

NIH Public Access

Author Manuscript

J Nerv Ment Dis. Author manuscript; available in PMC 2011 December 2.

Published in final edited form as:

J Nerv Ment Dis. 2007 March ; 195(3): 211–218. doi:10.1097/01.nmd.0000243824.84651.6c.

Psychometric Properties of the Early Trauma Inventory–Self Report

J. Douglas Bremner, MD^{*,†}, Roger Bolus, PhD^{‡,§}, and Emeran A. Mayer, MD[‡]

^{*}Departments of Psychiatry and Radiology and Center for Positron Emission Tomography, Emory University School of Medicine, Atlanta, Georgia

[†]Atlanta VAMC, Decatur, Georgia

[‡]Center for Neurovisceral Sciences and Women's Health, Department of Medicine, University of California Los Angeles, Los Angeles, California

§Research Design Group, Encinitas, California

Abstract

Childhood trauma is an important public health problem, but there are limitations in our ability to measure childhood abuse. The purpose of this study was to develop a self-report instrument for the assessment of childhood trauma that is valid but simple to administer. A total of 288 subjects with and without trauma and psychiatric disorders were assessed with the Early Trauma Inventory–Self Report (ETI-SR), an instrument for the assessment of physical, emotional, and sexual abuse, as well as general traumas, which measures frequency, onset, emotional impact, and other variables. Validity and consistency of the ETI-SR using different methods of scoring was assessed. The ETI-SR was found to have good validity and internal consistency. No method was found to be superior to the simple method of counting the number of items endorsed as having ever occurred in terms of validity. Some items were found to be redundant or not necessary for the accurate measurement of trauma severity within specific domains. Subsequent analyses with a shortened checklist of items showed acceptable validity and internal consistency. These findings suggest that the ETI-SR is a valid measure of early trauma, and suggest future directions for a shortened version of the ETI-SR that could be more easily incorporated into clinical research studies and practice settings.

Keywords

Depressive disorders; stress disorders; posttraumatic; psychometrics; measurement; abuse; trauma

Childhood trauma is an important public health problem (McCauley et al., 1997) that can lead to a range of adverse mental health outcomes (Briere and Runtz, 1990; Chu and Dill, 1990; Putnam et al., 1986). Childhood sexual abuse is the most common cause of posttraumatic stress disorder (PTSD) in women, affecting 10%, or about 13 million, women in the country (Kessler et al., 1995). Controversies continue about the accuracy of recall of traumatic childhood events (Schacter et al., 1995). Difficulties related to accurate and reliable identification and measurement of presence and severity of childhood trauma have been a significant limitation in this field, for both clinical and research applications. An

Copyright © 2007 by Lippincott Williams & Wilkins

Send reprint requests to J. Douglas Bremner, MD, Emory University, Psychiatry and Behavioral Science, Emory Clinical Neuroscience Research Unit, Building A, Rm 308e, 1256 Briarcliff Rd., Mail Stop 1256/001/1AT, Atlanta, GA 30306. jdbremn@emory.edu.

instrument for the assessment of childhood trauma with demonstrated reliability and validity is therefore an important prerequisite for research in this field.

Although a number of instruments have been created to assess the occurrence of childhood trauma (Bernstein et al., 1994; Briere and Runtz, 1990; Gallagher et al., 1989; Keane and Wilson, 1997; MacIan and Pearlman, 1992; Roy and Perry, 2004; Scher et al., 2001; Stamm, 1996), most do not have published psychometric properties such as reliability and validity, or measure a single aspect of trauma (e.g., sexual abuse). The Childhood Trauma Interview (CTI) is a clinician-administered assessment of childhood emotional, physical, and sexual abuse, as well as emotional and physical neglect. The CTI has established reliability and validity (Fink et al., 1995). Items are rated for severity, and number of perpetrators, type of perpetrator, and severity of abuse are measured. The Childhood Experience of Care and Abuse (CECA) is a clinician-administered measure of childhood physical and sexual abuse and neglect (Bifulco et al., 1994); items are rated by severity on a 1 to 4 scale, and frequency is measured only for sexual abuse items. The CECA also measures types of perpetrators. The short form (CECA-Q) has 17 items and established reliability and validity (Bifulco et al., 2005). The Retrospective Assessment of Traumatic Experience (Gallagher et al., 1989) is a validated clinician-administered measure of childhood physical and sexual abuse and neglect. Some items have severity rated on a 0 to 4 scale, and type of perpetrator and duration of abuse are also measured. The Traumatic Antecedents Interview (Herman et al., 1989) is a validated clinician-administered interview that asks about abuse items in a yes/no format; most items inquire about number of perpetrators. In terms of self-report measures, Bernstein et al. (1994) developed a questionnaire modified from the CTI assessing childhood emotional, physical, and sexual abuse, the Childhood Trauma Questionnaire (CTQ). The CTQ is a 28-item self-report inventory of child emotional, physical, and sexual abuse and emotional and physical neglect that takes 5 minutes to administer. Items are ranked by frequency on a 5-point scale. The CTQ has demonstrated internal consistency, retest reliability, normative data, and validity (Scher et al., 2001). Other self-report measures include the Assessing Environments III (AEnvIII), a validated measure that assesses primarily physical abuse items in a yes/no format (Berger et al., 1988). The Childhood Abuse and Trauma Scale (CATS; Sanders and Becker-Lausen, 1995) is a measure of childhood physical, sexual, and emotional abuse that assesses abuse on a 5-point frequency scale. We previously reported on the development of an instrument for the measurement of childhood trauma, the Early Trauma Inventory (ETI). This 56-item semistructured interview assesses the domains of physical, emotional, and sexual abuse, as well as a domain of general traumatic experience, and takes about 1 hour or less to administer. For each item of the ETI, there are assessments of frequency of abuse/trauma by developmental stage, onset and termination of abuse/trauma, and perpetrator/cause of the abuse/trauma. We found the ETI to have good interrater reliability (r = 0.99), test-retest reliability (r = 0.91), and internal consistency (Cronbach $\alpha = 0.95$). Correlation with a measure of PTSD symptomatology, the Civilian Mississippi Scale, was 0.78, showing face validity of the instrument. We also reported a correlation between the ETI clinician-administered and a self-report version of the ETI, the ETI-SR (Bremner et al., 2000). The ETI-SR is a 62-item modification of the ETI that assesses frequency, age of onset, type of perpetrator, and impact on the individual. It assesses age of onset in a categorical way, by asking if the abuse started at 0 to 5, 6 to 11, or 12 to 18 years, and measures frequency in a general way as well. It takes about 30 minutes to fill out.

