Psychometric properties of the Turkish version of the Clinician-Administered PTSD Scale for Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (Turkish CAPS-5)

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ABSTRACT

Background: In the subsequent revision of Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; American Psychiatric Association, 2013) symptoms of post-traumatic stress disorder (PTSD) are defined in four clusters and the number of PTSD symptoms was expanded to 20. The Clinician-Administered PTSD Scale (CAPS) is the most widely used structured clinical interview and recognized as the golden standard in PTSD diagnosis. The final revision of the clinical interview form as the CAPS for DSM-5 (CAPS-5) was advanced in line with the recent revisions in DSM-5 with regards to the PTSD definition. The aim of this study was to examine the psychometric properties of the Turkish version of CAPS-5 in clinical samples and healthy controls.

Methods: In the present study, 30 patients with PTSD and 30 inpatients with major depressive disorder consecutively presented to the Psychiatry Outpatient Clinic Yüzüncü Yıl University Research Hospital, and 30 healthy controls were enrolled. All participants were included if only they reported an index trauma in the Life Events Checklist for DSM-5 (LEC-5) that bothered them during the past month. Subjects were administered a socio-demographic questionnaire, the Dissociative Experiences Scale (DES), Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI) along with the LEC-5, CAPS-5 and PTSD Checklist for DSM-5 (PCL-5). We used confirmatory factor analysis to compare a structured clinical interview (CAPS-5) and a self-report measure, the PCL-5 and to examine DSM-5 implied four-symptom clusters and several factor structures proposed in the literature to understand which model best represents the latent factor structure of PSTD symptoms. Using multivariate analysis of covariance, concurrent validity of both self-report and structured clinical interview was evaluated. Receiver operating characteristics (ROC) curve was utilized to obtain an optimal cut-off value of the PCL-5 scores in order to use in demarcating cases with non-cases.

Results: Even though DSM-5 implied four-factor model adequately fit to either data collected using self-report or clinician-administered measures of PTSD, the latent structure of PTSD symptoms measured by either CAPS-5 or PCL-5 were best represented by six-factor Externalizing Behaviors model, particularly compared to seven-factor Hybrid model. In comparison to depressive and control groups, PTSD patients reported greater scores on the PCL-5, DES, BDI, and BAI and McNemar χ² values between two applications with two weeks interval were unsubstantial. Additionally, PTSD patients exhibited greater symptom endorsement on B, C, D, E, F, G symptom clusters and dissociative subtype than depressive patients and controls. Using signal detection analysis, a significant area under the curve (AUC) was calculated for the PCL-5 (AUC = 0.87, p < 0.001 asymptotic 95% Confidence Interval = 0.798–0.942). The PCL-5 had excellent diagnostic utility with 0.90 sensitivity and 0.80 specificity on a cut-off score ≥47.

Conclusion: Turkish versions of the CAPS-5 and PCL-5 are demonstrated to have very good psychometric properties. Implications regarding the findings are discussed.

Introduction

Post-traumatic stress disorder (PSTD) was moved out of anxiety disorders into a distinct category of trauma and trauma-related disorders in the subsequent revision of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; American Psychiatric Association, 2013). The number of symptoms representing PTSD was expanded from 17 to 20 individual symptoms, which were grouped into four-symptom categories. The symptom clusters are of monumental importance in diagnostic algorithms in a way that the symptoms are organized across the different symptom sets that eventually may lead to a variation in PTSD diagnosis, and hence, a change in
prevalence rates [1]. Identification of accurate dimensionality underlying PTSD can help to a better understanding of etiological and maintenance factors strongly tied to PTSD to culminate in developing and evaluating potential clinical interventions. Those of trauma survivors who have experienced at least one re-experiencing symptom (Criterion B), at least one avoidance symptom (Criterion C), at least two symptoms of negative alterations in mood and cognitions (Criterion D) at least one-month of duration ensuing severe functional impairment meet a DSM-5 PTSD diagnosis. Also dissociative subtype was added to the criteria stipulated for PTSD diagnosis [2].

The latent symptom structure of PTSD has been an issue, which has received extensive research interest. Given the importance of the link between the symptom clusters and PTSD diagnosis, understanding the optimal symptom sets best represent PTSD’s underlying dimensionality would allow clinicians to assess whether specific symptom clusters predominate development and the course of the disorder or characterize co-occurrence with other types of disorders as well as in which instances variations occur. Since the initial introduction of PTSD into diagnostic systems in 1980 [3], this clinical entity has been officially conceptualized as comprising three symptom groups of re-experiencing, avoidance, and hyper-arousal. Specifically, the DSM-IV and DSM-IV-TR [4, 5] built-up 17 symptoms that were separated into 3 symptom clusters have been subjected to extensive factor analysis studies. The two most prominent four-factor latent structure of PTSD symptoms are Emotional Numbing model [6] and Dysphoria model [7], which have extensively investigated and demonstrated to be preferential in comparison to classical three symptom sets of DSM-IV implied model. A more recent conceptualization of the five-factor Dysphoric Arousal model [8] moved the symptoms of sleeping difficulties, anger, and irritability from hyper-arousal set into dysphoric factor and the remained hypervigilance and exaggerated startle response symptoms were renamed as anxious arousal factor that were extracted from a combination of Emotional Numbing model and Dysphoria model and consistently outperformed Emotional Numbing model and Dysphoria model as well as the DSM-IV implied three-factor structure. The weight of evidence extracted from confirmatory factor analytic studies suggested a superior performance of the model; even though, this model has been largely examined in comparison to the two models with four-factor structures, namely Emotional Numbing model and Dysphoria model based on DSM-IV and DSM-IV-TR [9].

Following a number of confirmatory analytic studies based on DSM-5 PTSD symptoms since the DSM-5 published in May 2013 [2], DSM-5 implied four-set of PTSD symptoms have consistently provided adequate fit across populations with various characteristics, but was less likely to be presumed to be optimal as compared to alternative models [10]. The general trend in early factor analytic studies of dimensionality of DSM-5 PTSD symptoms was to compare the DSM-5 implied model to a modified DSM-5 Dysphoria model. Miller [11] provided evidence for a DSM-5 version of a Dysphoria model that was preferential in a representative community sample and clinical sample of US military veterans.

