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Cumulative Trauma Exposure and Mindfulness in College Students

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The authors evaluated the cumulative effects of multiple trauma exposure and examined discrete mindfulness facets concerning trauma-related outcomes among undergraduate students (N = 157). By using self-report questionnaires, the authors found that higher trauma exposure was associated with more severe trauma symptomatology and psychological distress as well as lower quality of life. Furthermore, 4 mindfulness facets differentially predicted trauma outcomes. The authors discuss implications for college counseling counselors and researchers.

Keywords: trauma, psychological distress, mindfulness, college students, quality of life

Researchers indicate that up to 80% of individuals in the United States will experience at least one traumatic event in their lifetime, including interpersonal violence and motor vehicle collisions (Karam et al., 2014; Kessler, Chiu, Demler, & Walters, 2005). With an estimated 59% to 75% of undergraduate students reporting lifetime exposure to at least one traumatic event, rates of posttraumatic stress disorder (PTSD) among college populations are comparable with those in the general population (8% to 9%; Elhai et al., 2012; Read, Griffin, Wardell, & Ouimette, 2014; Smyth, Hockemeyer, Heron, Wonderlich, & Pennebaker, 2008). Despite a high prevalence of trauma exposure and subsequent development of PTSD, previous attempts to identify risk and mitigating factors in college students have been limited.

Trauma exposure is associated with an increased risk in developing a wide range of psychological problems, including depression, anxiety, PTSD, substance abuse, and suicidal ideation (Glatzer-Levy, Nickerson, Litz, & Marmar, 2013; Shalev et al., 1998). Furthermore, these mental health issues can adversely affect physical, financial, occupational, and social functioning, including difficulty returning to work and interpersonal issues (Magruder et al., 2004; Smith, Schnurr, & Rosenheck, 2005). In an undergraduate population, research has shown that trauma-exposed students have a tendency to report higher rates of functional impairment, including decreased engagement in school and work, difficulties with activities of daily living, and disengagement of personal relationships or other social pursuits (Anders, Frazier, & Shallcross, 2012; Frazier et al., 2012).

Among trauma survivors, a subset of individuals experiences more than one traumatic event in their lifetime (Breslau, Chilcoat, Kessler, Peterson,

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& Lucia, 1999). Nearly 20% of men and more than 10% of women in the general population are estimated to experience four or more traumatic events in their lifetime, with rates closer to 60% in clinical settings (Karam et al., 2014; Ramstead, Russo, & Zatzick, 2004). Multiple trauma exposure predicts elevated levels of psychological distress and clinical symptoms of PTSD, anxiety disorders, and depression (Green et al., 2000; Karam et al., 2014), as well as adverse physical health outcomes and overall well-being (Del Gaizo, Elhai, & Weaver, 2011). For instance, Briere, Kaltman, and Green (2008) found a linear relationship between the number of different types of trauma exposure and symptom complexity, such as self-reported dissociation, defensive avoidance, anger/irritability, and depression, in female college students.

Among the far-reaching effects of trauma exposure, one clinically important but understudied area is quality of life. Quality of life refers to "individuals' perceptions of their position in life in the context of culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (WHOQOL Group, 1998a, p. 551). Researchers found that individuals experiencing PTSD following trauma exposure reported significantly decreased subjective well-being and quality of life (Olatunji, Cisler, & Tolin, 2007; Rapaport, Clary, Fayyad, & Endicott, 2005). Although preliminary evidence exists for the adverse impact of traumatic experience, little is known about the role of exposure to multiple types of trauma in quality of life.

