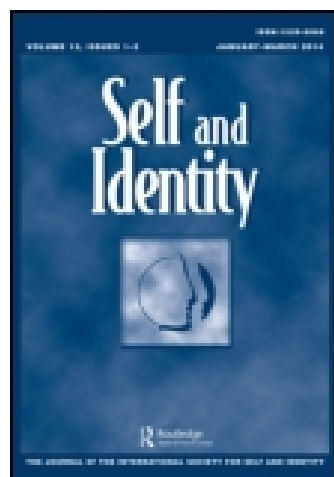


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Childhood Abuse and Problematic Alcohol Use in College Females: The Role of Self-compassion

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A history of childhood abuse has been consistently linked to heightened risk for subsequent difficulties across the lifespan, including problematic alcohol use and adolescent sexual assault (ASA). Researchers have begun to explore the added role of a lack of self-compassion in the pathway from childhood abuse to later alcohol-related problems. The present study sought to further examine these relationships in a sample at risk for problematic alcohol consumption, undergraduate females ($N = 667$). It was hypothesized that a history of three forms of childhood abuse (i.e., sexual, emotional, and physical) would directly predict subsequent alcohol problems, as well as indirectly via a history of ASA and low levels of self-compassion. Using path analysis, we found that a history of childhood sexual abuse ($B = .24$, $z = 2.17$, $p < .05$) and childhood physical abuse ($B = .16$, $z = 3.50$, $p < .05$), directly predicted later alcohol problems, whereas a history of childhood emotional abuse (CEA) was indirectly related to alcohol problems via low levels of self-compassion ($B = .03$, $z = 2.18$, $p < .05$). Findings support the emerging literature on the impact of self-compassion in relation to trauma exposure, and suggest that compassion-based skills training may be a worthwhile treatment target for individuals with a history of CEA and comorbid substance use.

Keywords: Child abuse; Adolescent sexual assault; Self-compassion; Problem substance use; College students; Path analysis.

A history of childhood abuse has been consistently linked to heightened risk for adverse outcomes across the lifespan (Messman-Moore, Walsh, & DiLillo, 2010; Nelson et al., 2002), including a greater number of alcohol-related problems in adulthood (Brems, Johnson, Neal, & Freemon, 2004; Downs, Capshew, & Rindels, 2004; Enoch, 2011; Sartor, Agrawal, McCutcheon, Duncan, & Lynskey, 2008; Simpson & Miller, 2002). Additionally, experiencing various forms of childhood maltreatment increases one's risk of experiencing sexual victimization in adolescence (Cloitre & Rosenberg, 2006; Krahe, Scheinberger-Olwig, Waizenhoffer, & Kolpin, 1999; Messman-Moore & Long, 2000; Wager, 2012), a factor that has been shown to mediate the effect of child abuse on prospective problem drinking in prior research (Najdowski & Ullman, 2009). Although the associations between childhood abuse, adolescent sexual assault (ASA), and problematic alcohol consumption have been examined previously, researchers have begun to explore the added role of a lack of self-compassion in the pathway from childhood abuse to alcohol-related problems. More specifically, preliminary research suggests that critical self-concepts (e.g., self-blame and negative self-appraisals) that can develop as a result of childhood trauma exposure help explain the occurrence of alcohol misuse in maltreatment

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survivors (Tanaka, Werkerle, Schmuck, & Paglia-Boak, 2011; Vettese, Dyer, Li, & Wekerle, 2011). The present study sought to further examine the relationship between child abuse, ASA, and problematic alcohol use by investigating the added role of self-compassion in a sample at risk for problematic substance use—college students.

Adverse Outcomes Associated with Childhood Abuse

In their treatment manual for survivors of childhood abuse, Cloitre, Cohen, and Koenen (2006) state that children who are abused “often believe that these events are expressions of their own intrinsic ‘badness’” (p. 67). The authors speculate that this belief is formed, in part, by exposure to harsh or neglectful treatment, as well as explicit statements by caregivers that communicate their worthlessness or inferiority. Cloitre et al. (2006) explain that children tend to view themselves as a potential source of the problem in instances of abuse. Moreover, previous research suggests that even when survivors of childhood trauma begin to recognize that adult perpetrators are responsible for their experiences of maltreatment, they do not necessarily excuse themselves from further blame (Feiring, Taska, & Chen, 2002; Kolko, Brown, & Berliner, 2002). This may be partially explained by children’s limited cognitive capacities for making sense of abusive experiences. Further, children in abusive environments are often not provided with effective models for developing appropriate coping strategies, which may leave children in abusive environments particularly vulnerable to the negative effects of trauma exposure (Cloitre, Miranda, Stovall-McClough, & Han, 2005; De Young, Kenardy, & Cobham, 2011; van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005).

Negative self-concepts that develop as a result of childhood abuse have the potential to persist throughout one’s lifespan (Cloitre et al., 2006). Subsequently, many adult survivors of childhood abuse engage in maladaptive coping strategies, such as problematic alcohol use, in order to modulate their lasting experience of distress and/or negative self-appraisals (Dawson, Grant, & Ruan, 2005; Sartor et al., 2008; Suh, Ruffins, Robins, Albanese, & Khantzian, 2008). Further, experiencing various forms of childhood maltreatment places one at heightened risk of experiencing sexual victimization in adolescence (Cloitre & Rosenberg, 2006; Krahe, Scheinberger-Olwig, Waizenhoffer, & Kolpin, 1999; Messman-Moore & Long, 2000; Wager, 2012), which may play an additional role in the development of problematic substance use in adulthood. More specifically, Najdowski and Ullman (2009) found that sexual revictimization mediated the effect of child abuse on prospective problem drinking in an adult sample. Others studies have also observed that the relationship between child abuse and subsequent drinking problems is not necessarily direct, and may be best explained by other intervening factors (Ullman, Najdowski, & Filipas, 2009).

Understanding the complex interplay among factors that contribute to alcohol misuse is particularly important within the context of higher education. Specifically, high rates of risky alcohol use by undergraduate students is a significant public health concern (Hingson, Zha, & Weitzman, 2009), and the prevalence of alcohol-use disorders in this population is twice that found in non college-attending adults (Blanco et al., 2008). Thus, exploring factors that contribute to problematic substance use within this population (i.e., college-aged individuals with childhood abuse histories) is needed in order to help develop effective interventions and reduce adverse outcomes.

Self-compassion

Researchers have recently begun exploring self-compassion in relation to early life experiences. Self-compassion is a method of kindly relating to oneself and one’s emotional experiences, even in instances of perceived inadequacy or failure (Neff, 2003a).

