

Exploring the mediating role of self-blame and coping in the relationships between self-compassion and distress in females following the sexual assault

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Abstract

Objective: The present study investigated the associations between self-compassion, self-blame, disengagement coping, and posttraumatic stress disorder (PTSD) and depression symptom severity among females who had experienced sexual assault. We also examined whether the relationships between self-compassion and both PTSD and depression severity were mediated by self-blame and coping.

Method: A volunteer sample of female adults ($N = 207$) completed surveys online or on paper.

Results: Mediation analyses showed that higher self-compassion was associated with lower behavioral self-blame, characterological self-blame (CSB), and disengagement coping which, in turn, were associated with less PTSD. Higher self-compassion was associated with less depression severity directly and indirectly via CSB.

Conclusions: These findings suggest that self-compassion may be relevant for understanding postassault mental health, partially through its associations with self-blame and coping. Clinicians working with sexual assault survivors may choose to augment treatment-as-usual with interventions designed to increase self-compassion.

KEYWORDS

disengagement coping, PTSD, self-blame, self-compassion, sexual assault

1 | INTRODUCTION

The experience of sexual assault is alarmingly common for women. The most recent National Intimate Partner and Sexual Violence Survey (NISVS; Smith et al., 2017) estimated the lifetime prevalence of sexual violence involving contact (i.e., a composite of experiences including rape, being forced to penetrate someone else, sexual coercion, or unwanted sexual contact) at 36.3% among US women. Survivors of adult sexual assault may experience distress for many years afterward (Elliott, Mok, & Briere, 2004) and research (e.g., Kessler et al., 2014; Moor & Farchi, 2011) has consistently demonstrated that sexual assault puts women at risk of developing posttraumatic stress disorder (PTSD). In addition to PTSD, survivors may develop comorbid mental health disorders, such as anxiety, mood, and substance use disorders (Iverson et al., 2013). Comorbidity rates of PTSD and depression are particularly noteworthy, with rates between 13% and 28% for a national sample of female rape survivors (Zinzow et al., 2012).

Given sexual assault survivors' increased risk of experiencing symptoms of PTSD and depression, identifying factors that may contribute to or protect against both mental health concerns is crucial for better understanding postassault outcomes and recovery. Previous research (e.g., Breitenbecher, 2006; P. A. Frazier, Mortensen, & Steward, 2005) has investigated the potentially negative effects of self-blame and disengagement coping in the context of sexual assault. However, to the authors' knowledge, the potential protective factor of self-compassion has yet to be quantitatively examined in a sample comprised solely of sexual assault survivors. Thus, the purpose of the present study was to explore the relationships between self-compassion, self-blame, disengagement coping, PTSD, and depression for females who have experienced sexual assault in adulthood.

1.1 | Self-Compassion

Self-compassion, a caring and compassionate internal stance one takes toward the self during tough times (K. D. Neff, 2009), may constitute an adaptive response to stressors, including traumatic ones. As conceptualized in the psychological literature, self-compassion entails three basic components: (a) treating oneself kindly rather than self-criticizing, (b) recognizing one's experiences as part of being human rather than feeling isolated, and (c) being aware of one's negative thoughts and emotions without becoming consumed by them (K. Neff, 2003a). Self-compassion has become an important construct for understanding psychological health as it is negatively associated with various forms of psychopathology, particularly depression and anxiety (MacBeth & Gumley, 2012; see K. D. Neff, 2009 for review).

While the link between self-compassion and depression is well supported in the literature, it is yet unclear to what extent a self-compassionate mindset protects individuals against the negative psychological sequelae of trauma. Longitudinal research with youth exposed to a potentially traumatic forest fire has found that higher self-compassion at 1-month postexposure predicted fewer depressive and posttraumatic stress symptoms at 3- and 6-months postexposure, providing potential evidence for self-compassion as a protective factor (Zeller, Yuval, Nitzan-Assayag, & Bernstein, 2015). Cross-sectional research, however, has not consistently found a link between self-compassion and PTSD. Among college student samples, findings suggest that self-compassion is not associated with PTSD beyond the bivariate level (Seligowski, Miron, & Orcutt, 2015) or only associated with the avoidance symptom cluster of PTSD (Thompson & Waltz, 2008). Among nonstudent samples, in contrast, research has supported an inverse association between self-compassion and all symptom clusters of PTSD (Maheux & Price, 2015).

