

## **Psychometric properties of the Polish version of the Posttraumatic Stress Disorder Checklist for DSM-5 – PCL-5**

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### **Summary**

**Aim.** The changes in the structure of PTSD symptoms introduced in the DSM-5 classification require the use of an appropriate measurement tool. For this purpose, the PTSD Checklist (PCL-5) was constructed and popularized. In the presented studies, the psychometric properties of the Polish version of PCL-5 were assessed. In addition, referring to the controversy regarding the conceptualization of PTSD, various indicators of the fit of five PTSD structure models were checked based on our own research.

**Method.** Individuals (N = 1,035) who experienced various traumatic events participated in the anonymous research. All respondents completed PCL-5 and other questionnaires used to assess the validity of PCL-5.

**Results.** The psychometric properties of the Polish version of PCL-5 are satisfactory. In the differential diagnosis the optimal point of discrimination is the result of  $\geq 33$ . Confirmatory factor analysis results showed that all tested PTSD models met the basic fit criteria. The four-factor model explained 58% of the variance, including changes in arousal and reactivity of 36%.

**Conclusions.** PCL-5 is a reliable and accurate tool for PTSD measurement. It is used for the initial diagnosis of PTSD. The conducted analyses, despite demonstrating the diagnostic utility of PCL-5, do not indicate favoring a single model of PTSD dimensionality.

**Key words:** PTSD, dimensional structure, differential diagnosis

### **Introduction**

For many years, the issues of trauma have been of great interest to both researchers and practitioners. However, despite many changes introduced in the understanding of the basic concepts and numerous studies in this area, this issue still raises a lot of controversy.

Posttraumatic stress disorder (PTSD) was introduced to the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) in 1980. In the subsequent versions of the DSM, changes were made to the causes and symptoms of the disease. Although participation in a traumatic event is considered as the main etiological factor of PTSD development, the definition of a traumatic event itself has been a matter of controversy. Initially, it was identified as an event that goes beyond normal human experience and leads to severe suffering for almost everyone who is exposed to it. In the next edition, the definition was expanded to include a description of emotional reactions to this event, while in the latest edition of the DSM from 2013 (DSM-5), the subjective assessment of emotional reactions to the event was abandoned, and a list of potentially traumatic events was adopted. At the same time, the importance of direct and indirect participation in an event of a sudden and unpredictable character or finding out that such an event happened to a loved one, was taken into account [1]. In addition, for the first time in the history of DSM, occupational exposure to traumatic events was included, and the diagnosis of PTSD was moved from the category of anxiety disorders to a new category named "Trauma and stress-related disorders".

Another subject of PTSD-related controversy refers to the structure of its symptoms. In DSM-III-R PTSD symptoms were allocated into three categories: intrusion (criterion B), avoidance (C) and hyperarousal (D). The structure remained the same in DSM-IV [2]; however, the three-factor structure of PTSD symptoms did not fit well to empirical data. According to American researchers, the best fit is provided by the four-factor model, in which the C criterion was divided into two categories, i.e., avoidance and numbness [3]. This four-factor model is considered to be the best fit to the empirical data [4]. The next changes in the structure of PTSD consisted in the introduction of emotional numbness and dysphoria into the model and the identification of a fifth factor in the form of dysphoric arousal, which consists of three symptoms, i.e., sleep problems (D1), irritability (D2) and problems with concentration (D3) [5].

Modifications in PTSD symptoms structure introduced by various authors suggest that the conceptualization of PTSD is too broad and includes not only axial symptoms of PTSD but also symptoms that are specific for other disorders. Therefore, the structure of PTSD was proposed, which was limited to six symptoms, i.e., intrusion (B2 and B3), avoidance (C1 and C2) and anxiety arousal (D4 and D5) [6]. Hence, the symptoms of numbness and dysphoria were excluded. This reduced model, verified on the basis of motor vehicle accident survivors, turned out to be diagnostically accurate, even though almost half of the less specific PTSD symptoms were excluded [7].

However, in DSM-5 the number of PTSD symptoms increased. Aside from already recognized pathognomonic symptoms of recurring, uncontrolled intrusive memories (criterion B), avoidance and emotional numbing (criterion C), chronic vegetative arousal expressed by hypervigilance, difficulty in concentrating and sleeping (E), negative changes in cognitive and emotional spheres were also included (D). These changes should begin or worsen after trauma and are represented by: (1) relatively stable, overly negative thoughts and assumptions about oneself or the world (e.g., no one can be trusted); (2) stable distorted perception of causes and consequences of

the traumatic event leading to exaggerated blame of self or others and (3) negative emotional state [1].

