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BASIC RESEARCH ARTICLE

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Validation of the International Trauma Interview (ITI) for the Clinical Assessment of ICD-11 Posttraumatic Stress Disorder (PTSD) and Complex PTSD (CPTSD) in a Lithuanian Sample

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ABSTRACT

Background: The 11th revision of the International Classification of Diseases (ICD-11) includes a new diagnosis of complex posttraumatic stress disorder (CPTSD). The International Trauma Interview (ITI) is a novel clinician-administered diagnostic interview for the assessment of ICD-11 PTSD and CPTSD.

Objective: The aim of this study was to evaluate the psychometric properties of the ITI in a Lithuanian sample in relation to interrater agreement, latent structure, internal reliability, as well as convergent and discriminant validity.

Method: In total, 103 adults with a history of various traumatic experiences participated in the study. The sample was predominantly female (83.5%), with a mean age of 32.64 years (*SD* = 9.36). For the assessment of ICD-11 PTSD and CPTSD, the ITI and the self-report International Trauma Questionnaire (ITQ) were used. Mental health indicators, such as depression, anxiety, and dissociation, were measured using self-report questionnaires. The latent structure of the ITI was evaluated using confirmatory factor analysis (CFA). In order to test the convergent and discriminant validity of the ITI we conducted a structural equation model (SEM).

Results: Overall, based on the ITI, 18.4% of participants fulfilled diagnostic criteria for PTSD and 21.4% for CPTSD. A second-order two-factor CFA model of the ITI PTSD and disturbances in self-organization (DSO) symptoms demonstrated a good fit. The associations with various mental health indicators supported the convergent and discriminant validity of the ITI. The clinician-administered ITI and self-report ITQ had poor to moderate diagnostic agreement across different symptom clusters.

Conclusion: The ITI is a reliable and valid tool for assessing and diagnosing ICD-11 PTSD and CPTSD.

Validación de la Entrevista Internacional de Trauma (ITI) para la Evaluación Clínica del Trastorno de Estrés Postraumático (TEPT) y el TEPT Complejo (TEPT-C) de la CIE-11 en una Muestra Lituana

Antecedentes: La 11ª revisión de la Clasificación Internacional de Enfermedades (CIE-11) incluye un nuevo diagnóstico de trastorno de estrés postraumático complejo (TEPT-C). La Entrevista Internacional de Trauma (ITI en su sigla en inglés) es una nueva entrevista diagnóstica administrada por un clínico para la evaluación del TEPT y el TEPT-C de la CIE-11.

Objetivo: El objetivo de este estudio fue evaluar las propiedades psicométricas de la ITI en una muestra lituana en relación con el acuerdo entre evaluadores, la estructura latente, la confiabilidad interna, así como la validez convergente y discriminante.

Método: En total, participaron en el estudio 103 adultos con antecedentes de diversas experiencias traumáticas. La muestra fue predominantemente femenina (83.5%), con una edad media de 32.64 años (*DE* = 9.36). Para la evaluación del TEPT y TEPT-C de la CIE-11, se utilizaron la ITI y el Cuestionario Internacional de Trauma (ITQ en su sigla en inglés) de autoinforme. Los indicadores de salud mental, como la depresión, la ansiedad y la disociación, se midieron mediante cuestionarios de autoinforme. La estructura latente de la

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Entrevista Internacional de Trauma, trastorno de estrés postraumático, trastorno de estrés postraumático complejo, evaluación, CIE-11

关键词
国际创伤访谈, 创伤后应激障碍, 复杂性创伤后应激障碍, 评估, ICD-11

HIGHLIGHTS

- A study in Lithuania showed that the International Trauma Interview is a valid tool for assessing and diagnosing ICD-11 posttraumatic stress disorder (PTSD) and complex PTSD (CPTSD).

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Supplemental data for this article can be accessed here.

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ITI se evaluó mediante análisis factorial confirmatorio (AFC). Para probar la validez convergente y discriminante de la ITI, llevamos a cabo un modelo de ecuaciones estructurales (SEM).
Resultados: En general, según la ITI, el 18.4% de los participantes cumplió con los criterios diagnósticos de TEPT y el 21.4% de TEPT-C. El modelo AFC de dos factores de segundo orden de la ITI de TEPT y los síntomas de trastornos en la autoorganización (DSO) demostraron un buen ajuste. Las asociaciones con varios indicadores de salud mental apoyaron la validez convergente y discriminante de la ITI. La ITI administrada por un clínico y el ITQ autoinformado tuvieron una concordancia de diagnóstico pobre a moderada en diferentes grupos de síntomas.
Conclusión: La ITI es una herramienta fiable y válida para evaluar y diagnosticar TEPT y TEPT-C según la CIE-11.

个立陶宛样本中国际创伤访谈 (ITI) 对 ICD-11 创伤后应激障碍 (PTSD) 和复杂性 PTSD (CPTSD) 临床评估的验证

背景: 第 11 版国际疾病分类 (ICD-11) 纳入了对复杂性创伤后应激障碍 (CPTSD) 的新诊断。国际创伤访谈 (ITI) 是一种评估 ICD-11 PTSD 和 CPTSD的全新临床用诊断访谈。
目的: 本研究旨在评估立陶宛样本中 ITI与评分者之一致性, 潜在结构, 内部信度以及收敛效度和区分效度有关的心理测量学特性。
方法: 共有 103 名有各种创伤经历史的成年人参与了这项研究。样本主要为女性 (83.5%), 平均年龄为 32.64 岁 (*SD* = 9.36) 。对于 ICD-11 PTSD 和 CPTSD 的评估, 使用了 ITI 和自我报告的国际创伤问卷 (ITQ)。使用自我报告问卷测量心理健康指标, 如抑郁, 焦虑和解离。使用验证性因子分析 (CFA) 评估 ITI 的潜在结构。为了检验 ITI 的收敛和区分效度, 我们进行了结构方程模型 (SEM)。
结果: 总体而言, 根据 ITI, 18.4% 的参与者符合 PTSD 诊断标准, 21.4% 符合 CPTSD 诊断标准。ITI PTSD 和自组织障碍 (DSO) 症状的二阶双因子 CFA 模型表现出良好的拟合。与各种心理健康指标的关联支持 ITI 的收敛效度和区分效度。临床用ITI 和自我报告的 ITQ 对不同症状群的有较差到中等的诊断一致性。
结论: ITI 是评估和诊断 ICD-11 PTSD 和 CPTSD 的可靠且有效的工具