Neff (2003b) provides an interacting, three-component definition of self-compassion consisting of self-kindness versus self-judgment, common humanity versus isolation, and mindfulness versus over-identification. Self-kindness refers to the tendency to take a caring and gentle psychological stance toward oneself in the midst of suffering, rather than being harshly self-critical. Common humanity involves recognition that one's suffering and perceived inadequacies are part of the universal human experience, versus experiencing one's failings as isolating. The mindfulness component involves being aware of one's suffering or disliked qualities in a balanced way (i.e., neither avoiding or disconnecting from it, nor becoming overly engaged with it).

Thinking and acting with self-compassion has been shown to have advantageous psychological benefits, including reduced distress, pathology, and negative affect, and increased well-being, optimism, and happiness (MacBeth & Gumley, 2012; Neff, 2003a, 2003b; Neff, 2004; Neff, Kirkpatrick, & Rude, 2007; Van Dam, Sheppard, Forsyth, & Earleywine, 2011). Self-compassionate persons relate to themselves kindly and non-judgmentally, and are less likely to suppress unwanted thoughts and negative emotions (Leary, Tate, Adams, Allen, & Hancock, 2007). In this way, self-compassion is thought to act as a protective factor in instances of suffering or perceived personal inadequacy (Cohn, Fredrickson, Brown, Mikels, & Conway, 2009; Neff et al., 2007).

The use of self-compassion as a therapeutic target has been recently explored (Adams & Leary, 2007; Gilbert & Irons, 2005; Mayhew & Gilbert, 2008; Neff, 2003a), and a growing evidence base suggests there is individual variability in the tendency to be self-compassionate. Research also suggests that self-compassion can be cultivated and improved upon with skills-training and practice. Explicitly, Gilbert (2009) has designed Compassion-Focused Therapy (CFT), a model of psychotherapy for developing compassion for the self and others, and Neff and Germer (2013) have created the Mindful Self-Compassion (MSC) program, an eight-week workshop specifically designed to teach and increase self-compassion skills.

Self-compassion and Early Life Experiences

Variations in how individuals treat themselves in times of perceived inadequacy or emotional distress may be modeled by early life experiences. Neff and McGehee (2010) recently explored the relationship between childhood family environment and levels of self-compassion in adolescents. They found that individuals raised in a warm, safe, and secure family environment tended to have more self-compassion, whereas those raised in critical or aggressive environments demonstrated less self-compassion. Similarly, Tanaka and colleagues (2011) found that emotional abuse, neglect, and physical abuse each predicted lower levels of self-compassion in an adolescent population, with childhood emotional abuse emerging as the most powerful predictor in their model. In another study, individuals high in self-criticism (i.e., self-directed hostility) experienced greater difficulty generating feelings of self-compassion than those low in self-criticism (Gilbert, Baldwin, Irons, Baccus, & Palmer, 2006). Thus, exposure to dysfunctional environments or abusive childhood experiences may translate into negative and critical self-appraisals, coupled with increased difficulty extending kindness and understanding toward oneself (Gilbert & Proctor, 2006). In other words, individuals with a history of childhood abuse may have a reduced likelihood of acquiring and using self-compassion as an adaptive resource for coping with distress.

Self-compassion and Problematic Substance Use

Self-compassion has also been explored in relation to adverse outcomes such as substance use. Research suggests that high levels of self-compassion may prevent or reduce

problematic alcohol use by providing individuals with an alternative coping resource and potentially mitigating negative self-appraisals. Rendon (2007) found that alcohol use among a sample of college students was negatively correlated with levels of self-compassion. In addition, Brooks, Kay-Lambkin, Bowman, and Childs (2012) reported that clients recruited from a drug and alcohol clinical service reported levels of self-compassion that were lower than norms established for the general population. Associations between childhood maltreatment, self-compassion, and problematic alcohol use have also been examined in adolescent populations. Specifically, Tanaka and colleagues (2011) reported that lower levels of self-compassion were associated with greater distress, problematic alcohol use, and suicidality in adolescents exposed to childhood abuse. In addition, Vettese et al. (2011) found that maltreated youths with greater levels of self-compassion reported a lower severity of addictive problems. Thus, it seems that higher levels of self-compassion may support the use of adaptive coping in adolescents with childhood maltreatment histories, whereas lower levels may contribute to maladaptive strategies (e.g., substance misuse). However, these associations have not been tested in relation to other related constructs (e.g., sexual victimization in adolescence) in a population at risk for problematic alcohol use—undergraduate students.

The Present Study

The present study sought to address gaps in the literature by examining the relationships between recollections of different forms childhood maltreatment (i.e., child sexual abuse [CSA], child physical abuse [CPA], and child emotional abuse [CEA]), self-compassion, and problematic alcohol use in a sample of female undergraduate students. Additionally, because research has shown a consistent link between childhood abuse and ASA, and sexual revictimization has demonstrated a mediating role in the relationship between childhood abuse and alcohol problems in adulthood, ASA was included as an additional putative mediator in the present model. It was hypothesized that each maltreatment type would evidence a positive association with alcohol problems and a negative association with self-compassion. Moreover, we hypothesized that a history of childhood abuse would directly predict subsequent alcohol problems, as well as indirectly via a history of ASA and low levels of self-compassion.

Method

Participants

The current study received approval by the university's Institutional Review Board. Participants ($N = 667$) were undergraduate students enrolled in an introductory psychology course at a large Midwestern university during the 2004–2005 academic year. Due to a focus on sexual revictimization (a phenomenon that is significantly more likely to affect women than men; e.g., Finkelhor, Hotaling, Lewis, & Smith, 1990; Pereda, Guilera, Forns, & Gomez-Benito, 2009), only female students were asked to participate. The only prerequisites for participation were that participants be women over the age of 18 and fluent in English; participants were not selected based on victimization history. Participants were recruited through a computerized enrollment system and were asked to respond to a series of questionnaire items. Online data collection allowed participants to anonymously answer questions in a private environment of their choosing, potentially increasing levels of self-disclosure and willingness to answer sensitive questions (Joinson, 1999; Tourangeau, 2004). Participants received partial course credit for their participation.

The mean age of study participants was 18.71 years old ($SD = 1.03$). In terms of participant race/ethnicity, 69.7% of the sample self-identified as European-American, 24.5% as African-American, 7.1% as Hispanic or Latina, and 5.8% as multiracial/other.

