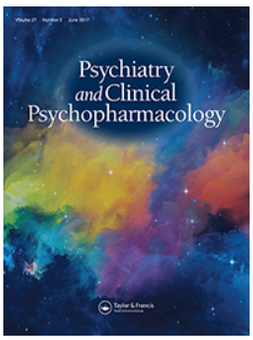

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Psychometric properties of the Turkish version of the Clinician-Administered PTSD Scale for Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (Turkish CAPS-5)

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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 diagnostic criteria for 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 inpatients 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 χ^2 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.

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KEYWORDS
PTSD Checklist for DSM-5; factor structure; concurrent validity; pathological dissociation; depression

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

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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 have 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 PSTD 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; contrarily, 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
Psychiatric 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 χ^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 χ^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 ≤ 0.08), the comparative fit index (CFI ≥ 0.90), Tucker–Lewis index (TLI ≥ 0.90), and standardized root mean square residual (SRMR ≤ 0.10).

Descriptive and item descriptive statistics were calculated for the sample. Endorsement of PTSD symptoms based on DSM-5 implied four clusters derived from CAPS-5 assessment was compared across groups using the two-proportions *Z*-test. One-way analysis of variance was performed across three study groups to compare scale scores on the PCL-5 global and subscales, DES, BDI, and BAI. Pearson's product-moment correlation coefficients were obtained to assess convergent validity of the CAPS-5 and PCL-5.

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 α 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.

	a	McNemar (*p*)	Rjt	Inter-item *r*	*M*	SD	*M* range (items)	SD range (items)	Score range
CAPS-5									
Cluster B (re-experiencing)	0.92	$\chi^2 = 1.778$ ($p = 0.182$)	0.73–0.83	0.56–0.81	6.13	5.44	0.96–1.63	1.20–1.31	0–20
Cluster C (avoidance)	0.87	$\chi^2 = 0.250$ ($p = 0.617$)	0.78–0.78	0.78–0.78	2.74	2.51	1.33–1.41	1.29–1.37	0–8
Cluster D (negative alterations)	0.94	$\chi^2 = 0.500$ ($p = 0.480$)	0.58–0.86	0.47–0.80	7.87	7.59	0.69–1.40	1.02–1.40	0–28
Cluster E (hyper-arousal)	0.93	$\chi^2 = 0.500$ ($p = 0.480$)	0.77–0.86	0.58–0.82	6.91	6.82	0.81–1.47	1.20–1.44	0–24
Cluster G (functional impairment)	0.94	$\chi^2 = 0.000$ ($p = 1.000$)	0.85–0.90	0.80–0.86	3.56	3.69	0.98–1.44	1.27–1.33	0–12
Dissociative subtype	0.94	$\chi^2 = 0.000$ ($p = 1.000$)	0.89–0.89	0.89–0.89	1.74	2.38	0.86–0.89	1.22–1.23	0–8
PCL-5	0.97		0.68–0.86	0.48–0.83	34.62	23.98	1.32–2.14	1.29–1.59	0–80
Cluster B (re-experiencing)	0.92		0.76–0.83	0.63–0.81	8.82	6.25	1.46–2.14	1.29–1.49	0–20
Cluster C (avoidance)	0.91		0.83–0.83	0.83–0.83	3.26	2.78	1.59–1.67	1.43–1.48	0–8
Cluster D (negative alterations)	0.94		0.66–0.88	0.52–0.79	12.04	9.05	1.32–2.00	1.38–1.59	0–28
Cluster E (hyper-arousal)	0.90		0.68–0.80	0.48–0.80	10.50	7.24	1.47–1.99	1.44–1.54	0–24
DES	0.95		0.42–0.84	0.00–0.81	18.00	17.43	8.67–35.11	17.81–31.95	0–100
BDI	0.96		0.34–0.85	0.04–0.75	22.36	16.10	0.64–1.52	0.87–1.22	0–63
BAI	0.96		0.55–0.84	0.20–0.80	22.22	16.45	0.36–1.56	0.81–1.23	0–63

