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Understanding the roles of self-esteem, self-compassion, and fear of self-compassion in eating disorder pathology: An examination of female students and eating disorder patients

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ABSTRACT

The present study examined the relative contributions of self-compassion, fear of self-compassion, and self-esteem in eating disorder pathology. One-hundred and fifty-five female undergraduate students and 97 females entering eating disorder treatment completed the Self-Compassion Scale, Fears of Compassion Scale, Rosenberg Self-Esteem Inventory, and Eating Disorder Examination Questionnaire. *T*-tests revealed that the patient group had lower mean self-compassion and higher mean fear of self-compassion than the student group. When controlling for self-esteem, high fear of self-compassion emerged as the strongest predictor of eating disorder pathology in the patient group, whereas low self-compassion was the strongest predictor in the student group. These preliminary results suggest that targeting fear of self-compassion may be important when intervening with individuals suffering from an eating disorder, whereas building self-compassion may be a valuable approach for eating disorder prevention.

A large body of research has found that high self-esteem protects against eating disorder pathology whereas low self-esteem is a risk factor for later disturbances in eating and body image (e.g., Cervera et al., 2003; Gilbert & Meyer, 2005; Granillo, Jones-Rodriguez, & Carvajal, 2005). Self-esteem is a positive global appraisal of one's self-worth (Rosenberg, 1965). Although it is associated with many benefits, self-esteem has been linked to various maladaptive qualities including narcissism, illusory positive beliefs about one's self and future, and defensiveness in the face of failure (Blaine & Crocker, 1993; Fitch, 1970; Neff & Vonk, 2009). As a result, researchers and clinicians have become interested in self-compassion.

Self-compassion is defined as the tendency to respond to one's suffering by: adopting an attitude of caring and kindness rather than judgment; viewing one's pain as common within humanity rather than as isolating; and being mindful of one's inadequacies rather than ruminating on failures (Neff, 2003a). Perhaps because it is not evaluation-based, self-compassion appears to be a more stable and unconditional form of self-regard than self-esteem (Neff & Vonk, 2009). Although it is moderately positively correlated with self-esteem, it is unrelated to narcissism. It is also associated with acknowledging one's role in setbacks, as well as learning from and improving upon one's mistakes (Breines & Chen, 2012; Leary, Tate, Adams, Allen, & Hancock, 2007). Self-compassion contributes uniquely to various indicators of well-being controlling for self-esteem (Neff, 2003a).

Self-compassion also appears to promote less maladaptive body- and eating-related behavior. In student samples, it has been associated with more intuitive eating, fewer body image concerns, and less eating-related guilt controlling for self-esteem (Schoenefeld & Webb, 2013; Wasylkiw, MacKinnon, & MacLellan, 2012). Both trait and state-induced self-compassion have also been linked to less binge eating (Adams & Leary, 2007; Webb & Forman, 2012). Ferreira, Pinto-Gouveia, and Duarte (2013) studied eating disorder patients and community adults and found that self-compassion was associated with a lower drive for thinness in both groups. Finally, Kelly, Carter, and Borairi (2014) found that eating disorder patients who became more self-compassionate early in treatment had a better treatment response over 12 weeks. These studies reveal that self-compassion may protect against, and facilitate remission of, eating disorder symptoms.

Although self-compassion appears to offer protective effects in the realm of eating and body image, receiving compassion—from others or oneself—appears to be a frightening experience for certain individuals (Gilbert, McEwan, Matos, & Rivis, 2011). People who have a higher fear of self-compassion, due to feeling undeserving of compassion and worrying about lowered personal standards, struggle with lower self-

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compassion and more severe psychopathology (Gilbert et al., 2011). Kelly, Carter, Zuroff, and Borairi (2013) found that among eating disorder patients who had lower self-compassion, treatment response was poor only if they also had a high fear of self-compassion. This preliminary study suggests that it is not simply the shortage of self-compassion, but also the presence of fear of self-compassion that may be particularly deleterious with respect to eating disorder pathology.

Despite the associations between self-compassion, eating behavior, and body image, there have yet to be systematic tests of the relative contributions of self-esteem, self-compassion, and fear of self-compassion to eating disorder pathology using comprehensive measures of eating disorder symptomatology; and examining both clinical and non-clinical samples. The present study sought to fill this gap in the literature by testing the following hypotheses. First, female eating disorder patients would have lower mean self-compassion and higher mean fear of self-compassion than female students. Second, controlling for body mass index (BMI) and self-esteem, lower trait self-compassion and higher fear of self-compassion would uniquely predict eating disorder pathology in both groups.