Intervention research with veterans also has produced inconsistent findings regarding the relationship between self-compassion and PTSD. Kearney et al. (2013) found that increases in self-compassion during a 12-week Loving Kindness Meditation program mediated decreases in participants' PTSD and depression symptom severity from baseline to posttreatment. Held and Owens (2015), however, found that a 4-week self-compassion training program with homeless veterans increased self-compassion but did not result in concomitant decreases in PTSD symptom severity. These mixed results suggest that there may be additional factors to consider in the relationship

between self-compassion and PTSD. Specifically, in the present study, we explore whether the relationship between self-compassion and PTSD is potentially carried by other internal postassault processes. Additionally, while sexual assault survivors have been included in mixed-trauma cross-sectional studies of self-compassion, we believe it is important to focus our research specifically on this population given the higher conditional risk of PTSD following the sexual assault (Kessler et al., 2014).

1.2 | Self-Blame attributions

In contrast to practicing self-kindness following an assault, survivors may self-criticize or blame themselves for the assault in an attempt to understand why it occurred (Janoff-Bulman, 1979). Self-blame among sexual assault survivors is influenced by a variety of external factors, including the larger sociocultural context in which stereotypes and false beliefs about rape influence the survivor's reactions to an assault and the reactions she may receive from others (Campbell, Dworkin, & Cabral, 2009; Suarez & Gadalla, 2010). Those who do engage in self-blame tend to experience higher levels of PTSD and depression (see Campbell et al., 2009 for review). Self-blame is a particularly important concept for understanding outcomes among women exposed to sexual assault, as self-blaming attributions among rape survivors explain significantly more variance in PTSD than this same attributional style does for individuals exposed to other traumatic events (Moor & Farchi, 2011).

Self-blame attributions can be differentiated into behavioral self-blame (BSB) when an individual attributes the assault to her specific actions, and characterological self-blame (CSB), when an individual assigns the blame to her own character or traits (Janoff-Bulman, 1979). While CSB may be more strongly associated with PTSD symptom severity than BSB when investigated together (Ullman, Filipas, Townsend, & Starzynski, 2007), evidence suggests that both BSB and CSB are positively associated with distress (Breitenbecher, 2006; P. A. Frazier et al., 2005) and thus harmful to survivors.

Theoretically, each component of self-compassion (i.e., treating oneself kindly, maintaining emotional distance and perspective about events, and realizing one's faults and mistakes are part of being human) should decrease the amount of self-blame one engages in (K. Neff, 2003a). In empirical investigations, evidence suggests that adopting a self-compassionate mindset when recalling negative, self-relevant events may reduce in-the-moment negative affect and moderate the impact of characterological self-blaming attributions on negative affect (Leary, Tate, Adams, Allen, & Hancock, 2007). Self-compassion and self-blame are also inversely correlated among individuals with chronic illness (Sirois, Molnar, & Hirsch, 2015), though self-blame here was conceptualized as a form of coping rather than as an attributional process. The most compelling evidence that self-compassion may buffer against self-blame comes from research using a small sample of trauma survivors and multiple-baseline design (Au et al., 2017). Greater reductions in self-blame were associated with greater pre and post treatment increases in self-compassion. This study is notable given that many participants' identified trauma was a sexual assault; however, these eight participants constitute only a small sample of assault survivors and were relatively homogenous in terms of age and timing of their assault. How self-compassion and self-blame relate among a larger sample of adult sexual assault survivors remains to be investigated.

1.3 | Coping

When people experience events that they perceive as stressful, they engage in cognitive and behavioral attempts or coping, to manage this stress (Lazarus & Folkman, 1984; Snyder & Pulvers, 2001). Approach or engagement coping involves the use of strategies to actively handle a stressor and associated emotions, while avoidance or disengagement coping involves the use of strategies that deny or distract from the problem and the emotions it provokes (Snyder & Pulvers, 2001; Tobin, Holroyd, Reynolds, & Wigal, 1989). Disengagement coping is generally maladaptive when used long-term, as it does not alleviate the root of the stress (Carver & Connor-Smith, 2010). The extent to which disengagement coping is harmful to mental health may be moderated by race. For example,

research suggests that among Asian Americans the link between disengagement coping and distress may not be as strong as it is for White Americans (Chang, 2001). Other research has shown that the positive association between avoidance coping and PTSD is particularly strong for African American women, as compared with White and Latina women (Weiss et al., 2017).

