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COGNITIVE ATTRIBUTIONS AND TRAUMATIC EXPERIENCES

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Abstract

The hypotheses that explanatory style moderates current PTSD, depression and alcohol consumption in students who have experienced potentially traumatic events, such as child physical abuse, child emotional abuse, and child sexual abuse, was examined. Participants were 127 graduate students (aged 18-65 yrs) from a private university in Oregon. It was found that the experience of general traumatic events and child physical and/or sexual abuse predicated increased PTSD symptoms in males and females. Furthermore, it was found that the experience of childhood physical and/or sexual abuse significantly predicted depressive symptoms in females but not males. Additionally, it was found that generally traumatic events and or childhood abuse did not predict alcohol abuse in males or females. Lastly, it was found that explanatory style did not moderate depressive symptoms, PTSD symptoms, or alcohol abuse in males or females who had experienced potentially traumatic events, including child physical abuse and sexual abuse. Clinical implications of these results are discussed and suggestions for future research are made.

Cognitive Attributions and Traumatic Experiences

Introduction

The experience of traumatic events can have negative consequences that last across a person's lifespan. Psychological distress, poor interpersonal relationships, and poor coping skills are correlated with the experience of traumatic events (Browne & Finkelhor, 1986; Bunce, Larsen, & Peterson, 1995; Kendall-Tackett & Simon, 1988; Toth, Manly, & Cicchetti, 1992). During the past twenty years, researchers have begun to investigate correlates of resilience following the experience of a traumatic event, such as optimistic explanatory style. If optimistic explanatory style can be shown to moderate the relationship between traumatic events and symptomatology, then this lend support for clinicians teaching clients skills in optimism to foster positive outcomes in their clients lives.

The aim of the current study is to test the hypothesis that optimism moderates current distress in graduate students who have experienced traumatic events. The following topics will be addressed in a review of the related research: the definition of traumatic events, clinical symptomology following traumatic events, explanatory style, the relationship between explanatory style and clinical symptomology following traumatic events, and a rational for exploring an optimistic explanatory style as a moderating variable between traumatic events and current distress.

Impact of Traumatic Events

Posttraumatic Stress Disorder. Posttraumatic stress disorder (PTSD) is characterized by reexpereincing, avoidance, and hyperarousal symtoms following a traumatic event (APA; DSM-IV-TR, 2000). Traumatic events involve the experience of

death or serious injury to self or others and the experience of helplessness during these events.

The estimated lifetime prevalence of PTSD among adult Americans is 8%, with women (10.4%) twice as likely as men (5%) to meet criteria for PTSD at some point in their lives (Browne & Finkelhor, 1986). The types of traumatic events most often associated with PTSD in men are rape, combat exposure, childhood neglect, and childhood physical abuse. For women, traumatic events most often associated with PTSD are rape, sexual molestation, physical attack, being threatened with a weapon, and childhood physical abuse. More than 10% of men and 6% of women report experiencing four or more types of traumatic events during their lifetimes (Weiss, Marmar, Schlenger, Fairbank, Jordan, Hough & Kulka, 1992).

Over 50% of sexual abuse survivors meet criteria for PTSD (Dominquez, Nelke, & Perry, 2002). Child sexual abuse (CSA) is defined as any unwanted sexual contact (ranging from genital touching and fondling to penetration) during the period in which the survivor is considered a child by legal definition and the perpetrator is in a position of relative power (Violato & Genius, 1993). CSA has been reported to effect between 4% to 50% of children and adolescents, with an average prevalence of approximately 20%. PTSD symptoms and sexualized behaviors are the two most frequently observed symptoms following CSA (Corwin, 1989; Jampole & Weber, 1987; Wolfe et all., 1989).

Physical abuse is another type of traumatic event correlated with PTSD symptoms (Cicchetti & Toth, 1995; Deblinger, McLeer, Atkins, Ralph, & Foa, 1989; Feldman et al. 1995; Kendall-Tackett, Williams, & Finkelhor, 1993, Runyon & Kenny, 2002). Physical abuse is defined as any act resulting in non-accidental physical injury, including

unreasonable punishment and intentional assault (U.S. Department of Health and Human Services, 2006). In 2000, 879,000 substantiated cases of child abuse and neglect were reported across the 50 states (U.S. Department of Health and Human Services [UDHHS], 2002). Of these cases, 19% were related to physical abuse. Children with histories of CPA report moderate to severe PTSD symptoms following abuse experiences (Briere & Elliott, 1994; Cicchetti & Toth, 1995; Deblinger, McLeer, Atkins, Ralph, & Foa, 1989; Feldman et al. 1995; Green, 1993; Kendall-Tackett, Williams, & Finkelhor, 1993, Runyon & Kenny, 2002). Additionally survivors of CPA and neglect have a greater likelihood than non-survivors of CPA of being diagnosed with PTSD (Brown & Anderson, 1991; Dunn & Dunn, 1994). One third of those who report CPA and neglect develop PTSD (Widom, 1999). In fact, in looking at the differing prevalence rates of PTSD across abuse history groups, children with physical abuse histories report greater rates of lifetime PTSD than children with sexual abuse histories (Danielson, Arellano, Kilpatrick, Saunders & Resnick, 2005).

Depression. Depression is also associated with the experience of traumatic events (Feldman et al. 1995; Green, 1993; Kendall-Tackett, Williams, & Finkelhor, 1993). Depression includes the following symptoms: depressed mood, diminished interest or pleasure in most activities, significant weight loss (when not dieting), weight gain, or a change in appetite, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue or loss of energy, feelings of worthlessness or inappropriate guilt, impaired ability to concentrate or indecisiveness, and recurrent thoughts of death (APA; DSM-IV-TR, 2000).

The link between traumatic experiences and depression has been well documented in adults. Individuals who have experienced CSA are more likely to experience depression over their lifetime when compared to individuals who have not experienced CSA (Sedney & Brooks, 1984). In addition, suicide or suicidal thoughts following abuse occurs more frequently in children who have been sexually abused, when compared to a nonabused population (Bayatpour, Wells, & Holford, 1992; Chadny, Blum, & Resnick, 1997; Harrison, Edwall, Hoffman, & Worthen, 1990; Watts & Ellis, 1993).

Psychological maladjustment that follows CSA often continues into adulthood (Beitchman, 1992; Briere & Runtz, 1993). Adult adjustment problems associated with CSA include interpersonal problems, educational difficulties, self-destructive acts, somatic symptoms, loss of self-esteem, depression, and actual or attempted suicide (Browne & Finkelhor, 1986; Conte & Schuerman, 1987; Tong, Ostes, McDowell, 1987).

Individuals who report incidents of physical abuse are more likely to exhibit symptoms of depression than non-abused individuals (Brown & Keller, 1992; Finkelhor, 1984; Briere & Runtz, 1988). Anger, hostility, guilt, shame, and sadness are common emotional reactions among survivors of CPA (Beitchman, Zucker, daCosta, Akman, & Cassavia, 1992). In addition, individuals who reported physical abuse exhibit lower self-esteem (Brown & Keller, 1992), a greater sense of powerlessness (Finkelhor, 1984), increased attempted suicide rates, and increased self injury (Briere & Runtz, 1988) when compared to individuals who did not report physical abuse.

Substance Abuse. Substance abuse is a maladaptive pattern of substance use leading to clinically significant impairment or distress (APA; DSM-IV-TR, 2000). One way in which people cope with traumatic experiences and resulting symptomology is by

consuming alcohol (Westermeyer, Wahmanholm, & Thuras, 2001)). Substances, such as alcohol are often times used to lessen the experience of psychosocial distress (Westermeyer, Wahmanholm, & Thuras, 2001).

