

# Self-Compassion and Responses to Trauma: The Role of Emotion Regulation

Journal of Interpersonal Violence

1–21

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DOI: 10.1177/0886260515622296

jiv.sagepub.com



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## Abstract

Emerging literature suggests that self-compassion may be an important concept for understanding recovery from the impact of trauma and posttraumatic stress disorder (PTSD). The present study explored the interconnection among self-compassion, resilience, emotion dysregulation, and PTSD symptom severity in a sample of treatment-seeking women with PTSD. We predicted that self-compassion would be negatively related to PTSD symptom severity and to emotion dysregulation, and positively related to resilience. The results supported our main hypotheses. In addition, emotion dysregulation mediated the relationship between PTSD symptom severity and self-compassion and affected the relationship between self-compassion and resilience. These findings corroborate previous research

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that points to the important role of self-compassion in mental health and in the aftermath of stressful life events. The present study expands this research by demonstrating that PTSD symptom severity is negatively related to self-compassion in a clinical population of women with experiences of severe and repeated interpersonal trauma.

**Keywords**

PTSD, emotion regulation, interpersonal violence, self-compassion, resilience

Across the life span, interpersonal violence affects more than 28% of women worldwide (World Health Organization, 2013). In the United States alone, 51.9% of women in the National Violence Against Women Survey reported experiencing at least one sexual assault, physical assault, stalking, or incident of child abuse (Tjaden & Thoennes, 2000). Survivors of interpersonal trauma, particularly childhood maltreatment, are at risk of many negative psychological outcomes, including posttraumatic stress disorder (PTSD), personality disorders, depression, suicidality, anxiety, substance abuse, and revictimization (Dietrich, 2007; McCauley et al., 1997; van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005). When individuals experience interpersonal violence in childhood, the risk of PTSD is particularly high (50%-75%; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995).

In addition to increased risk for physical and mental health problems and revictimization, traumatic experiences can disrupt key aspects of healthy development, including the formation of positive attachment, adaptive emotion regulation, attention skills, positive and compassionate self-perception, interpersonal skills, and systems of meaning (Courtois, 2004; Herman, 1992). Although other traumatic experiences can drastically alter these elements of functioning, interpersonal trauma, particularly prolonged and repeated trauma beginning in childhood, has an impact on healthy development. Children experiencing such abuse are frequently deprived of healthy attachment models to assist in understanding the world, including the development of effective emotional and interpersonal coping strategies (Herman, 1992).

**Self-Compassion**

The experience of trauma can alter core beliefs and assumptions that many people hold about themselves, the future, safety (personal and general), and the goodness of others (Foa, Ehlers, Clark, Tolin, & Orsillo, 1999). Interpersonal trauma can often result in feelings of shame and self-blame,

which may include negative evaluations of the self that are internal, global, static, and can seem uncontrollable to survivors of trauma (Anolli & Pascucci, 2005). In many respects, self-compassion is the antithesis of these distorted negative beliefs about the self.

Self-compassion is a self-reflective process that entails several components: (a) self-kindness: extending warmth and understanding to oneself rather than harsh criticism or self-judgment, (b) common humanity: seeing one's experiences as part of the larger human experience rather than as separating and isolating, and (c) mindfulness: holding one's painful thoughts and feelings in balanced awareness rather than overidentifying or avoiding them (Neff, 2003b; Neff, Hsieh, & DeJitterat, 2005). Self-compassion is an implicitly relational concept; practicing self-compassion involves calling up an internal image of a caring other person, imagining what another is thinking and feeling (Goetz, Keltner, & Simon-Thomas, 2010). It is a way of internalizing the compassion of another that could not be developed in a traumatic childhood.

Shame following traumatic experiences can have a profound and pervasive effect on personal identity. The self may be seen as defective, inherently bad, powerless, deserving of maltreatment, and something that must be kept hidden from others (Dutra, Callahan, Forman, Mendelsohn, & Herman, 2008; Herman, 2012). To cope with the aftermath of interpersonal trauma, some survivors turn to maladaptive strategies (e.g., avoidance, aggression, dissociation) that may lead to substance abuse, interpersonal problems, and other mental health consequences; these are then often stigmatized by society (Briere, 2012). Those who internalize shame may believe that they are unacceptable, unlovable, or outside of the norms, values, and sanctioned behaviors of their culture. Survivors of interpersonal trauma may also hold expectations of further victimization or maltreatment, which can contribute to long-lasting alienation from others (Briere, 2012). Shame-proneness and self-blame have been associated with PTSD symptom severity (Leskela, Dieperink, & Thuras, 2002), and negative attitudes toward the self have been linked to many psychological problems, including suicide attempts (Dutra et al., 2008).

Self-compassion has been associated with a variety of positive states and outcomes, including resilience and general well-being (Meredith & Mark, 2011; Neff et al., 2005). Conversely, self-compassion has been negatively associated with maladaptive states and psychiatric symptoms, including catastrophizing, anxiety, depression, self-criticism, avoidance, and PTSD symptoms (Neff et al., 2005; Thompson & Waltz, 2008). As self-compassion is not based on "performance" evaluations of self and others (Neff et al., 2005), it can ease unbearable feelings of shame and self-blame and help to transform

them into feelings of self-kindness and understanding (Meredith & Mark, 2011). An attitude of common humanity is a reminder that negative experiences and emotions are a part of human experience; therefore, perceived failures are viewed as normal life experiences rather than negative indicators of self-worth (Neff, Kirkpatrick, & Rude, 2007; see also Neff, 2003b). Altogether, self-compassion promotes a nonjudgmental attitude toward all emotions and experiences (including failure).

### *Self-Compassion and Emotion Dysregulation*

Emotion regulation—the ability to identify, understand, accept, and manage emotions (Gratz & Roemer, 2004)—is an essential coping skill for optimal functioning that may be disrupted following trauma. Practicing self-compassion can serve as a form of emotion regulation by improving abilities in identifying and accepting emotions, reducing emotional numbing, and diminishing chronic hyperarousal (Ogden, Minton, & Pain, 2006); in this way, self-compassion improves general emotion regulation through practice. Conversely, individuals with existing effective emotion regulation skills may be more able to practice self-compassion because of their extant skills in emotional awareness and other facets of emotion regulation used in the practice of self-compassion.