1. Introduction

The 11th revision of the International Classification of Diseases (ICD-11) proposed significant changes in trauma-related diagnoses (World Health Organization, 2018a). Complex posttraumatic stress disorder (CPTSD), a sibling disorder to posttraumatic stress disorder (PTSD), was recognized as a distinct psychiatric diagnosis (World Health Organization, 2018a). In the ICD-11, posttraumatic stress disorder is characterized by symptoms of re-experiencing in the present, avoidance, and a heightened sense of current threat that develop following traumatic experiences. For the diagnosis of PTSD, at least one clinically significant symptom from each cluster and significant impairment in social, occupational, or other important areas of functioning are required. In addition to meeting all PTSD criteria, CPTSD encompasses three clusters collectively known as disturbances in self-organization (DSO) symptoms, including affect dysregulation, negative self-concept and disturbances in relationships (World Health Organization, 2018a). Clinical levels of all PTSD and DSO symptoms, as well as functional impairment criteria, have to be present in order to meet diagnostic requirements for CPTSD. An individual can be diagnosed with either PTSD or CPTSD, but not both. The existence of two distinct symptom profiles of PTSD and complex PTSD has been supported in a number of studies across multiple samples (Brewin et al., 2017; Redican et al., 2021). Severe prolonged, multiple or repeated traumatic events from which escape is difficult or impossible are expected to increase the risk for CPTSD (Karatzias et al., 2017; Maercker et al., 2013).

The identification of CPTSD is important so that people suffering from more complex consequences of their traumatic experiences can be recognized, and targeted intervention can be offered (Karatzias & Cloitre, 2019). This is particularly important considering that effective interventions for PTSD may not be necessarily helpful for those with CPTSD (Karatzias et al., 2019). The validation of a clinical interview such as the International Trauma Interview (ITI) will not only enable accurate assessment of ICD-11 PTSD and CPTSD in everyday clinical practice, but it can also be used in research. However, since CPTSD is a new diagnosis, there has been a lack of assessment instruments available that specifically assess ICD-11 CPTSD. The most commonly used self-report measure for the assessment of ICD-11 PTSD and CPTSD is the International Trauma Questionnaire (ITQ; Cloitre et al., 2018). Numerous studies in different countries demonstrated support for the factorial and discriminant validity of PTSD and CPTSD measured using the ITQ (Redican et al., 2021). However, the ITQ is a brief self-report measure that could be useful in screening for PTSD or CPTSD symptoms, but it can be rather limited when a thorough and robust clinical or research-based evaluation of PTSD or CPTSD is required. Diagnostic interviews are conducted and evaluated by a trained interviewer so they are considered to be more diagnostically accurate than self-

report measures (Siqveland, Hussain, Lindstrøm, Ruud, & Hauff, 2017).

The International Trauma Interview (ITI; Roberts, Cloitre, Bisson, & Brewin, 2019) is a new clinician-administered diagnostic interview for ICD-11 PTSD and CPTSD. However, there has been only one study published so far on its validity. This study tested an earlier version of the ITI in a Swedish trauma-exposed community sample (Bondjers et al., 2019). It demonstrated good psychometric properties of the instrument and acceptable fit for a second-order two-factor model consistent with the ICD-11 PTSD and CPTSD formulation. Following the completion of this study, a number of revisions were made to the ITI, based on the feedback of the interviewers and allied collaborators. Revisions included additional prompt questions for DSO items and clearer criteria for making judgements about symptom presence. There is an urgent need to explore the reliability and validity of this latest available version of the ITI. The overall aim of this study was to evaluate the psychometric properties of the revised ITI in a Lithuanian sample with regards to interrater agreement, latent structure, and internal reliability, as well as the evaluation of convergent and discriminant validity. Following the theoretical descriptions and previous research, we hypothesized that (1) the internal reliability and interrater agreement of the ITI would be satisfactory; (2) a second-order two-factor model of the PTSD and DSO symptoms would demonstrate the best fit to the study data; (3) PTSD symptoms would be most strongly associated with measurements of anxiety, and DSO symptoms would be most strongly associated with indicators of difficulties in emotion regulation, lower self-esteem, and problems with avoidance in romantic relationships, as well as depression, dissociative and borderline personality pattern symptoms, and worse general wellbeing; (4) the agreement between the ITI and the ITQ would be satisfactory.

2. Methods

2.1. Participants and procedures

The study was approved by the Vilnius University Psychological Research Ethics Committee. Information about the study was disseminated via social communication platforms (e.g. Facebook). Adults exposed to traumatic experiences were invited to participate in the study. We also shared the information about the study with mental healthcare providers via e-mailing lists and online groups of various organizations and professional associations across all regions of Lithuania. Inclusion criteria for the study were: (1) adults of at least 18 years old, (2) experience of at least one traumatic event during the lifetime, evaluated following the ICD-11 diagnostic guidelines, (3) trauma exposure at least three months prior to the study, (4) substantial knowledge of Lithuanian language. Participants were screened for eligibility for the study by filling in the online registration form. If they met the inclusion criteria, participants were further invited to fill in an online survey using a secure survey platform. All participants provided informed consent at the beginning of the survey. A diagnostic interview was scheduled after the participant completed an online survey. Individual feedback regarding mental health and contact information of mental health services was provided for all participants. Data were collected from October 2020 to June 2021.