CSA is associated with chemical dependency (Bolger & Patterson, 2003; Luthar, Cicchetti, & Becker, 2000; Toth, Manly, & Cicchetti, 1992; Zeidner & Hammer, 1992; Silverman, Reinherz, & Giaconia, 1996). Thirty-five percent of the women with incestuous fathers report abusing drugs and alcohol (Herman, 1981). In addition, greater frequency of alcohol, drug use, and intoxication have been documented among sexual abuse survivors in comparison to non-abused individuals (Singer, Petchers, & Hussey, 1989). Similarly, 27% of CSA survivors report a history of alcoholism and 21% with a history of drug addiction (Briere, 1984).

CPA survivors commonly use substances following the abuse experience to cope with symptoms (Cohen &Densen-Gerber, 1982; Dunn & Dunn, 1994; Windle, Scheidt, & Miller, 1995; Schafer, Sobieraj, & Hollyfield 1998; Simpson & Miller, 2002). Among chemically dependent male veterans, approximately one-third of them reported having been physically abused as children (Schafer, Sobieraj, & Hollyfield, 1998), whereas among male veterans in treatment for substance abuse, reports of at least one type of childhood abuse ranged between 34% and 77% (Dunn & Dunn, 1994; Triffleman, Marman, Delucchi, & Ronfeldt, 1995). Similarly, seventeen percent of female physical abuse survivors report symptoms of alcohol abuse compared to 4% of non-abused individuals (Peters, 1984). In addition, 30.4% of patients who reported CPA also reported a substance-related disorder (Westermeyer, Wahmanholm, & Thuras, 2001).

Among substance abusers with a history of childhood abuse, comorbidity with other psychiatric disorders is common. Survivors of CPA have a greater likelihood of being diagnosed with other substance use disorders, and comorbid depression or PTSD when compared to non-abused populations (Brown & Anderson, 1991; Dunn & Dunn, 1994). Females in treatment for substance abuse who reported PTSD symptoms had more substance abuse problems than did those without a PTSD diagnosis (Simpson, 2000).

In summary, individuals that have experienced traumatic events, including CSA and CPA are at a greater risk for PTSD and depression than individuals who have not experienced a traumatic event (Bunce et al., 1995). In addition, sexual and physical abuse survivors are at a greater risk for engaging in substance abuse at some point in their lives when compared to non-abused individuals (Peters, 1984).

Explanatory Style and Traumatic Events

There are several factors that promote resilience among individuals who have survived a traumatic event. The way in which individuals explain why they experienced a traumatic event, called explanatory style, is one such factor.

Explanatory Style. Explanatory style mediates the relationship between traumatic events and resulting symptomology (Peterson, Semmel, von Baeyer, Abramson, Metalsky, & Seligman, 1982). Explanatory style is a person's habitual way of making sense of events (Peterson, Semmel, von Baeyer, Abramson, Metalsky, & Seligman, 1982). Attributions are answers to the question, "why did an event occur?"

There are two types of explanatory style: optimistic and pessimistic. Optimistic explanatory style is a pattern of external, variable, and specific attributions for negative

events (Peterson & Steen, 2002). Pessimistic explanatory style is a pattern of internal, stable, and global explanations for negative events (Peterson & Steen, 2002). Internal attributions are those that are specific to that person, whereas external attributions are specific to outside influences. For example, if Bob is physically abused by his father and attributes this experience to internal causes, he may think, "it is my fault that I was abused," whereas if he attributes the abuse to external causes, he may think, "my father has an anger problem, and he took his anger out on me by hitting me." People with stable attributions for events consider aspects of events that are present over time. People with unstable attributions for events consider aspects of events that are transitory. For example, if Bob thinks that his abuse experience is due to stable causes, he may think, "I will always be abused by my father," whereas if he thinks that the abuse he experienced is due to unstable causes, he may think, "although my father abused me, this does not mean that I will always be abused." Lastly, people with global attributions understand experiences as indicative of the totality of one's experiences, whereas people with specific attributions understand abuse as having limited implications for oneself. For example, if Bob makes global attributions of his abuse experience, he may think, "because I was abused, that means I am a bad person," whereas if he believes that the abuse reflects specific causes, he may think, "even though I was abused, this does not mean that I am a bad person and this is just one part of my experience."

Pessimistic explanatory style is thought to be a trait that endures throughout life span (Bruns & Seligman, 1989; Kamen, & Nolen-Hoeksema, 1988). The variability in symptoms reported by children survivors of sexual and physical abuse, and neglect is

often times related to the child's perception of the traumatic event (Brown & Kolko, 1999; Feiring, Taska, & Lewis, 1998).

PTSD and explanatory style. Explanatory style is important because it has functional implications on how people explain and understand the world around them. Exposure to life-threatening or otherwise highly stressful events can result in psychological and emotional disturbances (Cohen, Mannarino, Berlliner & Deblinger, 2000). PTSD has served as a focal point for the analysis of sexual abuse trauma in part because it is a well-developed and well-documented generalized theory of traumatic process.

Pessimistic explanatory style has various negative effects on general psychological and physiological functioning, such as PTSD symptoms (Peterson & Seligman, 1987; Seligman, 1987; Trunnell, 1986; Weary, Stanley, & Harvey, 1989). Sexually abused adults and children with a pessimistic attributional style report increased PTSD when compared to non-abused populations (Feiring, Taska, & Chen, 2002; Spaccarelli & Fuchs, 1997; Wolfe, Sas, & Wekerle, 1994). Internal attributions and shame associated with sexual abuse experiences in children account for significant amounts of variance in PTSD symptoms, after controlling for previous levels of symptomology (Feiring, Taska, & Chen, 2002).

Abuse specific attributions (external, stable, and global) have been shown to be associated with abuse-specific fear (global fears), whereas internal attributions have been shown to be related to internalizing symptoms such as anxiety and PTSD (Brown & Kolko, 1999). Among physically abused children and their mothers, pessimistic attributional style predicated severity of symptoms beyond the contribution made by the

severity of physical maltreatment (Brown & Kolko, 1999). One third of those who report CPA and neglect develop PTSD (Widom, 1999). Lastly, survivors of CPA and neglect have a greater likelihood than non-survivors of being diagnosed with PTSD (Brown & Anderson, 1991; Dunn & Dunn, 1994).

Depression and explanatory style. Pessimistic explanatory style is correlated with depression (Gladstone & Keslow, 1995; Joiner & Wagner, 1995; Sharpley & Yardley, 1999; Sweeney, Anderson, & Baily, 1986). Abuse specific attributions (external, stable, and global) have been shown to be associated with abuse-specific fear (global fears), whereas internal attributions have been shown to be related to internalizing symptoms such as depression (Brown & Kolko, 1999). Moreover, people who have a pessimistic explanatory style for adverse events are at risk for becoming depressed when negative events occur (Abramson, Seligman, & Teasdale, 1978; Buchanan & Seligman, 1995; Peterson, Maier, Seligman, 1993; Seligman, 1992; Seligman, Abramson, Semmel, & von Baeyer, 1979). Pessimism is associated with hopelessness, which is also correlated with depressive symptoms (Voelz, Haeffel, Joiner, Deneen-Wagner, 2003; Peterson, Semmel, von Baeyer, Abramson, Metalsky, & Seligman, 1982). In meta-analytic reviews of the association between explanatory style and depression, pessimistic explanatory style was associated with increased levels of depressive symptoms among adults (Sweeney, Anderson, & Baily, 1986).