1. Method

1.1. Participants

The student sample consisted of 155 female undergraduates (mean age = 20; SD = 5.0) recruited from a university participant pool. Ethnicity was: 48.3% Caucasian, 19.4% South Asian, 12.9% East Asian, 6.5% Southeast Asian, 3.2% Black/African, 3.2% bi-racial, 2.6% West Indian/Caribbean, and 5% other. Mean BMI was 23.08 (SD = 4.99). The patient sample consisted of 97 females (mean age = 28; SD = 9.6) beginning treatment at Toronto General Hospital's eating disorders program. All met DSM-IV-TR criteria for an eating disorder (29.6% bulimia nervosa, 27.2% anorexia nervosa restricting type, 18.5% anorexia nervosa binge-purge type, 24.7% eating disorder not otherwise specified). Ethnicity was: 79.2% Caucasian, 10.8% Hispanic, 4.5% East Asian, 2.8% African–Canadian, and 2.9% other. Mean BMI was 20.99 (SD = 5.57).

1.2. Measures

1.2.1. Eating Disorder Examination Questionnaire (EDE-Q; Fairburn, 2008)

The EDE-Q is a 36-item questionnaire measure of eating disorder symptomatology, with four different subscales: Shape concern, Weight concern, Eating concern, and Dietary restraint. The mean of these subscales yields a composite global score. The EDE-Q has good test–retest reliability (Luce & Crowther, 1999). Cronbach's alpha in both our samples was .95, indicating strong internal consistency.

1.2.2. Self-Compassion Scale—Short Form (SCS-SF; Raes, Pommier, Neff, & Van Gucht, 2011)

The SCS-SF is a 12-item adaptation of the 26-item SCS (Neff, 2003b), with which it correlates near perfectly. The SCS-SF assesses how participants typically respond to themselves at times of distress or failure. Sample items include: "I'm tolerant of my own flaws and inadequacies", and "I'm kind to myself when I'm experiencing suffering". The SCS-SF has good internal consistency; Cronbach's alphas were 0.92 and 0.85 in the student and patient samples, respectively.

1.2.3. Fears of Compassion Scale (FCS; Gilbert et al., 2011)

Fear of self-compassion was assessed with the 15-item section of the FCS assessing fears of expressing kindness and compassion toward oneself. Sample items include: "I feel that I don't deserve to be kind and forgiving to myself" and "I fear that if I become kinder and less self-critical to myself then my standards will drop." The FCS demonstrates excellent internal consistency, with a Cronbach's alpha of 0.95 in both samples.

1.2.4. Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965)

The RSE is a widely-used 10-item measure of self-esteem (e.g., "I take a positive attitude towards myself"). It has high test–retest reliability (Robins, Hendin, & Trzesniewski, 2001) and good internal consistency. Individual item scores were unavailable for our patient sample, but Cronbach's alpha was 0.81 in our student sample.

2. Results

2.1. Patterns of missing data

In the patient sample, BMI, eating disorder symptomatology, and self-esteem were assessed as part of a separate assessment package; complete data were obtained for 75, 82, and 76 out of the 97 participants, respectively. Near-complete data were available for all other patient and student measures.

2.2. Analytic strategy

First, *t*-tests examined group differences between our student and patient samples on study variables. Equality of variances tests revealed that variances between the two groups only differed for fear of self-compassion, $F_{(93,150)} = 1.74$, $p < .01$. We therefore present Satterthwaite *t*-test results when comparing group means on this variable and pooled *t*-tests for all other variables. Second, multiple regressions investigated the unique contributions of self-compassion and fear of self-compassion to EDE-Q global and subscale scores, while controlling for self-esteem and BMI. All predictor variables were standardized to facilitate interpretation of the results.

2.3. Between-group differences in study variables

Means and standard deviations for all variables within each group are presented in Table 1. *T*-tests revealed between-group differences. The patient sample had a lower mean BMI, $p < .01$; higher mean EDE-Q and fear of self-compassion, p's $< .001$; and lower mean self-esteem and self-compassion, p's $< .001$ (see Table 1).

2.4. Predictors of EDE-Q within each group

Among patients, fear of self-compassion emerged as the strongest predictor of EDE-Q global and subscale scores (see Table 2) with BMI, self-compassion, and self-esteem entered simultaneously. Self-esteem also emerged as a negative predictor of EDE-Q Global, Eating concerns, and Shape concerns, and BMI was a positive predictor of Eating concerns. Self-compassion did not emerge as a significant predictor of EDE-Q global or subscale scores.

Among students, low self-compassion was the strongest predictor of EDE-Q Global, Restraint, Weight concerns, and Shape concerns (see Table 2). Low self-compassion also predicted greater Eating concerns, but so too did fear of self-compassion. Self-esteem did not predict EDE-Q global or subscale scores in the student sample. BMI predicted higher EDE-Q Global, Weight concerns and Shape concerns.

3. Discussion

This study examined the relative contributions of self-compassion and fear of self-compassion to the eating disorder symptoms of female eating disorder patients and college students. Controlling for self-esteem and BMI, fear of self-compassion appeared to be the strongest contributor to patients' eating disorder symptoms, whereas low self-compassion contributed most strongly to students' symptoms. These findings were quite consistent across EDE-Q global and subscale scores. Results extend previous research showing that eating disorder pathology may be especially elevated among individuals who struggle with deficits in self-compassion.

