

Research

Self-Compassion, Trait Resilience, and Trauma Exposure in Undergraduate Students

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The authors investigated the relationship between self-compassion and trait resilience and tested the potential moderating roles of these variables in the relationship between trauma exposure and general psychological distress in a sample of undergraduate students ($N = 296$). Results revealed a significant relationship between self-compassion and trait resilience. Self-compassion emerged as a significant moderator in this relationship, whereas trait resilience did not. Given high rates of trauma exposure in college student populations, implications for counseling are discussed.

Keywords: resilience, self-compassion, college students, trauma, psychological distress

Within the past decade, data point toward a steady increase in the number of college students seeking out services for a variety of mental health concerns (Xiao et al., 2017). One common presenting concern among college students seeking services is exposure to traumatic events, with about 40% of students seeking services endorsing trauma exposure and upward of 20% indicating that they have experienced specific forms of trauma, such as an unwanted sexual experience (Center for Collegiate Mental Health, 2017). A number of authors (e.g., Norris, 1992) have suggested that although traumatic events themselves are objective, responses to these events are variable. Therefore, the term *potentially traumatic event* (PTE) has been used to describe an event that has the potential to cause psychological distress. PTEs vary in type, ranging from vehicle accidents to exposure to natural disasters, and have the potential to elicit a variety of harmful reactions in those who experience them.

The majority of college students report exposure to at least one PTE over the course of their lifetime, with rates ranging from 52% (Owens & Chard, 2006) to 85% (Frazier et al., 2009). In line with findings within the general population (e.g., Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), the occurrence of posttraumatic stress disorder (PTSD) in college students is low compared with the number of students endorsing a PTE (e.g., Read, Ouimette, White, Colder, & Farrow, 2011). However, the development of negative outcomes in the form of general psychological distress is common in college students endorsing trauma exposure (Anders, Frazier, & Shallcross, 2014; Frazier et al., 2009). Two variables

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that have been suggested as potential mitigating factors in the relationship between trauma exposure and psychological distress are self-compassion and trait resilience (e.g., Hiraoka et al., 2015; Lee, Ahn, Jeong, Chae, & Choi, 2014; Pietrzak, Johnson, Goldstein, Malley, & Southwick, 2009; Zeller, Yuval, Nitzan-Assayag, & Bernstein, 2015). Despite the prominence of these constructs in the literature, little attention has been given to the interrelationship of these factors within the context of PTE exposure and the development of more general forms of psychological distress in college students.

Given the high rates of PTE exposure and subsequent general psychological distress in college students, we examined self-compassion and trait resilience as potential moderators in the relationship between PTE exposure and general psychological distress in a sample of college students. In an effort to measure events that have objectively been deemed to elicit psychological distress consistent with trauma exposure, and in line with previous research (Ceschi, Billieux, Hearn, Fürst, & Van der Linden, 2014; Elhai et al., 2012; Im & Follette, 2016), we limited our assessment of PTEs to those resembling Criterion A events—that is, those that involve actual or threatened serious injury, assault, or death experienced directly or witnessed (American Psychiatric Association, 2013).

Literature Review

Self-Compassion

Self-compassion has been defined as the propensity to treat oneself with kindness as opposed to self-judgment during the experience of difficult thoughts or emotions or in times of failure. Self-compassion is composed of several subcomponents: self-kindness, common humanity, and mindfulness as opposed to self-judgment, isolation, and overidentification, respectively (Neff, 2003). As other scholars have theorized (e.g., Zeller et al., 2015), it is plausible that self-compassion may affect the development of general psychological distress following PTE exposure. The development of negative cognitions pertaining to the self is common following PTE exposure and may involve self-criticism and rumination (e.g., Im & Follette, 2016), along with avoidance of painful thoughts or emotions specific to PTE exposure (Pickett, Bardeen, & Orcutt, 2011). Given the traits that self-compassionate individuals are thought to possess, high levels of this construct may work to mitigate the impact of PTE exposure on psychological distress. More specifically, PTE-exposed individuals with high levels of self-compassion may be able to view their experience through a lens of common humanity, engage in self-care to cope effectively (i.e., self-kindness), and allow themselves to experience painful thoughts and feelings related to trauma exposure without becoming overidentified with them (i.e., mindfulness).