All diagnostic interviews were conducted by a team of six clinical psychologists or a supervised master's student in clinical psychology who were all trained by one of the co-authors of the ITI (NR) in how to administer and score the ITI. Interviewers were supervised over the course of the study by NR regarding the general coding issues of the ITI for more complex cases. Regular team meetings to discuss the general ITI coding issues were organized to ensure accurate administration and scoring of the ITI interviews. The interviewers were blinded to the survey data provided by the participants. Due to restrictions related to the COVID-19 (severe acute respiratory syndrome coronavirus 2, SARS-CoV-2) pandemic, all interviews were conducted via video-conferencing. Interviews with the participants who gave their consent were video-recorded (98% of the total sample).

Overall, 192 participants registered to participate in this study. In the process of recruitment and data collection, 89 participants were excluded for the following reasons: for 29.7% of the registered participants, the index event did not meet the ICD-11 criteria for a PTSD/CPTSD qualifying traumatic event, and 16.7% refused to participate or could not be reached before or after completing the survey. The final sample included in the analysis comprised 103 participants, aged 32.64 years (SD = 9.36, range = 18–54), 83.5% female, mostly of Lithuanian (91.3%) nationality. The majority of participants were living in an urban area (94.2%), and had a university degree (77.7%). Almost half were employed (49.5%), 15.5% were studying and working part-time, and 14.6% were students. Around half of the participants were in a long-term relationship (45.6%). Nearly half of the sample were receiving mental health services from a psychologist or a psychiatrist (47.6%), more than a third had been seeing a mental health professional >12 months ago (33.0%), and 19.4% had never received mental health services.

2.2. Measures

2.2.1. The International Trauma Interview (ITI)

The ITI is a semi-structured clinical interview comprised of the description of an index traumatic event followed by two main parts for the assessment of ICD-11 PTSD and DSO symptoms (Roberts et al., 2019). The structure of the first section of the ITI is based on the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) (Weathers et al., 2013a) and includes three PTSD symptom clusters with two items per cluster: (1) nightmares or flashbacks as re-experiencing (Re) symptoms; (2) avoidance of internal or external reminders of traumatic experience (Av); and (3) hypervigilance or startle reactions as a current sense of threat (Th). The frequency and intensity of each PTSD symptom over the last month were evaluated on a five-point scale from 0 = 'Absent' to 4 = 'Extreme/incapacitating'. The first section also includes functional impairment questions concerning the impact of PTSD symptoms on a person's social functioning, and occupational functioning or other important areas of life. Functional impairment items are scored from 0 = 'No adverse impact' to 4 = 'Extreme impact, little or no functioning'.

The second section of the ITI includes three DSO symptom clusters with two items per cluster: (1) hyper- (heightened emotional reactions) or hypo-activation (emotional numbing or dissociation) as affective dysregulation when confronted with minor stressors (AD); (2) persistent feelings of being a failure or worthless as negative self-concept (NSC); and (3) persistent feelings of being distant from others or having difficulties in maintaining close relationships as disturbances in relationships (DR). The frequency and intensity of each DSO symptom was assessed on a five-point scale from 0 = 'Not at all' to 4 = 'Extremely'. The ITI provides guidelines for the evaluation of the severity of each symptom. The second section also includes functional impairment items on the impact of the DSO symptoms on a person's social functioning, and occupational functioning or other important areas of life. To be included as part of the CPTSD diagnosis, the DSO symptoms need to be identified as having started or gotten worse after exposure to a traumatic event.

For the endorsement of a PTSD diagnosis, at least one PTSD symptom per symptom cluster must be present for no less than several weeks at least at a moderate level (i.e. severity score ≥ 2), and with at least moderate impact on respondents' occupational or social functioning (i.e. severity score ≥ 2). The DSO criterion is endorsed if at least one DSO symptom per symptom cluster is present at least moderately for at least 3 months with at least moderate functional impairment. For endorsement of a CPTSD diagnosis, full PTSD criteria, and all DSO symptom clusters, as well as DSO-related functional impairment must be endorsed. The total ITI score may range from 0 to 24 for each PTSD and DSO part, and from 0 to 48 for the total CPTSD.

Additionally, the ITI includes a validity question that is not included in the total scoring but is relevant for diagnostic procedures. The general validity has to be evaluated by an interviewer on a scale from 'Excellent' (=0) to 'Invalid responses' (=4). In the current study, the validity of the interviews was scored from 'Excellent' (=0) to 'Fair' (=2). The ITI can be administered and scored only by a trained clinician or researcher who has completed the ITI training. The ITI administration typically ranges from 30 to 90 minutes, depending on the complexity of the case. The ITI is currently under evaluation and is only available for researchers engaged in the validation process. The final version of the ITI will be available for researchers and clinicians after validation has been completed.

The Lithuanian version of the ITI was translated from English by EK, MK and OG. It was then back-translated by an independent translator before being approved by the authors of the ITI.

