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The Clinical Correlates of Reported Childhood Sexual Abuse: An Association Between Age at Trauma Onset and Severity of Depression and PTSD in Adults

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Abstract

This study investigated the relationship between the age of self-reported sexual abuse occurrence and the development of post-traumatic stress disorder and/or depressive symptoms in adulthood. Subjects were evaluated for the presence of post-traumatic stress disorder and/or depressive symptoms as well as for a self-reported history of sexual abuse before the age of 18. Results found that relative risk of having severe post-traumatic stress disorder symptoms was 10 times higher in patients reporting sexual abuse after age 12 than in those reporting sexual abuse before age 12. Relative risk of having severe depressive symptoms was higher for those abused before the age of 12 than for those abused after the age of 12. Findings suggest that the impact of reported sexual abuse at different stages of development may lead to distinct psychiatric symptoms in adulthood.

Keywords

early trauma; sexual abuse; risk factors; PTSD; depression

Major depressive disorder (MDD) and posttraumatic stress disorder (PTSD) are two psychiatric conditions that cause a great deal of suffering and disability in the community (Murray & Lopez, 1997). There are well-established risk factors such as female gender,

family history positive for depression, past personal history of depression, and early life trauma that increase the likelihood of developing MDD and/or PTSD (Cohen et al., 2006; Weber et al., 2008).

Exposure to extreme life stressors in the prepubertal period, such as loss of parents or sexual or physical abuse, has been related to an increased risk for depression and suicide (Heim & Nemeroff, 2001; Kendler et al., 1995). Conversely, exposure to extreme stressors during and after puberty has been associated with increased risk for PTSD (Koenen, 2006). The exposure to traumatic events, particularly during childhood, can increase the risk of developing PTSD in adulthood, and this vulnerability can vary according to the frequency, intensity, and duration of traumatic events (Breslau, Chilcoat, Kessler, & Davis, 1999; Breslau, Davis, Peterson, & Schultz 2000; Bromet, Sonnega, & Kessler, 1998; Davidson, Hughes, Blazer, & George, 1991; Duncan, Saunders, Kilpatrick, Hanson, & Resnick, 1996; Ribeiro & Andreoli, 2006).

Heim and colleagues (2000) found that women with a history of childhood abuse with or without current major depression exhibited increased adrenocorticotropin (ACTH) responses to psychological stress as compared with controls. Net ACTH response was more than sixfold greater in abused women with current major depression than in controls. Analyzing the same data through a multiple regression, Heim and colleagues (2002) showed that childhood maltreatment was the strongest predictor of ACTH responsiveness, followed by number of abuse events, adulthood traumas, and depression.

By using pharmacological challenge tests (corticotrophin-releasing hormone [CRH] and ACTH stimulation tests), Heim and Nemeroff (2001) found that abused women without depression exhibited increased ACTH responses to CRH, but both groups of depressed women (with and without childhood maltreatment history) exhibited a blunted ACTH response to CRH, which is a classic feature of major depression (Gold et al., 1984; Holsboer, Von Bardeleben, Gerken, Stalla, & Muller, 1984). Abused women without depression secreted less cortisol than other groups after the ACTH stimulation test (Heim, Newport, Bonsall, Miller, & Nemeroff, 2001), which can be compared to experimental studies using nonhuman primate models of early-life stress that showed similar results (Coplan et al., 1996; Dettling, Feldon, & Pryce, 2002).

By analyzing depressed adults compared to healthy controls, Carpenter and associates (2004) found that early life stress predicts elevated cerebrospinal fluid (CSF) CRH and not the presence of depression. They also found that perinatal and preteen stress (6–13 years) correlated negatively (a significantly lower CRH concentration), and preschool stress (0–5 years) correlated positively (higher CRH concentrations). Based on their results, the authors hypothesized that there might be a sensitization of the pituitary and a counterregulative adaptation of the adrenal gland in abused women without current depression. As cortisol has important inhibitory effects on the central CRH and noradrenergic systems, they proposed that relative decreased availability of cortisol as a consequence of childhood trauma might facilitate the triggering of central stress responses. Upon further stress, such women may then repeatedly hypersecrete CRH, eventually resulting in pituitary CRH receptor down-regulation and symptoms of depression through CRH effects in extra-hypothalamic circuits (Heim, Newport, Mletzko, Miller, & Nemeroff, 2008). Neurobiological data showed that childhood maltreatment provokes hypothalamic-pituitary-adrenal (HPA) dysfunction that can last throughout adulthood, and there are different responses regarding the timing when the trauma occurred in the individual's lifetime.

