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Early Trauma Inventory Self-Report Short Form (ETISR-SF): validation of the Swedish translation in clinical and non-clinical samples

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ABSTRACT

Purpose: Childhood trauma is an important public health concern, and there is a need for brief and easily administered assessment tools. The Early Trauma Inventory (ETI) is one such instrument. The aim of this paper is to test the psychometric properties of the Swedish translation of the short, self-rated version (ETISR-SF), and to further validate the instrument.

Materials and Methods: In this cross-sectional study, 243 psychiatric patients from an open care unit in Sweden and 56 controls were recruited. Participants were interviewed and thereafter completed the ETISR-SF. Internal consistency was calculated using Cronbach's alpha, a confirmatory factor analysis (CFA) was performed and goodness-of-fit was determined. Intra Class Correlation (ICC) was used to calculate test-retest reliability. Discriminant validity between groups was gauged using the Mann-Whitney *U*-test.

Results: Cronbach's alpha varied between 0.55 and 0.76, with higher values in clinical samples than in controls. Of the four domains, general trauma showed a lower alpha than the other domains. The CFA confirmed the four-factor model previously seen and showed good to acceptable fit. The ICC value was 0.93, indicating good test-retest reliability. According to the Mann-Whitney *U*-test, the non-clinical sample differed significantly from the clinical sample, as did those with PTSD or borderline diagnosis from those without these diagnoses.

Conclusions: The Swedish translation of the ETISR-SF was found to have similar psychometric properties as both the original version and translations. ETISR-SF scores could also distinguish between different diagnostic groups associated with various degrees of trauma, which supports its discriminant validity.

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KEYWORDS

Childhood trauma; Early Trauma Inventory; ETI; translation; validation

Background and aims

Childhood trauma is an important public health concern because it is common and associated with a range of adverse psychiatric outcomes as well as somatic discomfort [1]. Childhood trauma is associated with functional impairment [2–5] and a lower quality of life [6–9]. Perhaps this is due to depressive and post-traumatic stress disorder (PTSD)-related symptoms [10]. Early trauma is also associated with psychiatric morbidity, e.g. mood disorders [11–13], attention deficit hyperactivity disorder (ADHD) [14], substance abuse [13] and psychosis [15] in addition to PTSD, where experienced trauma is a part of the diagnostic criteria [16]. Reported traumas are often categorized as either general trauma, sexual abuse, physical abuse or emotional neglect. However, those who report one type of trauma often report several other types [17]. Experience of more trauma types is related to PTSD [7,18] and borderline personality disorder (BPD) [19–22]. In regards to BPD, a causal relationship has been proposed [23]. For some diagnoses, certain trauma types are very common, e.g. sexual abuse for BPD [24] and

some trauma types have been shown to be associated with symptom severity [19,25]. Therefore, the assessment of trauma type and total number of traumatic experiences are important in both researches as well as in clinical practice. However, assessing childhood trauma in adults is hampered by difficulties such as the accuracy of recall or the reluctance to report trauma in person because of the associated negative feelings, thus causing the validity of recalled trauma memories to come into question [26–28]. Several interviewer-administered and self-report questionnaires have been developed to meet the need for valid and reliable tools for childhood trauma assessment. The psychometric properties for the majority of the instruments are acceptable (for review see Roy et al. or Pietrini et al. [29, 30]). The Early Trauma Inventory (ETI) is one such instrument [31].