For sexual assault survivors, specifically, greater reliance on disengagement coping has been associated with higher levels of distress (P. A. Frazier et al., 2005; H. Littleton, 2007). Similarly, reduced use of avoidant coping over the course of treatment for rape-related PTSD is associated with decreased symptom severity (Leiner, Kearns, Jackson, Astin, & Rothbaum, 2012). As self-compassion involves acknowledging and accepting experiences rather than avoiding them (K. Neff, 2003a), self-compassion may be associated with lower levels of disengagement coping for sexual assault survivors.

In nontrauma samples, research has found that self-compassion is negatively related to avoidance strategies like thought suppression (K. D. Neff, 2003b) and denial and mental disengagement (K. D. Neff, Hsieh, & DeJitterat, 2005). Evidence also suggests that self-compassion may be related to coping with chronic illness, with self-compassion predicting less reliance on disengagement strategies as well as lower levels of perceived stress (Sirois et al., 2015). To the authors' knowledge, the relationship between disengagement coping and self-compassion has yet to be studied in a trauma-exposed sample.

1.4 | The present study

The purpose of the present study was to explore the potential importance of self-compassion for understanding postassault self-blame attributions, disengagement coping, and distress among a sample of female survivors of adult sexual assault. We hypothesized that self-compassion would be significantly negatively associated with BSB, CSB, disengagement coping, PTSD, and depression. We also hypothesized that BSB, CSB, disengagement coping, PTSD, and depression would each be positively correlated with one another. Based on limited research in nontrauma samples (e.g., Sirois et al., 2015), we hypothesized that BSB, CSB, and disengagement coping would mediate the relationships between self-compassion and both PTSD and depression. Specifically, higher levels of self-compassion would be associated with lower levels of BSB, CSB, and disengagement coping which, in turn, would be associated with lower PTSD and depression symptom severity.

2 | METHODS

2.1 | Participants

Participants were 207 females who reported one or more incidents of sexual assault in adulthood. To achieve statistical power for mediation analyses using bias-corrected resampling, a sample size of at least 148 was needed to detect a small-to-medium effect (Fritz & MacKinnon, 2007). A total of 296 individuals consented to the survey; 4 did not provide any information other than consent, 67 were not eligible for the study based on sex (i.e., male) or trauma history (i.e., no experiences of adult sexual assault). These individuals did not complete any study measures beyond the demographic and trauma history information. Of the 225 eligible participants, individuals who failed to complete one or more entire measures ($n = 15$) and those missing two or more items on a single measure ($n = 3$) were removed from all analyses, leading to a final sample size of 207.

The mean age of the sample was 27.07 years ($SD = 9.62$, range = 18–66 years). The majority of participants identified as White (85.5%), followed by Hispanic-American/Latino (4.8%), Multiracial or "Other" (4.8%), Asian American or Pacific Islander (2.4%), African American (1.9%), and Native American, First Nations, or Native Alaskan (0.5%). Regarding the highest level of education, most participants either attended some college (45.9%) or earned a college degree (32.4%).

Participants reported the number of incidents of sexual assault in adulthood as ranging from 1 to 150. Less than half reported only one incident, 23.7% reported two incidents, 23.2% reported three to nine, 5.7% reported 10–12, and 4% reported more 12. On average, participants reported 6.02 years since their most recent assault ($SD = 7.58$). For participants with more than one experience of sexual assault in adulthood ($n = 117$), the average time since the most traumatic assault was 7.38 years ($SD = 8.51$). The majority of participants (82.6%) knew the assailant of the most traumatic (or only) assault, while a minority (17.4%) did not. Over half of the sample (56.6%) was at or above the cut-off of 33, recommended for probable PTSD (Weathers et al., 2013). Based on previous research (Steenkamp, Dickstein, Salters-Pedneault, Hofman, & Litz, 2012), the sample had low-to-moderate depression, on average ($M = 15.92$, $SD = 11.20$).

2.2 | Measures

2.2.1 | Demographic items

The demographic portion of the survey consisted of questions about participants' age, sex, race, education history, relationship status, employment status, and income.