To understand the development of psychopathology following trauma exposure, as well as find ways to treat subsequent issues, researchers and clinicians have been increasingly focusing on the role of mindfulness. Defined as purposefully paying attention to present-moment experience without judgment (Kabat-Zinn, 2003), mindfulness has been shown to promote resilience or well-being following exposure to traumatic events (Boden et al., 2012; Thompson & Waltz, 2010; Vujanovic, Bonn-Miller, Potter, Marshall, & Zvolensky, 2011; Vujanovic, Youngwirth, Johnson, & Zvolensky, 2009). In conjunction with standard treatment modalities, mindfulness has been incorporated into treatment for the symptoms of PTSD as well as comorbid depression and anxiety (Kearney, McDermott, Malte, Martinez, & Simpson, 2013; King et al., 2013). Walser and Hayes (2006) argued that mindfulness-based intervention improves trauma-related symptoms by increasing one's present-moment awareness and nonjudgmental acceptance of distressing thoughts and emotions. Mindfulness skills may also assist individuals with trauma in decreasing physiological arousal and rumination about the traumatic event and related symptomatology, and increasing the ability to regulate emotions and manage daily stress (Vujanovic et al., 2009, 2011).

Because mindfulness is generally conceptualized as multifaceted processes (Baer, Smith, & Allen, 2004), different mindfulness facets may uniquely predict trauma-related symptoms. Vujanovic et al. (2009) reported that accepting one's experience without judgment significantly predicted symptoms of reexperiencing, avoidance, numbing, and hyperarousal, whereas acting with awareness was inversely correlated with reexperiencing symptoms above and beyond the variance accounted for by negative affectivity and the number of

traumas experienced. Using a college sample, Thompson and Waltz (2010) demonstrated an inverse relationship between accepting without judgment and posttraumatic stress symptoms. These results indicate a need to investigate nuanced relationships between mindfulness facets and trauma-related outcomes.

Despite a growing body of research documenting the impact of trauma exposure on various mental health outcomes (Olatunji et al., 2007; Rapaport et al., 2005), the evidence is insufficient to understand the impact of exposure to multiple types of trauma beyond sexual revictimization, especially among college students, a population with high rates of trauma exposure (Elhai et al., 2012). Thus, in this study, we aimed to evaluate the cumulative effects of exposure to multiple trauma types on trauma symptomatology, psychological distress, and quality of life in college students and to assess the unique contributions of mindfulness facets to these outcomes after controlling for trauma exposure and demographic variables.

Method

Participants

A total of 157 college students (96 women [61.1%], 61 men [38.9%]) were recruited from a midsize university in the United States. The majority of participants identified as Caucasian (n = 100, 63.7%), followed by Hispanic (n = 19, 12.1%), Asian American (n = 17, 10.8%), African American (n = 14, 8.9%), and Native American or Pacific Islander (n = 2, 1.3%). Five participants (3.2%) identified their race/ethnicity as other. The ages of the participants ranged from 19 to 48 years, with a mean of 22.60 years (SD = 4.84). Participants signed up through the university's participant pool system and were then invited to the laboratory. After receiving informed consent forms, participants were guided to a quiet testing room, where they completed a series of self-report questionnaires using Qualtrics online survey software. Extra course credit was granted for study participation, and the study protocol was approved by the institutional review board.

Measures

Stressful Life Events Screening Questionnaire–Modified. The modified version of the SLESQ (Goodman, Corcoran, Turner, Yuan, & Green, 1998) is an eight-item self-report measure designed to assess lifetime exposure to traumatic events. Although the original SLESQ consists of 13 items, we included only eight items to compute a total score because the remaining items (e.g., "being ridiculed, put down, or ignored repeatedly"; "being slapped or harmed repeatedly") do not involve death, serious injury, or sexual violence that the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; American Psychiatric Association, 2013) specifies as Criterion A events. A total score of multiple trauma exposure was computed by summing the number of endorsed traumatic events. Goodman et al. (1998) reported adequate psychometric properties, including convergent validity (κ = .64) and test-retest reliability

(κ = .73), and the SLESQ has been used in nonclinical samples of college students (Elhai et al., 2012).