The introduced changes necessitate the development of new PTSD measurement tools adapted to the new criteria. Such a tool is the PTSD Checklist (PCL-5). In the authors' own research presented below, the psychometric properties of this tool were assessed, including the factor structure and its compliance with the criteria for the clinical diagnosis of PTSD. Referring to the afore mentioned controversies about conceptualization of PTSD, we sought further evidence for the best model of PTSD.

## Method

### Participants

The research used purposeful selection aimed at people who were likely to have experienced a traumatic event such as domestic violence, developed serious illness, were involved in a traffic accident or were exposed to trauma due to their professional function. The research in a group of policemen and firefighters was preceded by filling the Life Events Checklist. People who confirmed the absence of the above-mentioned events were excluded from further studies.

The research was anonymous and voluntary, and each of the respondents was informed about the purpose. The statistical analysis included the results obtained from 1,035 respondents who completely filled in the tools provided to them. More than half of the sample comprised of males. Detailed characteristics of the studied groups are presented in Table 1.

Table 1. Characteristics of the studied groups

Study groups	N	Sex (in %)		Age		Min-max
		Male	Female	M	SD	
Survivors of domestic violence	160	0.0	100.0	40.67	13.26	19-71
Motor vehicle accident survivors	190	49.0	51.0	36.50	12.98	18-73
Cancer patients	60	66.7	33.3	62.53	10.84	30-79
Parents of children suffering from cancer	70	35.7	64.3	31.36	4.65	20-45
Persons hospitalized due to COVID-19	120	40.0	60.0	59.12	15.12	26-75
Persons after amputations	60	50.0	50.0	47.70	15.13	19-74
Paraplegics	60	100.0	0.0	39.18	8.71	27-62
Patients after transplantation	90	68.9	31.1	49.47	14.39	22-74
Policemen	100	83.0	17.0	33.06	5.62	23-47
Firemen	125	100.0	0.0	31.34	7.49	19-49
Total	1035	59.3	40.7	43.93	10.82	19-79

## Measures

All subjects completed PCL-5 and one or two other tools for assessing the validity of PCL-5. The research was conducted individually, apart from research in groups of policemen and firefighters. Brief descriptions of the tools used are presented below.

**PTSD Checklist (PCL-5)** – Weathers et al. [8], is a new version of the internationally recognized PTSD diagnostic tool that is adapted to DSM-5 criteria for PTSD. We used a version of the tool without the A criterion (presence of a traumatic stressor). The list contains four PTSD criteria (B-E). The respondent assesses on a 5-point scale of answers (from 0 – “Not at all” to 4 – “Very”) to what extent the described problems affected him during the last month. The Polish translation was made by N. Ogińska-Bulik, Z. Juczyński, M. Lis-Turlejska and D. Miecz-Kot. The authors obtained the written consent of the National Center for PTSD for the Polish adaptation [9]. The psychometric properties of PCL-5 are presented in the section devoted to the research results.

**Life Events Checklist (LEC-5)** – Weathers et al. [8], in Polish adaptation is a self-report measure to identify the presence of 16 potentially traumatic events. The respondent indicates whether he/she was a direct participant of the event, a witness of the event, learned about a trauma experienced by his/her loved ones or was exposed to occupational trauma [10].

**Impact of Event Scale-Revised (IES-R)** – Weiss and Marmar [11], in Polish adaptation includes 22 items rated on 5-point Likert-type scale, describing the three dimensions of PTSD, i.e., intrusion, arousal and avoidance [12]. Reliability, assessed on the basis of Cronbach’s alpha, is 0.91 for the total scale, and for Intrusion, Arousal and Avoidance – respectively: 0.82, 0.83 and 0.76.

**Cognitive Processing of Trauma Scale (CPOTS)** – Williams et al. [13], adapted to Polish conditions, contains 17 items assessed on a 7-point scale. The scale is used to assess the cognitive processing of trauma in the form of five coping strategies [14]. Cronbach’s alpha coefficients were 0.80, 0.79, and 0.76 for positive strategies, and 0.83, and 0.77 for negative ones.