2.2.2. International Trauma Questionnaire (ITQ)

The ITQ is a self-report screening instrument for ICD-11 PTSD and CPTSD (Cloitre et al., 2018) that has been commonly used in trauma research over the last few years (Redican et al., 2021). The structure of the ITQ is similar to that of the ITI. It consists of a brief description of the index traumatic event that is followed by two sections – the evaluation of PTSD and DSO symptoms. The PTSD section includes three symptom clusters consisting of two items: re-experiencing in the present (Re), avoidance (Av), and sense of threat (Th), and functional impairment items associated with these symptoms on occupational, social functioning, and other important areas of life. Respondents are instructed to indicate how much they have been bothered by each of the PTSD symptom in the past month, considering the index traumatic event. The DSO section includes three symptom clusters consisting of two items: affect dysregulation (AD), negative self-concept (NSC), and disturbed relationships (DR) as well as items measuring the impact of the DSO symptoms on occupational, social functioning, and other important areas of life. A set of DSO questions reflect how participants typically feel, think about themselves, and relate to others. All symptoms are evaluated on a five-point scale from 0 = 'Not at all' to 4 = 'Extremely'. Based on the ITQ diagnostic algorithm (Cloitre et al., 2018), probable PTSD is endorsed when at least one symptom from all PTSD symptom clusters and at least one PTSD-related functional impairment item is scored ≥2. Probable CPTSD is endorsed if all the PTSD criteria are met, and at least one symptom in every DSO symptom cluster, as well as at least one DSO-related functional impairment item is scored ≥2.

Multiple studies across many countries, including Lithuania, have demonstrated sufficient factorial validity and good psychometric characteristics of the ITQ (Kazlauskas, Gegieckaite, Hyland, Zelviene, & Cloitre, 2018; Redican et al., 2021). The Cronbach's alpha coefficients of the total ITQ (α = .93), as well as PTSD (α = .86) and DSO (α = .89) symptom clusters in the present study were good.

2.2.3. Life Events Checklist-Revised (LEC-R)

The LEC (Weathers et al., 2013b) revised version was used for trauma exposure assessment. The LEC-R is a 19-item self-report measure listing various potentially traumatic experiences with one item for any other probable traumatic experience. Two additional items of the revised version of the LEC specifically inquire about childhood trauma (Ben-Ezra et al., 2018). Each item is evaluated as 'Happened to me', 'Witnessed it', 'Learned about it', 'Not sure' or 'Doesn't apply'. A traumatic event is endorsed as experienced if it happened to the respondent, or the respondent witnessed or learned about it. The LEC-R was used for screening for eligibility for participation in the study and to evaluate index traumatic event for the ITI and the ITQ assessments. The Lithuanian version of the LEC-R was used in previous studies (Truskauskaite-Kuneviciene et al., 2020).

2.2.4. Patient Health Questionnaire-9 (PHQ-9)

The PHQ-9 is a widely-used nine-item self-report measure for the assessment of depression (Kroenke, Spitzer, & Williams, 2001). Items are based on the DSM-IV diagnostic criteria for depression, with the evaluation on how often each symptom has bothered a person over the last two weeks, on a four-point scale from 0 = 'Not at all' to 3 = 'Nearly every day'. The maximum score for the PHQ-9 is 27, with higher scores representing a more severe risk for depression. In previous studies, the PHQ-9 demonstrated good psychometric properties (Biliunaite et al., 2021; Kroenke, Spitzer, Williams, & Löwe, 2010). In the current study, the Cronbach's alpha of the PHQ-9 was .89.

2.2.5. Generalized Anxiety Disorder-7 (GAD-7)

The GAD-7 is a seven-item self-report questionnaire for the screening of generalized anxiety symptoms (Spitzer, Kroenke, Williams, & Löwe, 2006). Respondents report how often each symptom has bothered them over the last two weeks, on a four-point scale from 0 = 'Not at all' to 3 = 'Nearly every day'. Higher scores represent a higher risk for generalized anxiety. This measure displayed very good psychometric properties in previous research (Biliunaite et al., 2021; Kroenke et al., 2010). In this study, Cronbach's α for the GAD-7 was also good (α = .89).

2.2.6. World Health Organization Well-Being Index (WHO-5)

The WHO-5 is a five-item self-report scale that assesses subjective psychological well-being over the last two weeks (WHO Regional Office Europe, 1998). Each item is evaluated on a six-point scale, ranging from 0 = 'At no time' to 5 = 'All of the time'. The raw WHO-5 score ranging from 0 to 25 is multiplied by 4 so the range of the final WHO-5 index score ranges from 0 to 100, with higher scores indicating better well-being (Topp, Østergaard, Søndergaard, & Bech, 2015). The WHO-5 is widely used in research with adequate validity as a screening tool (Biliunaite et al., 2021; Topp et al., 2015). In the current study, Cronbach's α for the WHO-5 was acceptable (.79).

2.2.7. Difficulties in Emotion Regulation Scale (DERS)

The DERS is a thirty-six-item self-report questionnaire for evaluating clinically relevant difficulties in emotion dysregulation (Gratz & Roemer, 2004). The DERS assesses emotional difficulties, such as non-acceptance of emotional responses, difficulty engaging in goal-directed behaviour, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies, and lack of emotional clarity. Each item is evaluated on a five-point scale, ranging from 1 = 'Almost never' to 5 = 'Almost always'. Higher scores of the overall DERS suggest greater problems with emotion regulation. The DERS showed good psychometric properties in other studies (Gegieckaite & Kazlauskas, 2020; Lee, Witte, Bardeen, Davis, & Weathers, 2016; Šeibokaitė, Endriulaitienė, Sullman, Markšaitytė, & Žardeckaitė-Matulaitienė, 2017). In this study, the Cronbach's alpha coefficient of the DERS was .95.

2.2.8. Experience in Close Relationship Scale – Short Form (ECR-S)

The ECR-S is a 12-item self-report measure used to assess adults' attachment dimensions (Wei, Russell, Mallinckrodt, & Vogel, 2007). The measure consists of two subscales: attachment anxiety and attachment avoidance, which measure anxious and avoidant attachment styles. The ECR-S items are related to how, in general, an individual feels in romantic relationships, with the evaluation for each item on a seven-point scale, ranging from 1 = 'Strongly disagree' to 7 = 'Strongly agree', with four reversed items. Previous studies showed acceptable psychometric properties of the ECR-S (Wei et al., 2007). The Cronbach's alpha coefficients of the ECR-S anxiety (α = .83) and avoidance (α = .71) subscales in the present study were acceptable.