One type of attributional style that has been researched with survivors of abuse has been identified as a depressogenic attributional style (another way of describing pessimistic attributional style). Depressogenic attributional style (stable and global attributions for negative events) interacts with an enhancing attributional style (unstable,

specific attributions for positive events) and later predicts changes in hopelessness among youth inpatients experiencing significant depressive symptomatology (Voelz, Haeffel, Joiner, Dineen-Wagner, 2003). Enhancing optimistic attributional style tends to predict recovery from depressive symptoms in the presence of positive events (Feiring, Taska, & Chen, 2002).

In general, pessimistic attributional style has been shown to be related to depressive symptoms following abuse CSA (Noelen-Hoeksema, Girgus, & Seligman, 1992). Both general attributional style and abuse-related attributions following CSA predict depressive and self-esteem problems (Mannarino & Cohen, 1996). Children who have experienced sexual abuse report significantly greater levels of trauma-related distress when compared to children who have not experienced sexual abuse (Runyon & Kenny, 2002).

Physically abused adults and children with a pessimistic attributional style report increased depressive symptoms when compared to a non-abused population (Feiring, Taska, & Chen, 2002; Spaccarelli & Fuchs, 1997; Wolfe, Sas, & Wekerle, 1994). Physically abused children report a more depressogenic style and more depressive symptoms than non-abused children (Cerezo & Frias, 1994). In addition, children who were physically abused were more prone to a negative explanatory style when compared to non-physically abused children (Runyon & Kenny, 2002).

Substance abuse and explanatory style.

The majority of studies of explanatory style and substance abuse are based on the hypothesis that substance abusers have a maladaptive explanatory style characterized by ascribing external, unstable and specific attributions to situations of success; and internal,

stable and global attributions to situations of failure (García, V. A., Torrecillas, L. F., de Arcos, A. F., & García, P. M., 2004). Attendees of Alcoholics Anonymous, employ internal, stable and global attributions to negative life experiences (Echeburua & Elizondo,1988). In addition, pessimism has been linked to high alcohol relapse rates and lack of significant differences in the effectiveness of various treatments (Miller, 1993).

Among a large community sample of women drinkers, CSA was correlated with increased intensity of alcohol-related problems when compared to women drinkers who did not experience CSA (Brown, Longbaugh, Stout, & Wolfe, 1993). To date no studies have looked at explanatory style and its possible correlation to substance abuse following a traumatic event.

Among chemically dependent male veterans, approximately one-third of them reported having been physically abused as children (Schafer, Sobieraj, & Hollyfield, 1998). In addition, 30.4% of patients who reported CPA also reported a substance related disorder (Westermeyer, Wahmanholm, & Thuras, 2001).

In summary, an optimistic explanatory style is positively correlated with less clinical symptomology following the experience of a traumatic event. Optimism has been linked to decreases in depressive symptoms and PTSD symptom following a traumatic event. To date no research has been conducted that identifies substance use in conjunction with trauma, explanatory style, and resulting symptomology.

Rational for current study. The aim of this study is to investigate the relationship between attributional style and resulting psychological symptomology, including PTSD, depression, and substance use, following traumatic experiences. It is hypothesized that participants who have been exposed to potentially traumatic events and are more

pessimistic, have more current distress, and consume more alcohol when compared to people who have been exposed to potentially traumatic events and are optimistic. However, if participants exposed to potentially traumatic events are optimistic, it is predicted that they will have less depression, PTSD symptoms, and alcohol abuse when compared to people who are pessimistic and exposed to potentially traumatic events. Therefore, it is hypothesized that an optimistic explanatory style will moderate current distress among participants who are exposed to potentially traumatic events.

Method

Participants

The sample consisted of 129 adults (89 females and 40 males) enrolled in graduate classes in a private university in Oregon. Due to extreme scores on multiple measures, two participant's data sets were removed from the data set (yielding 127 total participants, including 87 female and 40 males). Participants ranged in age from 18 through over 30 years of age. More specifically, .8% were 18-19 years old, .8% were 20-21 years old, 13.4% were 22-23 years old, 26.8% were 24-25 years old, 22% were 26-27 years old, 9.4% were 28-29 years old, and 26.8% were over 30 years old. The sample was 88.2% Caucasian, 4.7% multi-ethnic, 3.1% Asian, 1.6% African America, 1.6% Hispanic, and .8% Native American.

Sampling Procedures

Through the completion of a power analysis, it was determined that 120 participants were needed to gather sufficient data to examine the proposed hypotheses (Cohen, 1988). Participants were recruited for this study through requests in graduate classes and in the university student lounge. Study participation was not required for

credit in classes and one point of extra credit was provided to some students (depending on professor commitment to provide this option to students). To ensure maximal participation, an incentive of a $1 lottery ticket was given to each student directly following study participation. Questionnaires were administered in classrooms and a student lounge. Measures took about 15-20 minutes to complete.

Measures

The six measures included in this study were: the Attributional Style Questionnaire (ASQ; Peterson, Semmel, von-Baeyer, Abramson, Metalsky, & Seligman, 1982), the Alcohol Use Disorders Identification Test (AUDIT; Babor, Higgins-Biddle, Saunders, & Monterio,1982), the Center for Epidemiologic Studies Depression Scale (CESD; Radloff, 1977), the Childhood Trauma Questionnaire (CTQ; Beirnstein & Fink, 1997), the Life Events Checklist (LEC; Johnson & McCutcheon, 1980), and the PTSD Checklist-Civilian Version (PCL-C; Westhers, Huska & Keane, 1991). The order of administration of measures was counterbalanced.

Attributional Style. The Attributional Style Questionnaire (ASQ; Peterson, Semmel, von-Baeyer, Abramson, Metalsky, & Seligman, 1982) is a self-report instrument in which scores for explanatory style for bad events and for good events using internal versus external, stable versus unstable and global versus specific causes for those events are yielded. In the ASQ, 12 hypothetical events, half good and half bad, are presented. An example of a good event is "you get a raise" and an example of a bad event is "you go out on a date and it goes badly." Each question allows the participant to interpret the event and its probable cause along a 7-point continuum for each of the three causal dimensions, 1) whether the outcome was due to something about them or

something about other people or circumstances (locus), 2) whether this cause again will be present (stability), and 3) whether the cause influences just this situation or other areas of life (globality). The ASQ was normed on college students, clinically depressed individuals, and people undergoing various stressful events. The ASQ has internal consistency reliabilities of r=.66 for internality, r=.85 for stability, and r=.88 for globality (Peterson & Seligman, 1984). In the current study, Cronbach's alpha coefficient was .79.

Current alcohol use. The Alcohol Use Disorders Identification Test (AUDIT; Babor, Higgins-Biddle, Saunders, & Monteiro, 1982) is a 10-item self-report measure, designed to identify persons with hazardous or harmful patterns of alcohol consumption. The AUDIT is made up three subscales (dependence symptoms, harmful alcohol use, and hazardous alcohol use). For example, a dependence question on the AUDIT is, "how often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?" An example of a harmful use question on the AUDIT is, "how often do you have six or more drinks on one occasion?" Lastly, an example of a hazardous alcohol use question is, "have your or someone else been injured as a result of your drinking?" Participants are asked to respond with yes or no and frequency. The AUDIT was standardized on primary health care patients in six countries. The AUDIT demonstrates good test-retest reliability (r=0.86) ((Bohn, Babor, & Kranzler, 1995). In the current study, Cronbach's alpha coefficient was ,76.