In following a similar vein of the DSM-IV factor analytic research, alternative models of the constellation of the DSM-5’s PTSD symptoms have emerged. To date, several DSM-5 version latent factor structures of PTSD ranging from one to seven factors encompass the DSM-5 implied four-factor model, the DSM-5 modification of the five-factor Dysphoric Arousal model, the six-factor Anhedonia model [12], the six-factor Externalizing Behaviors [13], and seven-factor Hybrid model [14]. The six-factor Anhedonia model incorporates the separation of hyper-arousal symptoms into dysphoric and anxious arousal factors into an architecture of DSM-5’s PTSD symptomatology in which the negative alterations in cognitions and mood symptom cluster was divided into negative affect and reduced positive affect or anhedonia [12]. Another proposed six-factor latent dimensional structure of the DSM-5’s PTSD symptomatology was the Externalizing Behaviors model that was also prompted by the Dysphoric Arousal model by catching the hyper-arousal cluster on two separate symptom sets as anxious and dysphoric arousal. The model further divided dysphoric arousal into two symptom sets and moved irritability and self-destructive behavior symptoms from dysphoric arousal factor into externalizing behaviors factor [13].

Finally, the most recent developed model based on DSM-5’s PTSD symptom structure was the seven-factor Hybrid model, extracted from combining the two newly proposed DSM-5 models of anhedonia and externalizing behaviors along with features of the Dysphoric Arousal model. The model included anxious and dysphoric arousal symptoms as distinct symptom sets as per the Dysphoric Arousal model, negative and reduced positive affect (anhedonia) as two separate symptom clusters in accordance with the Anhedonia model, and externalizing behaviors symptom cluster per se comparable to the Externalizing Behaviors model [14]. The evidence as to these more distilled symptom clusters has been accumulated and supported that the seven-factor Hybrid model seems to be superior to DSM-5 implied factor structure as well as previously proposed DSM-5 models of PTSD’s latent symptom structure in several studies conducted in largely veterans along with psychiatric patients and community samples varied in trauma experiences. A considerable proportion of this scrutiny has also provided support for the Anhedonia model secondary to
the Hybrid model prevailing over the alternative latent factor structures [15–20].

The Clinician-Administered PTSD Scale (CAPS; [21, 22]) is the most widely used measure as a clinician-rated scale and has been recognized as the gold standard for PTSD assessment in terms of PTSD status and symptom severity [23, 24]. The accumulation of empirical evidence has supported excellent psychometric properties of the CAPS that has been used in a range of research conducted across a wide variety of populations with variation in type of trauma exposure. The CAPS has excellent reliability with good temporal stability, internal, and inter-rater consistency. The CAPS also has good convergent and discriminant validity, diagnostic utility, and sensitivity to clinical change [23]. The CAPS have been evolved and modified to the CAPS for Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (CAPS-5; [25]) based on the recent revisions to PTSD symptoms made in DSM-5. Adhering to factor analytic procedures, to date, a vast body of research has utilized the CAPS as well as PTSD Checklist (PCL; [26]) to examine and identify true dimensionality of PTSD symptoms; as the same was true for more recently proposed PTSD models representing the DSM-5’s latent symptom structure that were mostly measured by the PTSD Checklist for DSM-5 (PCL-5) [27]. One previous scrutiny relying on DSM-IV PTSD models provided empirical evidence that factor analytic solutions representing the latent symptom structure of PTSD may differ due to measures used in assessment. The Dysphoria model provided superior fit to data measured by PCL; conversely, the Numbing model provided superior fit to data measured by CAPS [28].

The central focus on this present study was to examine psychometric properties of the Turkish version of the CAPS-5 in clinical samples compared to the healthy controls. We adhered to confirmatory factor analysis (CFA) procedure, a robust method of model validation, to examine and identify the best dimensional structure fit to the current data based on several models representing latent symptom structure of PTSD that have been widely studied in the literature. The PTSD factor structures we tested herein were the one-factor model, the DSM-5 implied four-factor model, the five-factor Dysphoria model, the six-factor Anhedonia model, the six-factor Externalizing Behaviors model, and the seven-factor Hybrid model. We examined these models using CFAs for the CAPS-5, a clinician interview and PCL-5, a self-report measure separately. We hypothesized that the Hybrid model alongside with either Anhedonia model or Externalizing Behaviors model or both would provide superior fit to alternative latent factor structures of DSM-5’s PTSD symptoms for both measures of PTSD for DSM-5.

**Methods**

**Participants**

A total of 90 participants were interviewed and completed the questionnaires. Thirty patients with PTSD and 30 patients with major depressive disorder consecutively presented to the Psychiatry Outpatient Clinic at the Yüzüncü Yıl University Research Hospital. Healthy controls were recruited from adult inpatients or their relatives presented to Yüzüncü Yıl University Research Hospital clinics and volunteered for participation. All study subjects were interviewed and completed the subsequent questionnaires only if they endorsed trauma exposure according to the Life Events Checklist for DSM-5 (LEC-5); therefore, trauma endorsement was an inclusion criterion. The participants were not compensated for their participation. After having thoroughly informed about the purpose of the study, all participants provided written consents. The study protocol was approved by the Ethics Committee of Yüzüncü Yıl University.

Descriptive characteristics of the sample are presented in Table 1.

The participants were asked to fill up the LEC-5 and to elect the most distressing traumatic event within the questions that bothered them during the past month. The clinician interviews as to PTSD were relied on the index trauma for each participant and they were prompted the index trauma to bear in mind while answering subsequent questions. In the sample, the index trauma endorsements measured by the LEC-5 were “natural disaster” (n = 25, 27.78%), “sudden violent death” (n = 23, 25.56%), “transportation accident” (n = 19, 21.11%), “sexual assault” (n = 10, 11.11%), “physical assault” (n = 9, 10.00%), and other unwanted sexual experiences (n = 4, 4.44%).

**Measures**

**Clinician-Administered PTSD Scale for Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition**

The CAPS-5 is the gold standard assessment of PTSD status [25]. The measure was demonstrated to have

**Table 1. Socio-demographic characteristics of the sample.**

| Age (Mean, SD) | 29.01 | 8.99 |
|------------------------------------|-------|------|
| Physiatric diagnosis | Control (N, %) | 30 | 33.33% |
| | Depression (N, %) | 30 | 33.33% |
| | PTSD (N, %) | 30 | 33.33% |
| Sex | Male (N, %) | 50 | 55.56% |
| | Female (N, %) | 40 | 44.44% |
| Marital status | Single (N, %) | 60 | 66.67% |
| | Married (N, %) | 30 | 33.33% |
| Education | Elementary (N, %) | 27 | 30.00% |
| | High school (N, %) | 15 | 16.67% |
| | University (N, %) | 48 | 53.33% |
| Physical illness | (N, %) | 17 | 18.89% |
| Prior psychiatric illness | (N, %) | 20 | 22.22% |
| Family psychopathology | (N, %) | 24 | 26.67% |
excellent psychometric properties with good inter-rater reliability, validity, and reliability [17] (see, Appendix 1).