The ETI differs from other instruments in the literature in several ways. Unlike the ETI clinician-administered, the CECA, CTI, Retrospective Assessment of Traumatic Experience, and Traumatic Antecedents Interview do not measure impact on the individual or age of onset. Some of these measures also do not rate frequency and duration. For self report measures, the AEnvIII, CATS, and CTQ do not measure impact, although the CATS does

measure perception. The AEnvIII does not measure frequency. The ETI measures, in addition to child abuse, other traumatic events that occur in childhood, like death of a parent.

Due to time constraints and limited trained staff, administration of clinician-administered assessments like the ETI can be impractical to implement. The purpose of this study was to assess the psychometric properties of internal consistency and validity of a self-report version of the ETI in a larger independent sample of subjects with and without psychiatric disorders. We also assessed the validity of a shortened version of the ETI-SR.

METHODS

ETI-SR

The ETI-SR is a 62-item questionnaire developed as a self-report version of the clinicianadministered ETI. The ETI-SR follows the ETI (Bremner et al., 2000) format of four domains of childhood traumatic events: general trauma (31 items), physical (9 items), emotional (7 items), and sexual abuse (15 items). Physical abuse is defined as physical contact, constraint, or confinement, with intent to hurt or injure. Emotional abuse is verbal communication with the intention of humiliating or degrading the victim. Sexual abuse is unwanted sexual contact performed solely for the gratification of the perpetrator or for the purposes of dominating or degrading the victim. General traumatic events comprise a range of stressful and traumatic events that can be mostly secondary to chance events. The ETI-SR can be self-administered in 30 minutes or less and can be used for clinical and research purposes. Items for which a positive response is obtained are followed up with questions regarding frequency, perpetrator, and age of onset (age 0–5, 6–12, 13–18). At the end of each domain are questions about the current effect on the individual in areas of social, work, and emotion for the items in that domain. The items of the ETI-SR are presented in Table 1.

Study Subjects

The ETI-SR was administered to 288 subjects. In 10 subjects, diagnosis was unknown. The remaining 278 subjects included healthy subjects without psychiatric disorder (28%), subjects without a psychiatric disorder with a history of childhood abuse (11%), and subjects with the diagnosis of PTSD (35%), depression (21%), and borderline personality disorder (4%). Patients with BPD (30 [12 *SD*]) and trauma controls (34 [10 *SD*]) were younger than PTSD (45 [10 *SD*]), depression (45 [13 *SD*]), and healthy subjects (42 [11 *SD*]; F = 9.78; df = 4,272; p < 0.0001). One hundred percent of BPD patients were women, 52% of PTSD patients, 67% of depression patients, 100% of abuse controls, and 36% of healthy subjects. All subjects were recruited by newspaper advertisement. All subjects signed written informed consent. This study was approved by an Institutional Review Board.

Psychiatric diagnoses were based on the Structured Clinical Interview for DSM-IV. Subjects were excluded with current alcohol or substance abuse or dependence or schizophrenia based on the Structured Clinical Interview for DSM-IV, history of traumatic brain injury or neurological disorder, or serious medical condition. PTSD symptom severity was assessed in subjects with a history of trauma using the Clinician Administered PTSD Scale (CAPS; Blake et al., 1995), a reliable and valid measures of PTSD symptom severity.