Previous work by Marx and Sloan (2005) suggests that PTSD symptoms are maintained over time by experiential avoidance. Avoidance symptoms both perpetuate and exacerbate other symptoms of PTSD (Marx & Sloan, 2005; Shipherd & Beck, 2005). The avoidance symptoms of PTSD may also prevent the development of self-compassion, as suggested by Thompson and Waltz (2008), who found that avoidance symptom severity was negatively related to self-compassion in college students who had experienced trauma. Vettese, Dyer, Li, and Wekerle (2011) found that in young substance-using adults, self-compassion was negatively related to emotion dysregulation over and above other variables, including addiction severity, psychological symptom severity, and childhood maltreatment. Self-compassion also significantly mediated the relationship between history of childhood maltreatment and emotion regulation difficulties.

The practice of self-compassion is incompatible with avoidance, as it encourages individuals to feel painful emotions and to experience negative thoughts, rather than to avoid these experiences (Neff et al., 2007). Negative feelings are still acknowledged, but with self-compassion, these feelings are given attention and accepted without becoming overwhelming or consuming. In addition, practicing self-kindness and common humanity components of self-compassion requires active examination of thoughts and experiences, which is incompatible with avoidance (Neff, 2003b; Neff et al., 2005).

## *Emotion Dysregulation*

Traumatic experiences, especially in childhood, have an impact on the development of emotion regulation (Courtois, 2004; Herman, 1992). Prospective studies show that childhood trauma may disrupt attachment and leave children without the emotion regulation skills learned through healthy attachment relationships (Lyons-Ruth, Bureau, Holmes, Easterbrooks, & Brooks, 2013; Trickett, Noll, & Putnam, 2011). Difficulties with emotion regulation (i.e., emotion dysregulation) are implicated in a multitude of psychological problems, including personality disorders, anxiety disorders, eating disorders, depression, and PTSD (Barlow, Allen, & Choate, 2004).

PTSD and emotion dysregulation are two common consequences of interpersonal trauma, particularly for those who experienced childhood trauma. A large body of research suggests a strong relationship between PTSD and emotion dysregulation (e.g., Badour & Feldner, 2013; Burns, Jackson, & Harding, 2010). Emotion dysregulation is associated with a plethora of symptoms that may influence the severity of PTSD-related impairment (e.g., substance abuse, somatization, depression; Bonn-Miller, Vujanovic, Boden, & Gross, 2011; Lilly & Lim, 2013). In addition, those with greater difficulties in emotion regulation prior to the occurrence of trauma are at particular risk for developing PTSD or for reporting greater PTSD symptom severity (Bardeen, Kumpula, & Orcutt, 2013; Lilly & Lim, 2013). However, elevated emotion dysregulation among those with PTSD may also be a consequence of the PTSD symptoms themselves (Ehring & Quack, 2010; Kulkarni, Pole, & Timko, 2013), possibly because experiential avoidance promotes maladaptive emotion coping strategies (Tull, Barrett, McMillan, & Roemer, 2007; Tull, Jakupcak, Paulson, & Gratz, 2007). As several authors (e.g., Tull, Barrett, et al., 2007) aptly state, the strong relationship of PTSD symptoms and emotion regulation is clear, but evidence for causal relationships is lacking.

## *Resilience*

Previous research suggests that resilience is associated with greater recovery from PTSD (Davidson et al., 2005), as well as reduced occurrence and severity of PTSD symptoms (Nemeroff et al., 2006). Although many individuals exposed to traumatic events develop PTSD and experience severe impairment or distress, many other trauma-exposed individuals experience only minor or transient impairment. Resilient individuals respond to traumatic events or stressors with a variety of coping mechanisms that allow for the maintenance of equilibrium over time; while there may be a momentary disruption, there are no significant lapses in functioning (Bonanno, 2005).

Finding a purpose or meaning in life is an essential component of resilience and recovery, and a belief that growth can be achieved from all of life's experiences cultivates flexible coping strategies for making meaning out of negative life events (Bonanno, 2005). Positive attitudes toward the self (e.g., self-esteem, self-compassion) and strategies of self-efficacy also appear as central themes in understanding resilience (e.g., Hall et al., 2009; Tummala-Narra, Kallivayalil, Singer, & Andreini, 2012).

Resilience is also influenced by emotion regulation, including both generally adaptive emotion regulation (e.g., humor) and generally maladaptive regulation strategies (e.g., avoidance) that may serve a transient adaptive function in the face of stressors (Bonanno, 2005). Although a multitude of factors can also influence resilience (e.g., social support, optimism; Yehuda, Flory, Southwick, & Charney, 2006), effective coping skills (including emotion regulation) and positive attitudes toward the self are highly influential in resilience following negative life events. In those with trauma-related attachment disruption, developing these skills and attitudes may be particularly challenging, further reducing resilience in this population.

## **Present Study**

In the present study, we examined the cross-sectional relationships among emotion dysregulation, self-compassion, resilience, and PTSD symptoms in women with a history of interpersonal trauma. To our knowledge, no other study has explored these variables together in an interpersonal trauma-exposed population. We predicted that individuals who endorse more PTSD symptoms will be less self-compassionate, that individuals with greater emotion dysregulation will be less self-compassionate, and that individuals who are more resilient will report greater self-compassion. Specifically, our hypotheses posited the following:

**Hypothesis 1:** PTSD symptom severity and self-compassion will be negatively related, which would add to previous findings in traumatized populations (Vettese et al., 2011).

**Hypothesis 2:** Emotion dysregulation and self-compassion will be negatively related, which would support previous findings with traumatized populations (Vettese et al., 2011).