Initially, ETI was created by Bremner et al. [31] as a comprehensive expert-rated interview. A self-rated version (ETISR) was later developed and a briefer self-rated short form (ETISR-SF) was made after a psychometric analysis identified redundant items [32]. Because it measures several different

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Table 1. Age, gender and diagnostic groups (current diagnosis only) in the three samples.

| | BBA-sample (n = 143) | UPP-sample (n = 100) | Non-clinical sample (n = 56) |
|--|----------------------|----------------------|------------------------------|
| Age, mean (SD) | 23.4 (2.04) | 21.2 (0.44) | 26.84 (0.48) |
| Gender, female, n (%) | 108 (75.5%) | 75 (75.0%) | 37 (66.1%) |
| Male, n (%) | 35 (24.5%) | 25 (25.0%) | 19 (33.9%) |
| Diagnostic groups (Current diagnosis only) | n (%) | n (%) | n (%) |
| Any mood disorder | 103 (72.0%) | 72 (72.0%) | 4 (7.1%) |
| Any anxiety disorder | 93 (65.0%) | 62 (62.0%) | 4 (7.1%) |
| Any eating disorder | 38 (26.6%) | 7 (7.0%) | 0 (0%) |
| Any substance-related disorder | 0 (0%) ^a | 12 (12.0%) | 4 (7.1%) |
| Any personality disorder | 80 (55.9%) | n/a | n/a |
| Specific diagnoses | | | |
| BPD ^b | 49 (34.3%) | n/a | n/a |
| PTSD, current | 11 (7.7%) | 5 (5.0%) | 1 (1.8%) |
| PTSD, lifetime | 19 (13.3%) | n/a | n/a |

n/a: not applicable, was not analyzed in sample.

^aOnly four participants were diagnosed with substance related disorders in the BBA-sample, and since none of these subjects did complete the ETI they were excluded from this study.

^bBorderline personality disorder.

trauma domains as well as the age of onset, duration and frequency of traumatic events, perpetrator(s) and the emotional impact of the traumas, it could be a useful instrument in research as well as in specialized clinical settings.

The ETISR-SF has been shown to be a valid instrument for retrospective self-assessment of childhood trauma in diverse populations [32–36] and has good test-retest-reliability [34–36]. It has been translated with preserved psychometric properties to several cultural contexts and languages including: Spanish [34], Korean [35], Brazilian Portuguese [36], Dutch [37] and Chinese [38]. However, to our knowledge, it has not yet been translated to or psychometrically tested in Swedish.

Aims

The aims of this study are to examine the psychometric properties of the Swedish translation of the ETISR-SF and further validate the instrument in two clinical samples of young psychiatric outpatients as well as in one sample of non-clinical controls.

Hypotheses to be tested are:

1. The Swedish version of the ETISR-SF will exhibit similar psychometric properties (internal consistency, factor structure) as previous translations and the original English version.
2. Test-retest-reliability of the Swedish version will be comparable with Spanish, Korean and Portuguese versions.
3. As an indication of discriminant validity, the ETISR-SF will be able to discriminate between non-clinical controls and psychiatric patients as well as patients with or without two diagnoses (PTSD and BPD) theoretically associated with trauma.

Materials and methods

Ethics

The study procedures are in accordance with ethical standards for human experimentation, and the study was approved by the Regional Ethical Review Board in Uppsala,

Dnr 2008/171 (BBA), 2012/81 (2014-01-28), 2013/219 (2013-06-26) and 2012/81/3 (2015-11-20).

Participants

The ETISR-SF was validated in three different samples: two clinical and one non-clinical (see below).

BBA-sample; young patients with borderline personality disorder, bipolar disorder and/or attention deficit hyperactivity disorder: Patients were recruited from the Unit for Young Adults at the Department of General Psychiatry at the University Hospital in Uppsala, Sweden. All patients ($n = 759$) diagnosed between the 1st of May 2005 and the 31st of October 2010 with either Borderline Personality Disorder (BPD), Bipolar Disorder (BP), ADHD or any combination of the three were identified from the administrative patient register and sent a study invitation by post. Two hundred and thirty patients (30.3%) agreed to participate and signed a written consent. Exclusion criteria were severe manic or psychotic symptoms during the interview. One patient was excluded because of mania. Eighty-six (37.4%) patients were excluded because they did not complete the necessary study measures, participate in the diagnostic interviews or had too much missing data in the ETI. Finally, 143 patients were eligible. Diagnostic characteristics for the study sample are presented in Table 1.