2.2.9. Borderline Pattern Scale (BPS)

The BPS is a 12-item self-report measure for the borderline personality pattern qualifier, newly presented in the ICD-11. The BPS assesses components of borderline personality functioning, such as person's affective instability, maladaptive self-functioning, maladaptive interpersonal functioning, and maladaptive regulation strategies (Oltmanns & Widiger, 2019). Individuals are asked to respond to the items on how they feel or behave on a five-point scale, ranging from 1 = 'Strongly disagree' to 5 = 'Strongly agree'. The BPS displayed good psychometric properties in previous research (Oltmanns & Widiger, 2019). In this study, the Cronbach's alpha coefficient (α = .82) of the scale was also good.

2.2.10. Rosenberg Self-Esteem Scale (RSES)

The RSES is a 10-item self-report measure used to assess a person's subjective worthiness as a human being (Rosenberg, 1965). All items were rated on a four-point scale, ranging from 1 = 'Strongly disagree' to 4 = 'Strongly agree', half of the items are reverse-coded. Higher scores of the RSES indicate higher self-esteem. Internal reliability of the RSES varies from acceptable to excellent across different cultures (Schmitt & Allik, 2005). The Cronbach's alpha coefficient in the current study (α = .88) was good.

2.2.11. Dissociative Symptoms Scale (DSS)

The DSS is a 20-item self-report measure aimed at assessing dissociative symptoms during the last week, such as depersonalization, derealization, gaps in awareness of memory, and dissociative re-experiencing (Carlson et al., 2018). All items were evaluated on a five-point scale, ranging from 'Not at all' (0) to 'More than once a day' (4). Higher scores indicate more intense dissociative symptoms. Previous studies demonstrated good psychometric properties of the DSS scale (Carlson et al., 2018). In the current study, Cronbach's α of the DSS was excellent (α = .93).

3. Data analysis

The analytical strategy for the current study included several steps. First, descriptive statistics, diagnostic rates, and interrater agreement of the International Trauma Interview were calculated. Next, we tested the latent structure of the ITI using confirmatory factor analysis (CFA). Two alternative model solutions, usually demonstrating the best fit for the ITQ data (Redican et al., 2021), were assessed to determine the fit of each model. The single factor model acted as a comparison model (see Figure 1). Furthermore, to test the convergent and discriminant validity of the ITI we conducted a structural equation model (SEM) where the best-fitting ITI factor structure (identified in the previous step) predicted sum scores of the ITQ, PHQ-9, GAD-7, DERS, DSS, BPS, RSES, ECR-S, and WHO-5 (observed variables in the SEM model) while controlling for the association between PTSD and DSO, as well as for the covariates of age and gender. Age and gender were also included in the model as predictors of the ITI factors. Finally, we tested agreement between the clinician-rated ITI and the self-report ITQ.

CFA and SEM analyses were conducted with the Mplus 8.2 version (Muthén & Muthén, 2017). The robust weighted least squares estimator (WLSMV) based on the polychoric correlation matrix of latent continuous response variables was used in the analyses as it produces correct parameter estimates, standard errors and test statistics for ordinal level indicators in a CFA context (Flora & Curran, 2004). The model fit analyses were evaluated by using the Comparative Fit Index (CFI), Tucker–Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA), following the goodness of fit recommendation provided by Kline (2011). Namely, CFI/TLI values higher than .90 indicated an acceptable fit, and values higher than .95 represented a very good fit; RMSEA values below .08 indicated an acceptable fit, and values less than .05 suggested a good fit. To determine significant

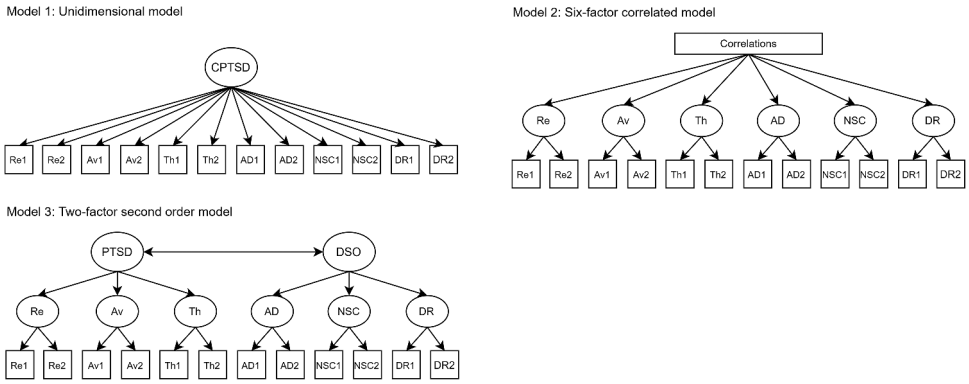

Figure 1. Alternative model solutions of the latent structure of ICD-11 PTSD and CPTSD symptoms. Note. PTSD = Posttraumatic Stress Disorder, DSO = Disturbances in Self-Organization, CPTSD = Complex Posttraumatic Stress Disorder, Re = Re-experiencing, Av = Avoidance, Th = Sense of current threat, AD = Affect dysregulation, NSC = Negative-self-concept, DR = Disturbed relationships.

differences between the alternative CFA models, we assessed changes in the RMSEA as it includes penalties for model complexity; Δ RMSEA ≥ .015 values indicate significant changes in the fit of the compared models (Chen, Curran, Bollen, Kirby, & Paxton, 2008). Overall, the models were judged on the basis of fit statistics, and parsimony, and theoretical consistency.