2.2.2 | Trauma history

The Trauma History Screen (THS; Carlson et al., 2011) is a 14-item self-report measure that assesses participants' exposure to 12 possible traumatic events. Each item asks respondents to indicate whether they have experienced the event (*yes* or *no*) and if so, the number of times. We omitted four items (work accident, a sudden move, abandonment, or an unidentified event that caused fear or helplessness) that did not clearly align with Criterion A of PTSD as defined in the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5; American Psychiatric Association, 2013). Sexual assault in adulthood was determined by one question, which asked if participants had one or more "experience of forced sexual contact in adulthood (i.e., ages 16 and older)." It was left to participants to interpret whether their experience was considered "forced sexual contact." We added questions to gather more specific information about participants' experiences of sexual assault in adulthood. Added items assessed time since the most recent assault, time since the most traumatic assault, and whether or not the perpetrator of the most traumatic assault was known to the participant.

2.2.3 | PTSD severity

The PTSD checklist for DSM-5 (PCL-5; Weathers et al., 2013) is a 20-item self-report measure used to assess PTSD symptoms over the past month using a 5-point Likert-type scale ranging from 0 (*not at all*) to 4 (*extremely*). The PCL is based on symptoms of PTSD consistent with DSM-5 (American Psychiatric Association, 2013) criteria. In the present study, participants were instructed to reflect on their sexual assault experience when making their ratings. Previous research has reported the PCL-5 to have high internal consistency, $\alpha = 0.95$ (Maheux & Price, 2015). Internal consistency reliability in the present study was $\alpha = 0.95$.

2.2.4 | Depression

The 7-item depression subscale from the Depression Anxiety Stress Scales-21 (DASS21; Lovibond & Lovibond, 1995) was used to measure depressive symptomology over the past week. Each item is rated using a 4-point Likert-type scale ranging from 0 (*did not apply to me at all*) to 3 (*applied to me very much, or most of the time*). Total scores are doubled to get a final score out of 42, with higher scores representing greater severity of symptoms (Lovibond & Lovibond, 1995). The DASS-21 depression subscale has good internal consistency ($\alpha = 0.91$; Lovibond & Lovibond, 1995). Internal consistency reliability in the present study was $\alpha = 0.91$.

2.2.5 | Disengagement coping

Disengagement coping was measured using a 16-item scale from the Coping Strategies Inventory-Short Form (CSI-S; Tobin, 2000). The scale is a composite of items from four primary subscales: problem avoidance, wishful thinking, social-withdrawal, and self-criticism. Respondents endorsed how much they relied on the various coping skills in response to their most traumatic assault using a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*very much*). The disengagement subscale has good internal consistency ($\alpha = 0.90$; Tobin, Holroyd, & Reynolds, 1984) and performed as expected in the present study ($\alpha = 0.87$).

2.2.6 | Self-blame attributions

Two 5-item subscales from the Rape Attribution Questionnaire (RAQ; P. Frazier, 2002) were used to measure behavioral and CSB over the past month using a 5-point Likert-type scale (1 = *never* to 5 = *very often*). The BSB and CSB scales both demonstrate adequate internal consistency ($\alpha = 0.87$ and 0.78 , respectively; P. Frazier, 2002). Internal consistency in the present study was $\alpha = 0.89$ for BSB and $\alpha = 0.77$ for CSB.

2.2.7 | Self-compassion

The Self-Compassion Scale-Short Form (SCS-SF; Raes, Pommier, Neff, & Van Gucht, 2011) is a 12-item self-report used to measure self-compassion and is a shortened version of the Self-Compassion Scale (SCS; K. D. Neff, 2003b). All items are prefaced with the phrase "how I typically act towards myself in difficult times," and respondents rate each item on a 5-point scale from 1 (*almost never*) to 5 (*almost always*). The SCS-SF has demonstrated adequate internal consistency ($\alpha = 0.86$) and correlates highly with the original SCS ($r \geq 0.97$; Raes et al., 2011). Internal consistency reliability in the present study was $\alpha = 0.84$.