Note: $N = 90$; *a* = internal consistency; McNemar (*p*)= 15-day interval re-test McNemar χ^2 test with 1 degree of freedom (probability of significance); Rjt = corrected item-total correlations (range); inter-item *r* = Spearman inter-item correlations (range); *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 $\lambda = 0.424$; $F(14, 148) = 5.654$; $p < 0.001$; $\eta^2 = 0.348$). 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. depression		Control vs. PTSD		Depression vs. PTSD	
	n	%	*n*	%	*n*	%	*Z*	*p*	*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	7	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	−4.81	<0.001	−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[a].

	Psychiatric diagnosis										
	Control ($n = 30$)		Depression ($n = 30$)		PTSD ($n = 30$)						
	Mean	SD	Mean	SD	Mean	SD	*F*	df	*p*	η^2	*Post hoc*
PCL-5[b]	9.40	9.73	38.67	20.30	55.80	10.89	37.679	2.80	<0.001	0.485	Con < Dep < PTSD
Cluster B (re-experiencing)[c]	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)[c]	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)[c]	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)[c]	3.13	3.56	12.10	6.38	16.27	3.81	29.297	2.80	<0.001	0.579	Con < Dep < PTSD
DES[c]	4.54	4.73	17.45	16.88	32.02	15.28	17.831	2.80	<0.001	0.420	Con < Dep < PTSD
BDI[c]	5.57	6.22	25.57	13.05	35.93	9.68	25.204	2.80	<0.001	0.620	Con < Dep < PTSD
BAI[c]	6.27	6.00	26.70	15.07	33.70	12.14	20.288	2.80	<0.001	0.506	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.
[a]Bonferroni multiple comparison test was used to perform pairwise comparisons.
[b]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.
[c]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
1. PCL-5											
2. Re-experiencing	0.94 **										
3. Avoidance	0.86 **	0.82 **									
4. Negative alterations	0.97 **	0.88 **	0.79 **								
5. Hyper-arousal	0.95 **	0.85 **	0.77 **	0.90 **							
6. Cluster B (re-experiencing)	0.67 **	0.64 **	0.61 **	0.65 **	0.61 **						
7. Cluster C (avoidance)	0.57 **	0.52 **	0.57 **	0.54 **	0.52 **	0.86 **					
8. Cluster D (negative alterations)	0.73 **	0.67 **	0.66 **	0.72 **	0.68 **	0.89 **	0.85 **				
9. Cluster E (hyper-arousal)	0.69 **	0.65 **	0.63 **	0.67 **	0.66 **	0.87 **	0.80 **	0.92 **			
10. DES	0.72 **	0.63 **	0.60 **	0.73 **	0.71 **	0.57 **	0.48 **	0.61 **	0.57 **		
11. BDI	0.81 **	0.71 **	0.68 **	0.80 **	0.79 **	0.58 **	0.53 **	0.68 **	0.62 **	0.77 **	
12. BAI	0.74 **	0.70 **	0.63 **	0.69 **	0.75 **	0.49 **	0.45 **	0.55 **	0.50 **	0.73 **	0.77 **

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 unsubstantial differences between Externalizing Behaviors and Hybrid models of PTSD symptoms, respectively (scaled χ^2 diff (6) = 8.482; $p = 0.205$ and scaled χ^2 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.

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

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

clusters in order to provide the best diagnostic algorithm to aid in the development of interventions for targeted treatments should be continued. The newly proposed Anhedonia model, Externalizing Behaviors model and Hybrid model as to PTSD symptoms represented in the DSM-5 provide new opportunities for to extensions and refinement of theoretical considerations and implications that a more parsimonious latent structure of PTSD may exist. Nevertheless, PTSD latent structure research has largely drawn on measures of DSM-IV and DSM-5 PTSD symptoms rather than true PTSD structure.

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

Table 7. CAPS-5 CFA model results.