**PTSD Checklist for DSM-5**

The PCL-5 is a 20-item self-report questionnaire designed to assess symptoms of PTSD based on DSM-5 [27]. For each symptom, participants are asked to rate severity on a scale ranging from 0 (not at all) to 4 (extremely) that is indicative of distress having experienced in regard to index trauma during the past month. The Turkish version of the PCL-5 was demonstrated to have good psychometric properties [29] (see, Appendix 2).

**Dissociative Experiences Scale (DES)**

The DES is a 28-item self-report measure of dissociative experiences [30]. Participants are asked to rate the items on an 11-point scale, ranging from 0 to 100. The Turkish version of the scale was validated by Yargic et al. [31]

**Beck Depression Inventory (BDI)**

The BDI consists of 21 items measuring severity of depression symptoms [32]. Each item is rated on a scale ranging from 0 to 3, yielding a total scale score of 0–63. The Turkish version of the scale was demonstrated to have good reliability and validity [33].

**Beck Anxiety Inventory (BAI)**

This 21-item questionnaire measures severity of physiological symptoms of anxiety [34]. Each item is asked to be rated on a five-point scale, ranging 0–3. Total scores range from 0 to 63. The Turkish version of the instrument was demonstrated to have good reliability and validity [35].

**Data analysis**

Using LISREL 8.7 software [36], seven confirmatory factor analyses (CFAs) were separately performed for 20 items of the CAPS-5 mapping onto DSM-5 PTSD symptoms and the PCL-5. Items representing PTSD symptoms were treated as continuous data, using a robust estimation method of the Satorra–Bentler scaled $\chi^2$ and maximum likelihood estimations for factor loadings through fixing error covariances and factor variances to zero and one, respectively, to estimate standardized factor loadings.Scaled $\chi^2$ differences were derived and Akaike Information Criteria (AIC) values were computed from maximum likelihood estimations to compare non-nested models. In comparing AIC values, a lower AIC value represents strong support that the model indicates best fit to the date [37]. The goodness-of-fit indexes obtained for each of the specified model and expected values according to the guidelines [38, 39] are as follows: the root-mean-square error of approximation (RMSEA $\leq$ 0.08), the comparative fit index (CFI $\geq$ 0.90), Tucker–Lewis index (TLI $\geq$ 0.90), and standardized root mean square residual (SRMR $\leq$ 0.10).

Using confirmatory factorial analytic approach with Satorra–Bentler estimation method, we tested 1 PTSD Factor, DSM-5 implied four factors, Dysphoria, Dysphoric Arousal, Externalizing Behaviors, Anhedonia, and Hybrid models, separately for the CAPS-5 and PCL-5 data. Finally, the cut-off score for the PCL-5 total score that optimizes the sensitivity and specificity based on CAPS-5 diagnosis and diagnostic utility of the PCL-5 cut-off was obtained using signal detection analysis.

**Results**

**Descriptive statistics and item descriptive statistics for the measures**

Descriptive characteristics of the sample are presented in Table 1. Then, we began analyzing descriptive and item descriptive statistics for the measures. The mean PCL-5 Global score was 34.62 (SD = 23.98). Internal consistency of CAPS-5 sub-scales and PCL-5 Global and sub-scales were excellent (Cronbach’s $\alpha$ were greater than 0.87 for the CAPS and greater than 0.90 for the PCL-5). We also detected excellent internal consistency for the psychometric measures of dissociation, depression and anxiety that are used to assess convergent validity of the CAPS-5. Corrected item-total correlations for both CAPS-5 and PCL-5 were demonstrated to have values above and beyond than expected. Spearman’s inter-item correlation coefficients fell in the suggested range [40], all these internal measure of consistency of which were indicative of construct validity of these measures.

Using McNemar test [41], 15-day re-test reliability of the CAPS-5 was assessed in a sub-sample of 45 participants consisting of 14 controls, 16 patients with depression, and 15 patients with PTSD. Sub-scales of the CAPS-5 revealed excellent temporal stability over two weeks that symptom endorsement for the PTSD clusters did not statistically significantly differ in later assessment ($p > 0.05$) (Table 2).
Table 2. Descriptives and item statistics of the measures.

| Measure                          | M      | SD     | M range (items) | SD range (items) | Score range |
|----------------------------------|--------|--------|----------------|----------------|-------------|
| CAPS-S                           |        |        |                |                |             |
| Cluster B (re-experiencing)      |        |        |                |                |             |
| Cluster C (avoidance)            |        |        |                |                |             |
| Cluster D (negative alterations) |        |        |                |                |             |
| Cluster E (hyper-arousal)        |        |        |                |                |             |
| Cluster G (functional impairment)|        |        |                |                |             |
| Dissociative subtype             |        |        |                |                |             |
| PCL-5                            |        |        |                |                |             |
| BDI                              |        |        |                |                |             |
| BAI                              |        |        |                |                |             |

Note: M = mean; SD = standard deviation; M range (items) = item means (range); SD range (items) = item standard deviations (range); CAPS-5 = Clinician-Administered PTSD Scale for Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition; PCL-5 = PTSD Checklist for Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition.

Concurrent validity

To examine the differences in endorsement of PTSD symptoms across groups, we conducted two-proportions Z-test. We found that patients with PTSD had statistically significantly greater proportion of PTSD symptom endorsement in all symptom clusters ranging from B to G cluster compared to either healthy controls or patients with depressive disorder (p < 0.01). Of the patients with PTSD, half of the subjects had pathological dissociation (50.0% n = 15; Cramér’s V = 0.472 asymptotic p < 0.001) and approximately half of the subjects were assigned to DES-Taxon membership according to eight DES-Taxon items (53.3% n = 16; Cramér’s V = 0.502 asymptotic p < 0.001). Depressive patients solely differed from controls according to pathological dissociation and DES-Taxon membership (p < 0.05). Findings are presented in Table 3.

To explore the concurrent validity of PTSD diagnosis based on the CAPS-5 assessment, we run a multivariate analysis of covariance (MANCOVA) in which four sub-scales of the PCL-5 (re-experiencing, avoidance, negative alterations, and hyper-arousal), dissociative experiences, depression and anxiety were dependent variables. As can be seen in Table 4, we compared scale scores across three groups after adjusting for age, gender, education, physical illness, previous psychiatric diagnosis, and family psychopathology. We observed that multivariate differences of MANCOVA across three groups were statistically significant (Wilk’s λ = 0.424; F(14, 148) = 5.654; p < 0.001; η² = 0.348). Patients with PTSD scored greater scores on PCL-5 global and four sub-scales of the PCL-5, dissociation, depression and anxiety compared to either patients with depression and healthy controls.