Five Facet Mindfulness Questionnaire (FFMQ). The FFMQ (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) is a 39-item self-report instrument that measures five facets of mindfulness: observe, describe, act with awareness, nonjudge, and nonreact. Respondents rate each item on a 5-point Likert-type scale ranging from 1 (*never or very rarely true*) to 5 (*very often or always true*). Subscale scores are calculated by summing the scores of individual items within each subscale, with higher scores indicating higher levels of mindfulness. The FFMQ has been validated in diverse samples with varying degrees of meditation experience, including nonmeditating undergraduate students (de Bruin, Topper, Muskens, Bögels, & Kamphuis, 2012), and has shown good internal consistency (αs = .75 to .91) and convergent and discriminant validity (Baer et al., 2006). In the current study, the coefficient alpha for the total score was .88.

Posttraumatic Stress Disorder Checklist–Civilian Version (PCL-C). The PCL-C (Weathers, Litz, Herman, Huska, & Keane, 1993) is a 17-item self-report instrument that measures trauma symptomatology, including reexperiencing, hyperarousal, and avoidance. Items are rated on a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*extremely*). A total score is determined by summing the individual item scores, with higher scores indicating more severe trauma symptoms. The PCL-C has shown excellent internal consistency (α = .94) and test-retest reliability (*r* = .92) and has been validated using college students (Ruggiero, Del Ben, Scotti, & Rabalais, 2003). In the current study, the coefficient alpha for the total score was .89. We note that an earlier version of the PCL was used in this study because the PTSD Checklist for *DSM-5* (Blevins, Weathers, Davis, Witte, & Domino, 2015) had not been released during data collection.

Brief Symptom Inventory (BSI). The BSI (Derogatis, 1993) consists of 53 items that assess nine domains of psychological distress: somatization, obsession-compulsion, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. Each item is rated on a 5-point Likert-type scale ranging from 0 (*not at all*) to 4 (*extremely*). The BSI-General Severity Index (BSI-GSI) score is computed by averaging all BSI item scores, with higher BSI-GSI scores indicating greater psychological distress. The BSI-GSI has shown adequate psychometric properties, such as internal consistency (αs = .71 to .85) and test-retest reliability (*r*s = .68 to .91; Derogatis & Melisaratos, 1983). In the current study, the coefficient alpha for the BSI-GSI score was .96. The BSI has been used widely in clinical research across various populations, including college students (Cochran & Hale, 1985).

World Health Organization Quality of Life–Brief Version (WHOQOL-BREF). The WHOQOL-BREF (WHOQOL Group, 1998a) is an abbreviated version of the WHOQOL-100 (WHOQOL Group, 1998b) quality of life assessment and consists of 26 items that measure four domains of quality of life: physical health, psychological, social relationships, and environment. A total score is computed by adding all individual item scores, with higher scores denoting better quality of life. The WHOQOL-BREF has demonstrated acceptable internal consistency (αs = .66 to .84) and test-retest reliability (*r*s = .66 to

.87; WHOQOL Group, 1998a). In the current study, the coefficient alpha for the total score was .82.

Results

Trauma Exposure

Participants reported experiencing the eight trauma types as follows (in order of frequency): witnessing someone being killed, seriously injured, or sexually or physically assaulted (n = 30, 19.1%); other sexual assault (n = 27, 17.2%); life-threatening accident (n = 24, 15.3%); child physical assault or abuse (n = 21, 13.4%); adult physical assault or abuse (n = 20, 12.7%); attempted or completed rape (n = 17, 10.8%); being threatened with a gun or knife (n = 11, 7.0%); and physical assault involving robbery or mugging (n = 9, 5.7%). (Some participants reported multiple traumas.) Among the eight trauma types, participants endorsed the following numbers of trauma exposure: no traumatic event (n = 65, 41.4%), one type of trauma (n = 52, 33.1%), two types of trauma (n = 23, 14.6%), and three or more types of trauma (n = 17, 10.8%). (Percentages do not equal 100 because of rounding.) In line with previous research (Breslau et al., 1998; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), qualitative evaluation of our data revealed that among trauma survivors, women (n = 42, 43.8%) reported higher rates of sexual trauma compared with men (n = 2, 3.3%).