Factor structure model	Number of factors	S–B χ^2	df	*p*	RMSEA	SRMR	CFI	TLI	AIC
1 PTSD Factor	1	219.70	170	0.006	0.057	0.047	0.99	0.99	299.70
DSM-5	4	201.75	164	0.024	0.051	0.046	0.99	0.99	293.75
Dysphoria	4	193.48	164	0.058	0.045	0.046	1.00	1.00	285.48
Dysphoric Arousal	5	185.07	160	0.085	0.042	0.046	1.00	1.00	285.07
Externalizing behaviors	6	172.01	155	0.166	0.035	0.043	1.00	1.00	282.01
Anhedonia	6	179.35	155	0.088	0.042	0.044	1.00	1.00	289.35
Hybrid	7	167.43	149	0.144	0.037	0.041	1.00	1.00	289.43

Notes: *n*= 90 for all models. DSM-5 = Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition; DSM-IV = Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition; RMSEA = root-mean-square error of approximation; CFI = comparative fit index; TLI = Tucker–Lewis Index; SRMR = standardized root mean square residual; AIC = Akaike Information Criteria.

Table 8. PCL-5 CFA model results.

Factor structure model	Number of factors	S–B χ^2	df	*p*	RMSEA	SRMR	CFI	TLI	AIC
1 PTSD Factor	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	169.63	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	276.12
Hybrid	7	147.71	149	0.510	0.000	0.035	1.00	1.00	269.71

Note: *N*= 90 for all models. DSM-5 = Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition; DSM-IV = Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition; RMSEA = root-mean-square error of approximation; CFI = comparative fit index; TLI = Tucker–Lewis Index; SRMR = standardized root mean square residual; AIC = Akaike Information Criteria.

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.

seem to be preferential in comparison to alternative models and DSM-5 PTSD factor structure may need further revisions. Due to the factor analytic studies of PTSD's latent factor structure DSM-5 Numbing model revealed adequate fit in a majority of research, in three studies the model demonstrated better fit to the data than alternative models [1,43,44]. In the PTSD literature, there has been a long debate whether Dysphoria model or Numbing model better represents latent factor structure of post-traumatic symptoms. DSM-5 Numbing model generally outperformed Dysphoria models of PTSD symptom structure [12,13,17,43–45]; while some studies provided support for Dysphoria model and two studies could not find differences between these models [46, 47]. On the other hand, in comparison to four-factor models, five-, six, or seven-factor models provided preferential fit [12–14,45,48].

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.

Disclosure statement

No potential conflict of interest was reported by the authors.