**Hypothesis 3:** Resilience and self-compassion will be positively related, which would support previous research findings (Meredith & Mark, 2011; Neff et al., 2005).

**Hypothesis 4:** Emotion dysregulation will mediate the relationship between PTSD severity and self-compassion, consistent with the suggestion of Thompson and Waltz (2008) that avoidance symptoms of PTSD prevent the development of self-compassion.

**Hypothesis 5:** Emotion regulation will mediate the relationship between resilience and self-compassion. Given the importance of emotion regulation in resilience (e.g., Bonanno, 2005), it is expected that emotion regulation practices will predominantly influence the impact of resilience on self-compassion. Due to a lack of theoretical support, this model is intended to explore rather than describe causal relationships between these variables.

## Method

### Participants

The data set consisted of 176 participants from a larger ongoing multisite clinical trial, which recruited women ages 18 to 65, in four large public hospitals in urban settings (see Cloitre et al., 2014, for details). Participants were female survivors of interpersonal violence (physical or sexual violence) with a primary diagnosis of PTSD. Those with ongoing risks (e.g., substance dependence) were excluded from the study. A total of seven participants were removed from the data set because they were retrospectively ruled as ineligible for participation in the study. One additional participant was removed from the data set because responses were retrospectively ruled as invalid, bringing the total sample size to 168.

Participants had a mean age of 41.18 ( $SD = 12.45$ ) years. White/Caucasian (45.8%) and Black/African American (33.3%) racial identity were the most predominant in the sample, followed by Other (14.9%), Asian (3.6%), and Native American/Alaska Native (2.4%). Most participants had completed some postsecondary education, either some college/training (33.3%) or completed college/more than college (41.7%). Nearly half of the participants were single (47.6%), and many were also separated or divorced (31.0%); very few participants were married at the time of assessment (11.3%). The majority of participants reported having at least one child (57.7%). The majority of the participants were not employed either full- or part-time (69.6%), and nearly all (87.5%) reported annual earnings at or below US\$30,000. The participants in this study had extensive trauma histories, and the majority experienced trauma both during childhood and during adulthood (79.8%). Nearly all of the participants experienced at least one childhood trauma (94.6%), and most experienced at least one trauma in adulthood (85.1%). Most participants reported chronic functional disruptions from an early age, beginning in childhood after a traumatic experience and exacerbated by repeated revictimization.

## Procedures

Following written informed consent, participants completed a comprehensive battery of structured interviews, semistructured interviews, and self-report measures covering a broad range of trauma history and symptomatology. All measures included in the present study were completed at baseline. The Clinician-Administered PTSD Scale (CAPS) interviews were conducted by trained research personnel at each respective site. The study was approved by all relevant Institutional Review Boards and hospital boards. For further details, please see Cloitre et al. (2014).

## Measures

**CAPS.** Symptoms of PTSD were assessed using the CAPS (Blake et al., 1995), a semistructured clinical interview that is considered the “gold standard” for assessing and diagnosing PTSD. Items on the CAPS are directly drawn from the symptoms described in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM-IV*; American Psychiatric Association, 1994) for a diagnosis of PTSD. In the present study, the past month version was used to assess current symptoms of PTSD related to interpersonal traumas. A preponderance of research suggests reliability and validity for the CAPS as a measure of PTSD symptomatology, with interrater reliability at the .90 level and above, internal consistency in the range of .80 to .90 for the three symptom clusters and overall symptoms, and kappas above .70 (Weathers, Keane, & Davidson, 2001).

**Self-Compassion Scale–Short Form (SCS-SF).** Self-compassion was measured using the SCS-SF (Raes, Pommier, Neff, & Van Gucht, 2011), a 12-item self-report measure derived from the original 26-item measure (Neff, 2003a). High scores reflect an ability to be kind and understanding toward oneself, even in difficult times (Neff, 2003b). The total scores for the 26-item long form and the 12-item short form demonstrate a near-perfect correlation ( $r = .98$ ), and the short form demonstrates strong internal consistency (Cronbach  $\alpha = .86$ ), test–retest reliability, and convergent and discriminant validity (Raes et al., 2011).

**Difficulties in Emotion Regulation Scale (DERS).** Emotion dysregulation was measured using the DERS (Gratz & Roemer, 2004), a 36-item self-report measure. Findings indicate good reliability and validity, including high internal consistency (Cronbach  $\alpha = .93$ ) and good test–retest reliability (Gratz & Roemer, 2004).



*Connor-Davidson Resilience Scale (CD-RISC)*. Resilience was assessed using the CD-RISC (Connor & Davidson, 2003), a 25-item self-report measure of adaptability and ability to “bounce back” from stressors. Internal consistency (Cronbach  $\alpha = .89$ ), test–retest reliability, and convergent validity are strong (Connor & Davidson, 2003).

## Data Analyses

A series of multiple regression analyses were conducted to examine the relationships among self-compassion and PTSD symptom severity, emotion dysregulation, and resilience. All regression analyses were completed using SPSS (Version 21). The regression analyses controlled for age, education level, personal earnings, and parenthood status. The regressions for emotion dysregulation and resilience additionally controlled for PTSD symptom severity. For each analysis, cases with missing data were excluded listwise (sample sizes available for each analysis are noted in their respective table or figure). The continuous predictor variables for multiple regression analyses were mean centered. Model assumptions were evaluated and were met.

Two mediation analyses were conducted to evaluate whether emotion dysregulation mediated the relationship between PTSD symptom severity and self-compassion and the relationship between resilience and self-compassion. These models were completed using Mplus (Version 7). Acceptable model fit was determined using the chi-square test ( $\chi^2$ ), where a  $p$  value greater than .05 indicates an adequate model fit. Furthermore, the comparative fit index (CFI) and root mean square error of approximation (RMSEA) was also used to determine adequate model fit. Recent literature suggests that a CFI  $\geq .95$  and a RMSEA value  $\leq .06$  are indicative of adequate model fit (Kline, 2004). Both mediation models controlled for age, education level, personal earnings, and parenthood status; the mediation of resilience and self-compassion also controlled for PTSD symptom severity. In both models, the predictor and mediating variables were mean centered. Indirect effects were evaluated using the bootstrap method (Preacher & Hayes, 2004). A total of 10,000 bootstrap samples were generated in these analyses.