Current distress. The Center of Epidemiologic Studies Depression Scale (CESD; Radloff, 1977) is a 20-item, self-report measure of current depressive symptoms in the general population. Each question in the CESD allows the participant to rate items on a 4-point Likert scale (*rarely, some or a little of the time, occasionally or a moderate amount*

of the time, and most or all of the time). The CESD has been normed on a sample of adolescents and young adults (Radloff, 1991). In addition, internal consistency of the CESD is equal to coefficient alpha r=0.85. Constructive/convergent validity of self-reported stress was related to depressive symptoms on the CESD (r=0.43); as positive affect scores decreased, depressive symptom scores increased (r=-0.63) (Andresen, Malmgren, Carter, & Patrick, 1994). In the current study, Cronbach's alpha coefficient was .75.

The Childhood Trauma Questionnaire (CTQ; Beirnstein & Fink, 1997) is a 28-item self-report retrospective inventory of childhood or adolescent abuse and neglect. The examinee responds to 28 simple questions on a 5-point Likert scale ranging from *never true,* to *very often true*. In addition to a total score, the CTQ yields five subscales: emotional abuse, emotional neglect, physical abuse, physical neglect and sexual abuse. The CTQ was normed on adult substance abusers, adolescent psychiatric inpatients, adult psychiatric patients, pain patients, college students, and HMO members. The CTQ was found to have acceptable validity and reliability (Bernstein & Fink, 1998). The physical abuse and sexual abuse scales that were used in this study showed good internal consistency. The median reliability coefficient for sexual abuse was .92 and .82 of physical abuse. In the current study, Cronbach's alpha coefficient was .79.

Potentially traumatic events. The Life Events Checklist (LEC; Johnson & McCutcheon, 1980) is a self-report inventory which screens for exposure to potentially traumatic events across the examinees' lifespan. The examinee is asked to respond to 17 life event items that are ranked on a 5-point ordinal scale. Participants are presented with stressful events and asked to indicate if: (a) it happened to you personally, (b) you

witnessed it happen to someone else, (c) you learned about it happening someone close to you, (d) you're not sure if it fits, or (e) it doesn't apply to you. This measure was normed on college undergraduate students and combat veterans. Internal consistency is .97 and test-retest reliability is .74 over a 1-month interval (Greene, Walker, Hickson, & Thompson, 1985). In the current study, Cronbach's alpha coefficient was .79.

The PTSD Checklist- Civilian Version (PCL-C; Westhers, Huska & Keane, 1991) is a self report measure of Posttraumatic Stress symptoms. There are 39 items that are measured on four dimensions: 1) re-experiencing and situational avoidance, 2) withdrawal and numbing, 3) arousal and lack of control, and 4) self persecution. Items are rated on a 5-point Likert scale and the response format varies sometimes using *'not at all true'* to *'extremely true,'* sometimes using *'never true'* to *'always true.'* This measure was normed using students from a university setting. The PCL-C has adequate reliability and validity and good test-re-test reliability, r=0.84 (Inkelas, Loux, Bourque, Widawski, & Nguyen, 2000). Internal consistency for the revised scale is, alpha = 0.74 and corrected item-total correlations ranged from -0.03 to 0.43, with a mean of 0.27 (Inkelas, Loux, Bourque, Widawski, & Nguyen, 2000). In the current study, Cronbach's alpha coefficient was .90.

Demographic information. In addition to these six measures, the participants completed a short demographic questionnaire developed by the principal investigator. The demographic questionnaire assessed gender, age, and ethnicity (see Appendix 1 for a copy of the measures).

Results

Prior to analysis, variables were examined to determine the accuracy of data entry, and the fit between variable distributions and assumptions for hierarchical multiple regression. All data were screened to eliminate values outside the range of possibilities. In addition, all data were entered twice in two separate data sets in SPSS by two different people, and then frequencies, values, and measures of central tendency were compared for each variable. This procedure verified that the data set used for analysis was clean. There was no missing data from the data set.

The assumptions of multicollinearity, outliers, linearity, homoscedasticity, normality, and independence of residuals of the multiple regression models were met. This was determined with SPSS FRQUENCIES and SPSS REGRESSION. Based on these analyses, a logarithmic transformation was used to reduce positive skewness on alcohol consumption (AUDIT). In addition, square root transformations were used to reduce moderate positive skewness on experience of depressive symptoms (CESD) and the experience of trauma throughout lifespan (Life Events Checklist). Furthermore, logarithm transformations were performed on measures of PTSD symptoms and child abuse (total score of child physical and sexual abuse) (CTQ) to reduce extreme positive skewness. After transforming for extreme positive skewness, square root transformations were performed to further decrease positive skewness. Lastly, neither a correlation matrix nor SPSS collinearirty diagnostics revealed multicollinearity.

Given the low number of male participants (87 female and 40 males), six independent t-tests were run to determine if the male and female groups differed in terms of their scores on the ASQ, AUDIT, CESD, CTQ, LEC, and the PTSD measure.

Levine's Test for Equality of Variances revealed significant differences on the AUDIT and LEC. Thus a t-test was adjusted on the AUDIT and LEC to account for the violation. Additionally the sample size is robust and therefore the results were interpreted. Results indicated significant differences between males and females on four of the measures. On the ASQ, t-tests indicated (t[125]=-2.107, p=.037) that females (x=2.80, sd=2.59) reported more optimism than did males (x=1.72, sd=2.89). On the CESD, t-tests indicated (t[125]=2.624, p=.010) that females (x=-.153, sd=.95) reported less depression than did males (x=.340, sd=1.07). On the LEC, t-tests indicated (t[125]=2.107, p=.037) that females (x=-.173, sd=1.48) reported less exposure to traumatic events than did males (x=.376, sd=1.06). On the PTSD Checklist- Civilian Version, t-tests indicated (t[125]=2.814, p=.006) that females (x=4.6853, sd=.0011) reported less PTSD symptoms than did males (x=4.6859, sd=.0013). No significant differences between male and female scores were found on the AUDIT and CTQ. Analyses were conducted on male and female participants separately due to the reported differences in scores.

Explanatory style was examined as a moderator for the relationship between exposure to traumatic events and current distress. It was predicted that an optimistic explanatory style would moderate the relationship between surviving a traumatic event and current distress. A series of multiple regression equations modeled after procedures for testing moderation described by Aiken and West (1991) were performed. The standardized independent variables were introduced into the equation in three successive steps (cf. Aiken & West, 1991; Jaccard, Turrisi & Wan, 1990). First (1), depressive symptoms, PTSD symptoms and alcohol abuse were introduced to control their possible influence on potentially traumatic events. Next (2), depressive symptoms, PTSD

symptoms, and alcohol abuse were introduced to control their possible influence on child abuse, followed by (3), the moderator variable (attributional style), and finally (4), the two-way interactions (depressive symptoms x attributional style, PTSD symptoms x attributional style, and alcohol abuse x attributional style).

In all, twelve hierarchical multiple regression analyses were carried out (six analyses for each dependent variable, separately for each moderator). To interpret the standardized variables *a priori*, unstandardized regression coefficients (B) (cf. Aiken & West, 1991) are presented in Tables 1 to 12.

Traumatic Events

In the first regression analysis (see Table 1), the relationship between the experience of general traumatic events and depressive symptoms in males was examined. In the first step, the experience of general traumatic events was not a significant predictor of depressive symptoms (β=-.203, p=.212), therefore no further analyses were conducted with this variable.