**Event-Related Rumination Inventory (ERRI)** – Cann et al. [15], in Polish adaptation consists of two subscales of 10-items each. The first subscale allows for the assessment of intrusive thoughts; the second one assesses deliberate ruminations. The respondent assesses on a 4-point Likert-type scale [16]. The scale reliability indexes (Cronbach’s alpha) are high – 0.92 for intrusive ruminations and 0.90 for deliberate ruminations.

## Data analysis strategy

Data analyses were carried out using the SPSS statistical package (version 20). The distributions of the variables were checked for normality based on skewness and kurtosis. Descriptive statistics were calculated, and effect sizes for parametric data were calculated using Pearson’s correlation coefficient or Spearman’s rank R for qualitative data. Exploratory and confirmatory factor analyses were used.

## Results

### Factor structure

The original version of PCL-5 is based on a four-factor model, which is not always confirmed in empirical studies. Thus, the authors of national adaptations usually conduct confirmatory factor analysis to find the model of the best fit. However, an analysis of the internal structure based on factor analysis is also an important way to verify the theoretical validity.

Two samples of 500 subjects were randomly selected from the database. The first set was used to perform exploratory factor analysis, the second one to perform confirmatory factor analysis. First, we verified the assumptions of normal distribution and the strength of correlations between the variables. The Kaiser-Meyer-Olkin (KMO) test and Bartlett's test for sample adequacy were performed. The obtained indicators of sample adequacy justified performing factor analysis. We used principal component analysis with orthogonal rotation. To determine the number of factors, we used the Kaiser Criterion and analyzed the scree plot.

The four-factor solution appeared to be clear and unambiguously interpretable. It also corresponded to the structure of the original PCL-5 version based on DSM-5 diagnostic criteria. Results of principal component analysis with Varimax rotation are presented in Table 2<sup>1</sup>.

Table 2. PCL-5: Factors loadings in explanatory factor analysis

PTSD symptoms		Factor loadings			
		1	2	3	4
B1	Intrusive thoughts		0.80	0.28	
B2	Nightmares	0.26	0.58		
B3	Flashbacks		0.69		0.20
B4	Emotional cue reactivity	0.21	0.74		
B5	Physical cue reactivity	0.31	0.64		0.30
C1	Avoidance of thoughts				0.84
C2	Avoidance of reminders		0.22		0.81
D1	Trauma-related amnesia			0.32	0.32
D2	Negative beliefs			0.79	
D3	Distorted blame		0.33	0.64	
D4	Persistent negative emotional state		0.30	0.67	
D5	Lack of interest	0.39		0.50	
D6	Feeling detached	0.40		0.66	

<sup>1</sup> Factors with loadings lower than 0.20 were omitted in the table

*table continued on the next page*

D7	Inability to experience positive emotions	0.37		0.67	
E1	Irritability/anger	0.56		0.32	0.22
E2	Recklessness/self-destructive behaviour	0.46		0.36	
E3	Hypervigilance	0.67			
E4	Exaggerated startle response	0.64	0.44		
E5	Difficulty concentrating	0.67	0.20	0.33	
E6	Sleep disturbance	0.60	0.25	0.34	

All four factors explained over 58% of the total variance. The first factor – grouping symptoms from criterion E – explained 36% of variance, the next one referring to criterion B symptoms explained almost 11% of variance. The last two factors (each explaining 6 and 5% of variance) grouped symptoms from criterion C and D.

Confirmatory analysis performed on the results from the second subsample justified the four-factor solution. Considering the most popular fit indices (CFI = 0.94; RMSEA = 0.06; AGFI = 0.89; GFI = 0.91), the model can be considered as relatively well-fitted. The lowest loading was observed in the same symptoms as in exploratory factor analysis: B2 (nightmares), D1 (trauma-related amnesia) and E2 (self-destructive behaviour). In other words, the four-factor model allowed to reconstruct the observable correlation matrix and can be considered as relatively well-fitted. Similar results were obtained for the original version of PCL-5 (RMSEA = 0.08; CFI = 0.86 [17]).

Based on the results of the total sample (N = 1,035), the fit of five different PTSD structure models discussed in the literature was also checked [5, 6]. The three-factor model in the DSM-IV combines the symptoms of intrusion, arousal and avoidance in factor 1. The four-factor model corresponds to the structure of PTSD symptoms adopted in DSM-5. The next two models, due to the symptoms introduced into the structure, are called: five-factor – Dysphoric Arousal Model [5], and six-factor – Anhedonia Model [18]. The last seven-factor model – named Hybrid Model [19], was built by coupling several different models.