Each participant was interviewed by one of three medical doctors, all of whom had worked at the clinical unit where the patients were recruited. After a brief anamnestic interview, complementary semi-structured diagnostic interviews were performed for those patients whose diagnoses were not previously attained by diagnostic interviews. After the interviews, the participants filled in the ETI and were asked whether they would accept another self-assessment, which was then sent to them by mail on average 11.2 (SD = 15.9) weeks later. Forty-two patients completed the ETI twice.

Uppsala Psychiatric Patients (UPP); young psychiatric patients from general psychiatry recruited at intake: Patients were recruited from the same unit as the BBA sample, but several years later. All new patients ($n = 372$) from the 14th of January to the 2nd of December 2013 were invited to participate. Among 151 participants, 100 (66.2%) had sufficient diagnostic and ETI data for this study. Subjects were

diagnosed with a structured or semi-structured diagnostic interview (the Mini International Neuropsychiatric Interview (MINI) or the Structured Clinical Interview for DSM-IV-Axis I Disorders, Clinical Version (SCID-I CV)) after an appointment wherein medical history was collected and a clinical evaluation was performed. Interviewers were trained psychiatrists, residents in psychiatry and trained clinical psychologists. Participants filled in the ETI on a separate occasion, shortly after the initial diagnostic evaluation.

Nonclinical control sample: The controls ($n = 80$) were recruited from university employees and students who were asked to participate in the same procedures and fill in the same questionnaires as the UPP-sample. However, the MINI interview was performed by telephone. Those who completed both the MINI and the ETISR-SF were eligible for this study ($n = 56$, 70.0%).

Measures

Etisr-sf

The ETISR-SF is designed to retrospectively measure trauma before the age of 18 and can be self-administered in about 15 min. It comprises 27 specific trauma-items organized in four domains: general trauma (11 items), physical abuse (5 items), emotional abuse (5 items) and sexual abuse (6 items), see Table 2. The domains are defined by Bremner et al. [32].

For each domain, except general trauma, there are follow-up questions on each trauma type regarding frequency, type of perpetrator and age of onset (ages 0–5, 6–12 and 13–18). All domains are concluded by Likert scale questions concerning to what extent the trauma affects the subject emotionally, at work or school as well as in social relationships.

Different methods of scoring ETI have been discussed [31, 32]. Simply counting the number of traumatic events was shown by Bremner et al. [32] to be as valid as other more complicated scoring algorithms and is, therefore, also used in this study.

The ETI was translated from its original English version with permission from J. D. Bremner. It was first translated by a doctoral student and then back-translated by an independent native-English translator. The back-translated inventory was very similar to the original version. To verify semantic equivalence, the original translated and back-translated versions of the inventory were compared and discussed by the research group, wherein all had good knowledge of the English and Swedish languages, resulting in a few minor corrections. After the first 52 participants in the BBA sample had filled in the questionnaire, minor graphical changes were made in order to make the inventory clearer and easier to rate. The first version had similar internal consistency as the second version (Cronbach's alpha = 0.741 for the first version and 0.732 for the second). Therefore, they are not analyzed separately below.

Scid-I cv

SCID-I CV [39] was used for diagnosing axis I disorders in the BBA-sample. The reliability of SCID-I CV has generally been

shown to be good [40–42]. SCID-I has demonstrated superior validity over standard clinical interviews [43, 44].

Scid-ii

SCID-II (Structured Clinical Interview for DSM-IV-Axis II Disorders) was used to diagnose personality disorders [45] in the BBA-sample. SCID-II has demonstrated good reliability in most studies [46–48].

K-sads

The ADHD/ADD-module from the K-SADS (Kiddie-Schedule for Affective Disorders and Schizophrenia-Present and Lifetime Version) [49], originally designed for children between six and 17 years of age, was used to diagnose ADHD/ADD/HDD in the BBA-sample. K-SADS has good reliability [49].