Preliminary Data Analyses

Table 1 presents the means, standard deviations, and zero-order correlation coefficients for all study variables. Outcome variables did not differ based on age and gender. However, we observed weak but significant associations between household income and two outcome variables—trauma symptom severity and psychological distress (rs = –.17 and –.16, respectively, all ps < .05)—suggesting that financial resources may buffer against deterioration in psychological functioning. Contrary to our expectation, the nonjudge facet was negatively correlated with the observe facet (r = –.32, p < .001). However, Baer et al. (2008) argued that although all five mindfulness facets are expected to covary positively with each other in experienced meditators, these relationships may differ in nonmeditating individuals.

Hierarchical Regression Analyses

Trauma symptom severity. The results for the hierarchical regression model predicting overall trauma symptom severity are summarized in Table 2. In Step 1, the number of trauma types experienced significantly predicted trauma symptom severity (β = .20, p = .015). When the five mindfulness facets were entered in Step 2, the regression model accounted for an additional 38% (p < .001) of the variance in trauma symptom severity above and beyond demographic variables and the number of trauma types. In the final regression model, the number of trauma

TABLE 1

Zero-Order Correlations and Descriptive Statistics for the Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	*M*	*SD*
1. Age (in years)	—												22.55	4.84
2. Gender (% male)	<.01	—											38.90	
3. Annual household income (in thousand dollars)	−.20*	−.12	—										68.8	45.9
4. Number of trauma types	.31***	.03	−.19*	—									1.03	1.20
5. Observe	.15	.12	−.21**	.13	—								24.07	6.00
6. Describe	.13	.15	−.04	.22**	.26**	—							29.02	6.24
7. Act with awareness	−.04	.01	.19*	−.11	−.14	.19*	—						27.25	6.07
8. Nonjudge	−.04	.17*	.19*	−.04	−.32***	.22**	.53***	—					29.24	7.25
9. Nonreact	.07	.02	−.02	.15	.41***	.37***	.10	.14	—				21.67	5.06
10. Trauma symptom severity	−.03	.03	−.17*	.20*	.10	−.31***	−.54***	−.50***	−.23**	—			33.15	12.24
11. Psychological distress	−.05	−.06	−.16*	.18*	.11	−.33***	−.60***	−.61***	−.20*	.72***	—		1.59	0.46
12. Quality of life	−.08	.13	−.19*	−.16*	.04	.41***	.47***	.40***	.33***	−.58***	−.67***	—	60.74	8.92

Note. $N = 157$.

*$p < .05$. **$p < .01$. ***$p < .001$.

types remained a significant predictor of trauma symptom severity (β = .23, p = .001). Additionally, three mindfulness facets—describe (β = –.20, p = .006), act with awareness (β = –.31, p < .001), and nonjudge (β = –.27, p = .001)—were identified as significant predictors. All three mindfulness facets were negatively associated with trauma symptom severity, and the ability to stay focused on one's actions and surroundings was the strongest predictor (sr^2 = .07). Overall, the final model explained 45% of the variance in trauma symptom severity.

Psychological distress. Table 2 presents the results of the regression model predicting psychological distress. In Step 1, demographic covariates and the number of trauma types accounted for 8% (p < .001) of the variance in psychological distress, and the number of trauma types significantly predicted psychological distress (β = .20, p = .017). In Step 2, the describe (β = –.19, p = .003), act with awareness (β = –.33, p < .001), and nonjudge (β = –.38, p < .001) facets uniquely contributed to the final regression model after controlling for demographic covariates and the number of trauma types. However, the observe (β < .01, p = .960) and nonreact (β = –.06, p = .338) facets were nonsignificant predictors. The final regression model explained an additional 48% (p < .001) of the variance in psychological distress, and among the variables entered in Step 2, the ability not to judge one's experience was the strongest predictor (sr^2 = .08). Overall, the final model accounted for 56% of the variance in psychological distress.