2.3 | Procedure

Participants were recruited through the use of research announcements that requested the participation of females who had experienced unwanted sexual contact in adulthood (i.e., ages 16 or older). Announcements were posted online through various sexual assault crisis or advocacy organization social media pages and listservs and on the psychology research pool of a southeastern university. The psychology research pool provided a small proportion ($n = 46$) of completed surveys. Physical flyers also were posted at a sexual assault crisis agency and at a community college counseling office. Paper-and-pencil surveys were available at one crisis organization. Of the 207 participants in the final sample, 204 completed the survey online and three completed paper-and-pencil survey. All participation was voluntary and consisted of the completion of a confidential online or pencil-and-paper survey. Consent was given by all participants, either by signing a consent form (for pencil-and-paper surveys) or indicating consent using a checkbox (for online surveys).

The survey order was set, beginning with demographic items and followed by the THS, PCL-5, RAQ, CSI-S, SCS-SF, and DASS-21. As an incentive to participate, students recruited via the research pool were able to earn 0.5 hr research credit for their psychology courses. Individuals recruited via research announcements were given the opportunity to enter a drawing for one of ten \$20 online gift cards to a national retail store. All procedures were approved by the local university Institutional Review Board and a community agency Institutional Review Board.

2.4 | Data analysis

Data analysis was conducted using SPSS software (version 23.0) (IBM Corporation, Armonk, NY). As the amount of item-level missing data in the final sample was small (0.1%), the mean substitution was performed to impute missing

data. Guidelines suggest that when less than 5% of data are missing, most methods for handling missing data will perform adequately (Tabachnick & Fidell, 2007). Means, standard deviations (SD), ranges, and internal consistency reliability estimates were calculated for all continuous variables. Skewness, kurtosis, and multicollinearity of independent variables were in acceptable ranges. Because research (see Campbell et al., 2009 for review) identified child sexual abuse (CSA) history and multiple victimizations as predictive of increased rates of PTSD and depression, preliminary analysis compared means on PTSD and depression across participants with and without a history of CSA and across participants with one versus multiple assaults in adulthood.

Correlational analysis was used to examine the relationships between all study variables. To test our proposed mediational hypotheses, Hayes' (2012) PROCESS macro for SPSS was used to conduct multiple mediation analysis using 10,000 bootstrapping resamples to generate 95% bias-corrected confidence intervals (CI) for the indirect effect. Mediation is considered significant if the CI does not include zero (Preacher & Hayes, 2008; Shrout & Bolger, 2002).

3 | RESULTS

In preliminary data analysis, a series of independent *t* tests were conducted to compare means for study variables across two comparison groups. Participants with a history of CSA (coded as 1) were compared with those without a CSA history (coded as 0). Participants with a history of CSA comprised 27.5% of the sample ($n = 57$). *T*-test results showed no significant differences in levels of self-compassion, BSB, CSB, or disengagement coping. On the outcome variables of PTSD, $t(205) = 2.35$; $p = 0.020$, and depression, $t(205) = 2.23$; $p = 0.027$, significant differences were found between the two groups, with participants who endorsed a history of CSA more likely to report greater severity of both PTSD and depressive symptoms. For the second set of comparisons, we followed the method used by Ullman and Brecklin (2003) and coded adult sexual assault as either a single experience (coded as 0) or multiple incidents (coded as 1) and used a series of *t* tests to compare the group means on all study variables. No significant differences were found between groups, so a number of assaults in adulthood was not included as a control variable in remaining analyses.

Ranges, means, SD, and bivariate correlations between independent and dependent variables are presented in Table 1. As hypothesized, self-compassion was significantly negatively correlated with BSB, CSB, disengagement coping, PTSD, and depression (all $p < 0.001$). In addition, significant positive correlations were found between BSB, CSB, disengagement coping, PTSD, and depression (all $p < 0.001$).

For our mediational analyses, history of CSA was entered as a covariate, self-compassion as the predictor, and BSB, CSB, and disengagement coping as mediators in both models. In our mediation model predicting PTSD (see Figure 1) self-compassion did not have a significant direct effect on PTSD, but the indirect effects of self-compassion on PTSD through BSB (mean indirect effect [unstandardized] = -0.152 , standard error [SE] = 0.077 , 95% CI [-0.323 , -0.021], $\beta = -0.065$), CSB (mean indirect effect [unstandardized] = -0.359 , SE = 0.091 , 95% CI

TABLE 1 Range, means, SD, and correlations among variables ($N = 207$)

Measures	Range	Mean	SD	1	2	3	4	5
PTSD	0–80	37.03	18.77	–	–	–	–	–
Depression	0–42	15.91	11.20	0.615*	–	–	–	–
Self-compassion	13–60	29.88	7.97	–0.312*	–0.385*	–	–	–
Behavioral self-blame	5–25	15.31	5.51	0.539*	0.331*	–0.364*	–	–
Characterological self-blame	5–25	12.17	4.55	0.588*	0.498*	–0.411*	0.702*	–
Coping	17–78	55.07	12.26	0.477*	0.294*	–0.451*	0.450*	0.380*

Note. PTSD: posttraumatic stress disorder; SD: standard deviation.