## Results

### *Relationships With Self-Compassion*

Given that these constructs have theoretical overlap, a correlation table was generated for the relationships between PTSD symptom severity (CAPS), difficulties in emotion regulation (DERS), self-compassion (SCS), and resilience (CDRS). The correlations can be seen in Table 1.

**Table 1.** Summary of Intercorrelations, Means, and Standard Deviations for PTSD Symptom Severity, Self-Compassion, Emotion Dysregulation, and Resilience.

Measure	1	2	3	4	<i>M</i>	<i>SD</i>
1. PTSD Symptom Severity (CAPS)	-(168)				71.41	13.28
2. Self-Compassion (SCS)	-.28** (159)	-(159)			2.73	0.72
3. Emotion Dysregulation (DERS)	.46** (156)	-.70** (151)	-(156)		98.61	23.95
4. Resilience (CDRS)	-.23** (154)	.53** (152)	-.54** (146)	-(154)	58.62	17.47

Note. *n* values in parentheses below their respective *r* values. PTSD = posttraumatic stress disorder; CAPS = Clinician-Administered PTSD Scale; SCS = Self-Compassion Scale; DERS = Difficulties in Emotion Regulation Scale.

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

A model examining the relationship with PTSD symptom severity (CAPS), while controlling for demographics, revealed that a significant proportion of the variation in self-compassion was explained by these variables,  $F(7, 151) = 2.40, p = .023$ , and accounted for 10.0% of the variance. As hypothesized, PTSD symptom severity (CAPS) had a significant negative relationship with self-compassion (SCS;  $\beta = -.26, p = .002$ ). The parameter estimates for this model are summarized in Table 2.

A model examining the relationship with emotion dysregulation, while controlling for demographics and PTSD symptom severity (CAPS), revealed that a significant proportion of the variation in self-compassion was explained by these variables,  $F(8, 142) = 17.41, p < .001$ , and accounted for 49.5% of the variance. As hypothesized, emotion dysregulation (DERS) had a significant negative relationship with self-compassion (SCS;  $\beta = -.71, p < .001$ ). The parameter estimates for this model are summarized in Table 3.

A model examining the relationship with resilience (CDRS), while controlling for demographics and PTSD symptom severity (CAPS), revealed that a significant proportion of the variation in self-compassion (SCS) was explained by these variables,  $F(8, 143) = 8.89, p < .001$ , and accounted for 33.2% of the variance. As hypothesized, resilience had a significant positive relationship with self-compassion (SCS;  $\beta = .52, p < .001$ ). The parameter estimates for this model are summarized in Table 4.

### Mediations of Emotion Dysregulation on Self-Compassion

A bootstrap mediation analysis was performed to determine whether emotion dysregulation mediated the relationship between PTSD severity (CAPS) and self-compassion (SCS). There was a significant direct negative relationship

**Table 2.** Multiple Regression Analysis Examining the Relationship Between PTSD Symptom Severity and Self-Compassion.

Variable	B	SE B	$\beta$
Intercept	2.82	0.17	—
Age	<0.01	<0.01	.04
Education <sup>a</sup>			
Did not complete high school	0.07	0.22	.03
Graduated from high school	0.27	0.18	.13
Completed some college	0.02	0.14	.01
Personal earnings <sup>b</sup>			
Less than US\$30,000 per year	-0.18	0.17	-.09
Parenthood status <sup>c</sup>			
Has children	0.03	0.14	.02
PTSD symptom severity (CAPS)	-0.01	<0.01	-.26**

Note. B = unstandardized beta; SE B = standard error for unstandardized beta;  $\beta$  = standardized beta.  $n = 159$  due to missing data. PTSD = posttraumatic stress disorder; CAPS = Clinician-Administered PTSD Scale.

<sup>a</sup>Completed college/more than college served as the reference group.

<sup>b</sup>Earned more than US\$30,000 per year served as the reference group.

<sup>c</sup>Did not have any children served as the reference group.

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

of PTSD severity (CAPS) with self-compassion (SCS;  $\beta = -.26, p < .001$ ). Emotion dysregulation (DERS) was added to this model as a mediator. As Figure 1 illustrates, there were significant direct effects of PTSD severity on emotion dysregulation (DERS;  $\beta = .45, p < .001$ ) and of emotion dysregulation on self-compassion (SCS;  $\beta = -.71, p < .001$ ). The standardized indirect effect of PTSD severity (CAPS) through emotion dysregulation on self-compassion was  $\beta = -.31, p < .001$ . The significance of the indirect relationship was examined using bootstrapping procedures. The indirect effect was significant after 10,000 bootstrap draws (standardized 95% CI =  $[-.41, -.22], p < .001$ ). The overall fit of the model final model was determined to be adequate,  $\chi^2(6) = 6.27, p = .393, CFI = .998, RMSEA = .017$ .

A second bootstrap mediation analysis was performed to determine whether emotion dysregulation (DERS) mediated the relationship between resilience (CDRS) and self-compassion (SCS). There was a significant direct relationship of resilience (CDRS) with self-compassion (SCS;  $\beta = .55, p < .001$ ). Emotion dysregulation (DERS) was added to this model as a mediator. As Figure 2 illustrates, there were significant direct effects of resilience (CDRS) on emotion dysregulation (DERS;  $\beta = -.54, p < .001$ ) and of emotion dysregulation on self-compassion (SCS;  $\beta = -.54, p < .001$ ). The

**Table 3.** Multiple Regression Analysis Examining the Relationship Between Emotion Dysregulation and Self-Compassion.

Variable	B	SE B	$\beta$
Intercept	2.74	0.13	—
Age	<-0.01	<0.01	-.08
Education <sup>a</sup>			
Did not complete high school	0.04	0.17	.02
Graduated from high school	0.09	0.14	.04
Completed some college	-0.07	0.13	-.03
Personal earnings <sup>b</sup>			
Less than US\$30,000 per year	-0.07	0.13	-.03
Parenthood status <sup>c</sup>			
Has children	0.05	0.11	.04
PTSD symptom severity (CAPS)	<0.01	<0.01	.05
Emotion dysregulation (DERS)	-0.02	<0.01	-.71**

Note. B = unstandardized beta. SE B = standard error for unstandardized beta.