Scoring of the ETI-SR

As part of the development of this instrument, an index of severity of trauma exposure was developed based on assessment with the ETI-SR. Indexes were developed for each domain, which could be summed to obtain a combined index. Different methods for obtaining an ETI-SR score within domains were assessed, including counting the number of endorsed items, incorporating frequency of events, age of onset, and emotional impact at the time of

the event. Odds ratios for risk of PTSD based on exposure to specific traumatic events published in a previous paper (Bremner et al., 2000) were also incorporated into the scoring scheme to derive items weighted for severity. Means scores for healthy subjects, traumatized subjects, and patients with different psychiatric disorders using the simple method of counting the number of items endorsed as ever having occurred are presented in Table 2.

Analyses

Validity of the ETI-SR was measured by correlating ETI-SR score with PTSD symptom severity measured with the CAPS. Validity was also tested by the ability of the ETI-SR to distinguish between patient groups with known association with trauma exposure (PTSD, BPD) from healthy subjects. Different methods for scoring individual domains of the ETI-SR, including incorporation of information about frequency, age of onset, emotional impact on the individual, and weighting items for severity using previously published odds ratios, were assessed by correlating these scores with CAPS score. As described below, the results showed that the most parsimonious and easiest method was simply counting up the number of events which ever occurred. Using this scoring system, we then performed analyses of validity (item-total and item-item correlations), consistency, and factor analysis, to select a shortened list of items that adequately measured the construct of interest within the individual domains. Tests of internal consistency were determined from the data in all subjects using the Cronbach α coefficient (Cronbach, 1951) and by measuring the correlation of individual items with the total score minus that particular item. Factor analysis was performed within individual domains using all items. Interitem and item-total correlations, and correlations with CAPS, were also examined.

RESULTS

Alternate Methods of Scoring

The ETI-SR was demonstrated to be a valid measure of early trauma. Individual domains of physical, emotional, and sexual abuse, and general trauma, were found to be internally consistent ($\alpha = 0.78-0.90$) and valid (r = 0.39-0.47 for correlation with the CAPS; Table 3). Of the different scoring strategies, none added additional information above the simple method of adding up the number of events that ever occurred; subsequent analyses were therefore performed with this simple scoring technique.

Internal Consistency

All domains showed high internal consistency (Cronbach coefficient $\alpha > 0.7$). Items with the highest correlation to total score in the general trauma domain (r > 0.4) included personal accident (T2), observing the death or serious injury of others (T13), witnessing violence (T15), and being victim of assault (T21; Table 1). Items in the physical domain with the highest item-total correlations (r > 0.41) included being slapped (P2), being punched (P4), having objects thrown at you (P6), and being shoved (P8). Weakest correlations were seen for being spanked with a hand (P1; r = 0.34), which was also most frequently endorsed (85%) along with being hit with objects (68%). These 2 items were highly correlated, suggesting that they were measuring the same thing. Emotional abuse items were all highly intercorrelated and had high correlations with emotional abuse domain total score, ranging from 0.52 to 0.76, with the lowest item-total correlation for parents controlling one's life (E6). Among the sexual abuse items, being made to pose for suggestive photographs (S13) and being forced or coerced to perform sexual acts for money (S14) were both very infrequently endorsed (4%) and showed the weakest associations with ETI sexual abuse domain totals. Apart from these items, the other sexual abuse items showed a strong association with total score, with r values ranging from 0.47 to 0.77.

Validity

For general trauma items, correlations of >0.2 with the CAPS were seen for natural disaster (T1), personal accident (T2) or injury (T3), separation of parents (T7), being raised in someone else's home (T8), serious injury or illness of a sibling (T10), witnessing death or serious injury of others (T13), divorce or separation of parents (T14), witnessing violence (T15), family member with mental illness (T16), parents with alcoholism (T17), parents with substance abuse (T18), victim of armed robbery (T20) or assault (T21), victim of rape (T22), or seeing someone murdered (T23; Table 1). For physical abuse, all of the items had a correlation of >0.2 with the CAPS except for being spanked with a hand (P1). All of the emotional abuse items were correlated with the CAPS. The ones with the highest correlations (>0.3) with CAPS included being often put down or ridiculed (E1), often ignored (E2), often told you were no good (E3), often treated in a cold or uncaring manner (E5), and parents often failed to recognize your needs (E7). Sexual abuse items correlated at >0.2 with the CAPS included all items except someone performing anal sex on you against your will (S11) and being forced to pose for sexy photographs (S13).