* $p < .001$.

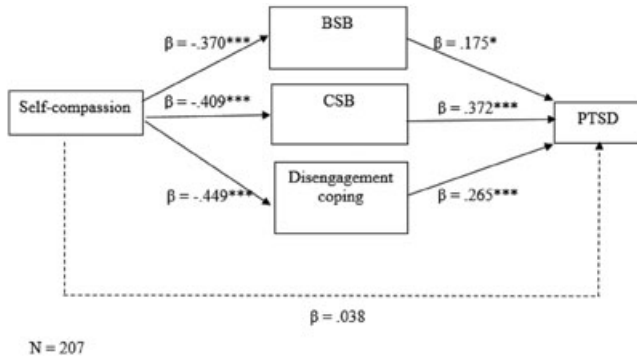


FIGURE 1 Mediation of the effect of self-compassion on PTSD through BSB, CSB, and disengagement coping (* $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$). BSB: behavioral self-blame; CSB: characterological self-blame; PTSD: posttraumatic stress disorder

[-0.565, -0.204], $\beta = -0.152$), and disengagement coping (mean indirect effect [unstandardized] = -0.280, $SE = 0.081$, 95% CI [-0.467, -0.143], $\beta = -0.119$), were significant. Results supported our hypothesis, showing an indirect effect of self-compassion on PTSD through self-blame and disengagement coping that suggests mediation. Specifically, those higher in self-compassion reported less self-blame and disengagement coping, which in turn predicted lower PTSD severity.

In our mediation model predicting depression (Figure 2), self-compassion had a significant direct effect on depression ([unstandardized] = -0.267, $SE = 0.097$, 95% CI [-0.458, -0.075], $\beta = -0.190$) and a significant indirect effect via CSB (mean indirect effect [unstandardized] = -0.254, $SE = 0.061$, 95% CI [-0.386, -0.148], $\beta = -0.181$). No other indirect effects were significant. These results provided partial support for our hypothesis. Higher self-compassion was associated with lower depression severity directly and indirectly through its association with less CSB, which in turn predicted decreased depression severity.

4 | DISCUSSION

The present study examined the relationships between self-compassion, self-blame attributions, disengagement coping, PTSD, and depression among females who have experienced sexual assault in adulthood. At the bivariate

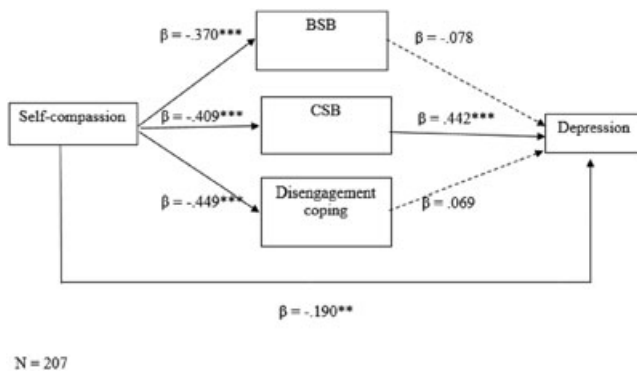


FIGURE 2 Mediation of the effect of self-compassion on depression through BSB, CSB, and disengagement coping (* $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$). BSB: behavioral self-blame; CSB: characterological self-blame

level, self-compassion was negatively correlated with BSB, CSB, disengagement coping, PTSD, and depression. Results of our mediational analysis for PTSD indicated that self-compassion and PTSD were indirectly rather than directly related via both types of self-blame attributions and disengagement coping. In our mediation model for depression, the direct relationship between self-compassion and depression remained significant and the only indirect effect was via CSB. Our findings add to the literature regarding the relationship between self-compassion and posttraumatic responses.