Mini

MINI [50] is a widely used structured diagnostic interview for several common mental disorders, developed for DSM-IV and ICD-10. The validity and reliability have been shown to be good [51, 52].

Statistical methods

SPSS version 21 was used for all statistical analyses, except for factor analysis, wherein MPLUS version 7 was used. Internal consistency was calculated using Cronbach's alpha [53]. As in most previous psychometric studies [35, 36], a confirmatory factor analysis (CFA) was performed in order to examine the translated version of the ETI as to whether it fits a four-factor model (an exploratory factor analysis has previously been made by Bremner et al. [32]). All three groups were pooled for the analysis, and standardized loadings were used using variance-adjusted weighted least square (WLSMV) estimator. To determine goodness-of-fit, Root mean square error of approximation (RMSEA), Tucker–Lewis Index (TLI) and comparative fit index (CFI) were used. RMSEA-values range from 0 to 1, with lower values indicating a better fit, and values ≤ 0.06 indicating an acceptable model fit. TLI and CFI-values range from 0–1, with higher values indicating better fit. Values larger than 0.9 indicate acceptable fit and > 0.95 indicate good fit [54]. One item from the general domain ('Seeing someone murdered') was excluded from the factor analysis since no participant endorsed this. Intra Class Correlation (ICC) was used to calculate test-retest reliability. Discriminant validity was gauged by calculating the ETI's ability to distinguish between patients with and without known or probable traumatic history (PTSD or borderline diagnosis) from the other patients in the BBA group. Since there were too few participants with PTSD diagnosis in the other groups, this was performed solely in the BBA group. To further examine discriminant validity, patients and controls were also compared. The Mann–Whitney *U*-test was used since the ETI total score (number of traumas endorsed) was

Table 2. Frequency of endorsement, Cronbachs alpha minus item, item-total correlations.).