A number of empirical works have supported this notion, with longitudinal work suggesting that higher levels of self-compassion following trauma exposure predict lower levels of trauma symptomatology during follow-up measurements (Hiraoka et al., 2015; Zeller et al., 2015). Furthermore, scholars have reported significantly

lower levels of self-compassion in those who meet PTSD diagnostic criteria when compared with those who do not, as well as negative relationships between self-compassion and PTSD symptom severity (Dahm et al., 2015; Maheux & Price, 2015; Thompson & Waltz, 2008). These findings, along with those indicating self-compassion as a marker for positive psychological health (e.g., Neff, Rude, & Kirkpatrick, 2007), an adaptive resource in coping with difficult events (Leary, Tate, Allen, Adams, & Hancock, 2007), and a negative correlate of multiple forms of psychopathology (MacBeth & Gumley, 2012), have led to the conceptualization of self-compassion as a component of psychological resilience that may protect against the development of distress following trauma exposure.

Trait Resilience

Although resilience can be measured at various levels (e.g., community resilience), Connor and Davidson (2003) noted that resilience at the individual level refers to traits or characteristics that make an individual likely to adapt when faced with an adverse stressor. This construct includes the conceptualization of stress as a challenge, self-efficacy, internal sense of control, patience, and the ability to tolerate negative emotional experiences (Connor & Davidson, 2003; Kobasa, 1979; Lyons, 1991; Rutter, 1985). As with self-compassion, it is reasonable to theorize that trait resilience may affect the development of psychological distress following PTE exposure. Connor and Davidson's definition of trait resilience includes several personality facets that may facilitate adaptive responses following PTE exposure. Specifically, PTE-exposed individuals possessing high levels of trait resilience may manifest an ability to maintain an internal sense of control (despite experiencing an event that may have been uncontrollable) and self-efficacy, as well as tolerate negative emotionality related to trauma exposure, which may culminate in lower levels of psychological distress.

Empirical findings have partially supported this premise, with recent research indicating trait resilience as a predictor of PTSD symptom severity and reporting negative relationships between trait resilience and PTSD symptoms (Bensimon, 2011; Pietrzak et al., 2009). Furthermore, significantly lower levels of PTSD symptoms have been found in those measuring high in trait resilience as compared with those with lower levels (Elliot et al., 2015). Perhaps most notably, the direct effect of trauma on PTSD symptoms has been found to differ depending on self-reported trait resilience (Lee et al., 2014). Combined with evidence implicating trait resilience as an indicator of positive psychological health (e.g., Hu, Zhang, & Wang, 2015), these findings lend support to the hypothesis that trait resilience may serve as a buffer against the development of psychological distress following trauma exposure.

The Present Study

A growing body of literature (e.g., Hayter & Dorstyn, 2014; Neff & McGehee, 2010) suggests that self-compassion may be related to psychological resilience. However, the potential empirical relationship between self-compassion and

trait resilience has not been explored in depth. In addition, theoretical postulations and empirical works (e.g., Hiraoka et al., 2015; Lee et al., 2014; Maheux & Price, 2015; Pietrzak et al., 2009) suggest that self-compassion and trait resilience may serve as buffers against the development of psychological distress following trauma exposure. Despite these conceptual and empirical links, few studies have examined the constructs of trait resilience and self-compassion within the context of trauma exposure in college students. Furthermore, despite the notion that general forms of psychological distress, such as anxiety, stress, and depression, seem to be more common following trauma exposure in college students as opposed to symptoms warranting a PTSD diagnosis (e.g., Anders, Frazier, & Shallcross, 2012; Frazier et al., 2009), little research exists that examines protective factors against this more general form of psychological distress in trauma-exposed college students.

The goals of the present study were twofold. First, we examined the relationship between trait resilience and self-compassion in a sample of college students. Second, theorizing that both variables of interest may serve as adaptive resources following trauma exposure, we investigated self-compassion and trait resilience as potential moderators in the relationship between trauma exposure and psychological distress. In light of previous findings, we hypothesized that self-compassion would be significantly and positively correlated with trait resilience and that both variables of interest would emerge as significant moderators in the relationship between trauma exposure and symptoms of general psychological distress. By examining these two constructs (which have both been empirically linked to psychological distress in various forms) within the context of PTE exposure in college students, we hope to advance the literature in this area by identifying mitigating factors that may work to buffer the impact of trauma exposure in the development of general forms of psychological distress.