Quality of life. The results of the regression model predicting quality of life are presented in Table 2. In Step 1, demographic variables and the number of trauma types explained 8% of the variance in quality of life. Contrary to our prediction, the number of trauma types did not significantly predict quality of life (β = –.13, p = .120). In Step 2, the describe (β = .29, p < .001), act with awareness (β = .29, p < .001), and nonreact (β = .20, p = .007) facets were found to be significant predictors, and among them, the ability to describe one's experience and to stay focused on one's own actions and surroundings uniquely and most strongly contributed to the final regression model (sr^2 = .06). Overall, the final model explained 43% (p < .001) of the variance in quality of life, and the mindfulness facets accounted for an additional 35% (p < .001) of the variance in quality of life after controlling for demographic covariates and the number of trauma types.

Discussion

In this study, we investigated the cumulative effects of trauma exposure on trauma symptomatology, psychological distress, and quality of life, and the unique contribution of mindfulness facets to these outcomes in college students. The results of the hierarchical regression analyses suggest that an increased number of trauma types experienced was associated with higher levels of trauma symptoms and psychological distress and lower levels of quality of life after controlling for demographic variables. Furthermore, each mindfulness facet uniquely predicted the outcome variables above and beyond demographic variables and the number of trauma types.

In line with previous findings (Follette, Palm, & Pearson, 2006; Im & Follette, 2016), we found that the number of trauma types experienced

TABLE 2

Hierarchical Regression Analyses Predicting Trauma Symptom Severity, Psychological Distress, and Quality of Life

	Trauma Symptom Severity				Psychological Distress				Quality of Life			
Step and Variable	***t***	β	***sr*²**	***p***	***t***	β	***sr*²**	***p***	***t***	β	***sr*²**	***p***
Step 1												
Age	–1.44	–.12	.01	.150	–1.72	–.14	.02	.087	–0.07	–.01	<.01	.941
Gender	–0.01	<.01	<.01	.996	–1.08	–.09	.01	.283	1.93	.15	.02	.056
Annual household income	–1.97	–.16	.02	.050	–2.00	–.16	.02	.047	2.29	.19	.03	.024
Number of trauma types	2.46	.20	.04	.015	2.42	.20	.04	.017	–1.57	–.13	.01	.120
R^2			.07				.08				.08	
Step 2												
Age	–0.14	–.09	<.01	.153	–1.94	–.11	.01	.054	–0.66	–.04	<.01	.510
Gender	1.42	.09	<.01	.158	0.57	.03	<.01	.571	1.09	.07	<.01	.276
Annual household income	–0.48	–.03	<.01	.633	–0.20	–.01	<.01	.842	1.45	.10	.01	.149
Number of trauma types	3.45	.23	.04	.001	3.58	.22	.04	<.001	–2.80	–.19	.03	.006
Observe	0.44	.03	<.01	.660	–0.05	<.01	<.01	.960	0.05	<.01	<.01	.960
Describe	–2.80	–.20	.03	.006	–3.04	–.19	.03	.003	4.05	.29	.06	<.001
Act with awareness	–4.23	–.31	.07	<.001	–5.03	–.33	.08	<.001	3.87	.29	.06	<.001
Nonjudge	–3.29	–.27	.04	.001	–5.20	–.38	.08	<.001	1.37	.16	.01	.172
Nonreact	–1.79	–.13	.01	.076	–0.96	–.06	<.01	.338	2.73	.20	.03	.007
R^2			.45				.56				.43	
ΔR			.38				.48				.35	
ΔF			20.38***				31.83***				18.30***	

Note. $N = 157$.