| | BBA sample (n = 143) | | | UPP sample (n = 100) | | | Non-clinical sample (n = 56) | | |
|--|----------------------|---------------------|------------------------|----------------------|---------------------|------------------------|------------------------------|---------------------|------------------------|
| | Freq n, (%) | α minus item | Item-total correlation | Freq (%) | α minus item | Item-total correlation | Freq (%) | α minus item | Item-total correlation |
| General trauma | | | | | | | | | |
| Natural disaster | 4 (2.8%) | 0.557 | 0.155 | 0 (0%) | 0.629 | 0.000 | 0 (0%) | 0.144 | 0.000 |
| Serious accident | 30 (21.0%) | 0.534 | 0.253 | 21 (21.0 %) | 0.605 | 0.266 | 2 (3.6%) | 0.123 | 0.087 |
| Serious personal injury | 24 (16.8%) | 0.535 | 0.253 | 13 (13.0%) | 0.606 | 0.309 | 2 (3.6%) | 0.154 | -0.029 |
| Serious injury/illness of parent | 45 (31.5%) | 0.531 | 0.254 | 38 (38.0%) | 0.579 | 0.377 | 16 (28.6%) | 0.102 | 0.086 |
| Separation of parents | 73 (51.0%) | 0.560 | 0.085 | 39 (39.0%) | 0.600 | 0.348 | 14 (25.0%) | 0.024 | 0.270 |
| Serious illness/injury of sibling | 37 (25.9%) | 0.561 | 0.083 | 33 (33.0%) | 0.629 | 0.093 | 7 (12.5%) | 0.195 | -0.162 |
| Serious injury of friend | 43 (30.1%) | 0.529 | 0.265 | 27 (27.0%) | 0.599 | 0.286 | 5 (8.9%) | 0.137 | 0.035 |
| Witnessing violence | 51 (35.7%) | 0.474 | 0.409 | 44 (44.0%) | 0.533 | 0.511 | 11 (19.6%) | 0.126 | 0.067 |
| Family mental illness | 66 (46.2%) | 0.503 | 0.360 | 66 (66.0%) | 0.532 | 0.514 | 14 (25.0%) | 0.016 | 0.214 |
| Alcoholic parents | 33 (23.1%) | 0.480 | 0.395 | 19 (19.0%) | 0.616 | 0.273 | 5 (8.9%) | 0.244 | -0.068 |
| Seeing someone murdered | 0 (0%) | 0.563 | 0.000 | 0 (0%) | 0.629 | 0.000 | 0 (0%) | 0.144 | 0.000 |
| Physical abuse | | | | | | | | | |
| Slapped in the face | 61 (42.7%) | 0.674 | 0.398 | 23 (23.0 %) | 0.536 | 0.563 | 8 (14.3%) | 0.402 | 0.310 |
| Burned with cigarette | 5 (3.5%) | 0.710 | 0.286 | 3 (3.0%) | 0.701 | 0.133 | 0 (0%) | 0.523 | 0.000 |
| Punched or kicked | 43 (30.1%) | 0.583 | 0.587 | 16 (16.0%) | 0.595 | 0.458 | 8 (14.3%) | 0.512 | 0.159 |
| Hit with thrown object | 43 (30.1%) | 0.598 | 0.555 | 13 (13.0%) | 0.588 | 0.480 | 5 (8.9%) | 0.369 | 0.373 |
| Pushed or shoved | 67 (46.9%) | 0.634 | 0.483 | 28 (28.0%) | 0.602 | 0.455 | 12 (21.4%) | 0.280 | 0.440 |
| Emotional abuse | | | | | | | | | |
| Often put down or ridiculed | 53 (37.1%) | 0.785 | 0.692 | 38 (38.0%) | 0.669 | 0.719 | 4 (7.1%) | 0.644 | 0.454 |
| Often ignored or made to feel you didn't count | 52 (36.8%) | 0.794 | 0.661 | 33 (33.0%) | 0.698 | 0.644 | 6 (10.7%) | 0.596 | 0.554 |
| Often told you are no good | 42 (29.4%) | 0.800 | 0.641 | 25 (25.0%) | 0.758 | 0.468 | 4 (7.1%) | 0.699 | 0.288 |
| Most of the time treated in cold or uncaring way | 46 (32.2%) | 0.794 | 0.659 | 24 (24.0%) | 0.719 | 0.595 | 4 (7.1%) | 0.644 | 0.454 |
| Parents fail to understand your needs | 82 (57.3%) | 0.832 | 0.527 | 57 (57.0%) | 0.803 | 0.345 | 15 (26.8%) | 0.605 | 0.559 |
| Sexual abuse | | | | | | | | | |
| Touched intimate parts in way that was uncomfortable | uncomfortable | 44 (30.8%) | 0.801 | 0.678 | 21 (21.0%) | 0.865 | 0.506 | 3 (5.4%) | 0.341 |
| Someone rubbing genitals against you | 0.402 | 19 (13.3%) | 0.833 | 0.494 | 7 (7.0%) | 0.805 | 0.676 | 3 (5.4%) | 0.341 |
| | | 22 (15.4%) | 0.796 | 0.687 | 8 (8.0%) | 0.806 | 0.662 | 0 (0%) | 0.510 |

(continued)

Table 2. Continued.

| | BBA sample (n = 143) | | | UPP sample (n = 100) | | | Non-clinical sample (n = 56) | | |
|---|----------------------|---------------------|------------------------|----------------------|---------------------|------------------------|------------------------------|---------------------|------------------------|
| | Freq n, (%) | α minus item | Item-total correlation | Freq (%) | α minus item | Item-total correlation | Freq (%) | α minus item | Item-total correlation |
| Forced to touch intimate parts | 14 (17.5%) | 0.825 | 0.546 | 8 (8.0%) | 0.821 | 0.583 | 2 (3.6%) | 0.285 | 0.474 |
| Someone had genital sex against your will | 17 (11.9%) | 0.810 | 0.628 | 7 (7.0%) | 0.797 | 0.718 | 0 (0%) | 0.510 | 0.000 |
| Forced to perform oral sex | 16 (11.2%) | 0.799 | 0.694 | 4 (4.0%) | 0.799 | 0.780 | 0 (0%) | 0.510 | 0.000 |
| Forced to kiss someone in sexual way | | | | | | | | | |