$\beta$  = standardized beta.  $n = 152$  due to missing data. PTSD = posttraumatic stress disorder; CAPS = Clinician-Administered PTSD Scale; DERS = Difficulties in Emotion Regulation Scale.

<sup>a</sup>Completed college/more than college served as the reference group.

<sup>b</sup>Earned more than US\$30,000 per year served as the reference group.

<sup>c</sup>Did not have any children served as the reference group.

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

standardized indirect effect of resilience through emotion dysregulation on self-compassion was  $\beta = .29$ ,  $p < .001$ . The indirect effect was significant after 10,000 bootstrap draws (standardized 95% CI = [.20, .38],  $p < .001$ ). The overall fit of the model final model was determined to be adequate,  $\chi^2(6) = 11.75$ ,  $p = .068$ , CFI = .963, RMSEA = .079.

## Discussion

The goal of this study was to explore self-compassion in traumatized women as it relates cross-sectionally to PTSD symptom severity, emotion dysregulation, and resilience. The results supported our main hypotheses. As predicted, self-compassion was negatively related to PTSD symptom severity and to emotion dysregulation, and positively related to resilience. In addition, emotion dysregulation mediated the relationship between PTSD symptom severity and self-compassion and also influenced the relationship between resilience and self-compassion.

The present study expands research on PTSD and self-compassion by demonstrating that PTSD symptom severity is negatively related

**Table 4.** Multiple Regression Analysis Examining the Relationship Between Resilience and Self-Compassion.

Variable	B	SE B	$\beta$
Intercept	2.85	0.15	—
Age	<-0.01	<0.01	-.02
Education <sup>a</sup>			
Did not complete high school	0.30	0.20	.13
Graduated from high school	0.35	0.16	.18*
Completed some college	0.07	0.12	.05
Personal earnings <sup>b</sup>			
Less than US\$30,000 per year	-0.24	0.15	-.11
Parenthood status <sup>c</sup>			
Has children	-0.03	0.12	-.02
PTSD symptom severity (CAPS)	-0.01	<0.01	-.09
Resilience (CDRS)	0.02	<0.01	.52**

Note. B = unstandardized beta. SE B = standard error for unstandardized beta.  $\beta$  = standardized beta.  $n = 152$  due to missing data. PTSD = posttraumatic stress disorder; CAPS = Clinician-Administered PTSD Scale.

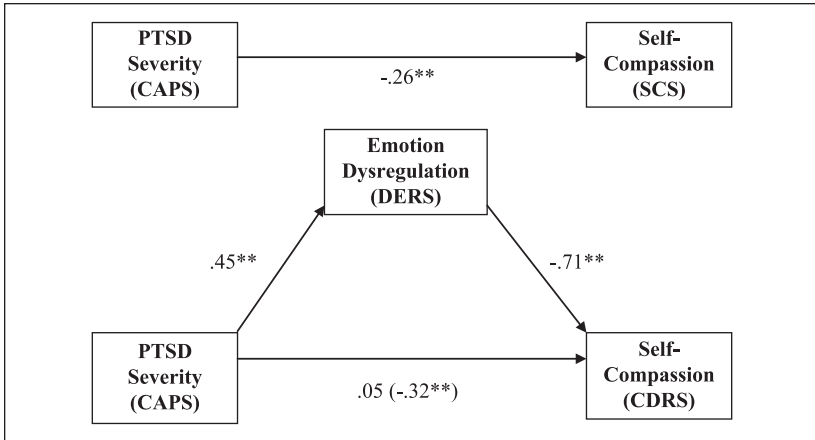
<sup>a</sup>Completed college/more than college served as the reference group.

<sup>b</sup>Earned more than US\$30,000 per year served as the reference group.

<sup>c</sup>Did not have any children served as the reference group.

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

to self-compassion in a clinical population of women with experiences of interpersonal trauma largely beginning in childhood. This finding may be understood in two ways: in terms of the negative alterations in mood and cognition that are core symptoms of PTSD and in terms of avoidance symptoms that often perpetuate PTSD. Negative alterations in mood and cognition include strong negative beliefs about the self (e.g., “I am unlovable”), distorted self-blame, deep feelings of shame, and disconnection from others. These symptoms are particularly strong in individuals with PTSD symptoms resulting from interpersonal trauma because of the possible disruption in attachment-related development (Herman, 1992). Strong negative self-schemas are resistant to change and therefore likely interfere with the ability to practice self-compassion, particularly with self-kindness and accepting failings as part of common humanity. In addition, the avoidance symptoms of PTSD are behaviorally incompatible with mindfulness, as mindfulness requires acknowledging and experiencing all aspects of the self. As avoidance symptoms play a powerful role in PTSD symptom severity, the significant negative relationship of PTSD symptom severity and self-compassion is likely influenced by the challenges of engaging in both avoidance and mindfulness.