***$p < .001$.

significantly predicted the severity of trauma symptoms. Although previous reports document that trauma-related symptomatology worsens after the experience of multiple traumatic events (Bernstein & Vujanovic, 2011; Green et al., 2000), our study adds to the literature by demonstrating cumulative effects of exposure to multiple types of traumatic events. Theoretically, exposure to multiple trauma types may increase a sense of uncertainty and sensitivity to potentially threatening situations, which in turn leads individuals to resort to maladaptive coping strategies, such as repeatedly attempting to avoid thoughts, feelings, and memories associated with the traumatic event (Delany-Brumsey, Joseph, Myers, & Ullman, 2013; Follette et al., 2006; Walser & Hayes, 2006). Although maladaptive strategies may provide short-term relief from posttraumatic stress, their repeated use can increase trauma-related symptomatology and interfere with the emotional engagement necessary for the recovery from trauma (Briere, Hodges, & Godbout, 2010; Follette et al., 2006).

We also found that three facets of mindfulness are significantly correlated with trauma symptom severity: describe, act with awareness, and nonjudge. In particular, describing one's experiences was negatively associated with trauma symptoms. Mindful describing can assist individuals with trauma in differentiating and labeling nuanced emotions objectively and accurately and promoting a healthy perspective on their emotional experience (Feldman, Greeson, & Senville, 2010). Furthermore, an accurate description of one's emotional experience could facilitate clear communication of emotional content, the coregulation of challenging emotions, and an attempt to seek social support.

Next, acting with awareness strongly predicted reduced trauma symptomatology. This inverse relationship has also been reported in previous studies (Boden et al., 2012; Thompson & Waltz, 2010; Vujanovic et al., 2009). Because attention has limited resource capacity (Muraven, Tice, & Baumeister, 1998), heightened sensitivity to threat information quickly depletes available attentional resources and disrupts the encoding and higher order processing of goal-relevant information (Fani et al., 2012). As a result, individuals with multiple trauma exposures have a higher likelihood of misinterpreting a situation and responding to situational demands inappropriately. Thus, mindfulness training can allow these individuals to pay close attention to their surroundings with increased awareness of their goals and the consequences of their action.

The ability to embrace one's own experiences while reserving negative judgment also predicted reduced symptoms of trauma. In particular, maintaining a nonjudgmental stance may play a critical role in coping with multiple trauma exposure (Henning & Frueh, 1997). When individuals with trauma negatively judge their traumatic experience and associated symptoms by using evaluative labels (e.g., good or bad, right or wrong, should or should not), this often elicits unnecessary emotions such as shame or guilt that interfere with embracing and normalizing trauma symptomatology, thus aggravating trauma symptoms and psychological distress (Baer et al., 2004; Wahbeh, Lu, & Oken, 2011). In addition, difficulty embracing one's traumatic experience may lead to frequent use of avoidance-based coping strategies, such as substance use, social withdrawal, or generalized avoidance of trauma-related

cues (Arch & Craske, 2006), which further prevents one from differentiating between threat- and non-threat-related cues, regaining a sense of self-efficacy, and formulating adaptive beliefs about trauma (Lang et al., 2012).

This study also adds to the literature by demonstrating that facets of mindfulness contribute to quality of life. Specifically, the abilities to describe and not excessively react to one's experience, as well as to act with clear awareness of one's action and its consequences, were found to be strong predictors of higher quality of life after controlling for trauma exposure and demographic variables. These results are consistent with previous research showing that both dispositional and state mindfulness following mindfulness-based interventions improve quality of life among trauma victims (Kabat-Zinn et al., 1992; Simpson et al., 2007; Vujanovic et al., 2009). It is plausible that individuals with trauma exposure can experience negative affectivity and withdraw from social interactions, which can adversely affect the personal and social domains in quality of life (Bisson et al., 2007). Furthermore, mindfulness may serve as a buffer against stressful life events and promote resilience, which can prevent the exacerbation of trauma symptoms and functional impairment (Narimani, Ariapooran, Abolghasemi, & Ahadi, 2012).