Krippendorff's alpha (α) test was used to evaluate interrater agreement (Hayes & Krippendorff, 2007). It was examined for videotaped interviews (11% of the sample selected randomly) that were independently double-coded by the second coder. Three main interviewers of the study (OG, MK and AK) conducted the second coding for randomly assigned interviews. Krippendorff's alpha above .80 is recommended (Hayes & Krippendorff, 2007). Also, composite reliability of the ITI factors based on the estimated factor loadings of the best fitting model was calculated; values above .60 represent acceptable internal reliability (Raykov, 1997).

Cohen's kappa (κ) was calculated to measure the diagnostic consistency across the ITI and the ITQ, as well as the endorsement of each symptom cluster. Values from 0 to .20 indicate poor/slight agreement, .21 to .40 – fair agreement, .41 to .60 – moderate agreement, .61 to .80 – substantial agreement, and .81 to 1 – almost perfect or perfect agreement (Landis & Koch, 1977). Furthermore, to assess the degree that the ITI and the ITQ provided consistency in their observed PTSD and DSO subscale scores across subjects we calculated intraclass correlation coefficients (ICC) based on a single rater, consistency and 2-way random-effects model. Guidelines (Koo & Li, 2016) classify ICC of .50 as poor, .50 – .75 as moderate, .75 – .90 as good, and .90 to 1 as excellent. IBM Statistics ver. 26 was used for the interrater agreement, composite reliability, and diagnostic consistency estimations.

4. Results

4.1. Trauma exposure, PTSD, and CPTSD in the sample

The index traumatic event most often experienced as the worst by the participants among the study sample was physical abuse in childhood (n = 21, 20.4%). Other participants reported having experienced sudden violent death of a person close to them (n = 15, 14.6%), sexual abuse in adulthood (n = 15, 14.6%), unwanted sexual experiences in childhood (n = 13, 12.6%), sexual abuse in childhood (n = 12, 11.7%), accident (n = 6, 5.8%), assault (n = 5, 4.9%), physical abuse in adulthood (n = 2, 1.9%), unwanted sexual experiences in adulthood (n = 2, 1.9%) or other traumatic experience (n = 7, 6.8%). 4.9% (n = 5) of the participants reported being affected by multiple childhood traumas.

The analysis of scored ITI interviews showed that 19 (18.4%) participants fulfilled diagnostic criteria for PTSD and 22 (21.4%) for CPTSD. Percentages reflecting endorsement of each ITI symptom can be found in supplementary Table S1. Descriptive statistics for the ITI and other measures are presented in Table 1. The interrater agreement for videotaped interviews (n = 11) was good (Krippendorff's α = .89).

4.2. Factorial validity and composite reliability

The fit statistics for the three alternative models of the ITI are presented in Table 2. Both Model 2 (six-factor correlated model) and Model 3 (two-factor second-order model) met the CFI, TLI and RMSEA criteria. Model 2 and Model 3 (Δ RMSEA = .013) did not differ significantly in terms of fit. Model 3 was chosen as demonstrating the best fit as it is less susceptible to problems of multicollinearity than Model 2 (the first-order model) and more parsimonious as well as most consistent theoretically.

Standardized factor loadings for the best fitting ITI CFA model are presented in Supplementary Table S2. All loadings for the first- and second-order PTSD and DSO factors from Model 3 were positive, ranging from moderate to high and statistically significant. The standardized factor loadings of the first-order Re and AD factors on the second-order PTSD and DSO factors, respectively, were greater than 1.0. However, this can be observed in the case of multicollinearity and does not show that the model is mis-specified (Deegan, 1978). The standardized factor correlation between PTSD and DSO was .71 (p < .001). The estimates of composite reliability derived from the model estimates indicated acceptable levels of internal reliability for both second-order factors: PTSD (.88) and DSO (.92).

4.3. Convergent and discriminant validity

4.3.1. Associations between ITI and other measures

Correlations among study variables are presented in supplementary Table S3. The SEM model (χ^2 (177) = 215.46, p = .026, RMSEA (90% CI) = .046 (.017, .066), CFI/TLI = .976/.960) revealed that younger age was associated with higher levels of PTSD symptoms (β = −.26, p = .014). No significant links were found between PTSD and gender, nor between DSO and gender or age. The associations between the ITI latent factors and other measured mental health indicators are presented in Table 3. The ITI PTSD factor was significantly positively associated with depression, generalized anxiety, symptoms of the borderline personality pattern, dissociative symptoms, and negatively associated with anxiety in relationships. The ITI DSO factor was significantly positively associated with depression, borderline personality pattern symptoms, difficulties in emotion

Table 1. Descriptive statistics of the study variables.