Table 1
Generally Traumatic Events as a Moderator between Explanatory Style and Depression among Males

Regression:	b	β	R^2	RΔ	Sig
Step 1:			.093	.044	.164
(1) ASQ	-.081	-.189			.246
(2) LEC	.207	.203			.212
Step 2:			.120	.047	.297
(1) ASQ	.-095	-.220			.184
(2) LEC	.082	.081			.686
(3) ASQ x LEC	.068	.064			.297

Note: LEC= Life Events; ASQ= Attributional Style; Dependant variable; CESD= Depression

In the second regression analysis (see Table 2), the relationship between the experience of general traumatic events and depressive symptoms in females was examined. In the first step of the model, the experience of general traumatic events was not a significant predictor of depressive symptoms (β=-.179, *p*=.070), therefore no further analyses were conducted with this variable.

Table 2
Generally Traumatic Events as a Moderator between Explanatory Style and Depression among Females

Regression:	b	β	R^2	RΔ	Sig
Step 1:			.196	.176	.000
(1) ASQ	-.148	-.403			.000
(2) LEC	.115	.179			.070
Step 2:			.196	.167	.987
(1) ASQ	-.148	-.404			.000
(2) LEC	.116	.181			.179
(3) ASQ x LEC	.000	-.002			.987

Note: LEC= Life Events; ASQ= Attributional Style; Dependant variable; CESD= Depression

In the third regression analysis (see Table 3), the relationship between the experience of general traumatic events and PTSD symptoms in males was examined. In the first step of the model, the experience of general traumatic events was a significant predictor of PTSD symptoms (β =-.305, *p*=.052) and accounted for 18% of the variance in PTSD symptoms (adjusted R^2=.180), In the second step of the model, when explanatory style was added to the equation, the interaction between general traumatic events and explanatory style was not a significant predictor of PTSD symptoms (β=-.211, *p*=.257).

Table 3
Generally Traumatic Events as a Moderator between Explanatory Style and PTSD among Males

Regression:	b	β	R^2	RΔ	Sig
Step 1:			.180	.136	.025
(1) ASQ	.000	-.238			.126
(2) LEC	.000	.305			.052
Step 2:			.209	.144	.257
(1) ASQ	.000	-.270			.088
(2) LEC	.000	.179			.347
(3) ASQ x LEC	.000	.211			.257

Note: LEC= Life Events; ASQ= Attributional Style; Dependant variable; PTSD= PTSD Symptoms

In the fourth regression analysis (see Table 4) the relationship between the experience of general traumatic events and PTSD symptoms in females was examined. In the first step of the model, the experience of general traumatic events was a significant predictor of PTSD symptoms (β =.425, p=.000), and accounted for 19.2% of the variance in PTSD symptoms (adjusted R^2=.192). In the second step of the model, when explanatory style was added to the equation, the interaction between general traumatic events and explanatory style was not a significant predictor of PTSD symptoms (β=.074, p=.605).

Table 4
Generally Traumatic Events as a Moderator between Explanatory Style and PTSD among Females

Regression:	b	β	R^2	RΔ	Sig
Step 1:			.192	.173	.000
(1) ASQ	.000	-.106			.284
(2) LEC	.000	.425			.000
Step 2:			.195	.173	.605
(1) ASQ	.000	-.080			.468
(2) LEC	.000	.378			.006
(3) ASQ x LEC	.000	.074			.605

Note: LEC= Life Events; ASQ= Attributional Style; Dependant variable; PTSD= PTSD Symptoms

In the fifth regression analysis (see Table 5), the relationship between the experience of general traumatic events and alcohol abuse in males was examined. In the first step of the model, the experience of general traumatic events was not a significant predictor of alcohol abuse (β=.168, *p*=.313), therefore no further analyses were conducted with this variable.

Table 5

Generally Traumatic Events as a Moderator between Explanatory Style and Alcohol Abuse among Males

Regression:	b	β	R^2	RΔ	Sig
Step 1:			.042	.009	.448
(1) ASQ	-.004	-.089			.593
(2) LEC	.017	.168			.313
Step 2:			.059	-.019	.426
(1) ASQ	-.003	.007			.706
(2) LEC	.027	.265			.203
(3) ASQ x LEC	-.005	.007			-.806

Note: LEC= Life Events; ASQ= Attributional Style; Dependant variable; AUDIT= Alcohol Abuse

In the sixth regression analysis (see Table 6), the relationship between the experience of general traumatic events and alcohol abuse in females was examined. In the first model, the experience of general traumatic events was not a significant predictor of alcohol abuse (β=.005, p=.448), therefore no further analyses were conducted with this variable.

Table 6
Generally Traumatic Events as a Moderator between Explanatory Style and Alcohol Abuse among Females

Regression:	b	β	R^2	RΔ	Sig
Step 1:			.049	.026	.124
(1) ASQ	.006	.205			.057
(2) LEC	.005	.081			.448
Step 2:			.059	.025	.338
(1) ASQ	.004	.154			.199
(2) LEC	.009	.175			.229
(3) ASQ x LEC	-.002	-.148			.338

Note: LEC= Life Events; ASQ= Attributional Style; Dependant variable; AUDIT= Alcohol Abuse

Child Abuse

In the seventh regression analysis (see Table 7), the relationship between the experience of childhood abuse and depression in males was examined. In the first step of the model, the experience of childhood abuse was not a significant predictor of depression (β=.0531, p=.741), therefore no further analyses of this variable were conducted.

Table 7
Childhood Abuse as a Moderator between Explanatory Style and Depression among Males

Regression:	b	β	R^2	RΔ	Sig
Step 1:			.056	.056	.342
(1) ASQ	-.099	-.231			.157
(2) CTQ	2.603	.053			.741
Step 2:			.056	.000	.983
(1) ASQ	-.094	-.218			.732
(2) CTQ	2.644	.054			.748
(3) ASQ x CTQ	-.003	-.013			.983

Note: CTQ= Childhood Abuse; ASQ= Attributional Style; Dependant variable; CESD=Depression

In the eighth regression analysis (see Table 8), the relationship between the experience of childhood abuse and depression in females was examined. In the first step of the model, the experience of childhood abuse was a significant predictor of depression (β=.230, p=.020), and accounted for 21.6% of the variance in depressive symptoms (adjusted R^2=.21.6). In the second step of the model, when explanatory style was added to the equation, the interaction between childhood abuse and explanatory style was not a significant predictor of depressive symptoms (β=-.811, p=.774).

Table 8
Childhood Abuse as a Moderator between Explanatory Style and Depression among Females

Regression:	b	β	R^2	RΔ	Sig
Step 1:			.216	.216	.000
(1) ASQ	-.143	-.389			.000
(2) CTQ	9.94	.230			.020
Step 2:			.217	.001	.774
(1) ASQ	.155	.422			.881
(2) CTQ	11.389	.264			.087
(3) ASQ x CTQ	-.174	-.811			.774

Note: CTQ= Childhood Abuse; ASQ= Attributional Style; Dependant variable; CESD=Depression

In the ninth regression analysis (see Table 9), the relationship between the experiences of child abuse and PTSD symptoms in males was examined. In the first step of the model, the experience of childhood abuse was a significant predictor of PTSD symptoms (β=-.786, p=.030), and accounted for 6% of the variance in PTSD symptoms (adjusted R^2=.060). In the second step of the model, when explanatory style was added to the equation, the interaction between childhood abuse and explanatory style was not significant predictor of PTSD symptoms (β=-.786, p=.799).