In correlational analyses, our hypotheses regarding the relationships between the study variables were supported. Self-compassion was negatively correlated with BSB, CSB, disengagement coping, PTSD, and depression, and all of these variables were positively correlated with one another. Our results extend findings from previous research using a mixed-trauma sample (Maheux & Price, 2016) regarding the inverse association between self-compassion and both PTSD and depression to a sample specifically comprised of females exposed to sexual assault in adulthood. Similarly, whereas the inverse relationship between self-compassion and disengagement coping has been found in a sample of people with chronic illness (Sirois et al., 2015), the present study extends these findings to a trauma-exposed sample. Consistent with theoretical conceptualizations of self-compassion, our results provide empirical evidence for an inverse relationship between self-compassion and self-blame using a valid and reliable measure of postassault attributions.

Our mediational hypothesis for PTSD was supported, with significant indirect effects of self-compassion on PTSD through BSB, CSB, and disengagement coping. In other words, individuals who had higher levels of self-compassion tended to blame their own character and behavior less for the trauma and engage in less disengagement coping, which in turn were each associated with lower PTSD severity. This finding adds to previous research by suggesting multiple pathways via which self-compassion might relate to PTSD. Our results also may help explain the mixed findings in previous research (e.g., Maheux & Price, 2015; Seligowski et al., 2015) about the relationship between self-compassion and PTSD severity in that the relationship may not be direct, but rather carried by other internal reactions to trauma.

Our mediational hypothesis for depression was only partially supported. Overall, higher self-compassion was associated with fewer depressive symptoms directly, and with reduced CSB attributions, which in turn was also associated with lower depression severity. These findings suggest that survivors who have higher levels of self-compassion are less likely to blame their character for the trauma, and both higher levels of self-compassion and lower characterological blame are relevant to their lower levels of depression severity. To the authors' knowledge, the finding that CSB mediates the relationship between self-compassion and depression is unique to this study. Contrary to our hypothesis, neither BSB nor disengagement coping was significant mediators of the relationship between self-compassion and depression. While we had proposed similar mediation models for both PTSD and depression, the finding that internal processes are not equally associated with each is consistent with the fact that while PTSD and depression have some overlap in symptomology, the two are unique diagnoses.

One hallmark symptom presentation of depression is a negative view of the self (Young, Rygh, Weinberger, & Beck, 2014), so the association between characterological but not BSB and depression in the final model seems consistent with this characteristic. While disengagement coping has been associated with self-compassion in nontrauma samples (e.g., K. D. Neff et al., 2005) and with depression in trauma-exposed individuals (Choi et al., 2015), there was no significant relationship between coping and depression in the present study beyond the bivariate level and thus no mediation. In other words, coping was not a mechanism by which self-compassion influenced depression severity when considered with other mediators.

4.1 | Limitations

The present findings should be considered in light of several limitations of the study. First, the current study used a cross-sectional, correlational design. Without longitudinal or experimental research the directionality of our proposed mediation model cannot be confirmed nor can causal conclusions be drawn. The proposed mediation

models are suggestive of how different internal processes relate to postassault depression and PTSD. However, the current data does not allow for conclusions to be drawn regarding the order in which internal processes influence outcomes. Second, participants in the study were volunteers who chose to respond to a recruitment request for females who have experienced sexual assault in adulthood. Research shows that some people who experience nonconsensual sexual encounters do not label their experience as “rape” or “sexual assault” (H. L. Littleton, Rhatigan, & Axsom, 2007). It is likely we missed these individuals. As a self-selected volunteer sample, it is also possible that people who chose to participate differed systematically from those who did not in terms of current symptomology or interest in mental health. Some researchers (e.g., Freyd, 2012) have also suggested that individuals who volunteer to participate in research related to trauma may differ from those who do not in their willingness to acknowledge stigmatized experiences, which can limit the generalizability of findings. Third, because the study was mainly distributed online in partnership with rape crisis agencies, our results may not be generalizable to females without access to the internet or who are not connected to service providers as they were unlikely to have the opportunity to participate. Additionally, while an attempt was made to recruit a diverse sample by partnering with crisis agencies across the United States to post the research announcement in hopes of capturing the participation of a wide variety of participants, the final sample lacked diversity in terms of race and education. This likely limits the generalizability of the findings to diverse groups. Research shows that rates of exposure to sexual assault vary by racial identity (Smith et al., 2017). Whereas review of the literature suggests that there are many similarities in the mental health effects of sexual assault across demographic categories of race and education (Campbell et al., 2009), women of color experience victimization within unique cultural contexts (Bryant-Davis, Chung, Tillman, & Belcourt, 2009) and their experiences were not well-represented in our data. Fourth, we did not ask questions that allowed us to differentiate experiences of rape from other forms of sexual assault. It is possible that the variables under investigation function differently for rape survivors than survivors of other forms of sexual violence.