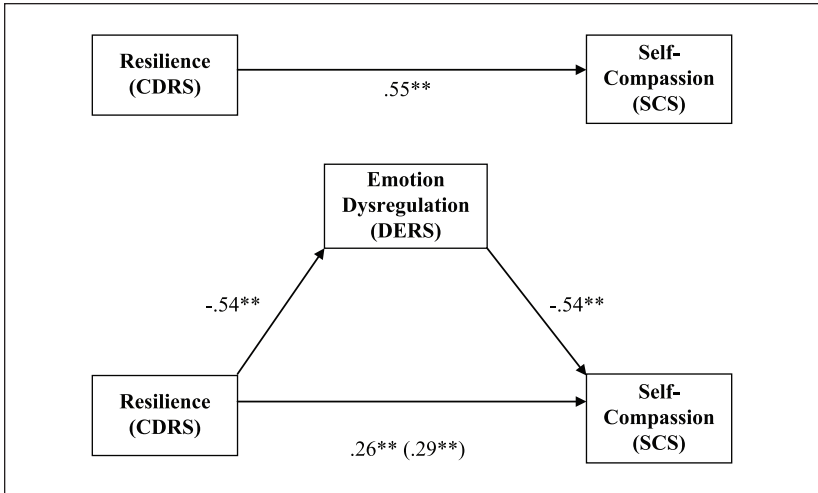
**Figure 1.** Standardized regression coefficients for the relationship between PTSD symptom severity (CAPS) and self-compassion (SCS) as mediated by emotion dysregulation (DERS).

Note. Standardized indirect effect in parentheses.  $n = 164$  due to missing data. PTSD = posttraumatic stress disorder; CAPS = Clinician-Administered PTSD Scale; SCS = Self-Compassion Scale; DERS = Difficulties in Emotion Regulation Scale.

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

Emotion dysregulation was negatively associated with self-compassion after accounting for PTSD symptom severity and demographic variables. This finding supports our hypothesis as well as previous research demonstrating the negative relationship between self-compassion and emotion dysregulation in traumatized individuals (Vettese et al., 2011) and expands the findings to a clinical sample of treatment-seeking adult women with interpersonal traumas and PTSD. For individuals with a history of childhood maltreatment, basic skills deficits in emotion regulation may result from substantial disruptions in attachment-related development (Herman, 1992; Lyons-Ruth et al., 2013). Deficits in emotion regulation may lead to problems in practicing self-compassion, for this practice requires awareness and identification of emotions and feelings, a basic component of emotion regulation.

As hypothesized, resilience was positively associated with self-compassion. Among the multitude of characteristics associated with resilience (e.g., Connor & Davidson, 2003), positive attitudes toward the self and meaning-making are particularly relevant for self-compassion. Those with greater resilience may be more able to apply self-kindness and common humanity aspects of self-compassion. Of note, the positive association was maintained



**Figure 2.** Standardized regression coefficients for the relationship between resilience (CDRS) and self-compassion (SCS) as mediated by emotion dysregulation (DERS).

Note. Standardized indirect effect in parentheses. *n* = 153 due to missing data. SCS = Self-Compassion Scale; DERS = Difficulties in Emotion Regulation Scale  
 \**p* < .05. \*\**p* < .01.

even after accounting for PTSD symptom severity, indicating that resilience and self-compassion are related regardless of PTSD symptoms.

Supporting our hypothesis, emotion dysregulation mediated the relationship between PTSD symptom severity and self-compassion. This suggests that PTSD symptom severity influences self-compassion through a pathway of emotion regulation, adding to a finding by Vettese and colleagues (2011) that self-compassion significantly mediated the relationship between history of childhood maltreatment and emotion regulation difficulties in a sample of substance-abusing young adults. Because self-compassion relies on components of emotion regulation (e.g., awareness of emotions), the influence of PTSD symptoms—especially avoidance—on self-compassion may be particularly linked to the impact of emotion dysregulation. It should be noted, however, that this cross-sectional data explore the explanation of variance for these relationships rather than implying causality.

Resilience had an indirect effect on self-compassion via its relationship with emotion dysregulation. This finding implies that emotion regulation may be a mechanism by which resilience is associated with greater levels of self-compassion.

## *Implications*

The findings highlight the importance of understanding self-compassion in terms of emotion regulation and resilience in traumatized women presenting with PTSD symptoms resulting from interpersonal violence. The relationship between PTSD symptom severity and self-compassion is likely complex, with emotion dysregulation serving as the link between the two. The findings also draw attention to the role of emotion regulation in self-compassion and resilience. Specifically, self-compassion and emotion regulation may be considered components of resilience, and paying therapeutic attention to these components may foster resilience. Future research should examine these variables longitudinally to analyze their temporal and causal relationships, particularly regarding attachment and other developmental disruptions from childhood interpersonal trauma.

## *Limitations*

This study was limited by a cross-sectional design and reliance on self-report paper and pencil measures to assess these complex phenomena (with the exception of PTSD symptoms, which were measured using an administered semistructured diagnostic interview). Furthermore, the mediation analyses of cross-sectional data are unlikely to reflect longitudinal mediation effects accurately (Cole & Maxwell, 2003), so we cannot conclude causal and temporal relationships. In addition, the clinical sample of treatment-seeking women with PTSD symptoms resulting from interpersonal violence may not be generalizable to other populations. Nevertheless, these findings represent a significant contribution to the current literature in this area and have important implications for understanding and potentially for treatment of individuals who have experienced interpersonal violence.

## **Acknowledgments**

The authors would like to acknowledge Marylene Cloitre and Michaela Mendelsohn for their guidance in this work. We would also like to acknowledge that this project was made possible by a much larger study headed by Marylene Cloitre and funded by the National Institute of Mental Health (NIMH).

## **Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.



## Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This project was supported by NIMH Grant R01MH086611 (PI: Marylene Cloitre).