Convergent validity

As can be seen in Table 5, we obtained strong univariate zero-order correlation coefficients between CAPS-5 scales representing DSM-5 PTSD symptom clusters and PCL-5 total and four sub-scales. Additionally, we found robust associations between these two screening instruments of PTSD and dissociation, depression and anxiety, providing further evidence for construct validity of the CAPS-5.

Table 3. Two-proportions Z-test comparisons of DSM-5 implied PTSD symptom clusters endorsement, PTSD status, dissociative and delayed PTSD status across groups according to CAPS-5 assessment.

| Psychiatric diagnosis | Control (n = 30) | Depression (n = 30) | PTSD (n = 30) | Control vs. PTSD | Depression vs. PTSD |
|-----------------------|-----------------|---------------------|--------------|-----------------|--------------------|
|                       | n   | %    | n   | %    | n   | %    | Z    | p    | Z    | p    |
| Cluster B (re-experiencing) | 12  | 40.00 | 8   | 26.67 | 30  | 100.00 | 1.11 | 0.268 | -6.71 | <0.001 | -9.08 | <0.001 |
| Cluster C (avoidance)   | 5   | 16.67 | 5   | 16.67 | 30  | 100.00 | 0.00 | 1.000 | -12.25 | <0.001 | -12.25 | <0.001 |
| Cluster D (negative alterations) | 3  | 10.00 | 5   | 16.67 | 30  | 100.00 | -0.76 | 0.445 | -16.43 | <0.001 | -12.25 | <0.001 |
| Cluster E (hyper-arousal) | 4   | 13.33 | 3   | 10.00 | 30  | 100.00 | 0.40 | 0.687 | -13.96 | <0.001 | -16.43 | <0.001 |
| Duration of disturbance > 1 month | 7   | 23.33 | 3   | 23.33 | 30  | 100.00 | 0.00 | 1.000 | -9.93 | <0.001 | -9.93 | <0.001 |
| Cluster G (functional impairment) | 2  | 6.67 | 5   | 16.67 | 30  | 100.00 | -1.22 | 0.222 | -20.49 | <0.001 | -12.25 | <0.001 |
| PTSD status              | 0   | 0.00  | 0   | 0.00  | 30  | 100.00 | 0.00 | 1.000 | -29.50 | <0.001 | -29.50 | <0.001 |
| Dissociative PTSD subtype | 0   | 0.00  | 0   | 0.00  | 24  | 80.00  | 0.00 | 1.000 | -9.58 | <0.001 | -9.58 | <0.001 |
| Delayed PTSD             | 0   | 0.00  | 0   | 0.00  | 8   | 26.67  | 0.00 | 1.000 | -2.68 | 0.007 | -2.68 | 0.007 |
| DES ≥30                 | 0   | 0.00  | 5   | 16.67 | 15  | 50.00  | -1.77 | 0.077 | -1.81 | <0.01 | -2.93 | 0.003 |
| DES-Taxon Membership     | 0   | 0.00  | 5   | 16.67 | 16  | 53.33  | -1.77 | 0.077 | -5.17 | <0.001 | -3.23 | 0.001 |

Note: n = 90; PTSD = Post-traumatic stress disorder; DES = Dissociative Experiences Scale; cells with zero frequency were analyzed giving arbitrary 1.
Table 4. MANCOVA comparisons of PCL-5 sub-scale scores, DES, BDI, and BAI across groups.

| Psychiatric diagnosis | Control (n = 30) Mean | SD | Depression (n = 30) Mean | SD | PTSD (n = 30) Mean | SD | F | df | p | η² | Post hoc |
|-----------------------|----------------------|----|-------------------------|----|-------------------|----|----|----|----|-----|---------|
| PCL-5                 | 9.40                 | 9.73 | 38.67                   | 20.30 | 55.80             | 10.89 | 37.67 | 2.80 | <0.001 | 0.485 | Con < Dep < PTSD |
| Cluster B (re-experiencing) | 2.83   | 3.29 | 9.60                    | 5.78 | 14.03             | 3.15 | 25.194 | 2.80 | <0.001 | 0.549 | Con < Dep < PTSD |
| Cluster C (avoidance) | 0.63                 | 1.30 | 3.67                    | 2.38 | 5.47              | 2.01 | 19.566 | 2.80 | <0.001 | 0.520 | Con < Dep < PTSD |
| Cluster D (negative alterations) | 2.80   | 3.52 | 13.30                   | 7.78 | 20.03             | 4.75 | 34.099 | 2.80 | <0.001 | 0.621 | Con < Dep < PTSD |
| Cluster E (hyper-arousal) | 3.13   | 3.56 | 12.10                   | 6.38 | 16.27             | 3.81 | 29.287 | 2.80 | <0.001 | 0.579 | Con < Dep < PTSD |
| DES                   | 4.54                 | 4.73 | 17.45                   | 16.68 | 32.02             | 15.28 | 17.831 | 2.80 | <0.001 | 0.620 | Con < Dep < PTSD |
| BDI                   | 5.57                 | 6.22 | 25.57                   | 13.05 | 35.93             | 9.68 | 25.204 | 2.80 | <0.001 | 0.506 | Con < Dep < PTSD |
| BAI                   | 6.27                 | 6.00 | 26.70                   | 15.07 | 33.70             | 12.14 | 20.288 | 2.80 | <0.001 | 0.465 | Con < Dep < PTSD |

Notes: N = 90; PTSD = Post-traumatic Stress Disorder; DSM-5 = Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition; DES = Dissociative Experiences Scale; BDI = Beck Depression Inventory; BAI = Beck Anxiety Inventory.

*Bonferroni multiple comparison test was used to perform pairwise comparisons.

Using one-way ANCOVA, PCL-5 mean total scores were compared after controlling for age, sex, education, physical illness, prior psychiatric illness, and family psychopathology across groups.

Using MANCOVA, scale scores were compared across groups after controlling for age, sex, education, physical illness, prior psychiatric illness, and family psychopathology.