The principal aim of this study was to evaluate the presence of sexual abuse during childhood and/or adolescence in adult PTSD patients who were victims of a traumatic event.

The secondary aim was to evaluate the relationship between the age at onset of reported sexual abuse (i.e., before or after an age approximating puberty) and the development of PTSD and MDD symptoms.

METHOD

Participants

Seventy-nine outpatients seen in the Program for Victims of Violence of the Department of Psychiatry at the Federal University of São Paulo (UNIFESP) gave voluntary, written informed consent to participate in this study, which was approved by the UNIFESP Institutional Review Board of Ethics. The Program for Victims of Violence was organized in 2004 to treat a large number of patients with PTSD and other psychiatric disorders related to violence. The patients who were regularly receiving treatment in the program were invited to participate in the study. All patients were administered the Structured Clinical Interviews for *Diagnostic and Statistical Manual of Mental Disorders* (DSM) IV Axis I and Axis II (SCID-I and SCID-II, respectively; First, Spitzer, Gibbon, & Williams, 1995; Spitzer, Williams, Gibbon, & First, 1992) by a trained psychiatrist. Patients were eligible for inclusion if they met DSM-IV criteria for a diagnosis of PTSD (American Psychiatric Association, 1994), with the additional requirement that exposure to the traumatic event (criterion A) involved violence and occurred after the patient was 18 years old. Patients were excluded from the study if they met SCID criteria for a diagnosis of borderline personality disorder, bipolar disorder, dysthymic disorder, panic disorder, generalized anxiety disorder, obsessive-compulsive disorder, major depressive disorder with psychotic features, or psychoactive substance dependence in the last six months.

Ten patients did not meet the inclusion criteria, and nine patients met the exclusion criteria. All of these 19 patients were excluded from the study. Sixty patients met the inclusion and exclusion criteria, and they were further evaluated using the Early Trauma Inventory (ETI; Bremner, Vermetten, & Mazure, 2000) to investigate a reported history of sexual abuse and other traumatic events during childhood and teenage years. The validity of the Portuguese version of the ETI has recently been established elsewhere (Schoedl, Costa, Mari, & Mello, 2009). The Clinician-Administered Posttraumatic Stress Scale (CAPS; Blake et al., 1995) was administered to the patients, who also completed the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961).

Instruments

Structured Clinical Interview for DSM-IV Axis I and II—The Structured Clinical Interview for DSM-IV Axis I and II (SCID-I and II; First et al., 1995; Spitzer et al., 1992) is a semistructured interview that allows for the diagnosis of Axis I and II disorders, respectively, according to DSM-IV criteria (American Psychiatric Association, 1994).

Clinician-Administered PTSD Scale—The Clinician-Administered PTSD Scale (CAPS; Blake et al., 1995) is a structured interview developed to diagnose PTSD and rate its severity. It is comprised of 30 items to assess PTSD-related symptom frequency and severity. Scores range from 0 to 136, with scores classified as follows: (a) subclinical, from 0 to 19; (b) mild, from 20 to 39; (c) moderate, from 40 to 59; (d) severe, from 60 to 79; and (e) extreme, 80 and above.

Beck Depression Inventory—The Beck Depression Inventory (BDI; Beck et al., 1961) is a 21-item self-report inventory designed to measure the severity of depression. Scores range from 0 to 63, with depression classified as minimal when scores range from 0 to 11, mild from 12 to 19, moderate from 20 to 35, and severe from 36 to 63.

Early Trauma Inventory—The Early Trauma Inventory (ETI; Bremner et al., 2000) is a 56-item semis-structured interview that measures adults' past traumatic experiences occurring during childhood and teenage years. The experiences are divided into four clusters: physical, sexual, psychological, and general traumatic. All ETI items are evaluated according to the frequency, stage of development, duration, and impact on the subject. The ETI enables the calculation of a trauma index, where every item has the same weight. The index is calculated by multiplying the frequency of each item by its duration.

In the ETI, sexual abuse is defined as unwanted sexual contact performed solely for the gratification of the perpetrator or the purpose of dominating or degrading the victim (Bremner et al., 2000). In this study, subjects who endorsed at least one of the sexual abuse items were considered positive for sexual trauma history, excluding the items “exposed to inappropriate comments about sex” and “spied on in bathroom.”