Implications for College Counselors

Our findings have several clinical implications for the treatment of trauma and future research among college students. First, we found that 58.5% of our undergraduate participants reported at least one lifetime traumatic event, with 25.4% experiencing more than one trauma type. These results are consistent with those of previous studies using college samples, with lifetime prevalence rates ranging from 67% to 84%, indicating that college students are particularly vulnerable to trauma exposure and revictimization (Elhai et al., 2012; Read et al., 2014; Smyth et al., 2008). Furthermore, we demonstrated that exposure to multiple traumatic events adversely and cumulatively affects a wide range of life domains. Thus, college counseling centers may consider conducting a college-wide survey of incoming first-year students and promoting mobile outreach services across campus to identify college students with previous trauma exposure and who are at risk for revictimization, which can permit a trauma-focused approach to treatment and prevention.

Second, we recommend that counselors conduct a more thorough assessment of trauma history during an intake interview. Because of a high volume of clients seen at many college counseling centers, counselors can easily overlook the lifetime history of trauma exposure, especially when presenting symptoms do not meet the full criteria for PTSD. However, there is empirical evidence that subclinical PTSD symptomatology is strongly associated with alcohol use disorder, depression, and health problems (Yarvis & Schiess, 2008), and functional impairment is comparable in individuals with full and subthreshold PTSD (Zlotnick, Franklin, & Zimmerman, 2002). When a client presents with previous traumatic experience or other childhood adversities, the counselor may benefit from assessing the functional relationship between the trauma and presenting problems, the client's coping strategies, and other risk factors that may contribute to further victimization regardless of the severity of current PTSD symptoms.

Finally, counselors can identify mindfulness facets that functionally relate to idiosyncratic symptom patterns of each client and selectively apply the corresponding mindfulness exercises to maximize treatment efficiency and clinical benefits. In this study, each mindfulness facet was found to uniquely and differentially predict trauma symptom severity and other outcome variables. Although developing a comprehensive package of trauma-focused mindfulness-based interventions has its own merits (Bernstein & Vujanovic, 2011; Vujanovic et al., 2009), the delivery of brief mindfulness-based intervention or integration of a subset of mindfulness components (e.g., describe, act with awareness, nonjudge) into current clinical practice may be a more feasible choice for counselors. However, further research is warranted to evaluate the degree to which each mindfulness facet covaries with different symptom presentations and the efficacy of alternative approaches mentioned above.

Limitations and Directions for Future Research

Two limitations of this study are noteworthy. First, our participants were asked to report lifetime trauma exposure retrospectively via a self-report questionnaire, and thus, the study results need to be interpreted with caution. To improve the veracity of data, future studies should obtain data from multiple sources, such as medical records, police reports, and other collateral information. Second, the correlational nature of this study precludes establishing causal relationships among the study variables. Although the pattern of relationships found in this study is consistent with proposed theories and other empirical work (Bernstein & Vujanovic, 2011; Lang et al., 2012; Vujanovic et al., 2011; Wahbeh et al., 2011), further research is needed to follow at-risk populations for trauma over time and to evaluate the time course of trauma outcomes. Future researchers may also consider administering mindfulness-based interventions to individuals with varying degrees of trauma exposure.

Conclusion

In this study, we provided evidence for the cumulative effects of multiple types of traumatic experiences on trauma symptomatology, psychological distress, and quality of life. More important, mindfulness facets were found to uniquely predict these outcomes above and beyond the effects of trauma exposure and demographic variables. Given the broad and cumulative impact of multiple trauma exposure, counselors need to incorporate the client's trauma history, current coping strategies, and other risk factors into their case formulation and trauma-focused treatment. Furthermore, a mindfulness-based intervention targeting college students is known for high acceptability, compatibility with existing treatments, and application to a broad range of psychological problems (Regehr, Glancy, & Pitts, 2013). Thus, further research is needed to investigate the efficacy of an individualized mindfulness-based approach to trauma in which treatment is tailored to strengthen mindfulness facets that are etiologically relevant to the client's trauma-related symptoms.

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