## References

- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Anolli, L., & Pascucci, P. (2005). Guilt and guilt-proneness, shame and shame-proneness in Indian and Italian young adults. *Personality and Individual Differences*, *39*, 763-773. doi:10.1016/j.paid.2005.03.004
- Badour, C. L., & Feldner, M. T. (2013). Trauma-related reactivity and regulation of emotion: Associations with posttraumatic stress symptoms. *Journal of Behavior Therapy and Experimental Psychiatry*, *44*, 69-76. doi:10.1016/j.jbtep.2012.07.007
- Bardeen, J. R., Kumpula, M. J., & Orcutt, H. K. (2013). Emotion regulation difficulties as a prospective predictor of posttraumatic stress symptoms following a mass shooting. *Journal of Anxiety Disorders*, *27*, 188-196. doi:10.1016/j.janxdis.2013.01.003
- Barlow, D. H., Allen, L. B., & Choate, M. L. (2004). Toward a unified treatment for emotional disorders. *Behavior Therapy*, *35*, 205-230. doi:10.1016/S0005-7894(04)80036-4
- Blake, D. D., Weathers, F. W., Nagy, L. M., Kaloupek, D. G., Gusman, F. D., Charney, D. S., & Keane, T. M. (1995). The development of a Clinician-Administered PTSD Scale. *Journal of Traumatic Stress*, *8*, 75-90. doi:10.1002/jts.2490080106
- Bonanno, G. A. (2005). Resilience in the face of potential trauma. *Current Directions in Psychological Science*, *14*, 135-138. doi:10.1111/j.0963-7214.2005.00347.x
- Bonn-Miller, M. O., Vujanovic, A. A., Boden, M. T., & Gross, J. J. (2011). Posttraumatic stress, difficulties in emotion regulation, and coping-oriented marijuana use. *Cognitive Behaviour Therapy*, *40*, 34-44. doi:10.1080/16506073.2010.525253
- Briere, J. (2012). Working with trauma: Mindfulness and compassion. In C. K. Germer & R. D. Siegel (Eds.), *Wisdom and compassion in psychotherapy: Deepening mindfulness in clinical practice* (pp. 265-279). New York, NY: Guilford Press.
- Burns, E. E., Jackson, J. L., & Harding, H. G. (2010). Child maltreatment, emotion regulation, and posttraumatic stress: The impact of emotional abuse. *Journal of Aggression, Maltreatment & Trauma*, *19*, 801-819. doi:10.1080/10926771.2010.522947
- Cloitre, M., Henn-Haase, C., Herman, J. L., Jackson, C., Kaslow, N. J., Klein, C., . . . Petkova, E. (2014). A multi-site single-blind clinical study to compare the effects of STAIR narrative therapy to treatment as usual among women with PTSD in public sector mental health settings: Study protocol for a randomized controlled trial. *Trials*, *15*, 197. doi:10.1186/1745-6215-15-197

- Cole, D. A., & Maxwell, S. E. (2003). Testing mediational models with longitudinal data: Questions and tips in the use of structural equation modeling. *Journal of Abnormal Psychology, 112*, 558-577. doi:10.1037/0021-843X.112.4.558
- Connor, K. M., & Davidson, J. R. T. (2003). Development of a New Resilience Scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety, 18*, 76-82. doi:10.1002/da.10113
- Courtois, C. A. (2004). Complex trauma, complex reactions: Assessment and treatment. *Psychotherapy: Theory, Research, Practice, Training, 41*, 412-425. doi:10.1037/0033-3204.41.4.412
- Davidson, J. R., Payne, V. M., Connor, K. M., Foa, E. B., Rothbaum, B. O., Hertzberg, M. A., & Weisler, R. H. (2005). Trauma, resilience, and saliostasis: Effects of treatment in posttraumatic stress disorder. *International Clinical Psychopharmacology, 20*, 43-48. doi:10.1097/00004850-200501000-00009
- Dietrich, A. (2007). Childhood maltreatment and revictimization: The role of affect dysregulation, interpersonal relatedness difficulties and posttraumatic stress disorder. *Journal of Trauma & Dissociation, 8*, 25-51. doi:10.1300/J229v08n04\_03
- Putra, L., Callahan, K., Forman, E., Mendelsohn, M., & Herman, J. (2008). Core schemas and suicidality in a chronically traumatized population. *Journal of Nervous and Mental Disease, 196*, 71-74. doi:10.1097/NMD.0b013e31815fa4c1
- Ehring, T., & Quack, D. (2010). Emotion regulation difficulties in trauma survivors: The role of trauma type and PTSD symptom severity. *Behavior Therapy, 41*, 587-598. doi:10.1016/j.beth.2010.04.004
- Foa, E. B., Ehlers, A., Clark, D. M., Tolin, D. F., & Orsillo, S. M. M. (1999). The Posttraumatic Cognitions Inventory (PTCI): Development and validation. *Psychological Assessment, 11*, 303-314. doi:10.1037//1040-3590.11.3.303
- Goetz, J. L., Keltner, D., & Simon-Thomas, E. (2010). Compassion: An evolutionary analysis and empirical review. *Psychological Bulletin, 136*, 351-374. doi:10.1037/a0018807
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment, 26*, 41-54. doi:10.1023/B:JOBA.0000007455.08539.94
- Hall, J. M., Roman, M. W., Thomas, S. P., Travis, C. B., Powell, J., Tennison, C. R., . . . McArthur, P. M. (2009). Thriving as becoming resolute in narratives of women surviving childhood maltreatment. *American Journal of Orthopsychiatry, 79*, 375-386. doi:10.1037/a0016531
- Herman, J. L. (1992). *Trauma and recovery*. New York, NY: Basic Books.
- Herman, J. L. (2012). Shattered shame states and their repair. In J. Yellin & K. White (Eds.), *Shattered states: Disorganized attachment and its repair* (pp. 157-170). London, England: Karnac Books.
- Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry, 52*, 1048-1060. doi:10.1001/archpsyc.1995.03950240066012