The studies that generally use retrospective instruments to evaluate child and adolescent abuse have many limitations. According to Briere (1992), the ambiguities and difficulties in these studies are many and are impossible to be eliminated. The potential effect of many measures and evaluations at the time are impaired by difficulties in recall or memory distortions provoked by highly emotional events. Besides this, individuals may have impairment in making specific causal relations between trauma and psychopathological symptoms during adulthood (Bryer, Nelson, Miller, & Krol, 1987). Despite this fact, valid and reliable instruments decrease this bias. We chose the ETI among many instruments used to evaluate early traumatic experiences on adult subjects due to its semistructured interview format, which facilitates the collection of data related to abuse and maltreatment as compared to self-report or structured instruments like scales.

The ETI was constructed and validated by Bremner and colleagues (2000). Its psychometric properties were evaluated on 137 individuals, from which 53 presented a posttraumatic stress disorder, 29 a major depressive disorder, 3 a schizophrenic disorder, 2 a panic disorder, and 50 were healthy controls. Its original version showed a test-retest correlation coefficient of .91 ($df = 9$, $p < .001$), intraclass correlation with raters of .99 ($F = 157.44$, $df = 10.11$, $p < .0001$), and a Cronbach's alpha was .95 for internal consistency.

The ETI was translated to German (Heim, 2000), Chinese (Wang, Du, & Chen, 2008), and Polish (Bo ena, Makara, Chuchra, & Grzywa, 2005). The Brazilian translation and transcultural adaptation was carried out and submitted for publication to a peer-review journal. The transcultural adaptation was based on the Herdman equivalency model. The study included 91 victims of violence with PTSD. The internal consistency of total ETI score was .878.

Statistical Analyses

Patients in this study were divided into two groups according to the age when sexual abuse was reported to have first occurred: up to 12 years old (early abuse, EA) and from 13–18 (adolescent abuse, AA). A dichotomized CAPS category (based on a severity threshold score of 60) and a dichotomized BDI category (based on a severity threshold score of 36) were assigned to subjects for analysis of the relationships between sexual abuse group EA or AA and symptoms of PTSD and MDD. Threshold CAPS scores were defined to reflect “severe” PTSD symptoms (score from 60 to 79) and “extreme” PTSD symptoms (score of 80 and above). Scores from 36 to 63 on the BDI were defined as indicating a “high” severity level of depression.

An odds ratio (OR) and a relative risk (RR) calculation were carried out to examine the relationship between the age at onset of the reported trauma and the predominance of PTSD

or depressive symptoms. The OR values and their respective confidence intervals were tested through the Mantel-Haenszel procedure. The homogeneity of the dichotomized variables was also verified through the Breslow-Day test (chi-square = 11.523, $p = .003$) and Tarone's test (chi-square = 11.515, $p = .003$). The significant values from the OR homogeneity tests showed that the OR values varied between the categories of the studied variable (meaning that there is an age-dependent difference on OR values).

Pearson correlation coefficients were generated to evaluate relationships between (nondichotomized) age at onset of sexual abuse and CAPS and BDI scores, and chi-square statistics were calculated to evaluate group differences on dichotomized variables. All data were analyzed using SPSS (version 13.0).

RESULTS

Sample Characteristics

The social and demographic characteristics of the sample are described in Table 1. All patients received a PTSD diagnosis, and 55 subjects (92%) had comorbid MDD as confirmed by the SCID-I interview. The stressor events that brought subjects to the trauma clinic were reported as follows: (a) loss of a close relative by homicide ($n = 6$, 21%), (b) kidnap associated with imprisonment ($n = 6$, 21%), (c) robbery with holdup ($n = 5$, 17%), (d) physical violence ($n = 3$, 10%), (e) domestic violence ($n = 3$, 10%), (f) witness of homicide ($n = 3$, 10%), (g) death threats ($n = 2$, 7%), and (h) being kept as hostage during prison rebellion ($n = 1$, 3.5%). The time span between the stressor event to the present evaluation was from 1 month to 12 years (mean $\pm$ *SD*, 3.5 ± 4.6 years).