	Total sample (N = 103)	No diagnosis (n = 62)	PTSD (n = 19)	CPTSD (n = 22)
	Mean (*SD*)	Mean (*SD*)	Mean (*SD*)	Mean (*SD*)
ITI total	13.22 (8.57)	8.02 (5.39)	16.89 (3.83)	24.73 (5.36)
PTSD	6.53 (4.47)	3.61 (2.63)	10.68 (1.83)	11.18 (3.26)
DSO	6.69 (5.25)	4.40 (4.28)	6.21 (2.86)	13.55 (2.96)
Re-experiencing	1.75 (1.64)	0.66 (0.79)	3.37 (1.01)	3.41 (1.26)
Avoidance	2.61 (1.86)	1.68 (1.62)	3. 95 (1.08)	4.09 (1.31)
Sense of threat	2.17 (1.78)	1.27 (1.43)	3.37 (1.21)	3.68 (1.46)
Affect dysregulation	2.06 (1.41)	1.45 (1.18)	2.47 (1.07)	3.41 (1.18)
Negative self-concept	2.27 (2.19)	1.45 (1.80)	1.89 (1.49)	4.91 (1.60)
Disturbed relationships	2.36 (2.58)	1.50 (2.27)	1.84 (2.09)	5.23 (1.60)
ITQ total	25.63 (10.70)	20.16 (8.60)	32.11 (8.43)	35.45 (7.28)
PTSD	12.63 (6.16)	10.02 (5.27)	16.32 (4.76)	16.82 (5.76)
DSO	13.00 (5.87)	10.15 (4.89)	15.79 (4.78)	18.64 (3.72)
PHQ-9	13.41 (6.73)	10.29 (5.46)	17.11 (5.79)	19.00 (5.51)
GAD-7	11.15 (5.32)	8.79 (4.43)	13.95 (4.34)	15.36 (4.71)
DERS	102.50 (24.60)	92.73 (22.31)	112.68 (20.47)	121.27 (19.72)
DSS	13.50 (13.02)	7.18 (6.40)	19.21 (12.12)	26.41 (16.02)
BPS	34.64 (8.20)	32.08 (7.56)	36.74 (7.36)	40.05 (7.79)
RSES	24.83 (5.91)	26.94 (5.38)	22.74 (5.79)	20.73 (4.71)
ECR-S Anxiety	27.97 (8.70)	27.87 (8.40)	26.37 (9.71)	29.64 (8.76)
ECR-S Avoidance	20.36 (7.16)	19.11 (6.92)	19.63 (6.59)	24.50 (7.04)
WHO-5	33.71 (15.55)	39.10 (14.16)	28.84 (14.02)	22.73 (13.77)

PTSD = Posttraumatic Stress Disorder, CPTSD = Complex Posttraumatic Stress Disorder, DSO = Disturbances in Self-Organization, ITI = International Trauma Interview, ITQ = International Trauma Questionnaire, PHQ-9 = Patient Health Questionnaire-9, GAD-7 = Generalized Anxiety Disorder-7, DERS = Difficulties in Emotion Regulation Scale, DSS = Dissociative Symptoms Scale, BPS = Borderline Pattern Scale, RSES = Rosenberg Self-esteem Scale, ECR-S = Experience in Close Relationships Scale – Short Form, WHO-5 = WHO-5 Well-being Index.

regulation, as well as anxiety and avoidance in relationships. It was also negatively associated with self-esteem and general well-being.

4.3.2. Agreement between the ITI interview and the self-report ITQ

The latent ITI PTSD factor was significantly associated with both ITQ PTSD and DSO symptom scores, although the association with the ITQ PTSD factor was stronger (see Table 3). The ITI DSO factor was significantly associated with the ITQ DSO score. The ICC coefficient between the ITI and ITQ for the PTSD score was .60, for the DSO score the ICC was .66, and for the total score, it was .69, denoting moderate consistency between the self-report ITQ and the ITI interview scores. The results on the consistency between separate PTSD and DSO symptom clusters are presented in Table 4. Agreement of the endorsement of PTSD, DSO and CPTSD criteria based on the ITI and the ITQ was also examined (see Table 4). The Kappa coefficient of agreement for DSO (κ = .38) and CPTSD (κ = .33) criteria was fair. For PTSD criteria, with both, PTSD and CPTSD cases included, the agreement was moderate (κ = .49), but if CPTSD cases were excluded the agreement was poor (κ = −.08). We also checked the agreement between the ITI and ITQ endorsement for separate symptom clusters. For most of the clusters the agreement was fair, but for sense of threat and affect dysregulation it was poor. For the PTSD re-experiencing symptom cluster it was moderate.

Table 2. Model fit statistics for the tested models of the International Trauma Interview (N = 103).

Model	χ^2 (*df*)	*p*	CFI	TLI	RMSEA (90% *CI*)
1	224.49 (54)	<.001	.909	.889	.175 (.152 – .199)
2	33.78 (39)	.706	1.000	1.005	.000 (.000 – .054)
3	**47.79 (47)**	**.441**	**1.000**	**.999**	**.013 (.000 – .066)**

χ^2 = Chi-Square Goodness of Fit statistics, *df* = degrees of freedom, *p* = statistical significance, CFI = Comparative Fit Index, TLI = Tucker–Lewis Index, RMSEA (90% CI) = Root Mean Square Error of Approximation with 90% confidence intervals. Best fitting model is in bold.

5. Discussion

The aim of this study was to explore the psychometric properties of the latest version of the International Trauma Interview (ITI) for the assessment of the ICD-11 PTSD and CPTSD, in a Lithuanian sample. Until recently, the ITI has been the only available diagnostic interview for clinical assessment of the ICD-11 PTSD and CPTSD. A Complex PTSD item set additional to the CAPS (COPISAC) have recently been proposed (Lechner-Meichsner & Steil, 2021) but it has not been empirically evaluated yet. The current study is the first to comprehensively explore the factor structure as well as convergent and discriminant validity of the ITI with a self-report ICD-11 PTSD and CPTSD measure included in the analysis. The ITI has only thus far been evaluated in a Swedish community sample (Bondjers et al., 2019) which showed promising findings for an earlier version of the measure, however, our study extends the findings of the study by providing additional evidence for the validity and clinical utility of the current version of the ITI.

The factorial validity of the ITI in our sample echoed CFA studies of the ITQ, a self-report measure

Table 3. Standardized regression coefficients between PTSD and DSO, and other measured variables.