Measures

Participant age and race/ethnicity were included in the hypothesized models as potential covariates. A four-category measure of race/ethnicity (i.e., European-American, African-American, Hispanic/Latina, and multiracial/other) was used. In the analyses, the four race/ethnicity categories reflect a series of dummy coded variables where 1 = identification with the listed category and 0 = all other categories. The European-American racial/ethnic category was treated as the reference category in the present analyses.

Traumatic life events questionnaire. The Traumatic Life Events Questionnaire (TLEQ; Kubany et al., 2000) is a brief measure of trauma exposure that has demonstrated good psychometric properties (Kubany, 2004). Respondents indicate the frequency of experiencing 22 potentially traumatic events, including the experiences of sexual assault in childhood (e.g., “Before your 13th birthday: Did anyone who was at least 5 years older than you touch or fondle your body in a sexual way or make you touch or fondle their body in a sexual way?”) and adolescence (e.g., “After your 13th birthday and before your 15th birthday: Did anyone touch sexual parts of your body or make you touch sexual parts of their body against your will or without your consent?”). The TLEQ uses direct and simple behavioral language to avoid stigmatizing participants’ reactions to question content (e.g., describing unwanted sexual experiences instead of rape) with the intention of increasing endorsements rates. TLEQ scores were divided into two dichotomous variables for CSA and ASA. In the present analysis, any unwanted sexual contact before age 13 perpetrated by someone at least five years older was considered CSA, and any sexual contact against one’s will or without consent occurring between ages 13 and 18 was classified as ASA.

Self-compassion scale. The Self-Compassion Scale (SCS; Neff, 2003b) is a self-report inventory designed to measure the extent to which an individual exhibits a kind and accepting attitude toward oneself in instances of pain or failure (as opposed to being self-critical). The SCS consists of six intercorrelated subscales: Self-Kindness (e.g., “I try to be loving towards myself when I’m feeling emotional pain”), Self-Judgment (e.g., “When times are really difficult, I tend to be tough on myself”), Common Humanity (e.g., “I try to see my failings as part of the human condition”), Isolation (e.g., “When I fail at something that’s important to me, I tend to feel alone in my failure”), Mindfulness (e.g., “When I’m feeling down I try to approach my feelings with curiosity and openness”), and Over-Identification (e.g., “When I’m feeling down I tend to obsess and fixate on everything that’s wrong”). Combining the mean scores from each subscale generates an overall self-compassion score, which was used in the present study and represented as a continuous variable. Prior research has indicated that a single higher-order factor explains intercorrelations between the SCS subscales (Neff, 2003), justifying the use of the SCS total score in the present analyses. The SCS has demonstrated good internal consistency ($\alpha = .92$), as well as good test-retest reliability ($\alpha = .93$; Neff, 2003b) over a three-week interval. The internal consistency estimate in the present sample was good ($\alpha = .92$).

Childhood physical and emotional abuse. Items derived from the Family Experiences Questionnaire (Briere & Runtz, 1990) were used to assess for CEA at the

age of 14 or younger. Seven items designed to assess the experience of CEA were administered. Specific items included in the CEA score were: “How often did the person most responsible for taking care of you yell at you? Insult you? Criticize you? Try to make you feel guilty? Ridicule or humiliate you? Embarrass you in front of others? Make you feel like you were a bad person?” Six items adapted from the Childhood History Questionnaire (Milner, Robertson, & Rodgers, 1990) were used to assess consequences of CPA. Specific items included in the CPA score were: “How often did punishment from the person most responsible for taking care of you leave you with bruises? Cuts or scratches? Welts? Dislocations? Burns? Bone fractures?” Participants indicated the frequency of each abusive behavior on a seven-point scale with the following anchors: 0 (*never*), 1 (*once a year*), 2 (*twice a year*), 3 (*3 to 5 times a year*), 4 (*6 to 10 times a year*), 5 (*11 to 20 times a year*), and 6 (*more than 20 times a year*). Scores on emotional and physical abuse items were averaged for each caregiver, and participants were assigned the maximum score across caregivers. Resulting values were used in the present study as measures of CPA and CEA, which are represented as continuous variables in the model.

Young adults alcohol problems screening test. The Young Adults Alcohol Problems Screening Test (YAAPST; Hurlbut & Sher, 1992) is a self-report measure that assesses negative consequences of alcohol use among college students. The YAAPST measures both traditional consequences of alcohol use, as well as additional consequences that may occur in higher rates in a college student population. Items describing sexual outcomes of alcohol use were not used in the present analyses in order to prevent an inflated relationship between CSA and alcohol problems relative to other forms of childhood abuse. A subset of nine YAAPST items were included in the present study to assess for negative consequences due to drinking (i.e., “Driven while intoxicated; Not gone to work or missed class; Gotten in trouble at school or work; Someone close to you complained to you about your drinking; Had problems between you and your significant other/near relative; Neglected obligations for 2 days in a row; Been arrested for driving under the influence; Been arrested due to drunken behavior; Awoke and could not remember a part of the evening”). Count scores of self-reported alcohol problems were used in the present analyses as a measure of problematic alcohol use.

Procedure

Data screening was performed using SPSS 19.0 statistical software. Missing values constituted less than 5% of cases for each study variable. Univariate outliers were evident for several variables, but were within a plausible range. Fifteen cases contained influential age outliers (more than three standard deviations from the mean) and values were truncated to the next highest value plus one unit. No multivariate outliers were identified, and relationships between study variables were found to be linear. Main analyses were performed using path analysis in MPlus 7.0 (Muthén & Muthén, 1998–2012) using maximum likelihood parameter estimation. Because the primary outcome variable was a count variable (i.e., YAPPST scores), a zero-inflated Poisson model with a robust maximum likelihood estimator and Monte Carlo numerical integration was used, as outlined by Muthén and Muthén (1998–2012). Specifically, the direct effects of various forms of childhood maltreatment (i.e., CSA, CPA, and CEA), ASA, self-compassion, and problematic alcohol use were tested. Indirect effects of child abuse variables on YAPPST scores were modeled using mediational analyses outlined by Preacher and Hayes (2008).