Table 9
Childhood Abuse as a Moderator between Explanatory Style and PTSD among Males

Regression:	b	β	R^2	RΔ	Sig
Step 1:			.066	.043	.058
(1) ASQ	.000	-.093			.383
(2) CTQ	.012	.233			.030
Step 2:			066	.033	.799
(1) ASQ	.000	.694			.822
(2) CTQ	.014	.265			.114
(3) ASQ x CTQ	.000	-.786			.799

Note: CTQ= Childhood Abuse; ASQ= Attributional Style; Dependant variable; PTSD=PTSD Civilian Version

In the tenth regression analysis (see Table 10), the relationship between the experience of childhood abuse and PTSD symptoms in females was examined. In the first step of the model, the experience of childhood abuse was a significant predictor of PTSD symptoms (β =-.298, p=.043), and accounted for 25.3% of the variance in PTSD symptoms (adjusted R^{22}=.253). In the second step of the model, when explanatory style was added to the equation, the interaction between childhood abuse and explanatory style was not significant predictor of PTSD symptoms (β=-.786 p=.299).

Table 10
Childhood Abuse as a Moderator between Explanatory Style and PTSD among Females

Regression:	b	β	R^2	RΔ	Sig
Step 1:			.253	.213	.004
(1) ASQ	.000	-.298			.043
(2) CTQ	.025	.403			.007
Step 2:			.276	.215	.299
(1) ASQ	.000	.694			.822
(2) CTQ	.014	.265			.114
(3) ASQ x CTQ	.000	-.786			.799

Note: CTQ= Childhood Abuse; ASQ= Attributional Style; Dependant variable; PTSD=PTSD Civilian Version

In the eleventh regression analysis (see Table 11), the relationship between the experience of childhood abuse and alcohol abuse in males was examined. In the first step, the experience of childhood abuse was not a significant predictor of alcohol abuse (β=-.076, p=.642), therefore not further analyses were conducted with this variable.

Table 11
Childhood Abuse as a Moderator between Explanatory Style and Alcohol Abuse among Males

Regression:	b	β	R^2	RΔ	Sig
Step 1:			.021	-.032	.673
(1) ASQ	-.005	-.125			.448
(2) CTQ	-.381	-.076			.642
Step 2:			.039	-.042	.673
(1) ASQ	.016	.371			.563
(2) CTQ	-.220	-.044			.795
(3) ASQ x CTQ	-.011	-.514			.425

Note: CTQ= Childhood Abuse; ASQ= Attributional Style; Dependant variable; AUDIT= Alcohol Abuse

In the twelfth regression analysis (see Table 12), the relationship between the experience of childhood abuse and alcohol abuse in females was examined. In the first step of the model, the experience of childhood abuse was not a significant predictor of alcohol abuse (β=.185, p=.082), therefore no further analyses were conducted with this variable.

Table 12
Childhood Abuse as a Moderator between Explanatory Style and Alcohol Abuse among Females

Regression:	b	β	R^2	RΔ	Sig
Step 1:			.076	.054	.036
(1) ASQ	.006	.217			.042
(2) CTQ	.633	.185			.082
Step 2:			.086	.052	.356
(1) ASQ	.089	3.047			.321
(2) CTQ	1.035	.562			.069
(3) ASQ x CTQ	-.048	-2.827			.356

Note: CTQ= Childhood Abuse; ASQ= Attributional Style; Dependant variable; AUDIT= Alcohol Abuse

Discussion

Representativeness of the Current Sample to the General Population

In the current study, percentages of respondents reporting traumatic experiences were comparable to other studies (Kessler et al, 1995; US Census Bureau, 2003; US Department of Health and Human Services, 2004). Approximately 55% of the current sample reported that they have experienced a generally traumatic event. This is consistent with results from the National Comorbidity Study, a national epidemiologic study in which between 50-60% of participants endorsed traumatic experiences (Kessler et al., 1995).

In the current sample, participants reported lower levels of CPA and higher levels of CSA than what has been found in other studies. In the current study, 12% of participants reported experiencing CPA and 19% reported experiencing CSA. This is less than the amount of CPA and more than the amount of CSA reported by the U.S. Census Bureau, in which 16.6% of children have experienced CPA and 9.3% have experienced CSA (Center for Disease Control, 2005). However, higher frequencies of CSA have been reported among other samples, which suggests that differences in prevalence rates of abuse in the current study could be within the normal range when compared to similar studies (Medrano, Zule, Hatch, & Desmond, 1999).

Lower levels of CPA among the current sample may due to the assessment measure used to determine this data. In the current study, abuse was assessed using a standardized measure which contained behaviorally specific questions of abuse experiences. The U.S. Census Bureau abuse reports were gathered via the use of state reporting agencies, in which each state utilized different methods to substantiate abuse reports (U.S. Census Bureau, 2003; U.S. Department of Health and Human Services, 2004). Differences in reporting styles may have yielded lower levels of CPA than that of the U.S. Census Bureau. Moreover, people are more likely to endorse behaviorally objective questions instead of potentially stigmatizing questions which use the word abuse (Bernstein & Fink, 1998).

In summary, although the rates of CPA found in the current study were lower than those found among U.S. Census data, other studies have also found decreased rates when compared to Census reports. Also, assessment techniques and differences in population

demographic information when compared to the U.S. Census data may have resulted in the discrepancies regarding prevalence rates.

Summary of Findings

The experience of generally traumatic events significantly predicted increased PTSD symptoms in females but not in males. In the current sample, only 1.5% of males indicated experiencing PTSD symptoms. Therefore, due to fewer male participants when compared to female participants, there was not enough power to examine this variable (Cohen, 1988). Although attributional style was a significant predictor of PTSD symptoms for females, it did not moderate the relationship between generally traumatic events and PTSD symptoms. In past research, there were significant associations between pessimistic attributions for hypothetical negative events and PTSD symptoms among combat veterans (McCormick, Taber, & Kruedelbach, 1989) and internalized attributions have been related to internalizing symptoms, such as anxiety (Brown & Kolko, 1999). It is possible that in the current study, explanatory style did not moderate the relationship between generally traumatic events and PTSD symptoms because respondents may have answered questions on the ASQ in a socially desirable manner. Socially desirable responding is typically described as the tendency to give positive self descriptions (Paulhus, 2002). This is problematic due to the response style making it difficult to determine underlying psychological constructs (Paulhus, 2002).

The experience of CPA and CSA significantly predicted increased PTSD symptoms among males and females. Although attributional style was a significant predictor of PTSD symptoms for males and females, it did not moderate the relationship between CPA and or CSA and PTSD symptoms for males or females. In past research,

there have been significant associations between pessimistic attributions for hypothetical negative events and PTSD symptoms among CSA survivors (Deblinger et al., 1989; Wenninger & Ethers, 1998) and CPA survivors (McLeer et al., 1988). Although optimism has been shown to be a protective factor for individuals who have experienced the adversity of CPA and CSA (Feiring, Taska, & Chen, 2002; Spaccarelli & Fuchs, 1997; Wolfe, Sas, & Wekerle, 1994), this was not the case in the current research. This may be because most participants in the current study endorsed overall a neutral explanatory style, meaning that on average participants did not endorse being either pessimistic or optimistic (68.5% indicated a neutral explanatory style, M=2.46, SD=2.72). Thus, there was insufficient power to examine this variable (Cohen, 1988),

The experience of generally traumatic events was a significant predictor of depressive symptoms in females but not males. Only 1.5% of males and 3.5% of females endorsed symptoms of depression. This is less then the national average of 4.2% of males and 8.4% of females who endorse depression (National Institute of Mental Health, 2006). Due to the extremely low number of male participants who endorsed depressive symptoms, there was not adequate power to examine this variable (Cohen, 1988).. Furthermore, although attributional style was a significant predictor of depressive symptoms for females, it did not moderate the relationship between generally traumatic events and depressive symptoms. These findings are not consistent with previous findings, in which optimism was a protective factor following a potentially traumatic event, such as missile attacks (Zeidner & Hammer, 1992). A possible explanation for the discrepancy between current and past research may be the lack of statistically significant power to examine depressive symptoms among participants; most participants in the

current study answered questions on the ASQ in neutral manner (68.5% of participants endorsed neither an optimistic nor pessimistic explanatory style, M=2.46, SD=2.72).