Factor Analysis of the ETI-SR

Factor analysis within the general trauma domain identified one primary factor that accounted for 16% of the variance and included exposure to natural disaster, personal accident, injury, illness, witnessing violence, and being victim of assault. Other factors represented items that were overlapping, redundant, or measuring similar events. These included death of a friend and serious illness/injury of a friend, death of parent and serious illness/injury of parent, separation/divorce of parents or divorce of parents, rape or having someone close to you raped, seeing someone murdered and having someone close to you murdered, family violence and alcoholic parents, death or illness of a sibling, and family mental illness. Together, all of these factors accounted for 51% of the variance. For physical abuse, two factors emerged that accounted for 50% of the variance, one related to being spanked (P1) or hit with objects (P5) (13%), while the second factor included all of the other items. For emotional abuse, there was only one factor including all of the items that accounted for 57% of the variance. For sexual abuse, there were two factors, one accounting for 8% of the variance including being forced or coerced to pose for sexy photographs (P13) and being forced or coerced to perform sexual acts for money (P14). Coercive sexual acts like having someone perform anal sex or oral sex on you against your will also loaded onto this factor to some degree. The second factor included all of the other sexual abuse items and accounted for 44% of the variance.

Selection of Items for Short Form

Items were selected as candidates for a possible short version of the ETI. Several items showed high correlations with each other or clustered in a factor analysis, suggesting that these items were redundant or were measuring similar constructs. In the general trauma domain, there was a high correlation between death of parent (T5) and illness of parent (T6) (r = 0.33), separation or divorce of parent (T7) and divorce of parent (T14) (r = 0.82), personal accident (T2) and injury (T3; r = 0.38), death of sibling (T9) and serious illness of sibling (T10; r = 0.36), death of friend (T11) or injury of friend (T12; r = 0.41), parental alcoholism (T17) or substance abuse (T18; r = 0.29), seeing someone murdered (T23) and having someone close to you murdered (T24; r = 0.36), and being raped (T22) and having someone close to you raped (T25; r = 0.36). Other items were weakly correlated with the total score or were infrequently present, including being raised in home other than parents (T8), observing death or injury of others (T13), personal theft (T19), personal armed robbery (T20), stressful job (T26), POW (T27), combat (T28), death of child (T29), miscarriage (T30), and death of spouse (T31). Some items were redundant with the physical and sexual abuse domains, including personal assault (T21) and rape (T22). Based on factor analysis,

item-total correlations, interitem correlations, considerations of redundancy, and correlations of individual items with the CAPS, a shortened list of items was selected (Table 4).

For physical abuse, factor analysis showed two factors, with one factor related to being spanked with a hand (P1) or being hit with objects (including being spanked with a belt; P5), and the other related to all 7 remaining items. The items spanked with a hand (P1) and hit with objects (P5) were shown to be frequently endorsed, have a low correlation with PTSD symptom severity, and to overlap with one another. The item being choked (P7) was highly correlated with other items and felt to be redundant/overlapping, while being tied up or locked in a closet (P9) was more infrequent than other items. For these reasons, these 2 items were dropped, in addition to spanked with a hand (P1) and hit with objects (P5).

For emotional abuse, there was only one factor, and all 7 items were highly intercorrelated. Items retained based on correlation with PTSD symptom severity included being often put down or ridiculed (E1), often ignored (E2), often told you were no good (E3), often treated in a cold or uncaring manner (E5), and parents often failed to recognize your needs (E7).

Two primary factors emerged for the sexual abuse domain. One factor was primarily related to being forced to pose for suggestive photographs (S13) and to perform sex acts for money (S14); this factor was also related to the coercive sexual acts of being forced to have anal sex against your will (S11). All other items were related to the other factor. Of these, several were seen as having necessarily occurred if subjects were exposed to other, more advanced forms of sexual abuse. These included being exposed to comments about sex (S1), being exposed to flashing (S2), someone spying on you in the bathroom (S3), and someone watching you undress (S4). Other items, including someone performing oral sex upon you against your will (S10), or someone trying to have sex with you but not actually doing so (S12), were more uncommon or not correlated with PTSD symptom severity. Retained items are shown in Table 4.

Properties of the Short Form ETI

The short form of the ETI-SR therefore had 11 general trauma items, 5 physical abuse items, 5 emotional abuse items, and 6 sexual abuse items, for a total of 27 items (Tables 4, 5). The properties of the short-form ETI were compared with the full list of items. Domain scores for the short list correlated highly with the original list for general trauma (0.91), and physical (r = 0.94), emotional (r = 0.97), and sexual abuse (r = 0.97). The short form showed a similar internal consistency for the individual domains (0.70-0.87; Table 6) and the long form (0.78–0.91) (Table 3). Both the short form (Table 5) and the long form (Table 2) were able to discriminate patients with known associations with trauma from comparison subjects. There was also a similar validity based on the CAPS measurement of PTSD symptoms for the long form (r = 0.37 - 0.47; Table 3) and the short form (r = 0.32 - 0.44; Table 6). For items on the shortened list, there was a correlation of 0.23 to 0.56 of individual items with domain score in the general trauma domain, 0.37 to 0.63 in the physical abuse domain, 0.56 to 0.75 in the emotional abuse domain, and 0.58 to 0.78 in the sexual abuse domain. There was also a high level of internal consistent as measured by Cronbach α for the domains of general trauma (0.70), and physical (0.75), emotional (0.86), and sexual abuse (0.87) trauma domains. Factor analysis of the shortened list showed a high factor loading (>0.5) for all items within the physical, emotional, and sexual abuse domains. For general trauma, there were three primary factors. One corresponded generally to "random events," including natural disaster (T1), serious accident (T2), serious injury of a friend (T12), and seeing someone murdered (T23), all with factor loading >0.55. The second factor of "dysfunctional family events" included separation of parents (T7), witnessing family violence (T15), and alcoholic parents (T17; with factor loading >0.6). Another factor of "family accidents" included serious injury to self (T3), parent (T6), sibling (T10), and