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APPENDİCES

APPENDIX 1
CAPS-5 ÖZET SAYFASI

Ad:_____ID#:_____Görüşmeci:_____Çalışma:
_____Tarih:_____

A. Gerçekten ölüm, ciddi yaralanma veya cinsel saldırı tehlikesiyle veya tehdidiyle karşı karşıya gelme		
Kriter A karşılandı mı?	0 = HAYIR 1 = EVET	
B. Tekrar yaşama belirtileri (tanı için 1 gerekli)	Geçen Ay	
	Ciddiyet	C x (Ciddi ≥ 2)?
(1) B1 – İstenmediği halde tekrar yaşanan anılar		0 = HAYIR 1 = EVET
(2) B2 – Strese yol açan rüyalar		0 = HAYIR 1 = EVET
(3) B3 – Disosiyatif reaksiyonlar		0 = HAYIR 1 = EVET
(4) B4 – Psikolojik stres kanıtları		0 = HAYIR 1 = EVET
(5) B5 – Fizyolojik reaksiyonların kanıtları		0 = HAYIR 1 = EVET
B alt toplamları	B Ciddiyet =	# B Cx =
C. Kaçınma belirtileri (tanı için 1 gerekli)	Geçen Ay	
	Ciddiyet	Cx (Ciddi ≥ 2)?
(6) C1 – Anılar, düşünceler ve duygulardan kaçınma		0 = HAYIR 1 = EVET
(7) C2 – Olayı hatırlatan dışsal uyaranlardan kaçınma		0 = HAYIR 1 = EVET
C alt toplamları	C Ciddiyet =	# C Cx =
D. Bilişler ve duygu durum belirtileri (tanı için 2 gerekli)	Geçen Ay	
	Ciddiyet	Cx (Ciddi ≥ 2)?
(8) D1 – Olayın önemli yönlerini hatırlayamama		0 = HAYIR 1 = EVET
(9) D2 – Abartılmış olumsuz inanışlar ve beklentiler		0 = HAYIR 1 = EVET
(10) D3 – Kendini suçlamaya neden olan çarpıtılmış düşünceler		0 = HAYIR 1 = EVET
(11) D4 – Süreğen olumsuz duygusal durumlar		0 = HAYIR 1 = EVET
(12) D5 – İlgide veya etkinliklere katılımda azalma		0 = HAYIR 1 = EVET
(13) D6 – İnsanlardan uzaklaşma veya onlara yabancılaşma		0 = HAYIR 1 = EVET
(14) D7 – Pozitif duyguların yaşanmasında süreğen yetersizlik		0 = HAYIR 1 = EVET
D alt toplamları	D Ciddiyet =	# D Cx =
E. Uyarılma ve tepkisellik belirtileri (tanı için 2 gerekli)	Geçen Ay	
	Ciddiyet	Cx (Ciddi ≥ 2)?
(15) E1 – Agresif davranış ve öfke patlamaları		0 = HAYIR 1 = EVET
(16) E2 – Pervasız veya kendine zarar veren davranış		0 = HAYIR 1 = EVET
(17) E3 – Aşırı tetikte olma		0 = HAYIR 1 = EVET
(18) E4 – Abartılı irkilme tepkisi		0 = HAYIR 1 = EVET
(19) E5 – Konsantrasyon problemleri		0 = HAYIR 1 = EVET
(20) E6 – Uykuda bozulma		0 = HAYIR 1 = EVET
E alt toplamları	E Ciddiyet =	# E Cx =
TSSB toplamları	Geçen Ay	
	Toplam Cid	Toplam # Cx
Alt toplamlar toplamı (B + C+D + E)		
F. Bozukluğun süresi	Şu Anda	
(22) Bozukluğun süresi ≥ 1 aydan uzun mu?	0 = HAYIR 1 = EVET	
G. Stres veya bozulma (tanı için 1 gerekli)	Geçen Ay	
	Ciddiyet	Cx (Ciddi ≥ 2)?
(23) Öznel stres		0 = HAYIR 1 = EVET
(24) Sosyal işlevsellikte bozulma		0 = HAYIR 1 = EVET
(25) Mesleki işlevsellikte bozulma		0 = HAYIR 1 = EVET
G alt toplamlar	G Cid=	# G Cx =
Genel değerlendirmeler	Geçen Ay	
(26) Genel geçerlik		
(27) Genel ciddiyet		
(28) Genel düzelme		
Disosiyatif belirtiler (alt tip için 1 gerekli)	Geçen Ay	
	Ciddiyet	Cx (Cid ≥2)?
(29) 1 – Depersonalizasyon		0 = HAYIR 1 = EVET
(30) 2 – Derealizasyon		0 = HAYIR 1 = EVET
Disosiyatif alt toplamlar	Dis Cid=	# Dis Cx=
TSSB tanısı	Geçen Ay	
TSSB MEVCUT – BÜTÜN KRİTERLER (A-G) KARŞILANDI MI?	0 = HAYIR 1 = EVET	
Disosiyatif belirtilerle birlikte	0 = HAYIR 1 = EVET	
(21) Gecikmiş başlangıçla 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 meşgul etmeye DEVAM EDEN yaşadığınız en kötü olayı* düşünerek aşağıda listelenen her bir problemi dikkatlice okuyun. SON BİR AY İÇİNDE bu olayın size ne kadar sıkıntı verdiğini, sağdaki kutuların içindeki size en uygun rakamı yuvarlak içine alarak gösteriniz.