Results

See Tables 1–3 for descriptive statistics, frequencies, and mean self-compassion, physical/emotional abuse, and alcohol problems scores based on participant sexual assault status. Pearson correlations were used to assess bivariate associations between covariates, measures of childhood abuse, ASA, self-compassion, and problematic alcohol use (see Table 4). Participant age and race/ethnicity (modeled as a series of dummy coded variables where 1 = identification with the listed racial/ethnic category and 0 = all other categories) were included in analyses as potential covariates. Participant age was positively associated with CEA and alcohol problems, such that older participants endorsed higher rates of CEA and problematic alcohol use in adulthood than younger participants. Negative associations were observed between the European-American category (where 1 = European-American and 0 = all other racial/ethnic categories) and rates of CSA and CPA. African-American racial identification (versus all other racial/ethnic categories) was positively associated with self-compassion, and negatively associated with alcohol problems, whereas European-American identification (versus all other racial/ethnic categories) evidenced the opposite pattern (i.e., negative association with self-compassion and positive association with alcohol problems). Results also indicated that alcohol problems were positively associated with CEA, CPA, and ASA, as well as negatively associated with self-compassion. CEA and ASA were negatively associated with self-compassion, and CEA and CPA were significantly positively related to ASA. In addition, the childhood abuse variables evidenced significant intercorrelations.

Next, tests of significance for individual paths in the hypothesized model were tested. More specifically, a path analysis was conducted in which CSA, CPA, CEA, ASA, SCS, and YAAPST scores were represented as observed variables in the model. We compared the full model with a more parsimonious model trimmed at $p < .10$. To support the trimmed model, we evaluated the difference between the full and trimmed models using the Bayesian information criterion (BIC; Raftery, 1995).¹ BIC provides a quantitative index of the extent to which each model maximizes correspondence between the observed and predicted variances and covariances, while minimizing the number of parameters. Using guidelines by Raftery (1995), we found that the difference between the full and trimmed models (i.e., BIC difference > 10) was in the direction of favoring the more parsimonious model. Accordingly, significant paths and correlations associated with the trimmed model (with corresponding unstandardized coefficients and critical ratio values) are depicted in Figure 1. After controlling for intercorrelations among abuse types, both CSA and CPA were found to uniquely predict alcohol problems, whereas a history of CEA did not directly predict problematic alcohol use. SCS scores also directly predicted alcohol problems, whereas the direct relationship between ASA and alcohol problems was not significant. Relationships between childhood abuse variables (i.e., CSA, CPA, and CEA),

TABLE 1 Descriptive Statistics for Continuous Abuse Variables, Self-Compassion, and Alcohol Problems

Measure	M	SD	Min	Max	N
CPA	1.17	.55	1	7	667
CEA	2.65	1.60	1	7	667
SCS	3.15	.67	1.04	5	667
YAAPST	1.80	1.87	0	9	667

Notes: CPA = childhood physical abuse; CEA = childhood emotional abuse; SCS = Self-Compassion Scale; YAAPST = Young Adults Alcohol Problems Screening Test.

TABLE 2 Frequencies of Participant Demographics, Alcohol Problem Severity, and Sexual Assault

Measure	<i>N</i>	%
Age		
18–20	628	94.2
21–23	39	5.8
Race/Ethnicity		
European-American	429	64.3
African-American	154	23.1
Hispanic/Latina	43	6.4
Multiracial/Other Race	37	5.5
YAAPST		
0	232	34.8
1–3	308	46.1
4–6	115	17.2
7–9	12	1.8
CSA Status		
Yes	69	10.3
No	586	87.9
ASA Status		
Yes	97	14.5
No	536	80.4

Notes: YAAPST = Young Adults Alcohol Problems Screening Test; CSA = childhood sexual abuse; ASA = adolescent sexual assault. YAAPST coded as a count score of alcohol problems endorsed. Age $M = 18.8$, $SD = 1.61$. Due to missing data, all percentages do not add to 100.

ASA, and self-compassion were also tested. CEA was the only childhood abuse variable found to uniquely predict ASA and self-compassion scores, after controlling for intercorrelations among abuse variables.

Next, a separate model was estimated to examine the indirect effect of CEA on later alcohol problems, as mediated by ASA and self-compassion, as this pathway consisted of significant direct effects (i.e., the significant relationship between CEA and SCS/ASA scores and between SCS scores and alcohol problems). We utilized the product coefficients approach for assessing indirect effects in multiple mediator models

TABLE 3 Self-Compassion, Abuse, and Alcohol Problems based on Sexual Assault Status

	CSA Only	ASA Only	CSA and ASA	No CSA or ASA
SCS				
M (<i>SD</i>)	3.18 (.72)	2.98 (.71)	2.51 (.64)	3.20 (.64)
Median	3.12	3.04	2.73	3.12
CPA				
M (<i>SD</i>)	1.45 (.88)	1.22 (.49)	1.56 (.79)	1.12 (.45)
Median	1.00	1.00	1.2	1.00
CEA				
M (<i>SD</i>)	3.30 (1.90)	3.22 (1.77)	4.76 (1.89)	2.43 (1.43)
Median	2.71	2.57	5.00	1.86
YAAPST				
M (<i>SD</i>)	1.85 (2.20)	2.36 (1.76)	3.67 (2.35)	1.61 (1.79)
Median	1.00	2.00	4.00	1.00
<i>N</i> (%)	53 (7.9%)	83 (12.4%)	12 (1.8%)	478 (71.7%)

Notes: CSA = childhood sexual abuse; CPA = childhood physical abuse; CEA = childhood emotional abuse; ASA = adolescent sexual assault; SCS = Self-Compassion Scale; YAAPST = Young Adults Alcohol Problems Screening Test.

TABLE 4 Bivariate Correlations for Covariates, Abuse Variables, Self-Compassion, and Alcohol Problems

Measure	1	2	3	4	5	6	7	8	9	10	11
1. Age	—										
2. European-American	-.11**	—									
3. African-American	.08*	-.79***	—								
4. Hispanic/Latina	-.01	-.21***	-.12**	—							
5. Multiracial/other race	.05	-.35***	-.14***	.04	—						
6. CSA	.06	-.16***	.10**	.06	.05	—					
7. CPA	.07	-.09*	.06	-.01	.07	.22***	—				
8. CEA	.11**	.03	-.09*	-.02	.10*	.20***	.47***	—			
9. ASA	-.01	.10*	-.10*	.00	-.01	.03	.09*	.21***	—		
10. SCS	-.01	-.13**	.12**	.08	.01	-.05	-.04	-.20***	-.02	—	
11. YAAPST	.09*	.20***	-.24***	.04	-.01	.07	.13**	.15***	.09*	-.13**	—

Notes: Race/ethnicity categories reflect a series of dummy coded variables with 1 = identification with listed category and 0 = all others. CSA and ASA were coded as “1 = Any Sexual Assault” and “0 = No Sexual Assault.” CSA = childhood sexual abuse; CPA = childhood physical abuse; CEA = childhood emotional abuse; ASA = adolescent sexual assault; SCS = Self-Compassion Scale; YAAPST = Young Adults Alcohol Problems Screening Test. * $p < .05$, ** $p < .01$, *** $p < .001$.