Method

Participants

Participants included in the current study were derived from a larger data set collected as part of a longitudinal study. Following institutional review board approval, a sample of undergraduate students at a large urban southeastern university was recruited using the university's online participant pool in exchange for course credit. A total of 310 individuals accessed the survey. Participants who completed less than 80% of the survey were removed from the sample, leaving 296 individuals for analyses. The sample consisted of 155 (52.4%) women and 140 (47.3%) men, with one participant (0.3%) identifying as other. Ages ranged from 18 to 53 years ($M = 23.52$, $SD = 4.96$). With respect to race/ethnicity, most participants ($n = 121$, 40.9%) identified as Black/African American, followed by White ($n = 77$, 26.0%), Asian/Asian American ($n = 50$, 16.9%), Hispanic/Latina/Latino/Latinx ($n = 30$, 10.1%), biracial/multiracial ($n = 15$, 5.1%), and other (e.g., Punjabi; $n = 2$, 0.7%). One participant (0.3%) declined to provide his or her race/ethnicity. Participant demographics were consistent with the population from which the sample was drawn.

Measures

Trauma exposure. The Trauma History Screen (THS; Carlson et al., 2005) was used to assess lifetime trauma exposure. Used by the National Center for PTSD, the THS is designed to assess common PTEs in a civilian population. The THS is a 13-item self-report measure that asks respondents to endorse PTEs experienced over the course of their lifetime, ranging from severe motor vehicle accidents to physical and sexual assaults. Respondents indicate whether they have experienced each event listed by selecting *yes* or *no*. The THS has been validated using both clinical and nonclinical samples and has stable test-retest reliability and good convergent validity (Carlson et al., 2011).

A condensed 10-item version of the THS was used for this study. Participants indicated which events they had experienced throughout their lifetime. To avoid capturing events that did not resemble Criterion A traumas, we excluded Items 10 (“Sudden death of a close family member or friend”), 13 (“Sudden move or loss of possessions”), and 14 (“Suddenly abandoned by spouse, partner, parent, or family”) because the wording of these items did not clearly reflect actual or threatened serious injury, assault, or death experienced directly or witnessed (American Psychiatric Association, 2013). Although the THS assesses for the frequency of each event listed, this information was not factored into the current analyses and was instead used to create a dichotomous predictor variable. Participants who endorsed one or more events were coded as trauma-exposed, and those who did not endorse any events were coded as nonexposed.

Self-compassion. The Self-Compassion Scale (SCS; Neff, 2003) was used to assess self-compassion. The scale consists of 26 items, which are rated on a 5-point Likert-type scale ranging from 1 (*almost never*) to 5 (*almost always*). The SCS yields a total score ranging from 26 to 130, as well as scores for six subscales (Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Over-Identified). The SCS has been validated with several clinical and nonclinical samples and demonstrates good internal consistency, with coefficient alphas ranging from .92 to .94 for the total score and .70 to .88 for the subscale scores (Castilho, Pinto-Gouveia, & Duarte, 2015; Montero-Marin et al., 2016; Neff, 2003). In the current study, the total summed score was used as an overall index of self-compassion. The alpha value observed for this sample was .92.

Trait resilience. The Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003) was used as a measure of trait resilience. The CD-RISC is composed of 25 items, which are rated on a 5-point Likert-type scale ranging from 0 (*not true at all*) to 4 (*true nearly all the time*). The CD-RISC evaluates traits or characteristics believed to be consistent with those of resilient individuals. Sample items include “I am able to adapt when changes occur” and “Under pressure, I stay focused and think clearly.” The CD-RISC yields a total score ranging from 0 to 100 and demonstrates good internal consistency, with a coefficient alpha of .89 reported in the original study (Connor & Davidson, 2003) and an alpha value of .91 reported in a recent large-scale

study (Bezdjian, Schneider, Burchett, Baker, & Garb, 2016). In the current study, the coefficient alpha was .94.

Psychological distress. The 21-item Depression Anxiety Stress Scales (DASS-21; Lovibond & Lovibond, 1994) was used to measure current psychological distress. Respondents rate each item on 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*). Sample items include “I felt that I had nothing to look forward to” (Depression subscale), “I felt I was close to panic” (Anxiety subscale), and “I found it hard to wind down” (Stress subscale). Respondents are asked to provide a rating for how much each statement applied to them over the past week. The DASS-21 has shown good internal consistency, with coefficient alphas ranging from .82 to .96 for subscale scores and an alpha value above .90 for the total score (Henry & Crawford, 2005; Lovibond & Lovibond, 1994). For the current study, the total score was used as an overall measure of current psychological distress. The alpha value observed for this sample was .95.