Table 3. ETI score.

| | BBA sample (n = 143) | UPP sample (n = 100) | Non-clinical sample (n = 56) |
|-------------------|----------------------|----------------------|------------------------------|
| General (m, sd) | 2.84 (1.96) | 2.80 (1.91) | 1.36 (1.21) |
| Physical (m, sd) | 1.53 (1.47) | 0.83 (1.19) | 0.59 (0.91) |
| Emotional (m, sd) | 1.92 (1.85) | 1.77 (1.69) | 0.59 (1.06) |
| Sexual (m, sd) | 1.00 (1.64) | 0.55 (1.27) | 0.14 (0.48) |
| Total (m, sd) | 7.29 (4.68) | 5.95 (4.21) | 2.68 (2.55) |

Table 4. Cronbach alpha.

| | BBA (n = 143) | UPP (n = 100) | Non-clinical sample (n = 56) | All data (n = 299) |
|-----------|---------------|---------------|------------------------------|--------------------|
| General | 0.557 | 0.623 | 0.143 | 0.601 |
| Physical | 0.696 | 0.665 | 0.490 | 0.692 |
| Emotional | 0.834 | 0.774 | 0.692 | 0.819 |
| Sexual | 0.838 | 0.840 | 0.490 | 0.838 |
| Total ETI | 0.736 | 0.760 | 0.552 | 0.766 |

not clearly normally distributed, and the size of the compared groups differed considerably.

Results

Descriptives

Descriptive ETISR-SF data are presented in Table 2. ETISR-SF domain and total scores are presented in Table 3.

Internal consistency

Cronbach's alpha, as a measure of internal consistency, varied among the three study groups (Table 4). Overall, the control group showed lower α s, both on the four domains ($\alpha = 0.143$ – 0.692) as well as on the total ETI score ($\alpha = 0.552$) as compared to the clinical groups ($\alpha = 0.557$ – 0.840 for the different domains, $\alpha = 0.736$ – 0.760 for the whole instrument). Also, the general trauma domain exhibited a lower α in all study groups.

Factor analysis

The CFA confirmed that a four-factor model showed adequate fit, with RMSEA = 0.055, TLI = 0.891 and CFI = 0.92. Overall, the items in the general trauma domain showed a poorer loading towards the general trauma factor (0.163–0.768 with

only one item >0.7) compared to items in the other domains, where all items showed strong loadings towards their factors - all but one item (0.696) >0.7 and several >0.9 . See Figure 1 for more details on factor loadings. The covariance between the different factors was <0.60 (0.361–0.598).

CFA of a second order model, performed by Osorio et al. [36], was also tested but did not improve the goodness-of-fit and exhibited similar values (RMSEA = 0.054, TLI = 0.895, CFI = 0.905).

Test-retest reliability

Test-retest reliability was assessed for some participants in the BBA group ($n = 42$). The ICC-values were 0.93 for the global scale, 0.81 for general trauma, 0.86 for physical abuse, 0.92 for emotional abuse and 0.91 for sexual abuse.

Discriminant validity

According to the Mann-Whitney *U*-test, the non-clinical sample differed significantly from the two clinical samples in respect to ETI total scores ($z = -6.796$, $p \leq .001$).