Table 1
Means and standard deviations of study variables in each sample.

	Female eating disorder patients		Female college students		*t*-test
	Mean	SD	Mean	SD	
EDE-Q Global	4.01[a]	1.35	2.44[b]	1.24	8.98***
BMI	20.99[g]	5.57	23.08[e]	4.99	−2.85**
Self-esteem	21.04[f]	5.57	33.63[e]	6.4	−14.59***
Self-compassion	2.03[c]	.68	2.88[b]	.65	−9.82***
Fear of self-compassion	2.16[d]	1.10	1.02[e]	.84	8.58***

EDE-Q = Eating Disorder Examination Questionnaire; BMI = body mass index.
** $p < .01$. *** $p < .001$.
[a] $n = 82$. [b] $n = 154$. [c] $n = 96$. [d] $n = 94$. [e] $n = 151$. [f] $n = 76$. [g] $n = 75$.

Compared to the college students, eating disorder patients had lower mean levels of self-esteem and self-compassion, and higher mean levels of fear of self-compassion. The finding that eating disorder patients had more fears related to becoming more self-compassionate than students is novel, and is especially interesting in light of the finding that fear of self-compassion emerged as the strongest predictor of eating disorder symptoms in this group. Results suggest that a fearful unwillingness to become more self-compassionate may be more harmful to eating disorder sufferers than the relative absence of self-compassion itself. Results complement those of Kelly et al. (2013)) who found that fear of self-compassion was especially detrimental to treatment outcome in eating disorder patients.

Low self-compassion emerged as the strongest unique predictor of eating disorder symptoms in female college students. Fear of self-compassion only predicted Eating concerns, and self-esteem did not predict EDE-Q subscale or global scores. The latter finding is notable given the large body of research on the relationship between low self-esteem and eating disorder pathology. Findings suggest that the documented relationship between self-esteem and eating disorder symptoms may be explained in part by self-esteem's shared variance with self-compassion. The unique contribution of low self-compassion to eating disorder symptoms in college students extends the growing literature on the relationship between self-compassion and healthier body image and eating behaviors (Schoenefeld & Webb, 2013; Wasylkiw et al., 2012; Webb & Forman, 2012).

This study has several limitations. First, it was cross-sectional, making it impossible to determine the directionality of the observed relationships. Second, the study was correlational, making conclusions about causality impossible. Third, the samples were matched on sex but not age.

3.1. Summary

Findings offer preliminary evidence that low self-compassion may be especially related to the eating disorder pathology of female college students, whereas high fear of self-compassion may be associated with more severe symptoms among individuals with an active eating disorder. Interventions that target deficits in self-compassion and fear of self-compassion, such as compassion-focused therapy (Gilbert, 2005) and mindfulness-based approaches, may therefore be useful in the prevention and treatment of eating disorders.

Table 2
Summary of multiple regressions predicting EDE-Q global and subscale scores.

Variable	β	SE β	β	SE β
	Patients		Students	
EDE-Q Global				
Body mass index	.26[t]	.15	.32***	.09
Self-esteem	−.40*	.18	.03	.13
Self-compassion	.16	.17	−.50***	.12
Fear of self-compassion	.74***	.18	.11	.11
EDE-Q Restraint				
Body mass index	.01	.15	.12	.11
Self-esteem	−.33	.21	.10	.16
Self-compassion	.22	.25	−.42**	.15
Fear of self-compassion	.78**	.26	.18	.14
EDE-Q Eating concerns				
Body mass index	.37*	.16	.25**	.08
Self-esteem	−.51**	.18	.05	.12
Self-compassion	.14	.18	−.27*	.11
Fear of self-compassion	.72***	.19	.27**	.10
EDE-Q Weight concerns				
Body mass index	.37[t]	.19	.51***	.11
Self-esteem	−.31	.22	.03	.15
Self-compassion	.15	.22	−.65***	.14
Fear of self-compassion	.88**	.23	−.00	.13
EDE-Q Shape concerns				
Body mass index	.30[t]	.15	.39***	.11
Self-esteem	−.45*	.18	−.07	.16
Self-compassion	.13	.18	−.65***	.15
Fear of self-compassion	.60**	.19	.00	.14

[t] $p < .10$. $p < .05$.
* $p < .05$. ** $p < .01$. *** $p < .001$.

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Contributors
AK designed the study, analyzed the results, and wrote up a significant portion of the manuscript.
KV took the lead in collecting data in the student sample, performed literature searches, contributed to data analyses, and helped write up various sections of the manuscript.
JC provided input in the design and data collection in the patient sample. She made suggestions and edits to the final manuscript.
All authors have approved the final manuscript.

Conflict of interest
All other authors declare that they have no conflicts of interest.

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