Results

Preliminary Analyses

After the removal of participants missing more than 20% of the data from each measure, the final sample consisted of 296 participants. Little’s missing completely at random test was nonsignificant, $\chi^2(3457) = 3,475.53$, $p = .41$, indicating that the data were missing completely at random. We used expectation maximization to impute values for missing data (Schlomer, Bauman, & Card, 2010). With regard to trauma exposure, 78.4% of the participants endorsed experiencing at least one PTE. The mean number of PTEs endorsed by this sample was 4.29 ($SD = 9.29$). The most common events endorsed by this sample were (in descending order) “some other event that made you feel scared, helpless, or horrified,” “a really bad car, boat, train, or airplane accident,” and “a hurricane, flood, earthquake, tornado, or fire.”

Examination of between-groups differences revealed that participants endorsing trauma exposure ($M = 33.68$) reported significantly higher levels of psychological distress compared with participants who did not ($M = 14.33$), $t(293) = -5.60$, $p < .01$. Women ($M = 33.35$) endorsed significantly higher levels of psychological distress, $t(293) = -2.72$, $p < .01$, than did men ($M = 25.26$), whereas men ($M = 84.78$) reported significantly higher levels of self-compassion, $t(293) = 2.51$, $p = .01$, compared with women ($M = 79.99$). Analysis of variance tests revealed that participants who identified as African American/Black ($M = 86.36$) endorsed significantly higher levels of self-compassion, $F(5, 289) = 3.03$, $p = .01$, than did participants who identified as White ($M = 78.43$). African American/Black participants ($M = 75.30$) also endorsed significantly higher levels of resilience, $F(5, 289) = 6.16$, $p < .01$, than did White participants ($M = 68.95$).

Bivariate correlation analyses (see Table 1) revealed a significant and positive correlation between trauma exposure and overall symptoms of psychological distress ($r = .31$, $p < .01$). Trauma exposure was significantly and negatively

TABLE 1

Bivariate Correlations and Descriptive Statistics for the Study Variables

Scale and Subscale	1	2	3	4	5	6	7	<i>M</i>	<i>SD</i>
1. THS	—							0.78	0.41
2. CD-RISC	-.05	—						70.36	16.39
3. Self-Compassion Scale	-.15*	.57**	—					82.30	16.48
4. DASS-21 Anxiety	.29**	-.28**	-.48**	—				8.37	8.41
5. DASS-21 Depression	.25**	-.42**	-.55**	.77**	—			9.27	9.74
6. DASS-21 Stress	.32**	-.26**	-.52**	.81**	.78**	—		11.87	9.59
7. DASS-21 total score	.31**	-.35**	-.56**	.92**	.92**	.93**	—	29.50	25.69

Note. THS = Trauma History Screen; CD-RISC = Connor-Davidson Resilience Scale; DASS-21 = Depression Anxiety Stress Scales–21.

* $p < .05$, two-tailed. ** $p < .01$, two-tailed.

correlated with self-compassion ($r = -.15, p < .05$). A negative nonsignificant correlation emerged between trauma exposure and trait resilience ($r = -.05, p > .05$). Self-compassion and trait resilience were also significantly and positively correlated with each other ($r = .57, p < .01$). We assessed multicollinearity by examining the variance inflation factors (VIFs) for all potential predictor variables, which indicated low levels of multicollinearity (e.g., Kutner, Nachtsheim, & Neter, 2004). VIF coefficients ranged from 1.00 to 1.48.