4.2 | Clinical implications

In spite of these limitations, our results have implications for providers working with sexual assault survivors who fit within the study demographics (i.e., White and well-educated). Self-compassion was associated with PTSD via its relationships with self-blame and disengagement coping, meaning treatment focused on increasing self-compassion may be an appropriate adjunct to treatment-as-usual for sexual assault survivors. Emerging research suggests that brief self-compassion intervention designed to teach trauma survivors to engage in compassionate responses to their PTSD symptoms is associated with decreases in PTSD and self-blame (Au et al., 2017), which is consistent with our proposed mediational model. This study (Au et al., 2017) is currently limited by the small number of participants ($n = 10$) and multiple-baseline design. Whereas it is possible that greater PTSD symptom severity increases self-blaming attributions and reliance on disengagement coping, longitudinal research suggests that decreases in BSB, in particular, predict decreased distress over time (Frazier, 2003; Koss & Figueredo, 2004). Decreases in disengagement coping are also thought to precede reductions in PTSD severity (Leiner et al., 2012). Given the relationships between self-compassion and self-blame in the present study, in concert with emerging intervention findings (Au et al., 2017), our results affirm that brief self-compassion intervention may be useful for survivors of adult sexual assault.

For sexual assault survivors with prominent depressive symptoms, it is likely that interventions designed to increase self-compassion would also provide symptom relief. In the present study, higher self-compassion was associated with lower depression severity directly and through its association with lower CSB but not through BSB or disengagement coping. Because self-compassion and CSB are both related to how one treats and acts toward the overall self in the present, our results suggest that for females with higher depression severity a present-focused approach to treatment might be advised. Overall, our results suggest that self-compassion may be a useful tool for survivors experiencing both PTSD and depression. For clinicians who take a strengths-based approach,

self-compassion interventions may be useful to help build survivors' ability to treat themselves compassionately while also focusing on reducing more negative patterns of thought and behavior.

4.3 | Future directions

Future research should investigate self-compassion among survivors of sexual assault with a more representative sample. Whether the findings of the present study will replicate among a more diverse sample, particularly in terms of race and education, remains to be determined. Research into the potentially protective nature of self-compassion must include racially diverse females, as sexual assault impacts females across racial and educational groups (Bryant-Davis et al., 2009; Campbell et al., 2009; Smith et al., 2017). Longitudinal research is needed to determine whether or not our proposed mediational models are consistent with changes in self-compassion, self-blame, disengagement coping, and outcomes over time. In other words, future research is needed to determine if increases in self-compassion precede decreases in self-blame and disengagement coping and whether it is these changes that mediate reductions in PTSD and depression over time.

Investigators may also choose to gather additional information about female's experiences of sexual assault to determine if the mediational relationships found in the present study vary based on the type of sexual assault (rape or otherwise) or other assault-related factors. Finally, CSB was the only mediator that significantly carried the relationship between self-compassion and both types of distress in the present study. In contrast, previous research (Ullman, Peter-Hagene, & Relyea, 2014) that investigated CSB as a mediator between trauma history and PTSD and found it was not significant in the presence of multiple mediators, including avoidance coping. Our results suggest that CSB may be more important in relationship to self-compassion. Future research should focus on clarifying the relationships between trauma history and self-compassion while also examining their relationships to CSB, coping, and PTSD.

Our study extends research into the potentially protective nature of self-compassion following traumatic experiences by demonstrating an inverse association between self-compassion and posttraumatic distress for White, well-educated females who have sexual assault in adulthood. Further, self-compassion was inversely associated with behavioral and CSB attributions and disengagement coping. The present study also found evidence of mediation in the relationship between self-compassion and PTSD via BSB, CSB, and disengagement coping, and mediation in the relationship between self-compassion and depression via CSB. Overall, the present findings support the continued exploration of self-compassion as a possible protective factor for females following experiences of sexual assault.

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