When compared within the BBA sample, the total ETI scores of patients with PTSD diagnosis significantly differed from the rest of the subjects in the sample who had lower scores ($z = -3.938$, $p \leq .001$). The same was true for those

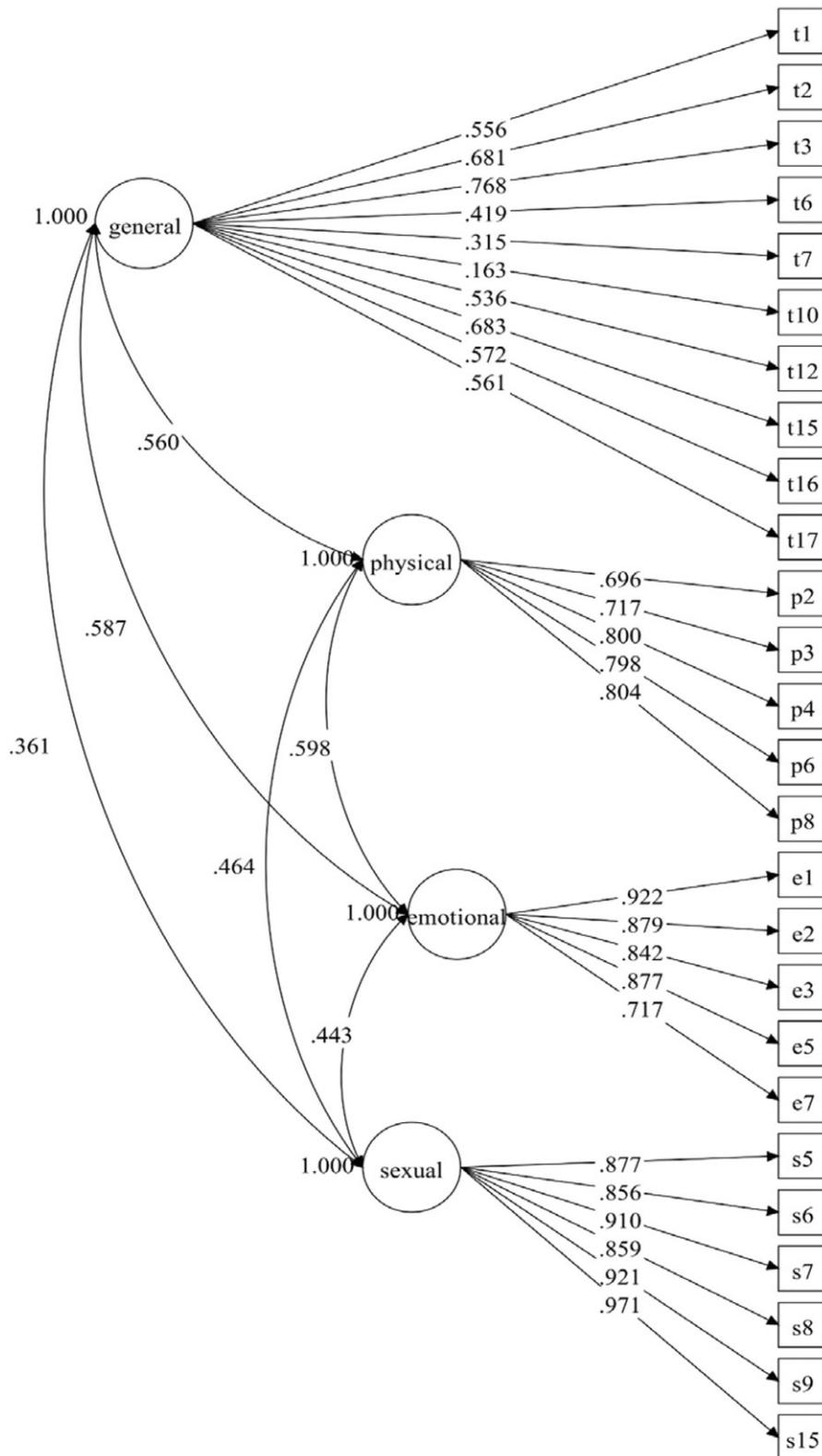


Figure 1. Confirmatory factor analysis. Correlated four-factor model.

with BPD diagnoses compared to those without ($z = -3.030, p < .002$).