Table 5. Pearson’s product-moment correlation coefficients.

|          | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PCL-5    |     | 0.94** |   | 0.86** | 0.79** |       |   |     |   |     |     |
| 2. Re-experiencing |     |       |   |       |       |       |   |     |   |     |     |
| 3. Avoidance |     | 0.90** |   |       |       |       |   |     |   |     |     |
| 4. Negative alterations |     |       |   |       |       |       |   |     |   |     |     |
| 5. Hyper-arousal |     |       |   |       |       |       |   |     |   |     |     |
| 6. Cluster B (re-experiencing) |     |       |   |       |       |       |   |     |   |     |     |
| 7. Cluster C (avoidance) |     |       |   |       |       |       |   |     |   |     |     |
| 8. Cluster D (negative alterations) |     |       |   |       |       |       |   |     |   |     |     |
| 9. Cluster E (hyper-arousal) |     |       |   |       |       |       |   |     |   |     |     |
| 10. DES |     | 0.66** | 0.67** | 0.63** | 0.67** |       |   |     |   |     |     |
| 11. BDI |     | 0.80** | 0.80** | 0.70** | 0.58** | 0.53** |   | 0.68** | 0.62** | 0.77** |     |
| 12. BAI |     | 0.75** | 0.69** | 0.69** | 0.75** | 0.75** |   | 0.49** | 0.45** | 0.50** | 0.73** |

Note: **p < 0.01; Cluster B, C, D, E are sub-scales of the Clinician-Administered Post-traumatic Stress Disorder Scale for DSM-5 (CAPS-5) representing four PTSD symptom clusters based on DSM-5.

CFAs for the CAPS-5 and PCL-5

Adhering to the confirmatory factor analytic procedure with Satorra-Bentler normality correction, we subsequently computed goodness-of-fit indexes for seven models including one PTSD Factor, DSM-5 implied four factors, Dysphoria, Dysphoric Arousal, Externalizing Behaviors, Anhedonia, and Hybrid models, separately for the CAPS-5 and PCL-5 data (see Table 6).

Of the seven models separately derived for the CAPS-5 and PCL-5 data, Externalizing Behaviors and Hybrid models revealed best fit either to the CAPS-5 or PCL-5 data; even though DSM-5 implied four-factor model fit indices were within the acceptable range according to guidelines [38]. Using AIC [37] and scaled chi-square difference test [42], we compared two models separately for the CAPS-5 and PCL-5 data. We found unsubsstantial differences between Externalizing Behaviors and Hybrid models of PTSD symptoms, respectively (scaled χ² diff (6) = 8.482; p = 0.205 and scaled χ² diff (6) = 4.233 p = 0.645). However, Externalizing Behaviors model revealed lowest AIC values on both the CAPS-5 and PCL-5 data which can be interpreted as the optimal model for both PTSD screening instruments. Findings are presented in Tables 7 and 8.

Signal detection analysis

Table 7 represents the diagnostic utility analyses for the CAPS-5, which were examined in the current study. Initially, we ran receiver operating characteristics (ROC) analyses to assess the ability of the CAPS-5 and PCL-5 scores to correctly identify and distinguish PTSD patients from patients with depression and controls. The analysis revealed a strong ROC curve for the PCL-5 total scores (area under the curve = 0.87 p < 0.001 asymptotic 95% Confidence Interval = 0.798-0.942), which can be interpreted as patients with PTSD were likely to be subsumed in true positives rather than patients with depression or healthy controls.

A cut-off score optimizing sensitivity, specificity, and diagnostic efficacy was derived for the PCL-5 total scores. As can been seen in Table 9, a cut score of 47 optimized sensitivity (90%) and specificity (80%). Overall, 85% of the sample was diagnosed correctly based on the PCL-5 cut-off value. Findings are presented in Table 9.

Discussion

The endeavor to identify the correct constellations of PTSD symptoms within homogenous symptom...
Table 6. Item mapping for confirmatory factor analytic models.

| Item | Anhedonia | Dysphoria | Dyphoric arousal | Externalizing behaviors | Anhedonia | Dysphoria | Dysphoric arousal | Externalizing behaviors |
|------|-----------|-----------|------------------|-------------------------|-----------|-----------|------------------|-------------------------|
| 1    | PTSD      | Re-experiencing | Re-experiencing | Re-experiencing         | PTSD      | Re-experiencing | Re-experiencing | Re-experiencing         |
| 2    | PTSD      | Re-experiencing | Re-experiencing | Re-experiencing         | PTSD      | Re-experiencing | Re-experiencing | Re-experiencing         |
| 3    | PTSD      | Re-experiencing | Re-experiencing | Re-experiencing         | PTSD      | Re-experiencing | Re-experiencing | Re-experiencing         |
| 4    | PTSD      | Re-experiencing | Re-experiencing | Re-experiencing         | PTSD      | Re-experiencing | Re-experiencing | Re-experiencing         |
| 5    | PTSD      | Re-experiencing | Re-experiencing | Re-experiencing         | PTSD      | Re-experiencing | Re-experiencing | Re-experiencing         |
| 6    | PTSD      | Avoidance    | Avoidance        | Avoidance               | PTSD      | Avoidance    | Avoidance        | Avoidance               |
| 7    | PTSD      | Avoidance    | Avoidance        | Avoidance               | PTSD      | Avoidance    | Avoidance        | Avoidance               |
| 8    | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              |
| 9    | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              |
| 10   | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              |
| 11   | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              |
| 12   | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              |
| 13   | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              |
| 14   | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              | PTSD      | Negative alterations in cognition and mood | Emotional numbing | Dysphoria              |
| 15   | PTSD      | Hyper-arousal | Dysphoria        | Dysphoria               | PTSD      | Hyper-arousal | Dysphoria        | Dysphoria               |
| 16   | PTSD      | Hyper-arousal | Dysphoria        | Dysphoria               | PTSD      | Hyper-arousal | Dysphoria        | Dysphoria               |
| 17   | PTSD      | Hyper-arousal | Dysphoria        | Dysphoria               | PTSD      | Hyper-arousal | Dysphoria        | Dysphoria               |
| 18   | PTSD      | Hyper-arousal | Dysphoria        | Dysphoria               | PTSD      | Hyper-arousal | Dysphoria        | Dysphoria               |
| 19   | PTSD      | Hyper-arousal | Dysphoria        | Dysphoria               | PTSD      | Hyper-arousal | Dysphoria        | Dysphoria               |
| 20   | PTSD      | Hyper-arousal | Dysphoria        | Dysphoria               | PTSD      | Hyper-arousal | Dysphoria        | Dysphoria               |

Note: PTSD = Post-traumatic stress disorder; DSM-5 = Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition.

The aim of this present study was to examine the latent structure of the PTSD in clinical and non-clinical samples in Turkey. Seven latent models of PTSD drawn upon the DSM-IV and DSM-5 were explored. Confirmatory factor analytic examination of these models supported the Externalization Behaviors model as well as Hybrid model of PTSD either relying on the PCL-5 or CAPS-5 data. We observed significant overlaps between findings with respect to the PCL-5 or CAPS-5 solutions. Our results were indicative of that the CAPS-5 as well as PCL-5 is a psychometrically sound instrument in assessing PTSD diagnostic status and symptom severity in clinical population. Consistent with our expectations, both measures of PTSD mapping onto DSM-5 definition had good internal consistency and temporal stability across a two-week period. CAPS-5 PTSD diagnosis satisfied in distinguishing patients with PTSD from either patients with depressive disorder and healthy controls. Both the CAPS-5 and PCL-5 scores demonstrated very good convergent validity in regard to the relations with anxiety, depression, and dissociation which can be attributable to excellent construct validity of these assessment tools.

