2.09	4 - 14	0.585	Greater negative feelings toward others
Rosenberg Self-Esteem Scale	31.77	5.219	15 - 40	0.894	Greater self-esteem
Beck Depression Inventory-II	10.15	6.849	0 - 32	0.867	More depressive symptoms
Other-Compassion Scale – Self-Compassion Scale (discrepancy)	21.14	18.508	-24 - 77	N/A	Greater other-compassion than self-compassion

Note: minimum and maximum scores listed are minimum and maximum scores found in the sample, not minimum and maximum possible scores for the scales

Table 2

Correlations of Measures of Self-Compassion

	Self-Compassion Scale	SOFI - positive self	SOFI - negative self
SCS	__	0.496**	-0.133
- SCS sk	0.883**	0.554**	-0.237
- SCS ch	0.839**	0.239	-0.153
- SCS mf	0.820**	0.395**	0.064
SOFI - positive self		__	-0.403**
SOFI - negative self			__

*p<0.05, **p<0.01

SCS = Self-Compassion Scale; SCS sk = Self-Compassion Scale- self-kindness; SCS ch = Self-Compassion Scale- common humanity; SCS mf = Self-Compassion Scale- mindfulness; SOFI = Self-Other Four Immeasurables

Table 3

Zero-Order Correlations for Self-Esteem (RSES) and Depressive Symptoms (BDI-II)

	Rosenberg Self-Esteem Scale	Beck Depression Inventory- II
Self-Compassion Scale	0.503**	-0.513**
- SCS sk	0.537**	-0.511**
- SCS ch	0.416**	-0.431**
- SCS mf	0.295*	-0.333**
SOFI- positive self	0.486**	-0.360**
SOFI- negative self	-0.303*	0.148
Rosenberg Self-Esteem Scale	__	-0.584**

*p<0.05, **p<0.01

SCS sk = Self-Compassion Scale- self-kindness; SCS ch = Self-Compassion Scale- common humanity; SCS mf = Self-Compassion Scale- mindfulness; SOFI = Self-Other Four Immeasurables

Table 4

Zero-Order Correlations for Self-Compassion, SOFI Self Scales, & Body Dissatisfaction

	Self-Compassion Scale	Body Shape Questionnaire	SOFI - positive self	SOFI - negative self
SCS	__	-0.473**	0.496**	-0.133
- SCS sk	0.883**	-0.580**	0.554**	-0.237
- SCS ch	0.839**	-0.367**	0.239	-0.153
- SCS mf	0.820**	-0.244	0.395**	0.064
BSQ		__	-0.336*	0.454**
SOFI - positive self			__	-0.403**
SOFI - negative self				__

*p<0.05, **p<0.01

SCS = Self-Compassion Scale; SCS sk = Self-Compassion Scale- self-kindness; SCS ch = Self-Compassion Scale- common humanity; SCS mf = Self-Compassion Scale- mindfulness; BSQ = Body Shape Questionnaire; SOFI = Self-Other Four Immeasurables

Table 5

Partial Correlations: Self-Compassion, SOFI Self Scales, & Body Dissatisfaction, Controlling for Self-Esteem (RSES) & Depressive Symptoms (BDI-II)

	Body Shape Questionnaire
Self-Compassion Scale	-0.288*
- SCS sk	-0.424**
- SCS ch	-0.189
- SCS mf	-0.104
SOFI - positive self	-0.118
SOFI - negative self	0.372**

Note: cases excluded pairwise
*p<0.05, **p<0.01
SCS = Self-Compassion Scale; SCS sk = Self-Compassion Scale- self-kindness; SCS ch = Self-Compassion Scale- common humanity; SCS mf = Self-Compassion Scale- mindfulness; SOFI = Self-Other Four Immeasurables

Table 6

Zero-Order Correlations for Self- and Other-Compassion Discrepancy & Body Dissatisfaction

	Body Shape Questionnaire
OCS – SCS (discrepancy)	0.451**

*$p<0.05$, **$p<0.01$

Note: the discrepancy score is calculated by subtracting the self-compassion score from the other-compassion score for each individual

Table 7

Partial Correlations: Self- and Other-Compassion Discrepancy & Body Dissatisfaction, Controlling for Self-Esteem (RSES) & Depressive Symptoms (BDI-II)

	Body Shape Questionnaire
OCS – SCS (discrepancy)	0.253

Note: cases excluded pairwise
*p<0.05, **p<0.01
Note: the discrepancy score is calculated by subtracting the self-compassion score from the other-compassion score for each individual

Table 8

Zero-Order Correlations for Self-Compassion, Other-Compassion, & SOFI Scales

	Self-Compassion Scale	Other-Compassion Scale	SOFI - positive self	SOFI - positive other	SOFI - negative self	SOFI - negative other
SCS	__	0.256*	0.496**	0.442**	-0.133	-0.301*
- SCS sk	0.883**	0.209	0.554**	0.456**	-0.237	-0.242
- SCS ch	0.839**	0.289*	0.239	0.257*	-0.153	-0.350**
- SCS mf	0.820**	0.147	0.395**	0.385**	0.064	-0.178
OCS		__	0.175	0.360**	-0.164	0.043
SOFI-positive self			__	0.607**	-0.403**	-0.234
SOFI-positive other				__	-0.249*	-0.263*
SOFI-negative self					__	0.347**
SOFI-negative other						__

*p<0.05, **p<0.01

SCS = Self-Compassion Scale; SCS sk = Self-Compassion Scale- self-kindness; SCS ch = Self-Compassion Scale- common humanity; SCS mf = Self-Compassion Scale- mindfulness; OCS = Other-Compassion Scale; SOFI = Self-Other Four Immeasurables

Table 9

Zero-Order Correlations for Other-Compassion, SOFI Other Scales, & Body Dissatisfaction

	Other-Compassion Scale	Body Shape Questionnaire	SOFI - positive other	SOFI - negative other
Other-Compassion Scale	__	-0.026	0.360**	-0.164
Body Shape Questionnaire		__	-0.230	0.184
SOFI - positive other			__	-0.263*
SOFI - negative other				__

*p<0.05, **p<0.01

SOFI = Self-Other Four Immeasurables