Twenty-nine patients (48% of the entire PTSD sample) reported some form of sexual abuse (SA; $n = 29$) before the age of 18 as determined by ETI criteria. All of the 29 patients had MDD as a comorbid diagnosis. Frequency of items is described in Table 2. For 16 of these patients (55%), the onset of sexual abuse was before the age of 12, and for 13 (45%), onset was after the age of 12. All of the subjects believed that the early abuse had had a negative effect at the time it happened, and only 10 (35%) indicated that the abuse did not have a current negative impact on them. The mean and standard deviation age for the reported sexual trauma exposure was 11.7 ± 3.7 years old. The majority of perpetrators were generally known by the victim and lived with him or her; only four (14%) of the perpetrators were unknown to the subjects. In descending order of frequency, the sexual abusers were classified as (a) a familiar adult of the opposite gender ($n = 13$, 45%), (b) a nonadult brother ($n = 6$, 21%), (c) an unknown adult ($n = 4$, 14%), (d) the subject's father ($n = 4$, 14%), (e) a familiar adult of the same gender ($n = 1$, 3%), and (f) the subject's mother ($n = 1$, 3%).

As shown in Table 3, there were significant differences between the EA and AA groups on CAPS and BDI scores, with higher mean CAPS scores seen in the AA group; mean $\pm$ *SD* CAPS: all group ($n = 29$) = 72 ± 32.21 , EA ($n = 16$) = 65.5 ± 27.3 , AA ($n = 13$) = 74.6 ± 45.66 ; $\chi^2 = 6.564$, $p = .0001$; mean $\pm$ *SD* BDI: all group = 26 ± 10.31 , EA = 29 ± 11.24 , AA = 23 ± 9.68 , $\chi^2 = 1.327$, $p = .003$. When dichotomized data were examined, patients in the AA group were significantly more likely to have CAPS scores in the severe/extreme range than were patients in the EA group (severe PTSD – CAPS > 60: all group = 34%, EA = 15.4%, AA = 84.6%, $\chi^2 = 21.1$, $p = .01$; severe depression – BDI > 36: all group = 24%, EA = 62.5%, AA = 37.5%, $\chi^2 = 16.128$, $p = .765$).

The OR for having a “high” CAPS score and a “low” BDI score in the AA group was .246 (95% Confidence Interval [CI]: .065, .931; $p < .05$). The OR for having a lower score on the CAPS and a higher score on the BDI in the EA group was 2.256 (95% CI: 1.15, 4.43; $p < .05$). The relative risk (RR) of having a high CAPS score and a low score on the BDI when

the reported sexual abuse began after age 12 was 2.3 times higher than when the sexual abuse began before age 12 ($RR = .246$ [$CI: .065, .931$]). In contrast, the chance of having a higher score on the BDI and a lower score on the CAPS was 20.3 times higher in patients in the EA group ($RR = 2.256$ [$CI: 1.15, 4.426$]; see Table 3). Although not shown in the Table 3, the analysis found that Pearson correlation coefficients confirmed a significant negative association between age at sexual abuse onset and BDI scores ($r = -.126, p < .05$), and a significant positive correlation between age when the sexual abuse firstly happened and CAPS scores ($r = .246, p < .05$).

DISCUSSION

This study investigated the relationship between the age of self-reported sexual abuse occurrence (i.e., before or after an age approximating puberty onset) and development of PTSD and/or depressive symptoms on victims of a stressor event that happened during their adulthood. The main finding of this study was an association between age at onset of sexual abuse and the likelihood of presenting severe depressive or PTSD symptoms in adulthood at a clinic for victims of violence. When the age at first exposure to sexual abuse was dichotomized as before or after 12 years old (roughly corresponding with puberty onset), it was found that those with earlier exposure (during childhood or adolescence) were more likely to have severe and prominent depressive symptoms following violent victimization in adulthood.

It is noteworthy that 48% of our adult PTSD subjects were also self-reported victims of sexual abuse before the age of 18. Although our study was limited by use of retrospective measures to determine childhood trauma history, this prevalence is consistent with other findings showing relatively high rates of childhood abuse among adults with PTSD (Peleikis, Mykletun, & Dahl, 2004; Schumm, Briggs-Phillips, & Hobfoll, 2006). It is possible that experiencing a current episode of PTSD related to a recent violent crime created some bias in the reporting of a childhood trauma, but none of the subjects visited the clinic seeking relief from sex-related violent crimes, so no bias would have been shared by EA and AA group members.