family mental illness (T16), all with factor loading >0.6. These items in general were less random and were related to physical abuse items—that is, events that could occur in a household where physical abuse was prevalent.

DISCUSSION

Our findings show that the ETI-SR is a valid instrument for the measurement of childhood physical, emotional, and sexual abuse, as well as general traumas. The ETI-SR showed high levels of internal consistency within the individual domains. Most items were highly correlated with measures of PTSD symptom severity, demonstrating the validity of the measure. Comparison of alternate scoring schemes, including weighting of items for severity, and inclusion of information about frequency, age of onset, and emotional impact on the individual, did not add to the validity of sum scores within individual domains above a simple tallying of items endorsed as ever having occurred. Preliminary analyses suggested the structure of a short form of the ETI (ETISR-SF) that could provide a practical addition to clinical research studies.

Being spanked with a hand and being hit with objects (including spanked with a belt) were related to one another and not to the construct measured by the other items of this domain. These items were very frequently endorsed and are presumably within the normal range of behaviors of the last generation. These items do not add to the measurement of a construct of traumatic physical abuse. All of the items for emotional abuse were highly correlated with one another, and seem to be measuring the same thing. For sexual abuse, there was a cluster of items related to forcing or coercion of individuals into sex, including being forced to pose for photographs and perform sexual acts for money; coercive events like having anal or oral sex performed on you were also related. These items were not related to the main cluster of items related to most sexual abuse events. Other items were felt to "lead up to" abuse, like inappropriate comments, spying, or flashing, and did not contribute to the core pathogenic effects of sexual abuse.

The subjects in this study were drawn from a clinical setting. Population-based studies are needed to obtain a more accurate assessment of the relative contributions of individual childhood traumatic events to psychopathology. This study did not include documentation of childhood abuse. Documenting childhood abuse through the use of surveys of legal records and interviews of family members is difficult and not feasible in most research settings, and the validity of reports by family members (who may have been involved directly or indirectly in the abuse) is questionable.

Acknowledgments

Supported by NIH MH56120 to Dr. Bremner and VA Merit Review and by NIH DK64539 and AT002681 to Dr. Mayer.

REFERENCES

- Berger AM, Knutson JF, Mehm JG, Perkins KA. The self-report of punitive childhood experiences of young adults and adolescents. Child Abuse Neglect. 1988; 12:251–262. [PubMed: 3395899]
- Bernstein DP, Fink L, Handelsman L, Foote L, Lovejoy M, Wenzel K, Sapareto E, Ruggiero J. Initial reliability and validity of a new retrospective measure of child abuse and neglect. Am J Psychiatry. 1994; 151:1132–1136. [PubMed: 8037246]
- Bifulco A, Bernazzani O, Moran PM, Jacobs C. The childhood experience of care and abuse questionnaire (CECA.Q): Validation in a community series. Br J Psychol. 2005; 44:563–581.
- Bifulco A, Brown GW, Harris TO. Childhood experiences of care and abuse (CECA): A retrospective interview measure. J Child Psychol Psychiatr. 1994; 35:1419–1435.