Consistent with the literature [10], we observed that DSM-5 implied four-symptom cluster model of PTSD fit the data adequately. However, CAPS-5 data, in parallel with PCL-5 data, best fit to the six-factor model of Externalizing Behaviors and seven-factor Hybrid model of PTSD which incorporates key features of six-factor models of Externalizing Behaviors and Anhedonia that is composed of re-experiencing, avoidance, negative affect, Anhedonia, externalizing behaviors, and anxious and dysphoric arousal symptom clusters. On the other hand, in comparison to Hybrid model, Externalizing Behaviors model provided superior fit to the both CAPS-5 and PCL-5 data.

In an extensive review of latent structure of PTSD symptoms, Armour [10] reported that factor analytic studies have generally been conclusive on that the recently proposed four-factor DSM-5 PTSD model has been found to be a good representation of PTSD’s latent structure; while there has been increasingly accumulating evidence supporting six- and seven-factor models of PTSD latent structure that...
the data than alternative models [1,43,44]. In the three studies the model demonstrated better fit to model revealed adequate fit in a majority of research, [12,13,17,43]

It was the central focus of this study to examine the psychometric properties of the Turkish version of the CAPS-5. Even though the results from the current data were promising, certain limitations should be considered. Our sample size was relatively small. Our findings should be warranted via cross-validation of our results in larger clinical and non-clinical samples. Second, we replicated a cut-off criteria of 47 for a tentative PTSD diagnosis previously suggested by Boysan [29], our cut-off value was excessively greater than the critical values reported in previous studies [17, 49]. Further studies should be performed in larger and qualitatively different samples in order to find a more reliable critical value for PTSD diagnosis or verify current cut-off criteria for the Turkish version of the PCL-5. Until a more reliable refinement and extension of our results researchers can use two cut-off values of 33 and 47. The CAPS-5 is a clinician-administered assessment tool and a gold standard for PTSD diagnosis. However, inter-rater agreement reliability between testers, a crucial point for clinical interview measures, was not assessed. Inter-rater agreement reliability for the CAPS-5 should be warranted in further studies. Lastly, translations of the CAPS-5 and PCL-5 were conducted by experienced clinicians but a certified translation by authorized translators under the license of international institutions was not implemented. Therefore, this point should be taken into consideration during utilization of these scales in relatively more sensitive areas of use such as forensic assessment.

Despite the limitations of this study, our findings provide evidence that both the Turkish versions of the CAPS-5 and PCL-5 have sound psychometric properties.

Table 7. CAPS-5 CFA model results.

| Factor structure model | Number of factors | S-B χ² df | p | RMSEA | SRMR | CFI | TLI | AIC |
|------------------------|-------------------|------------|---|--------|------|-----|-----|-----|
| PTSD Factor 1          | 1                 | 226.79 170 | 0.002 | 0.061 | 0.045 | 0.99 | 0.99 | 306.79 |
| DSM-5                  | 4                 | 179.23 164 | 0.020 | 0.032 | 0.041 | 1.00 | 1.00 | 271.23 |
| Dysphoria              | 4                 | 179.96 164 | 0.187 | 0.033 | 0.041 | 1.00 | 1.00 | 271.96 |
| Dysphoric arousal      | 5                 | 166.93 160 | 0.286 | 0.026 | 0.039 | 1.00 | 1.00 | 269.63 |
| Externalizing behaviors| 6                 | 150.71 155 | 0.582 | 0.000 | 0.036 | 1.00 | 1.00 | 260.71 |
| Anhedonia              | 6                 | 166.12 155 | 0.260 | 0.028 | 0.038 | 1.00 | 1.00 | 269.71 |
| Hybrid                 | 7                 | 180.80 149 | 0.310 | 0.047 | 0.041 | 1.00 | 1.00 | 289.43 |

Table 8. PCL-5 CFA model results.

| Factor structure model | Number of factors | S-B χ² df | p | RMSEA | SRMR | CFI | TLI | AIC |
|------------------------|-------------------|------------|---|--------|------|-----|-----|-----|
| PTSD Factor 1          | 1                 | 230.79 170 | 0.002 | 0.056 | 0.045 | 0.99 | 0.99 | 306.79 |
| DSM-5                  | 4                 | 179.23 164 | 0.020 | 0.032 | 0.041 | 1.00 | 1.00 | 271.23 |
| Dysphoria              | 4                 | 179.96 164 | 0.187 | 0.033 | 0.041 | 1.00 | 1.00 | 271.96 |
| Dysphoric arousal      | 5                 | 166.93 160 | 0.286 | 0.026 | 0.039 | 1.00 | 1.00 | 269.63 |
| Externalizing behaviors| 6                 | 150.71 155 | 0.582 | 0.000 | 0.036 | 1.00 | 1.00 | 260.71 |
| Anhedonia              | 6                 | 166.12 155 | 0.260 | 0.028 | 0.038 | 1.00 | 1.00 | 269.71 |
| Hybrid                 | 7                 | 174.71 149 | 0.510 | 0.047 | 0.041 | 1.00 | 1.00 | 289.43 |

Table 9. Cut-off scores derived from the ROC analysis.

| PCL-5 total scores | Sensitivity | Specificity | Efficiency |
|-------------------|-------------|-------------|------------|
| 41.500            | 0.900       | 0.767       | 81.13%     |
| 44.000            | 0.900       | 0.783       | 82.20%     |
| 46.500            | 0.900       | 0.800       | 83.33%     |
| 47.500            | 0.833       | 0.800       | 81.10%     |
| 48.500            | 0.800       | 0.800       | 80.00%     |

Note: Selected cut-off value is boldfaced.

Disclosure statement

No potential conflict of interest was reported by the authors.

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[35] Ulusoy M, Erkmen H, Sahin N. Turkish version of the Beck Anxiety Inventory: Psychometric properties. J Cogn Psychother. 1998;12(2):163–172.

[36] Jöreskog KG, Sörbom D. Lisrel 8.71 ed. Chicago (IL): Scientific Software Inc; 2004.

[37] Akaike H. A new look at the statistical model identification. IEEE Trans Automat Contr. 1974;19(6):716–723.