The experience of CPA and or CSA was a significant predictor of depressive symptoms in females but not in males. In the current sample, .5% of males reported experiencing CPA and 1.5% of females reported CPA. Although attributional style was a significant predictor of depressive symptoms for females, it did not moderate the relationship between CPA or CSA and depressive symptoms. This may have been due to not enough participants in the current sample indicating the experience of CPA, hence not providing enough data to examine this variable (Cohen, 1988). Similarly, there were less depressive symptoms endorsed by the current sample when compared to national averages. This is problematic due to there not being enough participants for the researcher to adequately examine the variable (Cohen, 1988).

The experience of generally traumatic events did not significantly predict alcohol abuse in males or females. Additionally, attributional style did not moderate the relationship between generally traumatic events and alcohol abuse for males nor females. Again, due to a low number of participants endorsing alcohol abuse, there was not sufficient power to examine the moderating role of explanatory style in the relationship between traumatic experiences and alcohol abuse (Cohen, 1988). Lastly, the experience of CPA and CSA was not a significant predictor of alcohol abuse in males or females. Again, this may be due to not enough participants in the current research endorsing alcohol abuse, hence resulting in insufficient power to examine this variable (Cohen, 1988)..

Limitations

There are several limitations in the current study. First, the level of symptoms reported by the current population varied between males and females. Due to males and females reporting differences between groups, the researcher divided participants based on gender. This resulted in low number of participants for analysis, hence resulting in low power for the examined variables. Differing levels of reported symptoms is not common when compared to other large scale studies (Jumper, 1995). One possible explanation for this difference is that participants may have attempted to answer the questionnaires in a socially desirable manner. Participants filled out questionnaires while sitting next to peers. They may have felt self-conscious and may not have answered questions honestly due to these conditions. In addition, when participants did endorse potentially traumatic events and child abuse, there was no way to determine if these events were considered traumatic to the participants. Furthermore, some of the participants may have been in a hurry to complete questionnaires due to being at the end of their scheduled classes. Because of these factors, participants may have endorsed lower levels of distress, traumatic event experience, and greater levels of optimism. However, steps were taken to protect confidentiality such as keeping the data and the informed consent in separate locked locations. The data did not include any identifying information. Given these steps, of which all participants were aware, socially desirable responses may have been reduced.

Another limitation of the current study involves the use of retrospective methodology. The retrospective self-report measures were used to assess the experience of potentially traumatic events (Life Events Checklist) and child abuse (Childhood

Trauma Questionnaire). This may be problematic due to people failing to remember specific events from the past or remembering things in an incorrect manner. This may have reduced the validity of the data. Additionally, self-report data can be challenging because no collateral information can be gathered to determine truthfulness of self-report measures.

Future Directions for Research

Future researchers should explore the possibility that symptoms develop differently in males and females following traumatic events. In addition, future researchers may want to focus on differences in how graduate students cope with generally traumatic events and childhood abuse in comparison to other populations. The current sample endorsed the experience of generally traumatic events and childhood abuse, yet may have used different means of coping with these experiences to decrease distress. Through learning how explanatory style develops in individuals and the way in which optimism may moderate the relationship between potentially traumatic events, child abuse, and symptomology, clinicians may be able to better serve this population in a therapeutic manner.

Also, one of the major limitations of the current study is that we do not know if the experience of a potentially traumatic event and child physical and or sexual abuse was considered traumatic to the participants. Therefore, in the future, researches may want to conduct informational interviewing using an empirically supported structured interviewing tool to accurately identify if experiences were in fact traumatic for the participants.

In addition, in assessing the experience of CSA, factors such as duration, severity, relationship to the perpetrator, and age of the abuse were not assessed. All of these factors have been proven in past research to be key elements in determining resulting symptomology following CSA and CPA (Deblinger et al., 1989). Therefore, in the future, assessing for these factors may be helpful in determining the specific differences among participants who had experienced CSA.

Conclusion

In conclusion, it was found that the experience of generally traumatic events predicted PTSD symptoms and depressive symptoms in females. This has important implications for clinicians because it suggests that treatments should include skills training on how to cope with negative life events, which may facilitate lower levels of distress. Furthermore it was found that explanatory style did not moderate the relationship between depressive symptoms, PTSD symptoms, or alcohol abuse among both males and females who had experienced potentially traumatic events. Moreover, it was found that the experience of CPA and CSA predicted PTSD symptoms in both males and females and depressive symptoms for females but not males. This too has important implications for clinicians because it suggests that clients who present with depression and PTSD symptoms should focus on treatments that include elements which facilitate the lowering of affective symptoms. Lastly, explanatory style was not found to moderate the relationship between depressive symptoms, PTSD symptoms, and alcohol abuse in males and females who had experienced CPA or CSA, which may have been due to insufficient power to detect significant correlations were such relationships existed (Cohen, 1988).

Appendix 1

Demographic Questionnaire

Please complete the following questionnaire:

What is your gender?
☐Male ☐Female

What is your age?
☐18-19 ☐20-21 ☐22-23 ☐24-25
☐26-27 ☐28-29 ☐over 30

Please indicate your race/ethnicity (check all that apply).
☐Asian ☐African-American ☐Caucasian
☐Hispanic ☐Multi-Ethnic/Other ☐Native American

AUDIT

1. How often do you have a drink containing alcohol?

¨ Never ¨ Monthly or less ¨ 2-4 times a month ¨ 2-3 times a week ¨ 4 or more times a week

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

¨ 1 or 2 ¨ 3 or 4 ¨ 5 or 6 ¨ 7 to 9 ¨ 10 or more

3. How often do you have six or more drinks on one occasion?

¨ Never ¨ Less than monthly ¨ Monthly ¨ Weekly ¨ Daily or almost daily

4. How often during the last year have you found it difficult to get the thought of alcohol out of your mind?

¨ Never ¨ Less than monthly ¨ Monthly ¨ Weekly ¨ Daily or almost daily

5. How often during the last year have you found that you were not able to stop drinking once you had started?

¨ Never ¨ Less than monthly ¨ Monthly ¨ Weekly ¨ Daily or almost daily

6. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

¨ Never ¨ Less than monthly ¨ Monthly ¨ Weekly ¨ Daily or almost daily

7. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

¨ Never ¨ Less than monthly ¨ Monthly ¨ Weekly ¨ Daily or almost daily

8. How often during the last year have you had a feeling of guilt or remorse after drinking?

¨ Never ¨ Less than monthly ¨ Monthly ¨ Weekly ¨ Daily or almost daily

9. Have you or someone else been injured as a result of your drinking?

¨ No ¨ Yes, but not in the last year ¨ Yes, during the last year

10. Has a relative, friend, doctor or any other health worker been concerned about your drinking or suggested you cut down?