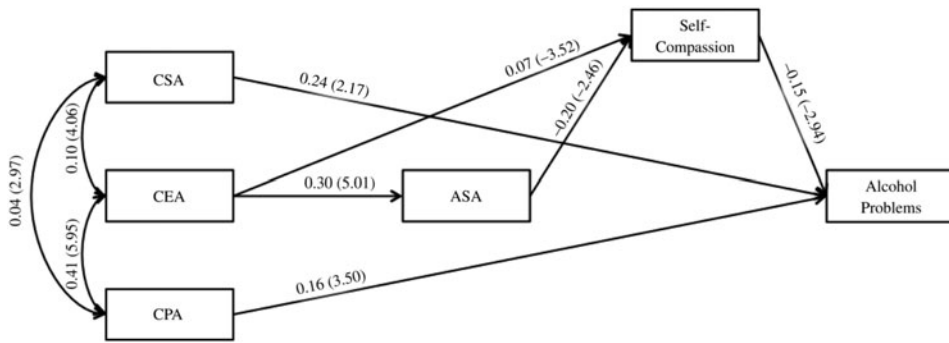


FIGURE 1 Trimmed path model of the direct and indirect effects of ASA and self-compassion on the relationship between childhood abuse variables (i.e., CSA, CPA, and CEA) and alcohol problems (BIC difference between full and trimmed models > 10). $N = 667$. Path coefficients are unstandardized regression coefficients. The numbers in parentheses represent the significance level of the path coefficients and values ≥ 1.96 are significant at $p < .05$. The model is estimated controlling for participant age and three dummy-coded variables reflecting the four race/ethnicity categories (not depicted).

(as outlined by Preacher and Hayes, 2008) in order to estimate the significance of the indirect effect of CEA on later alcohol problems. We then compared the full model with a model trimmed at $p < .10$ and evaluated the difference using the BIC criterion as identified by Raftery (1995). We found that the difference between the full and trimmed models (i.e., BIC difference > 10) was in the direction of favoring the trimmed model. Significant paths and correlations associated with the trimmed model (with corresponding unstandardized coefficients and critical ratio values) are depicted in Figure 2. We found that the total indirect effect (i.e., the total indirect effect of CEA on alcohol problems

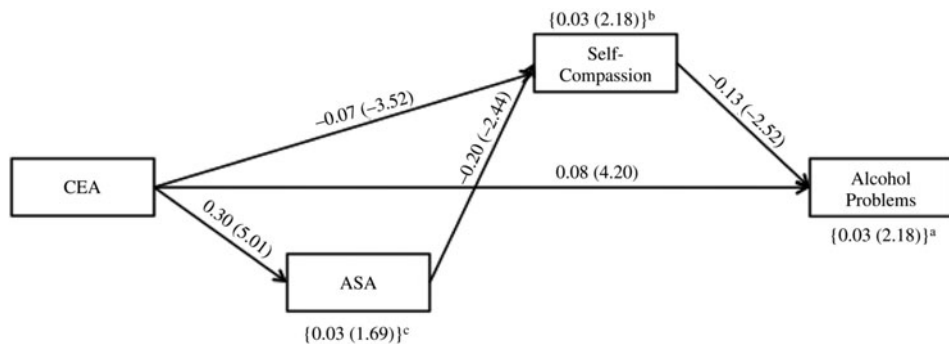


FIGURE 2 Trimmed model of the direct and indirect effect of CEA on alcohol problems via ASA and SCS (BIC difference between full and trimmed models > 10). $N = 667$. Path coefficients are unstandardized regression coefficients. The numbers in parentheses represent the significance level of the path coefficients and values ≥ 1.96 are significant at $p < .05$. The model is estimated controlling for participant age and three dummy-coded variables reflecting the four race/ethnicity categories (not depicted). ^a = The total indirect effect of CEA on alcohol problems; ^b = The indirect effect of CEA on alcohol problems via self-compassion; ^c = The indirect effect of CEA on alcohol problems via ASA, via self-compassion.

including both self-compassion and ASA) was significant ($B = .05$, $z = 2.30$, $p < .05$). Next, we sought to determine the relative magnitude of the specific indirect effects associated with each putative mediator.² Results indicated that there was a significant indirect effect of CEA on alcohol problems via self-compassion ($B = .03$, $z = 2.18$, $p < .05$). In addition, we also tested the indirect effect of CEA on alcohol problems via the following series of pathways: CEA to ASA, ASA to self-compassion, and self-compassion to alcohol problems. We found that the indirect effect of this series of pathways was not statistically significant, but was trending toward significance ($B = .03$, $z = 1.69$, *ns*).

Discussion

The aim of the present study was to examine how undergraduate females exposed to different forms of childhood abuse differ in their levels of problematic alcohol use, and to test whether this relationship can be partially explained by the occurrence of ASA and levels of self-compassion. Results demonstrated that both a history of CSA and CPA directly predicted problematic alcohol use in college in a sample of undergraduate females. A history of CEA, however, indirectly predicted alcohol problems via low levels of self-compassion. These findings are in line with those reported by Tanaka and colleagues (2011), in which CEA emerged as the strongest predictor of reduced self-compassion in their model using distinct child abuse types. The observed association between participant age and CEA was interesting given the limited age range of the sample (i.e., 18–23). One possible explanation for this finding lies in the distinction between the various childhood abuse types used in the present study. It may be the case that the experience of childhood sexual and physical abuse is more recognizable to students as compared to the experience of emotional abuse. Due to differing developmental periods, older students may have had more time to reflect upon emotionally upsetting early life experiences (e.g., ridicule, humiliation) in a manner that would increase their chances of reporting them.

The finding that CSA and CPA were not significantly related to ASA is contrary to prior research. Specifically, numerous studies have noted significant relationships between the occurrence of CSA and/or CPA and increased risk for adolescent victimization (e.g., Cloitre & Rosenberg, 2006; Gilbert et al., 2009; Hetzel & McCanne, 2005; Messman-Moore & Long, 2000). Definitions of CSA (i.e., unwanted sexual contact before age 13 perpetrated by someone at least five years older) and CPA (e.g., focusing on the consequences of physical abuse rather than actions alone) in the present study were more stringent compared to those utilized in other research (e.g., Messman-Moore & Long, 2000; Vettease et al., 2011), which may factor into the present results. In addition, other studies have found that the relationship between CSA and/or CPA and later revictimization is indirect (Fargo, 2009; Najdowski & Ullman, 2009; Ullman, Najdowski, & Filipas, 2009). Thus, it may be the case that additional variable(s) not included in the present model (e.g., psychological distress, adolescent substance abuse) may help explain potential relationships between CSA, CPA, and ASA.