Our findings are consistent with other studies, thus suggesting that predisposition to different psychiatric outcomes in adulthood is related to the age at which the subject was first victimized (Maercker, Michael, Fehm, Becker, & Margraf, 2004). Maercker and colleagues interviewed young adults from Dresden for the occurrence of traumatic events and depressive and PTSD symptoms. The sample was subdivided according to whether traumas occurred during childhood (up to 12 years) or during adolescence (after 13 years). They found that a quarter of the sample reported a traumatic event. Those who reported a traumatic event during childhood had an odds ratio of 5.18 for developing depression, as compared to an odds ratio of .91 for developing PTSD. Those who reported a traumatic event during adolescence had an odds ratio OR of .19 for developing depression and an odds ratio OR of 1.10 for developing PTSD.

Our findings are consistent with the results reported by Maercker and colleagues (2004). Together they suggest that the impact of sexual abuse at different stages of development may lead to a distinct neurobiological sequel, conceivably reflected in the different HPA axis abnormalities found in adult patients with primary PTSD or MDD (Ruiz, Barbosa Neto, Schoedl, & Mello, 2007). Breier and colleagues (1988) recruited subjects with a history of parental separation and found a high proportion of subjects with various psychiatric conditions. These subjects had higher basal cortisol levels compared to controls.

In a series of reports, Heim and colleagues (e.g., Heim et al., 2000, 2001, 2002) have found that a reported history of trauma is more likely to be associated with hypothalamic-pituitary-adrenal (HPA) axis dysfunction than is a diagnosis of MDD. Multiple regression analysis of their data revealed that a trauma history was related to a hyperactive HPA reaction to a laboratory neuroendocrine challenge test, and that the interaction between child abuse and trauma during the adulthood was the greatest predictor of cortisol responsiveness to ACTH (Heim et al., 2002). It should be noted that a history of sexual abuse during childhood or adolescence is not exclusively related to future onset of depression and PTSD; indeed, adverse early-life environments have been linked to a variety of mental and somatic health outcomes (Kessler & Magee, 1993; Zavaschi et al., 2002).

Carpenter and colleagues (2004) studied CSF CRH concentrations in 27 drug-free depressed patients and 25 matched controls. Perceived stress levels during the preschool and preadolescent years were assessed through a self-report scale. There was no difference in mean CSF CRH concentrations between patients and controls, but a regression analysis showed that perceived stress during childhood was a robust predictor of CSF CRH concentrations, while depression was not a significant predictor. Perinatal adversity and stress during preadolescent years were both independently associated with CSF CRH concentration.

Decades of research investigating HPA axis activity have established that disturbed regulation of this critical neuroendocrine system is associated with and perhaps causally related to depressive disorders (Carpenter et al., 2004). Suprapituitary-driven hypercortisolemia and impaired glucocorticoid negative feedback inhibition have been associated with some subtypes of major depression (Holsboer, 1995). Another work has shown that PTSD patients have relatively low plasma levels of cortisol due to an increased responsiveness of glucocorticoid receptors, thus suggesting that the inhibition of negative feedback has a significant role in disorder pathology (Yehuda, Golier, Halligan, Meaney, & Bierer, 2004; Yehuda, Halligan, & Bierer, 2002). Taken together, the findings reviewed previously are consistent with the hypothesis that early adversity, depending on the timing of occurrence during childhood or adolescence, is an important risk factor for the differential development of PTSD or depression in adulthood.

Our findings have implications on clinical practice. We considered that patients' knowledge of their own child abuse and its consequences are essential in their treatment. Also, this has implications to clinicians, as it is well documented that this early life abuse has a profound impact on the patient's neurobiology and psychodynamic. Taking preventive measures just after the abuse is recognized as needed in order to avoid severe consequences in adulthood.

The present study has several limitations. It utilized a retrospective cohort sample instead of a more ideal prospective cohort. The enrolled patients were from an outpatient clinic, which could bias our data for this specific population. The instruments used also have some limitations. The BDI is a self-report scale, which has some limitations in cases of patients who might misunderstand some of the questions. In addition, we used the ETI to evaluate history of child abuse, which is a retrospective measure, but it is not the standard way to verify the existence of abuse. Finally, our sample is small for generalization. Replication in a larger sample, preferably with a prospective design, would be desirable. Research on borderline personality disorder should also be conducted in this same design.

As depression and PTSD are worldwide public health problems, further research on their risk factors is of critical importance. Moreover, trying to reduce the impact of abuse, especially sexual abuse of children, is a humanitarian as well as a medical mandate. Further clarification of the long-term impact of sexual abuse during childhood and adolescence will

create a scientific foundation on which to base appropriate action by public health authorities to assist victims of this kind of violence.