Moderation Analyses

To test the potential moderation effects of self-compassion and trait resilience in the relationship between trauma exposure and psychological distress, we performed hierarchical linear regression analyses. The conditional main effects of trauma exposure accounted for 38% of the variance in Step 1 ($R^2 = .38, p < .01$). The first interaction (Trauma Exposure $\times$ Self-Compassion) accounted for an additional 1.6% of the variance in Step 2 ($\Delta R^2 = .02, p < .01$), which was statistically significant. The second interaction (Trauma Exposure $\times$ Trait Resilience) accounted for an additional 0.1% of the variance in psychological distress ($\Delta R^2 = .00, p = .38$) and was not significant. The additive combination of the individual interaction terms of both variables of interest on symptoms of psychological distress was also significant ($\Delta R^2 = .02, p < .01$). These results indicated that self-compassion significantly moderated the relationship between trauma exposure and psychological distress. To interpret the single moderation effect of self-compassion, we conducted a Johnson-Neyman test, which revealed that the relationship between trauma exposure and psychological distress was significant at values of self-compassion ranging from 26 to 98.93 (as measured by the SCS). The relationship between trauma exposure and psychological distress ceased to be significant for values of self-compassion above 99. This indicates that high levels of self-compassion may serve as a buffer against the development of symptoms of psychological distress for individuals who have been exposed to trauma. These results are presented in Table 2 and Figure 1.

TABLE 2
Hierarchical Regression Analyses Predicting
Psychological Distress

Variable	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	ΔR^2
Intercept	28.91	1.18	24.55	<.001	
Trauma exposure	16.94	2.35	7.20	<.001	
Self-compassion	−0.72	0.09	−8.18	<.001	
Trauma Exposure × Self-Compassion	−0.65	0.16	−4.22	<.001	.02
Trait resilience	−0.10	0.10	−0.98	.33	
Trauma Exposure × Trait Resilience	0.15	0.17	0.88	.38	.00

Note. $R^2 = .38$, $MSE = 411.95$, $F(5, 290) = 43.23$, $p < .01$.

Discussion

This study explored the relationship between trait resilience and self-compassion and examined the potential moderating role of both variables in the relationship between trauma exposure and symptoms of psychological distress in a sample of college students. In line with previous findings (e.g., Frazier et al., 2009), the majority of our sample reported exposure to one or more traumatic events, despite the exclusion of several non–Criterion A events in our analyses. Additionally, preliminary analyses indicated that men in our sample evidenced higher levels of self-compassion than did women. This finding is consistent with research suggesting that self-compassion may be underdeveloped in women because of gender roles that condone the care of others rather than the self (Yarnell et al., 2015). In line with what other works have suggested (e.g., Yarnell et al., 2015), students of color reported higher levels of self-compassion and trait resilience in comparison with White

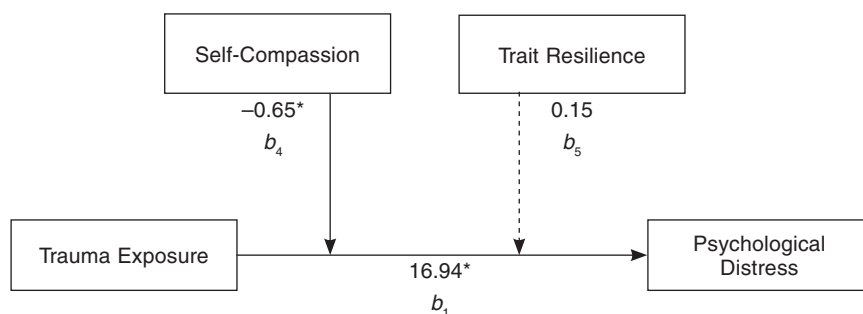


FIGURE 1

Results of Moderation Analyses

Note. A solid arrow indicates a significant effect, and a dashed arrow indicates a nonsignificant effect. b_4 = Trauma Exposure × Self-Compassion; b_5 = Trauma Exposure × Trait Resilience; b_1 = direct effect of trauma exposure on psychological distress.

* $p < .05$.

students—differences that may be the product of increased resilience and coping necessitated because of various forms of marginalization.

In line with previous research using college students (Frazier et al., 2009), trauma exposure was significantly and positively correlated with symptoms of general psychological distress. Additionally, our results suggested that exposure to PTEs is associated with lower levels of self-compassion. Perhaps most notable with regard to bivariate relationships was the relationship between self-compassion and trait resilience, with results suggesting that as levels of trait resilience increase, so do levels of self-compassion. This finding is noteworthy because this relationship has not been explored in depth, with one study finding a positive relationship between self-compassion and trait resilience in a sample of patients with spina bifida (Hayter & Dorstyn, 2014). Our results suggest that this relationship was also present in our sample of college students and that self-compassion and trait resilience are indeed related to each other.