Regarding the lack of relationship between CPA, CSA, and self-compassion, it is conceivable that individuals exposed to child physical and sexual abuse are less likely to develop lasting negative self-appraisals than those exposed to psychological abuse. That is, while the experience of physical and sexual abuse is distressing and may lead to maladaptive coping responses in adulthood, self-compassion does not appear to significantly affect this unique relationship in the present sample. It is important to note, however, that the abuse groups in the present study, as is the case within the general population, are not discrete. As such, potential co-occurrence between abuse types should

be taken into account when making observations about unique relationships between childhood maltreatment types and mediator/outcome relationships. Relatedly, CSA and CPA were found to be strongly related to CEA, which evidenced a more direct association with both self-compassion scores and the occurrence of ASA.

Collectively, results suggest a need for continued examination of distinct outcomes following varied experiences of childhood maltreatment. Tanaka et al. (2011) make the observation that emotional maltreatment is investigated less rigorously relative to other forms of childhood abuse. However, as Cloitre and colleagues (2006) point out, explicit negative statements and appraisals made by caregivers in instances of CEA likely have a more direct and robust effect on a victim's sense of self-worth. Moreover, adapting a negative self-dialogue may influence the pursuit of hostile or destructive coping behaviors and habits (e.g., risky sexual behavior, substance use, or self-attacking). In line with this understanding, findings from the present study suggest that women with a history of CEA are vulnerable to experiencing ASA and/or developing a negative, critical view of themselves and their emotional experiences. These occurrences, in turn, may lead to problematic alcohol use in early adulthood.

Findings also support the emerging literature on self-compassion as a worthwhile target in child- and adolescent-trauma research and intervention planning, particularly for those exposed to emotional or psychological abuse. Therapeutic interventions designed to encourage and cultivate self-compassion, such as CFT (Gilbert, 2009) and the MSC program (Neff & Germer, 2013), may offer beneficial techniques for individuals with interpersonal trauma histories and comorbid alcohol problems. That is, compassion-focused interventions may provide a framework for successful attribution retraining for individuals experiencing abuse-related self-blame and/or feelings of worthlessness and shame. It has been observed that understanding and accepting the perpetrator's role in abusive experiences does not necessarily diminish feelings of self-loathing and blame for victims (Cloitre et al., 2006). By additionally focusing on increased compassion toward oneself, it is possible that negative self-perceptions and cognitions associated with childhood maltreatment can be targeted and corrected, with the goal of minimizing negative outcomes such as psychopathology, revictimization, and substance abuse (Gilbert & Procter, 2006). Compassion-focused interventions related to substance use have been explored briefly in recent literature. Specifically, Kelly, Zuroff, and Foa (2010) found that implementing a self-compassion intervention led to more rapid reductions in smoking for participants who reported high self-criticism and low readiness to change, and who were successfully able to visualize a compassionate image during the intervention exercises. Additionally, Brooks and colleagues (2012) reported that reductions in alcohol use among clients recruited from a drug and alcohol clinical service were significantly correlated with improvements in self-compassion. Thus, additional research on substance use interventions targeted at increasing levels of self-compassion (in tandem with reducing one's use of substances) is warranted.

The present study has several limitations worth acknowledging. First, data were cross-sectional. Thus, there can be less confidence in the temporal relationships and directionality of influence among variables and conclusions should remain tentative. For instance, it may be that problematic alcohol use contributes to viewing oneself dispassionately, rather than the other way around. Additionally, alcohol use in childhood or adolescence were not included in the present models and may be important added factors in the relationships between childhood abuse, ASA, and alcohol use in college, particularly as troubled children may start drinking at an early age (e.g., Dube et al., 2006). It is conceivable that problematic drinking behaviors in childhood and/or adolescence are related to increased rates of ASA, rather than alcohol use in college serving solely as an

outcome of ASA. The relationship could also be bidirectional in nature, with risk of victimization and problematic drinking influencing each other over time, as proposed by previous research (e.g., Najdowski & Ullman, 2009). That is, it is possible that exposure to child maltreatment may contribute to early drinking behaviors, which may lead to increased risk of ASA, which then contributes to further problematic alcohol use in college. Although the present study could not examine the temporal links between victimization, self-compassion, and problematic drinking specifically, such analyses are warranted in future longitudinal studies in order to further understand these complex relationships.

Another shortcoming of the present study is that the constructs investigated were obtained through self-report questionnaires and, to some extent, relied on retrospective reporting. Consequently, measurement and recall bias may account for some of the associations observed. Future research would benefit from the use of experimental or treatment modalities in examining the role of self-compassion (or self-criticism) in outcomes following CEA. Additionally, results were obtained using an all-female undergraduate sample. While this population provides meaningful data in terms of investigating instances of sexual assault and problematic substance use, findings may not be easily generalizable to other individuals or groups. Future research may benefit from sampling data from male participants and populations with greater heterogeneity more generally. Finally, another potential limitation of the present study is the relatively small magnitude of the effects reported. It is important to remember, however, that because the path from childhood abuse to alcohol-related problems in adulthood is complex and multidetermined, a large effect is unlikely. Moreover, due to the high prevalence of alcohol misuse and related adverse outcomes among college student populations (e.g., Blanco *et al.*, 2008; Hingson *et al.*, 2009), potential causal influences—even if small—should not be overlooked if factors are amenable to modification (e.g., CFT or MSC program for increasing levels of self-compassion).

Despite these limitations, the present findings contribute significantly to the literature on childhood maltreatment and subsequent alcohol use in college-aged individuals, and support continued investigation on the effects of self-compassion and revictimization in relation to trauma exposure and coping. Self-critical cognitions and appraisals may be important targets for psychotherapy interventions, particularly for individuals exposed to CEA. Relatedly, findings suggest that having a harsh, critical view of oneself may increase vulnerability toward developing maladaptive coping strategies, such as problematic substance use. Thus, increasing levels of self-compassion for individuals exposed to childhood maltreatment may serve as a buffer against further negative outcomes. Notably, there has been preliminary evidence suggesting that levels of self-compassion can be increased through psychotherapeutic and training methods (Gilbert, 2009; Neff & Germer, 2013), and may be worthwhile targets for victims of trauma (e.g., Lee & James, 2011). Therefore, there is a clear need for research designed to investigate the effects and mechanism(s) of action underlying compassion-focused therapies, as well as which clinical populations and presentations may most benefit from this type of intervention.