Using confirmatory factor analysis, we assessed how those models fitted to the data. In all models, factors inter-correlated with each other, while in the four-factor model from 0.70 (avoidance-arousal) to 0.91 (alternation in cognition and emotions – arousal/reactivity) and in the Hybrid Model from 0.61 (externalization of behaviour) to 0.90 (anhedonia – negative emotions). The detailed results of statistical analyses are presented in Table 3.

Table 3. PCL-5 confirmatory factor analyses model results

Models	$\chi^2$	df	SRMSR	RMSEA	GFI	AGFI	AIC	BIC	CFI
Three-factor	1805.47	167	0.047	0.092	0.856	0.819	1.55	1.73	0.899
Four-factor	1065.58	164	0.034	0.066	0.914	0.890	0.95	1.14	0.944
Dysphoric Arousal	981.38	160	0.032	0.063	0.921	0.896	0.89	1.10	0.949

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Anhedonia	848.21	155	0.030	0.059	0.932	0.907	0.79	1.02	0.957
Hybrid	704.52	149	0.028	0.053	0.943	0.920	0.68	0.93	0.966

*Note:* SRMSR – Standardized Root Mean Squared Residual; RMSEA – Root Mean Square Error of Approximation; GFI – Goodness of Fit Index; AGFI – Adjusted Goodness of Fit Index; AIC – Akaike Information Criterion; BIC – Bayesian Information Criterion; CFI – Comparative Fit Index

All the assessed models, except the three-factor model, meet the basic fit requirements. This also applies to the four-factor model corresponding to the symptom structure included in the DSM-5 classification. In the results of the exploratory factor analysis presented earlier, a simple four-factor structure was obtained with several symptoms less related to the D and E criteria. This is also confirmed by weaker associations in the confirmatory analysis of symptoms D1 (Amnesia of traumatic events) with the factor of change in cognitive processes and E2 (Recklessness or self-destructive behaviors) with the arousal and reactivity factor.

The complex structure of the Hybrid Model was the best-fitted. The most commonly used comparison criteria for models – Akaike Information Criterion (AIC) or Schwartz Bayesian Information Criterion (BIC) – prefer the lowest values of estimators, and those were obtained for the seven-factor solution (AIC = 0.68; BIC = 0.93). Our results are in line with other studies [19], that show the preponderance of the Hybrid Model. However, our data also showed that the four-factor DSM-5 Model, which was characteristic for the original version of the PCL-5, satisfied almost all of the required criteria of fit.

### Reliability of the PCL-5

The internal consistency for the general PCL-5 score calculated on the total sample was high (Cronbach's alpha = 0.95). Cronbach's alphas for separate scales were as follows: criterion B = 0.90; criterion C = 0.81; criterion D = 0.90 and E = 0.89. The consistency of the results was established in a test-retest study conducted three weeks apart on a group of 30 people after road accidents. The general  $r_{tt} = 0.81$  coefficient, as well as its components with values from 0.68 to 0.89, indicate high stability of the PCL-5 measurement.

### Validity of PCL-5

Several studies have assessed different types of validity. The high construct validity is demonstrated by the internal structure of PCL-5, presented above based on exploratory and confirmatory factor analysis. The four-factor model (criteria B-E) adopted for PCL-5 meets most of the required fit criteria. The IES-R was used to measure the convergence validity, designed to measure PTSD according to the DSM-IV criteria. In the studied group of persons after amputations (N = 30), the correlation of the PCL-5 results with the IES-R was 0.85, including 0.78 for intrusion, 0.70 for avoidance and 0.84 for arousal (all correlations significant at  $p < 0.001$ ).

To assess the theoretical validity, we compared the results obtained from various groups of respondents whose results should be theoretically different in terms of severity of symptoms. We made such a comparison between the groups who experienced different sources of trauma. We found significant differences in PTSD scores between people who experienced trauma directly (e.g., domestic violence survivors, oncological patients) and those who were occupationally traumatized (firemen, policemen) (see Table 4).

Adaptation to a new reality, changed by the traumatic experience, is connected to cognitive processing of trauma and it is expressed by cognitive coping strategies used by a traumatized person. We assumed that PCL-5 scores would correlate negatively with positive ones, and positively with negative coping strategies measured with CPOTS.