With regard to moderation analyses, self-compassion emerged as a significant moderator in the relationship between trauma exposure and symptoms of psychological distress, whereas trait resilience did not. The former finding lends additional support to the notion that self-compassion may serve as a buffer against the development of general symptoms of psychological distress in trauma-exposed individuals. However, it is notable that the additional amount of variance accounted for by the model with self-compassion as a significant moderator was small. Because of the small amount of variance accounted for, there may be additional complexity in the relationship between trauma exposure, self-compassion, and psychological distress. For example, future research may benefit from examining other variables at work in this context (e.g., trauma type, other forms of coping).

Contrary to our hypothesis, trait resilience was not found to be a significant moderator in the relationship between trauma exposure and symptoms of psychological distress. This suggests that psychological distress was not affected significantly by the level of trait resilience in this sample. When this finding is taken in context with previous findings, it may be that trait resilience works to mitigate the relationship between trauma exposure and trauma-specific symptoms (e.g., PTSD symptoms), but not the relationship between trauma exposure and symptoms of general psychological distress as measured in this study. Additionally, this finding may reflect existing ambiguity in the literature concerning the nature of resilience, given that there is currently no sole accepted definition of resilience or standard for measurement (Davydov, Steward, Ritchie, & Chaudieu, 2010).

Limitations and Directions for Future Research

The results of this study should be interpreted in light of several limitations. First, a truly causal link between trauma exposure and psychological distress cannot be drawn. Because we chose to examine general symptoms of psychological distress as opposed to trauma-specific distress (e.g., PTSD symptoms), it is possible that participants who endorsed high levels of general psychological distress may have been experiencing these symptoms independent of trauma exposure. Additionally, this study did not take into account when

participants experienced their trauma or traumas (e.g., amount of time elapsed since trauma exposure) or take into account specific types of trauma or the presence of cumulative or complex trauma. For example, research focusing specifically on adverse childhood events suggests that adverse events occurring prior to age 18 may create further susceptibility to both psychological distress and adversity in adulthood (Nurius, Green, Logan-Greene, & Borja, 2015). Thus, failing to account for this information could affect the results seen in this study. Future research may benefit from an examination of the variables of interest specific to certain types of traumatic events or repeated traumatic exposure over time (e.g., repeated child sexual abuse).

Furthermore, our findings are likely to have been affected by the way in which trauma exposure was measured. Although much research has focused on limiting the measurement of trauma exposure to those that satisfy the Criterion A exposure requirement, other authors have urged researchers to broaden their definition to include non-Criterion A events (Anders et al., 2012; Frazier et al., 2009). Thus, future research may benefit from the further examination of the moderating role of both variables of interest on psychological distress when a broader definition of trauma exposure is used. Despite these limitations, the results of this study warrant further investigation into the roles that self-compassion and trait resilience may play in the relationship between trauma exposure and psychological distress.

Implications for College Counseling

Our findings suggest that self-compassion may serve as a factor that may mitigate the development of psychological distress following trauma exposure. Self-compassion is thought to be malleable (see Barnard & Curry, 2011, for a review) and may be strengthened using mindfulness-based programs in conjunction with counseling (Beaumont, Adam, & Peter, 2012; Neff & Germer, 2013). Counselors in college counseling centers may want to integrate the assessment of self-compassion into intake procedures alongside the assessment of trauma exposure and monitor levels of self-compassion throughout counseling (e.g., using the SCS). Furthermore, counselors should be vigilant to target self-compassion in clients who may experience a traumatic event during the course of counseling, perhaps using modalities designed to instill mindfulness, encourage self-kindness, and normalize experiences (consistent with the subcomponents of self-compassion). Given the gender differences found in this study and others, this may be especially important in working with young women. Because women typically experience higher levels of trauma-related symptoms and may be at higher risk for experiencing interpersonal forms of PTEs such as sexual assault (e.g., Frazier et al., 2009), it is important that counselors assess potential linkages between trauma reported by clients and self-compassion. This may be particularly relevant for clients who have experienced victim blaming, which may in turn undermine their ability to engage in self-compassion.

Given the large number of students endorsing PTE exposure who may not present for services, it may be beneficial for counseling centers to implement outreach

with the goal of using psychoeducation to inform students of the importance of self-compassion and assist students in cultivating this resource. Mindfulness-based stress reduction programs may represent one promising way to reach a larger number of students outside the counseling office. Given the findings of this study, implementing such programming may assist in building baseline levels of self-compassion that may, in turn, serve to insulate students prior to the experience of any traumatic events during their college years and beyond.

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