Notes

1. Under Monte Carlo integration, there is no single referent covariance matrix, which precludes calculation of an overall model chi-square and chi-square based fit indices.
2. Due to limitations in Mplus with estimating indirect effects, we reestimated the model with the count-dependent variable respecified as a zero-inflated censored variable (using a maximum likelihood estimation with robust standard errors and numerical integration). The resulting critical values were comparable between the two models and the significance of the indirect effects was estimated with the zero-inflated censored variable outcome.

References

- Adams, C. E., & Leary, M. R. (2007). Promoting self-compassionate attitudes toward eating among restrictive and guilty eaters. *Journal of Social and Clinical Psychology, 26*, 1120–1144.
- Blanco, C., Okuda, M., Wright, C., Hasin, D. S., Grant, B. F., Liu, S. M., & Olfson, M. (2008). Mental health of college students and their non-college-attending peers: Results from the national epidemiologic study on alcohol related conditions. *Archives of General Psychiatry, 65*, 1429–1437.
- Brems, C., Johnson, M. E., Neal, D., & Freemon, M. (2004). Childhood abuse history and substance use among men and women receiving detoxification service. *American Journal of Drug and Alcohol Abuse, 30*, 799–821.
- Briere, J., & Runtz, M. (1990). Differential adult symptomatology associated with three types of child abuse histories. *Child Abuse and Neglect, 146*, 357–364.
- Brooks, M., Kay-Lambkin, F., Bowman, J., & Childs, S. (2012). Self-compassion amongst clients with problematic alcohol use. *Mindfulness, 3*, 308–317.
- Cloitre, M., Cohen, L. R., & Koenen, K. C. (2006). *Treating survivors of childhood abuse: Psychotherapy for the interrupted life*. New York, NY: Guilford Press.
- Cloitre, M., Miranda, R., Stovall-McClough, K. C., & Han, H. (2005). Beyond PTSD: Emotion regulation and interpersonal problems as predictors of functional impairment in survivors of childhood abuse. *Behavior Therapy, 36*, 119–124.
- Cloitre, M., & Rosenberg, A. (2006). Sexual revictimization: Risk factors and prevention. In V. M. Follette & J. I. Ruzek (Eds.), *Cognitive-behavioral therapies for trauma* (pp. 321–361). New York, NY: Guilford.
- Cohn, M. A., Fredrickson, B. L., Brown, S. L., Mikels, J. A., & Conway, A. M. (2009). Happiness unpacked: Positive emotions increase life satisfaction by building resilience. *Emotion, 9*, 361–368.
- Dawson, D. A., Grant, B. F., & Ruan, W. J. (2005). The association between stress and drinking: Modifying effects of gender and vulnerability. *Alcohol and Alcoholism, 40*, 453–460.
- De Young, A. C., Kenardy, J. A., & Cobham, V. E. (2011). Trauma in early childhood: A neglected population. *Clinical Child and Family Psychology Review, 14*, 231–250.
- Downs, W. R., Capshew, T., & Brindels, B. (2004). Relationships between adult women's alcohol problems and their childhood experiences of parental violence and psychological aggression. *Journal of Studies on Alcohol, 65*, 336–344.
- Dube, S. R., Miller, J. W., Brown, D. W., Giles, W. H., Felitti, V. J., Dong, M., & Anda, R. R. (2006). Adverse childhood experiences and the association with ever using alcohol and initiating alcohol use during adolescence. *Journal of Adolescent Health, 38*, 444–454.
- Enoch, M. A. (2011). The role of early life stress as a predictor for alcohol and drug dependence. *Psychopharmacology, 214*, 17–31.
- Fargo, J. D. (2009). Pathways to adult sexual revictimization: Direct and indirect behavioral risk factors across the lifespan. *Journal of Interpersonal Violence, 24*, 1771–1791.
- Feiring, C., Taska, L., & Chen, K. (2002). Trying to understand why horrible things happen: Attribution, shame, and symptom development following sexual abuse. *Child Maltreatment, 7*, 26–41.
- Finkelhor, D., Hotaling, G., Lewis, I. A., & Smith, C. (1990). Sexual abuse in a national survey of adult men and women: Prevalence, characteristics, and risk factors. *Child Abuse and Neglect, 14*, 19–28.
- Gilbert, P. (2009). Introducing compassion-focused therapy. *Advances in Psychiatric Treatment, 15*, 199–208.
- Gilbert, P., Baldwin, M., Irons, C., Baccus, J., & Palmer, M. (2006). Self-criticism and self-warmth: An imagery study exploring their relation to depression. *Journal of Cognitive Psychotherapy, 20*, 183–200.
- Gilbert, P., & Irons, C. (2005). Focused therapies and compassionate mind training for shame and self-attacking. In P. Gilbert (Ed.), *Compassion: Conceptualizations, research and use in psychotherapy* (pp. 263–325). London: Routledge.