- Kline, R. B. (2004). *Principles and practice of structural equation modeling* (2nd ed.). New York, NY: Guilford Press.
- Kulkarni, M., Pole, N., & Timko, C. (2013). Childhood victimization, negative mood regulation, and adult PTSD severity. *Psychological Trauma: Theory, Research, Practice, and Policy*, *5*, 359-365. doi:10.1037/a0027746
- Leskela, J., Dieperink, M., & Thuras, P. (2002). Shame and posttraumatic stress disorder. *Journal of Traumatic Stress*, *15*, 223-226. doi:10.1023/A:1015255311837
- Lilly, M. M., & Lim, B. H. (2013). Shared pathogenesis of posttrauma pathologies: Attachment, emotion regulation, and cognitions. *Journal of Clinical Psychology*, *69*, 737-748. doi:10.1002/jclp.21934
- Lyons-Ruth, K., Bureau, J. F., Holmes, B., Easterbrooks, A., & Brooks, N. H. (2013). Borderline symptoms and suicidality/self-injury in late adolescence: Prospectively observed relationship correlates in infancy and childhood. *Psychiatry Research*, *206*, 273-281. doi:10.1016/j.psychres.2012.09.030
- Marx, B. P., & Sloan, D. M. (2005). Peritraumatic dissociation and experiential avoidance as predictors of posttraumatic stress symptomatology. *Behavior Research and Therapy*, *43*, 569-583. doi:10.1016/j.brat.2004.04.004
- McCauley, J., Kern, D. E., Kolodner, K., Dill, L., Schroeder, A. F., DeChant, H. K., . . . Bass, E. B. (1997). Clinical characteristics of women with a history of childhood abuse: Unhealed wounds. *Journal of the American Medical Association*, *277*, 1362-1368. doi:10.1001/jama.1997.03540410040028
- Meredith, T., & Mark, L. (2011). Self-compassion, self-regulation, and health. *Self and Identity*, *10*, 352-362. doi:10.1080/15298868.2011.558404
- Neff, K. D. (2003a). Development and validation of a scale to measure self-compassion. *Self and Identity*, *2*, 223-250. doi:10.1080/15298860309027
- Neff, K. D. (2003b). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity*, *2*, 85-102. doi:10.1080/15298860309032
- Neff, K. D., Hsieh, Y., & DeJitterat, K. (2005). Self-compassion, achievement goals, and coping with academic failure. *Self and Identity*, *2*, 263-287. doi:10.1080/13576500444000317
- Neff, K. D., Kirkpatrick, K. L., & Rude, S. S. (2007). Self-compassion and adaptive psychological functioning. *Journal of Research in Personality*, *41*, 139-154. doi:10.1016/j.jrp.2006.03.004
- Nemeroff, C. B., Bremner, J. D., Foa, E. B., Mayberg, H. S., North, C. S., & Stein, M. B. (2006). Posttraumatic stress disorder: A state-of-the-science review. *Journal of Psychiatric Research*, *40*, 1-21. doi:10.1016/j.jpsychires.2005.07.005
- Ogden, P., Minton, K., & Pain, C. (2006). *Trauma and the body: A sensorimotor approach to psychotherapy*. New York, NY: W.W. Norton.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, *36*, 717-731. doi:10.3758/BF03206553
- Raes, F., Pommier, E., Neff, K. D., & Van Gucht, D. (2011). Construction and factorial validation of a short form of the Self-Compassion Scale. *Clinical Psychology & Psychotherapy*, *18*, 250-255. doi:10.1002/cpp.702

- Shipherd, J. C., & Beck, J. G. (2005). The role of thought suppression in posttraumatic stress disorder. *Behavior Therapy, 36*, 277-287. doi:10.1016/S0005-7894(05)80076-0
- Thompson, B. L., & Waltz, J. (2008). Self-compassion and PTSD symptom severity. *Journal of Traumatic Stress, 21*, 556-558. doi:10.1002/jts.20374
- Tjaden, P., & Thoennes, N. (2000). Prevalence and consequences of male-to-female and female-to-male intimate partner violence as measured by the National Violence Against Women Survey. *Violence Against Women, 6*, 142-161. doi:10.1177/10778010022181769
- Trickett, P. K., Noll, J. G., & Putnam, F. W. (2011). The impact of sexual abuse on female development: Lessons from a multigenerational, longitudinal research study. *Development and Psychopathology, 23*, 453-476. doi:10.1017/S0954579411000174
- Tull, M. T., Barrett, H. M., McMillan, E. S., & Roemer, L. (2007). A preliminary investigation of the relationship between emotion regulation difficulties and posttraumatic stress symptoms. *Behavior Therapy, 38*, 303-313. doi:10.1016/j.beth.2006.10.001
- Tull, M. T., Jakupcak, M., Paulson, A., & Gratz, K. L. (2007). The role of emotional inexpressivity and experiential avoidance in the relationship between posttraumatic stress disorder symptom severity and aggressive behavior among men exposed to interpersonal violence. *Anxiety, Stress, & Coping, 20*, 337-351. doi:10.1080/10615800701379249
- Tummala-Narra, P., Kallivayalil, D., Singer, R., & Andreini, R. (2012). Relational experiences of complex trauma survivors in treatment: Preliminary findings from a naturalistic study. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*, 640-648. doi:10.1037/a0024929
- van der Kolk, B. A., Roth, S., Pelcovitz, D., Sunday, S., & Spinazzola, J. (2005). Disorders of extreme stress: The empirical foundation to a complex adaptation of trauma. *Journal of Traumatic Stress, 18*, 389-399. doi:10.1002/jts.20047
- Vetters, L. C., Dyer, C. E., Li, W. L., & Wekerle, C. (2011). Does self-compassion mitigate the association between childhood maltreatment and later emotion regulation difficulties? A preliminary investigation. *International Journal of Mental Health and Addiction, 9*, 480-491. doi:10.1007/s11469-011-9340-7
- Weathers, F. W., Keane, T. M., & Davidson, J. R. T. (2001). Clinician-administered PTSD Scale: A review of the first ten years of research. *Depression and Anxiety, 13*, 132-156. doi:10.1002/da.1029
- World Health Organization. (2013). *Global and regional estimates of violence against women: Prevalence and health effects of intimate partner violence and non-partner sexual violence*. Geneva, Switzerland: Author.
- Yehuda, R., Flory, J. D., Southwick, S., & Charney, D. S. (2006). Developing an agenda for translational studies of resilience and vulnerability following trauma exposure. *Annals of the New York Academy of Sciences, 1071*, 379-396. doi:10.1196/annals.1364.028

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