- Blake DD, Weathers FW, Nagy LM, Kaloupek DG, Gusman FD, Charney DS. The development of a clinician-administered PTSD scale. J Trauma Stress. 1995; 8:75–90. [PubMed: 7712061]
- Bremner JD, Vermetten E, Mazure CM. Development and preliminary psychometric properties of an instrument for the measurement of childhood trauma: The Early Trauma Inventory. Depress Anxiety. 2000; 12:1–12. [PubMed: 10999240]
- Briere J, Runtz M. Differential adult symptomatology associated with three types of child abuse histories. Child Abuse Neglect. 1990; 14:357–364. [PubMed: 2207804]
- Chu JA, Dill DL. Dissociative symptoms in relation to childhood physical and sexual abuse. Am J Psychiatry. 1990; 147:887–892. [PubMed: 2104510]
- Cronbach LJ. Coefficient alpha and the internal structure of tests. Psychometrika. 1951; 16:297–334.
- Fink LA, Bernstein D, Handelsman L, Foote J, Lovejoy M. Initial reliability and validity of the childhood trauma interview: A new multidimensional measure of childhood interpersonal trauma. Am J Psychiatry. 1995; 152:1329–1335. [PubMed: 7653689]
- Gallagher R, Flye B, Hurt S, Stone M, Hull J. Retrospective assessment of traumatic experiences. J Pers Disord. 1989; 6:99–108.
- Herman JL, Perry JC, van der Kolk BA. Childhood trauma in borderline personality disorder. Am J Psychiatry. 1989; 146:490–495. [PubMed: 2929750]
- Keane, T.; Wilson, J. Assessing Psychological Trauma and PTSD: A Handbook for Practitioners. New York: Plenum Press; 1997.
- Kessler RC, Sonnega A, Bromet E, Hughes M, Nelson CB. osttraumatic stress disorder in the national comorbidity survey. Arch Gen Psychiatry. 1995; 52:1048–1060. [PubMed: 7492257]
- MacIan PS, Pearlman LA. Development and use of the TSI Life Event Questionnaire. Treat Abuse Today. 1992; 2:9–11.
- McCauley J, Kern DE, Kolodner K, Dill L, Schroeder AF, DeChant HK, Ryden J, Derogatis LR, Bass EG. Clinical characteristics of women with a history of childhood abuse: Unhealed wounds. JAMA. 1997; 277:1362–1368. [PubMed: 9134941]
- Putnam FW, Guroff JJ, Silberman EK, Barban L, Post RM. The clinical phenomenology of multiple personality disorder: A review of 100 recent cases. J Clin Psychiatry. 1986; 47:285–293. [PubMed: 3711025]
- Roy CA, Perry JC. Instruments for the assessment of childhood trauma in adults. J Nerv Ment Dis. 2004; 192:343–351. [PubMed: 15126888]
- Sanders B, Becker-Lausen E. The measurement of psychological maltreatment: Early data on the child abuse and trauma scale. Child Abuse Neglect. 1995; 19:315–323. [PubMed: 9278731]
- Schacter, DL.; Coyle, JT.; Fischbach, GD.; Mesulam, MM.; Sullivan, LE. Memory Distortion: The Brain, the Mind and the Past. Cambridge (MA): Harvard University Press; 1995.
- Scher C, Stein MB, Asmundson G, McCreary D, Forde D. The childhood trauma questionnaire in a community sample: Psychometric properties and normative data. J Trauma Stress. 2001; 14:483– 857.

Stamm, BH. Measurement of Stress, Trauma and Adaptation. Lutherville (MD): Sidran Press; 1996.

Frequency of Endorsement and Item-Total Correlations of Items on ETI-SR (N = 288)

Item	Mean (SD)	Item-Total Correlation	α (minus item)	CAPS Correlation
General trauma				
T1. Natural disaster	23% (42)	0.28	0.82	0.0
T2. Serious accident	27% (45)	0.47	0.81	0.12
T3. Serious personal injury	25% (40)	0.40	0.81	0.10
T4. Serious personal illness	20% (40)	0.26	0.82	-0.0
T5. Death of parent	19% (39)	0.32	0.82	0.0
T6. Serious injury/illness of parent	32% (47%)	0.35	0.81	0.2
T7. Separation of parents	36% (48)	0.36	0.81	0.2
T8. Raised in home other than parents	14% (35)	0.29	0.82	0.2
T9. Death of sibling	14% (35)	0.27	0.82	0.1
T10. Serious illness/injury of sibling	24% (43)	0.35	0.82	0.2
T11. Death of friend	35% (48)	0.36	0.81	0.0
T12. Serious injury of friend	16% (37)	0.35	0.81	-0.0
T13. Observe death/serious injury of others	30% (46)	0.46	0.81	0.3
T14. Divorce/separation of parents	34% (47)	0.31	0.82	0.2
T15. Witnessing violence	48% (50)	0.57	0.80	0.3
T16. Family mental illness	29% (46)	0.36	0.81	0.4
T17. Alcoholic parents	32% (47)	0.37	0.81	0.3
T18. Drug abuse in parents	7% (26)	0.28	0.82	0.2
T19. Victim of major theft	22% (41)	0.25	0.82	0.1
T20. Victim of armed robbery	7% (25)	0.24	0.82	0.2
T21. Victim of assault	27% (45)	0.46	0.81	0.2
T22. Victim of rape	19% (39)	0.36	0.81	0.2
T23. See someone murdered	4% (20)	0.30	0.81	0.1
T24. Someone close to you murdered	7% (25)	0.31	0.81	-0.0
T25. Someone close to you raped	12% (33)	0.25	0.81	0.1
T26. Work in stressful job	30% (46)	0.36	0.81	-0.0
T27. POW/hostage	1% (10)	0.13	0.82	-0.0
T28. Combat	6 (24%)	0.05	0.82	0.1
T29. Death of child	3% (17)	0.26	0.82	0.2
T30. Miscarriage	15% (36)	0.37	0.81	0.1
T31. Death of spouse	1% (12)	0.17	0.82	-
Physical abuse				
P1. Spanked with a hand	85% (36)	0.34	0.78	0.1
P2. Slapped in the face	50% (50)	0.48	0.76	0.2
P3. Burned with cigarette	9% (28)	0.39	0.77	0.2
P4. Punched or kicked	39% (49)	0.60	0.74	0.3
P5. Hit or spanked with object	68% (47)	0.40	0.77	0.2
P6. Hit with thrown object	23% (42)	0.56	0.75	0.2