GEÇEN AY içinde aşağıda yer alan durumlar sizi ne ölçüde bunalttı:u	Hiç	Çok az	Orta derecede	Oldukça fazla	Aşırı
1. Stresli olayın tekrarlayan, rahatsız eden ve istenmeyen anıları sizi ne kadar bunalttı?	0	1	2	3	4
2. Stresli olaya ilişkin tekrarlayan, rahatsız eden rüyalar sizi ne kadar bunalttı?	0	1	2	3	4
3. Aniden stresli olayı sanki gerçekten bir daha yaşıyormuş gibi hissetmek veya davranmak (sanki gerçekten olayın yaşandığı ana geri dönmüş yeniden yaşıyormuş gibi) sizi ne kadar bunalttı?	0	1	2	3	4
4. Bir şeyler size stresli olayı anımsattığı zaman yaşadığınız üzüntü hissi sizi ne kadar bunalttı?	0	1	2	3	4
5. Bir şeyler size stresli olayı anımsattığı zaman güçlü fiziksel tepkiler vermek (örneğin, kalp çarpıntısı, nefes almada güçlük, terleme gibi) sizi ne kadar bunalttı?	0	1	2	3	4
6. Stresli olayla ilişkili anılardan, düşüncelerden ve duygulardan kaçınmaya çalışmak sizi ne kadar bunalttı?	0	1	2	3	4
7. Stresli olayı anımsatan etraftaki hatırlatıcı şeylerden (örneğin, insanlardan, yerlerden, konuşmalardan, etkinliklerden, nesnelerden veya durumlardan) kaçınmaya çalışmak sizi ne kadar bunalttı?	0	1	2	3	4
8. Stresli olaya ilişkin önemli kısımları hatırlamada yaşanan güçlükler sizi ne kadar bunalttı?	0	1	2	3	4
9. Kendiniz, diğer insanlar veya dünya hakkında güçlü olumsuz 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 bunalttı?	0	1	2	3	4
10. Stresli olay veya bu olayın sonrasında ortaya çıkan durumlar için kendinizi veya bir başkasını suçlamak sizi ne kadar bunalttı?	0	1	2	3	4
11. Korku, dehşete kapılma, öfke, suçluluk veya utanç gibi güçlü olumsuz duygular sizi ne kadar bunalttı?	0	1	2	3	4
12. Daha önce yapmaktan keyif aldığınız etkinliklere olan ilginizi kaybetmek sizi ne kadar bunalttı?	0	1	2	3	4
13. Başka insanlardan uzak veya kopmuş hissetmek sizi ne kadar bunalttı?	0	1	2	3	4
14. Olumlu duyguları yaşayamamak (örneğin, mutluluğu hissedememek veya size yakın insanlara sevgi dolu hisler duyamamak) sizi ne kadar bunalttı?	0	1	2	3	4
15. Asabi davranışlar, öfke patlamaları veya öfkeli hareketler sizi ne kadar bunalttı?	0	1	2	3	4
16. Çok fazla risk almak veya size zarar verebilecek şeyler yapmak sizi ne kadar bunalttı?	0	1	2	3	4
17. Aşırı tetikte olmak veya temkinli davranmak veya hazırda beklemek sizi ne kadar bunalttı?	0	1	2	3	4
18. Yerinden sıçramak veya kolayca irkilmek sizi ne kadar bunalttı?	0	1	2	3	4
19. Dikkati toplamada güçlükler sizi ne kadar bunalttı?	0	1	2	3	4
20. Uykuya dalma veya uykuyu devam ettirme güçlükleri sizi ne kadar bunalttı?	0	1	2	3	4

PCL-5 (8/14/2013) Weathers, Litz, Keane, Palmieri, Marx, & Schnurr – National Center for PTSD.