- Gilbert, P., & Proctor, S. (2006). Compassionate mind training for people with high shame and self-criticism: Overview and pilot study of a group therapy approach. *Clinical Psychology and Psychotherapy*, 13, 353–379.
- Gilbert, P., Wisdom, C. S., Browne, K., Fergusson, D., Webb, E., & Janson, S. (2009). Burden and consequences of child maltreatment in high-income countries. *Lancet*, 373, 68–81.
- Hetzel, M. D., & McCanne, T. R. (2005). The roles of peritraumatic dissociation, child physical abuse, and child sexual abuse in the development of posttraumatic stress disorder and adult victimization. *Child Abuse & Neglect*, 29, 915–930.
- Hingson, R. W., Zha, W., & Weitzman, E. R. (2009). Magnitude of and trends in alcohol-related mortality and morbidity among U.S. college students ages 18–24, 1998–2005. *Journal of Studies on Alcohol and Drugs*, 16, 12–20.
- Hurlbut, S. C., & Sher, K. J. (1992). Assessing alcohol problems in college students. *Journal of American College Health*, 41, 49–58.
- Joinson, A. N. (1999). Anonymity, disinhibition and social desirability on the Internet. *Behaviour Research Methods, Instruments and Computers*, 31, 433–438.
- Kelly, A. C., Zuroff, D. C., & Foa, C. L. (2010). Who benefits from training in self-compassionate self-regulation? A study of smoking reduction. *Journal of Social and Clinical Psychology*, 29, 727–755.
- Kolko, D. J., Brown, E. J., & Berliner, L. (2002). Children's perceptions of their abusive experience: Measurement and preliminary findings. *Child Maltreatment*, 7, 41–53.
- Krahe, B., Scheinberger-Olwig, R., Waizenhofer, E., & Koplin, S. (1999). Childhood sexual abuse and revictimization in adolescence. *Child Abuse and Neglect*, 23, 383–394.
- Kubany, E. S. (2004). *Trauma assessment inventories: Traumatic life events questionnaire and PTSD screening and diagnostic scale*. Los Angeles, CA: Western Psychological Services.
- Kubany, E. S., Haynes, S. N., Leisen, M. B., Owens, J. A., Kaplan, A. S., Watson, S. B., & Burns, K. (2000). Development and preliminary validation of a brief broad-spectrum measure of trauma exposure: The traumatic life events questionnaire. *Psychological Assessment*, 12, 210–224.
- Leary, M. R., Tate, E. B., Adams, C. E., Allen, A. B., & Hancock, J. (2007). Self-compassion and reactions to unpleasant self-relevant events: The implications of treating oneself kindly. *Journal of Personality and Social Psychology*, 92, 887–904.
- Lee, D. A., & James, S. (2011). *The compassionate-mind guide to recovering from trauma and PTSD*. Oakland, CA: New Harbinger Publications.
- MacBeth, A., & Gumley, A. (2012). Exploring compassion: A meta-analysis of the association between self-compassion and psychopathology. *Clinical Psychology Review*, 32, 545–552.
- Mayhew, S., & Gilbert, P. (2008). Compassionate mind training with people who hear malevolent voices: A case series report. *Clinical Psychology & Psychotherapy*, 15, 113–138.
- Messman-Moore, T. L., & Long, P. J. (2000). Child sexual abuse and revictimization in the form of ASA, adult physical abuse, and adult psychological maltreatment. *Journal of Interpersonal Violence*, 15, 489–502.
- Messman-Moore, T. L., Walsh, K., & DiLillo, D. (2010). Emotion dysregulation and risky sexual behavior in revictimization. *Child Abuse and Neglect*, 34, 967–976.
- Milner, J. S., Robertson, K. R., & Rogers, D. L. (1990). Childhood history of abuse and adult child abuse potential. *Journal of Family Violence*, 5, 15–34.
- Muthén, L. K., & Muthén, B. O. (1998–2012). *Mplus User's Guide. Seventh Edition*. Los Angeles, CA: Muthén & Muthén.
- Najdowski, C. J., & Ullman, S. E. (2009). Prospective effects of sexual victimization on PTSD and problem drinking. *Addictive Behaviors*, 34, 965–968.
- Neff, K. D. (2003a). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity*, 2, 85–102.
- Neff, K. D. (2003b). Development and validation of a scale to measure self-compassion. *Self and Identity*, 2, 223–250.
- Neff, K. D. (2004). Self-compassion and psychological well-being. *Constructivism in the Human Sciences*, 9, 27–37.

- Neff, K. D., & Germer, C. K. (2013). A pilot study and randomized controlled trial of the Mindful Self-Compassion Program. *Journal of Clinical Psychology*, 69, 28–44.
- Neff, K. D., Kirkpatrick, K., & Rude, S. S. (2007). Self-compassion and adaptive psychological functioning. *Journal of Research in Personality*, 41, 139–154.
- Neff, K. D., & McGehee, P. (2010). Self-compassion and psychological resilience among adolescents and young adults. *Self and Identity*, 9, 225–240.
- Nelson, E. C., Heath, A. C., Madden, P. A. F., Cooper, L., Dinwiddie, S. H., Bucholz, K. K., & . . . Martin, N. G. (2002). Association between self-reported childhood sexual abuse and adverse psychosocial outcomes. *Archives of General Psychiatry*, 59, 139–145.
- Pereda, N., Guilera, G., Forns, M., & Gomez-Benito, J. (2009). The prevalence of child sexual abuse in community and student samples: A meta-analysis. *Clinical Psychology Review*, 29, 328–338.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879–891.
- Raftery, A. E. (1995). Bayesian model selection in social research. *Sociological Methodology*, 25, 111–163.
- Rendon, K. P. (2007). Understanding alcohol use in college students: A study of mindfulness, self-compassion and psychological symptoms (Unpublished doctoral dissertation). University of Texas at Austin, Texas.
- Sartor, C. E., Agrawal, A., McCutcheon, W., Duncan, A. E., & Lynskey, M. T. (2008). Disentangling the complex association between childhood sexual abuse and alcohol-related problems: A review of methodological issues and approaches. *Journal of Studies on Alcohol and Drugs*, 69, 718–727.
- Simpson, T. L., & Miller, W. R. (2002). Concomitance between childhood sexual and physical abuse and substance use problems: A review. *Clinical Psychology Review*, 2, 27–77.
- SPSS, (19.0) [Computer software]. <http://www-01.ibm.com/software/analytics/spss/>
- Suh, J. J., Ruffins, S., Robins, C. E., Albanese, M. J., & Khantzian, E. J. (2008). Self-medication hypothesis: Counting affective experience and drug choice. *Psychoanalytic Psychology*, 25, 518–532.
- Tanaka, M., Werkerle, C., Schmuck, M. L., & Paglia-Boak, A. (2011). The linkages among childhood maltreatment, adolescent mental health, and self-compassion in child welfare adolescents. *Child Abuse and Neglect*, 35, 887–898.
- Tourangeau, R. (2004). Survey research and societal change. *Annual Review of Psychology*, 55, 775–801.
- Ullman, S. E., Najdowski, C. J., & Filipas, H. H. (2009). Child sexual abuse, post-traumatic stress disorder, and substance use: Predictors of revictimization in adult sexual assault survivors. *Journal of Child Sexual Abuse*, 18, 367–385.
- Van Dam, N. T., Sheppard, S. C., Forsyth, J. P., & Earleywine, M. (2011). Self-compassion is a better predictor than mindfulness of symptom severity and quality of life in mixed anxiety and depression. *Journal of Anxiety Disorders*, 25, 123–130.
- van der Kolk, B. A., Roth, S., Pelcovitz, D., Sunday, S., & Spinazzola, J. (2005). Disorders of extreme stress: The empirical foundation of a complex adaptation to trauma. *Journal of Traumatic Stress*, 18, 389–399.
- Vettese, L. C., Dyer, C. E., Li, W. L., & Werkerle, C. (2011). Does self-compassion mitigate the association between childhood maltreatment and later emotion regulation difficulties? A preliminary investigation. *International Journal of Mental Health and Addiction*, 9, 480–491.
- Wager, N. (2012). Psychogenic amnesia for childhood sexual abuse and risk for sexual revictimization in both adolescence and adulthood. *Sex Education*, 12, 331–349.