Item	Mean (SD)	Item-Total Correlation	α (minus item)	CAPS Correlation
P7. Choked	14% (35)	0.40	0.77	0.21
P8. Pushed or shoved	45% (50)	0.63	0.73	0.14
P9. Tied up or locked in closet	12% (33)	0.40	0.77	0.23
Emotional abuse				
E1. Often put down or ridiculed	49% (50)	0.76	0.84	0.26
E2. Often ignored or made to feel you didn't count	41% (49)	0.71	0.84	0.39
E3. Often told you are no good	34% (47)	0.68	0.85	0.37
E4. Often shouted at or yelled at	56% (50)	0.58	0.86	0.26
E5. Most of the time treated in cold or uncaring way	24% (43)	0.56	0.86	0.40
E6. Parents control areas of your life	36% (48)	0.52	0.87	0.14
E7. Parents fail to understand your needs	50% (50)	0.71	0.84	0.34
Sexual abuse				
S1. Exposed to inappropriate comments about sex	36% (48)	0.65	0.90	0.23
S2. Exposed to flashing	32% (47)	0.65	0.90	0.38
S3. Spy on you dressing/bathroom	13% (33)	0.50	0.90	0.19
S4. Forced to watch sexual acts	11% (31)	0.59	0.90	0.27
S5. Touched in intimate parts in way that was uncomfortable	39% (49)	0.71	0.90	0.28
S6. Someone rubbing genitals against you	29% (45)	0.74	0.89	0.23
S7. Forced to touch intimate parts	26% (44)	0.77	0.89	0.30
S8. Someone had genital sex against your will	18% (39)	0.66	0.90	0.27
S9. Forced to perform oral sex	15% (36)	0.68	0.90	0.33
S10. Someone performed oral sex on you against your will	12% (33)	0.60	0.90	0.22
S11. Someone had anal sex with you against your will	8% (27)	0.47	0.90	-0.01
S12. Someone tried to have sex but didn't do so	18% (38)	0.51	0.90	0.31
S13. Forced to pose for sexy photographs	4% (19)	0.36	0.91	0.19
S14. Forced to perform sex acts for money	4% (19)	0.38	0.91	0.23
S15. Forced to kiss someone in sexual way	14% (35)	0.63	0.90	0.11

NIH-PA Author Manuscript

Bremner et al.

TABLE 2

Mean ETI Scores in Healthy Subjects, Trauma Controls, and Patients With PTSD, BPD, and Depression^a

Subscale (range)	PTSD (N = 105)	N)	BPDDepression $(N = 10)$ $(N = 51)$	BPD Depression Trauma Controls Healthy Subjects F Value = 10) $(N = 51)$ $(N = 29)$ $(N = 83)$ $(4,273)$	Healthy Subjects $(N = 83)$	F Value (4,273)	<i>p</i> Value
General trauma (0–31) 8.3 (5.0) 9.1 (4.6)	8.3 (5.0)	9.1 (4.6)	5.3 (6.2)	7.2 (3.6)	3.4 (3.1)	14.20	<0.0001 ^b
Physical abuse (0–9)	4.5 (2.2)	5.6 (1.6)	2.4 (1.7)	3.8 (2.2)	2.3 (1.9)	20.84	<0.0001 ^a
Emotional abuse (0–7)	3.9 (2.5)	5.5 (1.4)	2.7 (2.3)	3.3 (2.4)	1.2 (1.7)	20.86	<0.0001 ^a
Sexual abuse (0-15)	4.0 (4.2)	5.5 (4.4)	1.4 (2.1)	5.0(3.3)	0.5 (1.1)	23.70	<0.0001 ^c
Total score (0–62)	20.7 (11.2) 25.7 (8.8)	25.7 (8.8)	11.8 (8.6)	19.3 (8.3)	7.5 (5.4)	32.66	<0.0001 ^a

 1 BPD > PTSD = abuse control = depression > healthy control.

bBPD = PTSD > abuse control = depression > healthy control.

 C BPD = abuse control = PTSD > depression = healthy control.