In the study group of motor vehicle accident survivors ( $N = 103$ ), PCL-5 scores negatively correlated with resolution/acceptance ( $r = -0.77$ ) and cognitive restructuring ( $r = -0.59$ ) strategies, and positively with regret and self-blame strategy ( $r = 0.32$ ) (all correlations  $p < 0.01$ ). Among the group of women who experienced domestic violence ( $N = 47$ ), PCL-5 scores correlated significantly with deliberate ruminations ( $r = 0.87$ ) and intrusive thoughts ( $r = 0.74$ ), measured by ERRI. The results described above confirm high convergent and divergent validity of PCL-5.

To assess the criterion-related validity we compared the results of PCL-5 with an external criterion, namely, psychiatric/psychological diagnosis. The group of 60 participants of motor vehicle accident survivors was subjected to psychiatric/psychological tests in connection with participation in psychotherapeutic groups or due to applying for post-accident compensation. PTSD was diagnosed in 53% of the subjects. Correlation coefficient (Spearman's rho) between PCL-5 results and clinical diagnosis was 0.77 ( $p < 0.001$ ).

### PTSD diagnosis

The PCL-5 is designed to measure symptoms related to the exposure to traumatic events. When used in screening tests, it also allows for making a provisional diagnosis of PTSD. It is helpful to refer to the average results of the 10 groups presented in Table 4.

Table 4. PCL-5: comparison of the results of the studied groups

Samples	B. Intrusion		C. Avoidance		D. Negative changes in cognition and emotions		E. Changes in arousal and reactivity		PCL – total score	
	M	SD	M	SD	M	SD	M	SD	M	SD
Survivors of domestic violence	9.86	5.21	4.14	2.35	13.7	7.09	12.2	6.11	37.86	17.15
Motor vehicle accident survivors	10.0	5.54	3.91	2.46	10.5	7.42	11.0	6.48	35.50	19.98

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Cancer patients	7.58	5.04	4.17	2.11	9.35	6.17	8.52	5.70	29.62	17.13
Parents of children suffering from cancer	8.29	4.37	3.17	2.13	9.57	5.62	9.63	5.17	30.66	14.24
Persons hospitalized due to COVID-19	9.02	5.23	3.69	2.41	11.94	6.02	11.63	5.18	36.29	16.97
Persons after amputations	7.57	5.92	3.50	2.63	10.7	7.12	9.32	5.43	31.07	18.35
Paraplegics	6.20	4.60	2.53	1.89	9.02	5.15	8.57	4.72	26.32	14.29
Patients after transplantation	2.61	3.14	0.90	1.31	4.08	4.83	5.81	4.84	13.40	11.95
Policemen	3.32	3.98	1.45	1.89	3.84	4.64	4.60	4.78	13.21	13.72
Firemen	3.25	3.91	1.62	1.93	4.53	4.88	5.06	5.12	14.46	14.27
Total	6.77	4.69	2.91	2.11	8.72	5.89	8.63	5.35	26.84	15.81
Men	5.42	4.65	2.32	2.07	7.05	5.33	7.22	5.21	22.01	14.63
Women	8.44	4.72	3.56	2.19	10.13	6.39	9.84	5.68	31.87	16.69
t-test & p-value	-9.93***		-9.04***		-7.82***		-7.56***		-8.91***	
Younger (up to 35 years)	6.21	4.11	2.70	2.04	8.23	5.92	8.07	5.59	25.26	15.75
Older (over 35 years)	7.63	5.33	3.16	2.20	8.94	5.81	8.99	5.31	28.56	15.46
t-test & p-value	-3.80***		-3.36***		-1.79 ns		-2.20*		-3.06**	

Note. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; ns – non-significant

The highest results were obtained by people who directly experienced trauma, i.e., survivors of domestic violence, persons hospitalized due to COVID-19 and motor vehicle accidents survivors. Subjects occupationally exposed to traumatic events (policemen, firefighters) had the lowest scores of PTSD symptomatology. The differences between the mentioned groups were statistically significant ( $F = 28.69$ ,  $df = 9$ ,  $p < 0.001$ ). The gender relationship with the PCL-5 result turned out to be stronger than with age. Women obtained significantly higher scores than men in each of the four PTSD criteria ( $p < 0.001$ ), while age was mainly related to the B and C criteria, i.e., intrusion and avoidance.