[38] Hu L, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. Struct Equat Model: A Multidis J. 1999;6:1–55.

[39] Kline RB. Principles and practice of structural equation modeling. 3rd ed. New York (NY): Guilford Press; 2010.

[40] Clark LA, Watson D. Constructing validity: basic issues in objective scale development. Psychol Assess. 1995;7(3):309–319.

[41] Selvin S. Statistical analysis of epidemiologic data. 3rd ed. Oxford: Oxford University Press; 2004.

[42] Bryant FB, Satorra A. Principles and practice of scaled difference chi-square testing. Struct Equat Model: A Multidis J. 2012;19(3):372–398.

[43] Contractor AA, Durham TA, Brennan JA, et al. DSM-5 PTSD’s symptom dimensions and relations with major depression’s symptom dimensions in a primary care sample. Psychiatr Res. 2014;215(1):146–153.

[44] Biehn TL, Elhai JD, Seligman LD, et al. Underlying dimensions of DSM-5 posttraumatic stress disorder and major depressive disorder symptoms. Psychol Inj Law. 2013;6(4):290–298.

[45] Hafstad GS, Dyb G, Jensen TK, et al. PTSD prevalence and symptom structure of DSM-5 criteria in adolescents and young adults surviving the 2011 shooting in Norway. J Affect Disord. 2014;169:40–46.

[46] Armour C, Contractor AA, Palmieri PA, et al. Assessing latent level associations between PTSD and dissociative factors: is depersonalization and derealization related to PTSD factors more so than alternative dissociative factors? Psychol Inj Law. 2014;7(2):131–142.

[47] Forbes D, Lockwood E, Elhai JD, et al. An evaluation of the DSM-5 factor structure for posttraumatic stress disorder in survivors of traumatic injury. J Anxiety Disord. 2015;29:43–51.

[48] Gentes EL, Dennis PA, Kimbrel NA, et al. DSM-5 posttraumatic stress disorder: factor structure and rates of diagnosis. J Psychiatr Res. 2014;59:60–67.

[49] Hoge CW, Riviere LA, Wilk JE, et al. The prevalence of post-traumatic stress disorder (PTSD) in US combat soldiers: a head-to-head comparison of DSM-5 versus DSM-IV-TR symptom criteria with the PTSD Checklist. Lancet Psychiat. 2014;1(4):269–277.
A. Gerçekten ölüm, ciddi yaralanma veya cinsel saldırı tehlikesiyle veya tehdidiyle karşı karşıya gelme
Kriter A karşılandı mı? 0 = HAYIR 1 = EVET

| A. Gerçekten ölüm, ciddi yaralanma veya cinsel saldırı tehlikesiyle veya tehdidiyle karşı karşıya gelme | Geçen Ay |
|---------------------------------------------------------------------------------------------------|----------|
| Kriter A karşılandı mı? 0 = HAYIR 1 = EVET                                                         | C x (Ciddi ≥ 2)? |

B. Tekrar yaşamabilirleri (tani için 1 gerekli)

| (1) B1 – listenmediği halde tekrar yaşanan anlar                                               | 0 = HAYIR 1 = EVET |
| (2) B2 – Stres yolu aklı rüzgarı                                                              | 0 = HAYIR 1 = EVET |
| (3) B3 – Disosiyatif reaksiyonlar                                                               | 0 = HAYIR 1 = EVET |
| (4) B4 – Psikolojik stres kanıtı                                                                | 0 = HAYIR 1 = EVET |
| (5) B5 – Fizyolojik reaksiyonlar                                                               | 0 = HAYIR 1 = EVET |

B alt toplamları = # B Cx =

C. Kaçınma belirtileri (tani için 1 gerekli)

| (6) C1 – Anlar, düşünceler ve duygu duyguları (Tanı için 1 gerekli) Geçen Ay | Ciddiyet |
|---------------------------------------------------------------------------------|----------|
| (7) C2 – Olayı hatırlatan dışsal uyaranlardan kaçınma (Tanı için 1 gerekli)     | 0 = HAYIR 1 = EVET |
| C alt toplamları = # C Cx =                                                     |

Ciddiyet =

D. Bilirler ve duygudurum belirtileri (tani için 2 gerekli)

| (8) D1 – Olayın önemli yönlerini hatırlamama (Tanı için 2 gerekli) Geçen Ay | Ciddiyet |
|---------------------------------------------------------------------------------|----------|
| (9) D2 – Abartılı olumsuz inanışlar ve beklentiler                                | 0 = HAYIR 1 = EVET |
| (10) D3 – Kendini suçlamaya neden olan çarpıcı durumlar                           | 0 = HAYIR 1 = EVET |
| (11) D4 – Süreğen olumsuz duygusal durumlar                                       | 0 = HAYIR 1 = EVET |
| (12) D5 – Ligide veya etkinlikle karşıma ahalıkanın                        | 0 = HAYIR 1 = EVET |
| (13) D6 – İnsanlardan uzaklaşmayı veya onlara yabancılaşma                      | 0 = HAYIR 1 = EVET |
| (14) D7 – Pozitif duyguların yaşanmasında sürengen yetersizlik                  | 0 = HAYIR 1 = EVET |

D alt toplamları = # D Cx =

Diddiyet =

E. Uyarılaması ve tepkisel belirtileri (tani için 2 gerekli)

| (15) E1 – Agresif davranış ve öfke patlamalar (Tanı için 2 gerekli) Geçen Ay | Ciddiyet |
|---------------------------------------------------------------------------------|----------|
| (16) E2 – Pervazsiz veya kendine zarar veren davranış                           | 0 = HAYIR 1 = EVET |
| (17) E3 – Aşın tetikte olma                                                      | 0 = HAYIR 1 = EVET |
| (18) E4 – Abartılı irkilmey tepkisi                                               | 0 = HAYIR 1 = EVET |
| (19) E5 – Konsantrasyon problemleri                                               | 0 = HAYIR 1 = EVET |
| (20) E6 – Uykudaki bozulma                                                       | 0 = HAYIR 1 = EVET |

E alt toplamları = # E Cx =

TSSB toplamları =

| (21) Genel değerlendirme (Tanı için 2 gerekli) Geçen Ay | Ciddiyet |
|--------------------------------------------------------|----------|
| (22) Bozukluğun süresi (Tanı için 1 gerekli) Geçen Ay   | 0 = HAYIR 1 = EVET |
| F. Bozukluk süresi                                      | 0 = HAYIR 1 = EVET |
| (23) Özel stres                                        | 0 = HAYIR 1 = EVET |
| (24) Sosyal işlevsellik bozulma                        | 0 = HAYIR 1 = EVET |
| (25) Mesleki işlevsellik bozulma                       | 0 = HAYIR 1 = EVET |