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TABLE 1

Distribution of Demographic and Social Characteristics of the Sample by Age of Sexual Abuse

	All Groups <i>n</i> = 60	Before 12 yrs (EA) <i>n</i> = 16	After 12 yrs (AA) <i>n</i> = 13	Chi-square (<i>p</i>)
Age (mean)	39.81(19–60)	40.18 (23–60)	41.30 (26–67)	<i>t</i> = .265 (<i>p</i> = .79)
Civil Status				
Married	36 (60%)	11 (68.25%)	7 (54%)	$\chi^2 = 1.771$ (<i>p</i> = .62)
Single	12 (20%)	2 (12.5%)	3 (23%)	
Divorced	8 (13%)	1 (6.25%)	2 (15%)	
Widow	4 (6%)	2 (12.5%)	1 (8%)	
Educational Level				
High School	31 (42%)	4 (25%)	2 (15%)	$\chi^2 = .588$ (<i>p</i> = .75)
Middle School	15 (25%)	9 (56%)	10 (77%)	
College	14 (21%)	3 (19%)	1 (8%)	
Gender				
Women	45 (75%)	15 (94%)	10 (77%)	$\chi^2 = 1.708$ (<i>p</i> = .19)
Men	15 (25%)	1 (6%)	3 (23%)	
Religion				
Catholic	39 (65%)	12 (75%)	8 (61%)	$\chi^2 = 1.067$ (<i>p</i> = .90)
Protestant	10(16%)	2 (12.5%)	1 (8%)	
Spiritualist	7 (11%)	1 (6.25%)	3 (23%)	
Atheist	2 (3%)	0	0	
Mórmon	1 (1.6%)	0	1 (8%)	
Jewish	1 (1.6%)	1 (6.25%)	0	

Note: EA = sexual abuse before 12 years; AA = sexual abuse after 13 years

TABLE 2

Frequency of Items

	Before 12 years (EA)		After 12 years (AA)		Total	
	N	%	N	%	N	p-value
1. Exposed to Flasher	11	68.8%	5	38.5%	16	55.2% 0.1029
2. Forced/Coerced to Watch Sexual Acts	4	25.0%	2	15.4%	6	20.7% 0.8612
3. Touched in Intimate Part of Body	12	75.0%	7	53.8%	19	65.5% 0.4242
4. Someone Rubbed Genitals Against You	8	50.0%	6	46.2%	14	48.3% 0.8670
5. Forced/Coerced to Touch Intimate Parts	5	31.3%	6	46.2%	11	37.9% 0.4107
6. Had Genital Sex Against Your Will	4	25.0%	4	30.8%	8	27.6% 0.9426
7. Forced/Coerced to Perform Oral Sex on Someone	1	6.3%	0	0.0%	1	3.4% 0.9157
8. Someone Performed Oral Sex on You	0	0.0%	1	7.7%	1	3.4% 0.9157
9. Someone had Anal Sex with You Against Your Will	0	0.0%	0	0.0%	0	0.0% 1.0000

TABLE 3

Mean Scores of CAPS and BDI, and Odds Ratio of Higher CAPS/BDI Ratio by Age of Trauma

	All groups (<i>n</i> = 29)	Before 12 yrs (EA), <i>n</i> = 16	After 13 yrs (AA), <i>n</i> = 13	Chi-square (<i>p</i>)
CAPS (mean) [*] ± <i>SD</i>	72 ± 32.21	67.5 ± 27.3	74.6 ± 45.66	$\chi^2 = 6.564$ (<i>p</i> = 0.00)
BDI (mean) [*] ± <i>SD</i>	26 ± 10.37	29 ± 11.24	23 ± 9.68	$\chi^2 = 1.327$ (<i>p</i> = 0.003)
Severe PTSD [*] (CAPS > 60)	34%	15.4%	84.6%	$\chi^2 = 21.110$ (<i>p</i> = .010)
Severe Depression (BDI > 36)	24%	62.5%	37.5%	$\chi^2 = 16.128$ (<i>p</i> = .765)
Higher CAPS/BDI Ratio: Odds Ratio (95% Confidence Interval)	.109 (CI: .018, 67 <i>p</i> < .05)	.246; (CI: .065, 931 <i>p</i> < .05).	2.256 (CI: 1.15, 4.426; <i>p</i> < .05).	
Relative Risk Higher CAPS		2.3 (.246/.109)		
Relative Risk Higher BDI			20.6 (2.256/.109)	

*
p < .05.