¨ No ¨ Yes, but not in the last year ¨ Yes, during the last year

The AUDIT questionnaire was developed by the World Health Organization (1993)

Center for Epidemiologic Studies Depression Scale (CES-D)
Below is a list of some of the ways you may have felt or behaved. Please indicate how often you have felt this way during the past week: (circle one number on each line)
Rarely or Some or a Occasionally or All of none of little of a moderate the time During the past week... the time the time amount of time
(less than 1 day) (1-2 days) (3-4 days) (5-7days)

1. I was bothered by things that usually don't bother me.....0 1 2 3
2. I did not feel like eating; my appetite was poor.....0 1 2 3
3. I felt that I could not shake off the blues even with help from my family.....0 1 2 3
4. I felt that I was just as good as other people.....0 1 2 3
5. I had trouble keeping my mind on what I was doing.....0 1 2 3
6. I felt depressed.....0 1 2 3
7. I felt that everything I did was an effort.....0 1 2 3
8. I felt hopeful about the future.....0 1 2 3
9. I thought my life had been a failure.....0 1 2 3
10. I felt fearful.....0 1 2 3
11. My sleep was restless.....0 1 2 3
12. I was happy.....0 1 2 3
13. I talked less than usual.....0 1 2 3
14. I felt lonely.....0 1 2 3
15. People were unfriendly.....0 1 2 3
16. I enjoyed life.....0 1 2 3
17. I had crying spells.....0 1 2 3
18. I felt sad.....0 1 2 3
19. I felt that people disliked me.....0 1 2 3
20. I could not "get going".....0 1 2 3

References

Radloff LS, The CES-D scale: A self-report depression scale for research in the general population. Applied Psychological Measurement, 1, 1977, pp.385-40

CTQ

Never True	Rarely True	Sometimes True	Often True	Very Often True

When I was growing up...

1. I didn't have enough to eat. NT RT ST OT VT
2. I knew that there was someone to take care of me and protect me. NT RT ST OT VT
3. People in my family called me things like "stupid," "lazy," or "ugly." NT RT ST OT VT
4. My parents were too drunk or high to take care of the family. NT RT ST OT VT
5. There was someone in my family who helped me feel that I was important or special. NT RT ST OT VT
6. I had to wear dirty clothes. NT RT ST OT VT
7. I felt loved. NT RT ST OT VT
8. I thought that my parents wished I had never been born. NT RT ST OT VT
9. I got hit so hard by someone in my family that I had to see a doctor or go to the hospital. NT RT ST OT VT
10. There was nothing I would change about my family. NT RT ST OT VT
11. People in my family hit me so hard that it left me with bruises or marks. NT RT ST OT VT
12. I was punished with a belt, a board, a cord, or some other hard object. NT RT ST OT VT
13. People in my family looked out for each other. NT RT ST OT VT
14. People in my family said hurtful or insulting things to me. NT RT ST OT VT
15. I believe that I was physically abused. NT RT ST OT VT
16. I had the perfect childhood. NT RT ST OT VT
17. I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor. NT RT ST OT VT
18. I felt that someone in my family hated me. NT RT ST OT VT
19. People in my family felt close to each other. NT RT ST OT VT
20. Someone tried to touch me in a sexual way, or tried to make me touch them. NT RT ST OT VT
21. Someone threatened to hurt me or tell lies about me unless I did something sexual with them. NT RT ST OT VT
22. I had the best family in the world. NT RT ST OT VT
23. Someone tried to make me do sexual things or watch sexual things. NT RT ST OT VT
24. Someone molested me. NT RT ST OT VT

25. I believe that I was emotionally abused. NT RT ST OT VT
26. There was someone to take me to the doctor if I needed it.
NT RT ST OT VT
27. I believe that I was sexually abused. NT RT ST OT VT
28. My family was a source of strength and support.
NT RT ST OT VT

PTSD CheckList – Civilian Version (PCL-C)

No.	Response	Not at all (1)	A little bit (2)	Moderately (3)	Quite a bit (4)	Extremely (5)
1.	Repeated, disturbing memories, thoughts, or images of a stressful experience from the past?					
2.	Repeated, disturbing dreams of a stressful experience from the past?					
3.	Suddenly acting or feeling as if a stressful experience were happening again (as if you were reliving it)?					
4.	Feeling very upset when something reminded you of a stressful experience from the past?					
5.	Having physical reactions (e.g., heart pounding, trouble breathing, or sweating) when something reminded you of a stressful experience from the past?					
6.	Avoid thinking about or talking about a stressful experience from the past or avoid having feelings related to it?					
7.	Avoid activities or situations because they remind you of a stressful experience from the past?					
8.	Trouble remembering important parts of a stressful experience from the past?					
9.	Loss of interest in things that you used to enjoy?					
10.	Feeling distant or cut off from other people?					
11.	Feeling emotionally numb or being unable to have loving feelings for those close to you?					
12.	Feeling as if your future will somehow be cut short?					
13.	Trouble falling or staying asleep?					
14.	Feeling irritable or having angry outbursts?					
15.	Having difficulty concentrating?					
16.	Being "super alert" or watchful on guard?					
17.	Feeling jumpy or easily startled?					

PCL-M for DSM-IV (11/1/94) Weathers, Litz, Huska, & Keane National Center for PTSD - Behavioral Science Division

LEC

Instructions: Listed below are a number of difficult or stressful things that sometimes happen to people. Be sure to consider your ENTIRE LIFE (growing up as well as adulthood) as you go through the list of events. Please circle the answer that is most true for you.

Happened to me Witnessed it Learned about it Not Sure Doesn't Apply

1.Natural Disaster(for example, flood, hurricane, tornado, earthquake)
Happened Witnessed Learned Not Sure N/A

2. Fire or explosion Happened Witnessed Learned Not Sure N/A

3. Transportation Accident (e.g., car, boat, train, plane)
Happened Witnessed Learned Not Sure N/A

4. Serious accident at work, home, or during recreational activity
Happened Witnessed Learned Not Sure N/A

5. Exposure to toxic substance (e.g., dangerous chemicals, radiation)
Happened Witnessed Learned Not Sure N/A

6. Physical assault (e.g., being attacked, hit slapped, kicked, beaten up)
Happened Witnessed Learned Not Sure N/A

7. Assault with a weapon (e.g., being shot, stabbed, threatened with a knife, gun, bomb)
Happened Witnessed Learned Not Sure N/A

8. Sexual assault (e.g., rape, attempted rape, made to perform any type of sexual act through force or threat of harm)
Happened Witnessed Learned Not Sure N/A

9. Other unwanted or uncomfortable sexual experience
Happened Witnessed Learned Not Sure N/A

10.Combat or exposure to a war-zone (in the military or as a civilian)
Happened Witnessed Learned Not Sure N/A

11. Captivity (e.g., being kidnapped, abducted, held hostage, prisoner of war)
Happened Witnessed Learned Not Sure N/A

12. Life threatening illness or injury
Happened Witnessed Learned Not Sure N/A

13. Severe human Suffering
Happened Witnessed Learned Not Sure N/A

14. Sudden, violent death (e.g., homicide, suicide)
Happened Witnessed Learned Not Sure N/A

15. Sudden, unexpected death of someone close to you
Happened Witnessed Learned Not Sure N/A

16. Serious injury, harm, or death you caused to someone else
Happened Witnessed Learned Not Sure N/A

17. Any other very stressful event or experience
Happened Witnessed Learned Not Sure N/A

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