E alt toplamları = # E Cx =

TSSB toplamları =

| (26) Genel geçerlik (Tanı için 2 gerekli) Geçen Ay | Ciddiyet |
|----------------------------------------------------|----------|
| (27) Genel ciddiyet                                 | 0 = HAYIR 1 = EVET |
| (28) Genel düzelmeye                                 | 0 = HAYIR 1 = EVET |

TSSB toplamları =

| (29) Genel düzelmeye                                 | 0 = HAYIR 1 = EVET |
|----------------------------------------------------|----------|
| (30) Genel geçerlik                                 | 0 = HAYIR 1 = EVET |

TSSB MEVCUT – BÜTÜN KRİTERLER (A-G) KARŞILANDI MI?

| (21) Geçikme başlangıç birlikte (≥ 6 ay) | 0 = HAYIR 1 = EVET |

TSSB MEVCUT – BÜTÜN KRİTERLER (A-G) KARŞILANDI MI?

| (21) Geçikme başlangıç birlikte (≥ 6 ay) | 0 = HAYIR 1 = EVET |

TSSB MEVCUT – BÜTÜN KRİTERLER (A-G) KARŞILANDI MI?

| (21) Geçikme başlangıç birlikte (≥ 6 ay) | 0 = HAYIR 1 = EVET |
APPENDIX 2. DSM-5 için Travma Sonrası Stres Bozukluğu Kontrol Listesi

Aşağıda çok stresli bir olay karşısında insanların yaşayabildikleri problemlerin bir listesi yer almaktadır. Zihninizi mesgul etmeye DEVAM EDEN yaşıadığınız en kötü olayı düşünerek aşağıdaki listelenen her bir problemi dikkatlice okuyun. SON BİR AY İÇİNDE bu olayın sizi ne kadar sıkıntılı olduğunu, sağdaki kutular içindeki sıze en uygun rakamları yuvarlayla içine alarak gösteriniz.

| GECEN AY içinde aşındıra yer alan durumlar sizi ne ölçüde bunalttu? | Hiç az | Orta derecede | Olduysça fazla | Aşırı |
|---|---|---|---|---|
| 1. Stresli olayın tekrarlayıp, rahatsız eden ve ilgilenmemen anları sizi ne kadar bunalttı? | 0 | 1 | 2 | 3 | 4 |
| 2. Stresli olayın ilk tekrarlayıp, rahatsız eden rüyalar sizi ne kadar bunalttı? | 0 | 1 | 2 | 3 | 4 |
| 3. Aniden stresli olaya rağmen saksi geçmek bir daha yaşamış gibi hissetmek veya davranmak (saksi geçmek olayın yayındığı ana geri dönüms yenden yaşamış gibi) sizi ne kadar bunalttı? | 0 | 1 | 2 | 3 | 4 |
| 4. Bir şeyler size stresli olaya zaman yaşamışınız Hunctor hissi sizi ne kadar bunalttı? | 0 | 1 | 2 | 3 | 4 |
| 5. Bir şeyler size stresli olaya zaman yaşamışınız fiziksel tepkiler vermek (örneğin, kalp çarpıntısı, nefes alıma güçlü, terleme gibi) sizi ne kadar bunalttı? | 0 | 1 | 2 | 3 | 4 |
| 6. Stresli olayın ilkli anlardan, düşüncelerinden ve duyguşaldan kaçınımaya çalışmak sizi ne kadar bunalttı? | 0 | 1 | 2 | 3 | 4 |
| 7. Stresli olayın anıtsiz etraftaki hatırlatıcı şeylerden (örneğin, insanlardan, yerlerden, konuşmalardan, etkinliklerden, nesnelerden veya durumlardan) kaçınımaya çalışmak sizi ne kadar bunalttı? | 0 | 1 | 2 | 3 | 4 |
| 8. Stresli olayın ilkli oermeli kısmları hatırlamada yaşanan güçlüler sizi ne kadar bunalttu? | 0 | 1 | 2 | 3 | 4 |
| 9. Kendiniz, diğer insanlar veya dünyada hakkında güçlü almış düşüncelere sahip olmak (örneğin, kötü biriyim, bende ciddi şekilde yanlış olan bir şeyler var, kimseye güvenilmez, dünya tümüyle tehlikeli bir yerdir gibi düşünceler) sizi ne kadar bunalttu? | 0 | 1 | 2 | 3 | 4 |
| 10. Stresli olaya veya bunun sonrasında ortaya çıkan durumlar için kendinizi veya bir başkasını suçlamak sizi ne kadar bunalttu? | 0 | 1 | 2 | 3 | 4 |
| 11. Korku, dehşet ve kaplama, ofke, suçlu olmak veya utanç gibi güçlü olumlu duygular sizi ne kadar bunalttu? | 0 | 1 | 2 | 3 | 4 |
| 12. Daha önce yaşamaktan keyif aldiğiınız etkinliklerede olan ilginizi kaybetmek sizi ne kadar bunalttu? | 0 | 1 | 2 | 3 | 4 |
| 13. Başka insanlardan uzak veya kopmuş hissetmek sizi ne kadar bunalttu? | 0 | 1 | 2 | 3 | 4 |
| 14. Olmamuz olguları yaşamamak (örneğin, mutluğu hissedememek veya sadece yakın insanlara sevgi doluฯ hiler duymamak) sizi ne kadar bunalttu? | 0 | 1 | 2 | 3 | 4 |
| 15. Asabi davranışlar, ofke patlamaları veya ofkeli hareketleri sizi ne kadar bunalttu? | 0 | 1 | 2 | 3 | 4 |
| 16. Çok fazla risk almak veya sız zarar verebilecek şeyler yapmak sizi ne kadar bunalttu? | 0 | 1 | 2 | 3 | 4 |
| 17. Aşırı tetikte olmak veya temkinli davranmak veyaRadius bu nedenle korkmak sizi ne kadar bunalttu? | 0 | 1 | 2 | 3 | 4 |
| 18. Yerinde durmak veya kalaçık irkilmek sizi ne kadar bunalttu? | 0 | 1 | 2 | 3 | 4 |
| 19. Dikkatsiz toplamada güçlüler sizi ne kadar bunalttu? | 0 | 1 | 2 | 3 | 4 |
| 20. Uykuya dalma veya uyku devam etirme güçlüleri sizi ne kadar bunalttu? | 0 | 1 | 2 | 3 | 4 |

PCL-S (8/14/2013) Weathers, Litz, Keane, Palmieri, Marx, & Schnurr – National Center for PTSD.