Properties of ETI Using Full List of Items

Subscale	α	CAPS Correlation
General trauma	0.83	0.47***
Physical abuse	0.78	0.37***
Emotional abuse	0.87	0.42***
Sexual abuse	0.91	0.37**

 $p^{**} < 0.001.$

 $^{***}_{p < 0.0001.}$

Frequency of Endorsement and Item-Total Correlations of Items on ETI-SR Shortened List of Items (N = 288)

Item	Mean (SD)	Item-Total Correlation	α (minus item)	CAPS Correlation
General trauma				
T1. Natural disaster	23% (42)	0.26	0.69	0.01
T2. Serious accident	27% (45)	0.44	0.66	0.12
T3. Serious personal injury	25% (40)	0.36	0.67	0.16
T6. Serious injury/illness of parent	32% (47%)	0.30	0.68	0.20
T7. Separation of parents	36% (48)	0.25	0.69	0.28
T10. Serious illness/injury of sibling	24% (43)	0.38	0.68	0.24
T12. Serious injury of friend	16% (37)	0.28	0.68	-0.06
T15. Witnessing violence	48% (50)	0.56	0.63	0.36
T16. Family mental illness	29% (46)	0.37	0.67	0.44
T17. Alcoholic parents	32% (47)	0.36	0.67	0.30
T23. See someone murdered	4% (20)	0.23	0.69	0.18
Physical abuse				
P2. Slapped in the face	50% (50)	0.46	0.73	0.22
P3. Burned with cigarette	9% (28)	0.37	0.75	0.27
P4. Punched or kicked	39% (49)	0.63	0.66	0.30
P6. Hit with thrown object	23% (42)	0.54	0.70	0.25
P8. Pushed or shoved	45% (50)	0.61	0.67	0.14
Emotional abuse				
E1. Often put down or ridiculed	49% (50)	0.75	0.81	0.26
E2. Often ignored or made to feel you didn't count	41% (49)	0.70	0.82	0.39
E3. Often told you are no good	34% (47)	0.68	0.83	0.37
E5. Most of the time treated in cold or uncaring way	24% (43)	0.56	0.86	0.40
E7. Parents fail to understand your needs	50% (50)	0.69	0.83	0.34
Sexual abuse				
S5. Touched in intimate parts in way that was uncomfortable	39% (49)	0.70	0.84	0.28
S6. Someone rubbing genitals against you	29% (45)	0.72	0.84	0.23
S7. Forced to touch intimate parts	26% (44)	0.78	0.82	0.30
S8. Someone had genital sex against your will	18% (39)	0.61	0.86	0.27
S9. Forced to perform oral sex	15% (36)	0.63	0.85	0.33
S15. Forced to kiss someone in sexual way	14% (35)	0.58	0.86	0.11

NIH-PA Author Manuscript

TABLE 5

Mean ETI Scores in Healthy Subjects, Trauma Controls, and Patients With PTSD, BPD, and Depression Using Restricted Number of Items^a

Subscale (range)	PTSD (N = 105)	PTSDBPDDepression $(N = 105)$ $(N = 10)$ $(N = 51)$	Depression $(N = 51)$	BPD Depression Trauma Controls Healthy Subjects F Value = 10) $(N = 51)$ $(N = 29)$ $(N = 83)$ $(df, 4,273)$ p Value	Healthy Subjects $(N = 83)$	<i>F</i> Value (<i>df</i> 4,273)	<i>p</i> Value
General trauma (0–11) 3.9 (2.6) 4.1 (1.9) 2.5 (2.1)	3.9 (2.6)	4.1 (1.9)	2.5 (2.1)	3.3 (2.3)	1.6 (1.8)	13.33	<0.0001 ^b
Physical abuse (0–5)	2.2 (1.6)	3.3 (1.4)	1.0 (1.2)	1.9 (1.7)	1.0 (1.3)	15.94	<0.0001 ^c
Emotional abuse (0-5)	2.7 (1.9)	4.0 (1.2)	1.8 (1.8)	2.2 (1.9)	0.8 (1.3)	19.17	<0.0001 ^d
Sexual abuse (0–6)	2.0 (2.2)	2.7 (2.2)	0.8 (1.3)	2.7 (1.7)	0.2 (0.6)	22.85	<0.0001 ^e
Total score (0-27)	10.9~(6.4)	10.9 (6.4) 14.1 (3.8)	6.1 (4.5)	10.1 (5.5)	3.5 (3.3)	30.26	<0.0001 ^f

Diagnosis unknown in 10 subjects.

b PTSD, BPD > depression, healthy subjects; trauma controls = PTSD, BPD, depression = healthy subjects; trauma controls > healthy subjects.

 c BPD > trauma controls = PTSD > depression = healthy subjects.

 d BPD > PTSD = trauma controls = depression > healthy controls.

 e BPD = PTSD = trauma controls > depression = healthy controls.

 $f_{BPD} > PTSD = trauma controls > depression = healthy controls.$

Properties of ETI Using Restricted Number of Items

Subscale	α	CAPS Correlation
General trauma	0.70	0.42***
Physical abuse	0.75	0.32**
Emotional abuse	0.86	0.44***
Sexual abuse	0.87	0.32**

 $^{***}_{p < 0.0001;}$

 $^{**}_{p < 0.001.}$