Conclusion

The Swedish translation of the ETISR-SF was found to have similar psychometric properties as both the original version

and the translations, with similar factor structure and internal consistency in this study. ETISR-SF results could also distinguish different diagnostic groups associated with various degrees of trauma, which supports its discriminant validity.

The Swedish translation showed high internal consistency for the two clinical samples, comparable to previous research [32–34, 36, 37]. As in preceding studies, the Cronbach's α for

general trauma was somewhat lower. As previously hypothesized, an explanation for this could be that the general subscale measures a broader range of heterogeneous traumatic events, ranging from natural disasters to mental health problems within the family and, thus, this subscale is more heterogeneous and does not measure a single construct [34].

The non-clinical sample had markedly lower internal consistency (0.55 compared to 0.74-0.76 for the total score), especially in the general (0.14 compared to 0.56-0.62) and sexual (0.49 compared to 0.84) domains. The control group generally had experienced fewer traumas, thus resulting in lower internal consistency. Some items that no participant endorsed (such as seeing someone murdered) could also have affected the internal consistency negatively for all subgroups. The non-clinical controls, however, had a higher number of unendorsed items (one in the physical abuse subscale and three in the sexual abuse subscale), which, as well as the controls being a smaller group, could further explain the relatively lower internal consistency.

The CFA supported the four-factor structure previously suggested. The three different fit indices exhibited good (RMSEA) to acceptable (CFI, TLI) fit. This was comparable, although slightly weaker than in preceding studies [35, 36]. The fact that the items in the general domain exhibited considerably weaker correlations to the latent general trauma factor could also indicate that the items in that domain do not represent one homogeneous factor (which is supported by exploratory factor analysis in previous research [32]).

Test-retest reliability for the Swedish translation was good on all subscales as well as total ETI score. It was also comparable with previous translations [34–36]. The original English version of the self-rated version has not as yet been tested with ICC values; however, Bremner et al. [31] showed that the interview version had good test-retest reliability. As for internal consistency, the general trauma domain had a somewhat lower ICC score (0.81 compared to 0.86-0.92).

The Swedish version of the ETISR-SF was able to discriminate between groups with different expected levels of traumatization. This supports the ETI's validity and is also in line with previous research, wherein ETI was able to discriminate patients with known associations with trauma from comparison subjects [32].

As measured by the ETI, the mean value of experienced trauma in a non-clinical Swedish population is 2.7, compared to healthy subjects in a Korean (2.3) [35] and US population (3.5) [32]. The fact that Swedish subjects have experienced slightly fewer traumas has also been observed in previous research [55].

From a participant's perspective, some had concerns about the length of the instrument as well as the questions where the trauma categories could be rated as having had a positive impact on emotional well-being and functioning. They perceived this as a very unlikely and almost offensive option. A solution to both these problems could possibly be to develop an even shorter version of the ETI, which would only measure the number of different traumas and not any additional information. The information obtained would, of course, not be as comprehensive, but since a number of

traumas is the most widely used measurement in the articles we have read, it would probably be sufficient for at least some situations where the ETI is used.

The more general problem with recall bias concerning recollection of childhood trauma has been previously discussed in many articles [26–28]. However, it's difficult to see other realistic and more reliable ways to measure childhood trauma other than the patient's own recalled memories. Another weakness of the present study is the homogeneity of the clinical samples. The participants were all young and came from one clinic in one town in Sweden. This limits the generalizability of the results.

The strengths of this study include a well-diagnosed and diagnostically heterogeneous study population as well as the inclusion of a non-clinical study group. To our knowledge, this is the first time a Swedish translation of the ETISR-SF has been tested.

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Disclosure statement

No potential conflict of interest was reported by the authors.

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