In the differential diagnosis, of great importance is a need to refer to criterion validity and thus, to find the adequate cut-off point that would allow for making optimal diagnostic decisions. Setting the cut-off point is a procedure that takes into account two measures of the quality of the decision rules, i.e., sensitivity and specificity. An alternative procedure for the cut-off point is to assess symptom severity for each of the four PTSD criteria. In order to qualify the subject's result as "probable PTSD", scores

with a value of  $\geq 2$  must refer to at least one of the symptoms of intrusion (criterion B) and avoidance (C) and at least two symptoms expressing changes in the cognitive and emotional sphere (D) as well as in arousal and reactivity (E) [20].

Both of these procedures were tested in the study group of 60 people who survived motor vehicle accidents and underwent psychiatric and psychological examinations. The maximum value of specificity and sensitivity was obtained for the threshold of 33 points (high sensitivity and specificity, 0.90 and 0.82, respectively). The probable diagnosis of PTSD based on the cut-off point 33 was 56.7% of the respondents. However, in the case of the diagnosis based on the results of four criteria, 58.3% of the respondents qualified for the diagnosis of PTSD.

Table 5 presents the results of the classification made on the basis of both the cut-off point and the point value of the PTSD criteria for the studied groups. Overall, 34-35% of the respondents can be diagnosed with PTSD. The proportion of diagnoses is nearly identical for both diagnostic procedures, with a compliance rate of 70%. The highest percentage of PTSD diagnoses concerns victims of domestic violence, and the lowest – people after transplantation and policemen.

Table 5. PTSD diagnosis based on PCL-5 scores

Samples	N	PCL-5 – total score	Criteria B, C, D, E $\geq 2$ points
		$\geq 33$ points	%
Survivors of domestic violence	160	70.62	56.88
Motor vehicle accident survivors	190	52.11	48.95
Cancer patients	60	35.00	51.67
Parents of children suffering from cancer	70	36.92	32.31
Persons hospitalized due to COVID-19	120	56.70	47.50
Persons after amputations	60	48.33	51.67
Paraplegics	60	28.33	35.00
Patients after transplantation	90	10.00	6.67
Policemen	100	10.00	12.00
Firemen	125	16.00	13.60
Total	1035	34.54	33.82

## Discussion of results

The psychometric properties of the Polish adaptation of PCL-5 are satisfactory and correspond to the parameters of both the original [17, 21] and various national versions [22-24]. The conducted research confirmed the diagnostic usefulness of PCL-5 in the Polish population. Women, compared to men, obtained higher results, which is

in line with the results of the American research conducted on a representative sample of 3,000 adults [25]. In general, the severity of PTSD symptoms depends on the type of trauma, which corresponds to the current knowledge on the subject. The highest PCL-5 results were obtained by people who directly experienced trauma in their personal lives, while the lowest results were recorded by people who were professionally exposed to traumatic events.

A cut-off point of 33 was set for the differential diagnosis. In most of the different national versions, the threshold values are 31-33 points [23, 24]. Some researchers suggest adopting a threshold of 38 points [21, 26], and even 48, as in the case of the study in Turkey [27]. In a British study of war veterans, the optimal cut-off point was 34 points [28].

The discussion on the optimally efficient cut-offs for PCL-5 is still on. Researchers and clinicians underline how important it is to understand the circumstances and purpose of using the cut-off values. Some suggested that the threshold point should be higher for some special populations (e.g., veterans, terrorism victims, multiple trauma survivors), whereas others argued in favour of using different cut-offs for different purposes (screening versus clinical diagnosis) [28, 29].

The undoubted advantage of the presented research was that it was carried out on a large sample, which allowed for its random division and the performance of exploratory and confirmatory factor analysis on separate samples. The data analysis also used studies conducted recently concerning patients with COVID-19. An undoubted advantage was also the use of various measurement tools to check the validity of PCL-5.

However, the study carried out has some limitations. First, the samples were not representative. Secondly, despite quite a large representation of people who experienced different types of traumatic events, the research did not include data from other special populations such as soldiers, war veterans, and people who experienced childhood traumas. Including these groups would be desirable in future research.

## Conclusions

The adapted PCL-5 questionnaire is intended for screening tests and enables an initial diagnosis of PTSD. The analysis of the results showed its diagnostic usefulness. The dimensional structure of PTSD remains an open issue. When using PCL-5, we rely on a defined set of items relating to clinically observable symptoms. These symptoms are assigned to a specific multidimensional structure (3-7 factor). It is still difficult to assess whether the results of the applied statistical analyses enable an accurate understanding of the complex relationships between PTSD symptoms in view of the envisaged goal of better treatment approach and improvement of treatment outcomes.

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