	ITQ PTSD	ITQ DSO	PHQ-9	GAD-7	DERS	DSS	BPS	RSES	ECR-S Anx.	ECR-S Avoid.	WHO-5
ITI PTSD	.91***	.23*	.30**	.48***	.25	0.70***	.28*	−.20	−.29*	.02	−.14
ITI DSO	−.23	.57***	.48***	.19	.39**	0.05	.36**	−.36**	.42**	.37**	−.53***
Age	.16	−.04	.00	−.07	−.08	−.04	−.08	0.26**	−.27*	.13	.00
Gender	−.13	.01	−.07	.00	.07	−.05	.04	0.07	.04	−.10	.05
R^2	.54***	.56***	.51***	.41***	.38***	.54***	.37***	.36***	.13	.16**	.40***

These are the results of the SEM model exploring associations between the ITI latent factors and other mental health indicators included in the model as observed variables. The associations in the model were adjusted for age and gender.

ITI = International Trauma Interview, PTSD = Posttraumatic Stress Disorder, DSO = Disturbances in Self-Organization, ITQ = International Trauma Questionnaire, PHQ-9 = Patient Health Questionnaire-9, GAD-7 = Generalized Anxiety Disorder-7, DERS = Difficulties in Emotion Regulation Scale, DSS = Dissociative Symptoms Scale, BPS = Borderline Pattern Scale, RSES = Rosenberg Self-esteem Scale, ECR-S = Experience in Close Relationships Scale – Short Form, Anx. = Anxiety, Avoid. = Avoidance, WHO-5 = WHO-5 Well-being Index.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 4. Agreement and consistency between the ITI and the ITQ.

Symptom cluster	ITI % endorsing	ITQ % endorsing	κ (95% *CI*)	*p*	ITI Mean (*SD*)	ITQ Mean (*SD*)	ICC (95% *CI*)
Re-experiencing	47.6%	61.2%	.50 (.34, .66)	<.001	1.75 (1.64)	3.17 (2.50)	.59 (.45, .70)
Avoidance	63.1%	75.7%	.35 (.16, .54)	<.001	2.61 (1.86)	4.37 (2.67)	.44 (.27, .58)
Sense of threat	58.3%	91.3%	.10 (−.03, .23)	.113	2.17 (1.78)	5.10 (2.13)	.38 (.20, .53)
Affect dysregulation	58.3%	93.2%	.19 (.06, .31)	.001	2.06 (1.41)	4.10 (1.85)	.54 (.38, .66)
Hyperactivation	52.4%	90.3%	.17 (.05, .29)	.005	1.49 (0.97)	2.69 (0.97)	.45 (.29, 60)
Hypoactivation	17.5%	45.6%	.32 (.17, .47)	<.001	0.57 (0.85)	1.41 (1.41)	.46 (.29, .60)
Negative self-concept	36.9%	68.0%	.29 (.15, .44)	<.001	2.27 (2.19)	4.37 (2.62)	.56 (.41, .68)
Disturbed relationships	41.7%	76.7%	.29 (.15, .42)	<.001	2.36 (2.58)	4.53 (2.52)	.58 (.44, .70)
PTSD (CPTSD cases included)	39.8%	49.5%	.49 (.33, .66)	<.001	6.53 (4.47)	12.63 (6.16)	.60 (.46, .71)
PTSD (CPTSD cases excluded)	18.4%	10.7%	−.08 (−.22, .06)	.397	-	-	-
DSO	28.2%	54.4%	.38 (.23, .53)	<.001	6.69 (5.25)	13.00 (5.87)	.66 (.54, .76)
CPTSD	21.4%	38.8%	.33 (.15, .51)	<.001	13.22 (8.57)	25.63 (10.70)	.69 (.58, .78)

ITI = International Trauma Interview, ITQ = International Trauma Questionnaire, PTSD = Posttraumatic Stress Disorder, CPTSD = Complex Posttraumatic Stress Disorder, DSO = Disturbances in Self-Organization, ICC = Intraclass correlation coefficient.

for the ICD-11 PTSD and DSO. In our study, two PTSD and DSO symptom structure models had the best fit, namely, a model of six correlated first-order factors and a second-order two-factor model of the PTSD and DSO symptoms. We chose the latter model as superior on the grounds of theoretical consistency with the ICD-11 definition for posttraumatic stress disorders, as well as parsimony. Studies investigating the factor structure of the ITQ also showed similar results with both models demonstrating acceptable model fit (Ho et al., 2019; Karatzias et al., 2016; Kazlauskas et al., 2018; Redican et al., 2021). Moreover, the two second-order factor model was found as the best fitting factor structure of the ITI in a Swedish sample (Bondjers et al., 2019) in line with our study. These consistent findings from different studies show that the distinction of the second-order factors of PTSD and DSO is not a requirement, but more theoretically consistent and therefore useful in research and clinical practice.

Based on the scoring of the ITI, the prevalence of PTSD in the current sample was 18.4%, and for CPTSD it was 21.4%. In studies with general population samples, the prevalence rates of ICD-11 PTSD and CPTSD vary from 1.5% to 9.0% for PTSD, and from 0.5% to 7.7% for CPTSD (Ben-Ezra et al., 2018; Cloitre et al., 2019; Hyland et al., 2021; Maercker, Hecker, Augsburger, & Kliem, 2018). In clinical samples, the rates are higher and CPTSD is often a more common condition than PTSD (Hyland et al., 2017 ; Vallières et al., 2018). Kvedaraite, Gelezelyte, Karatzias, Roberts, and Kazlauskas (2021) found that the prevalence among the participants from outpatient mental health centres in Lithuania was 13.9% for PTSD and 10.0% for CPTSD. Our sample was self-referred, but partly enabled by the mental health service providers. Over 80% of the study participants reported ongoing or previous experience of the use of mental health services, so our study sample is comparable to clinical sample studies. Furthermore, our sample was a trauma-exposed sample as well since we interviewed participants with experience of traumatic events only.

The discriminant and convergent validity of the ITI was overall supported by the findings of our study. We found that the latent PTSD factor was associated with generalized anxiety, depression, dissociative symptoms, and symptoms of borderline personality pattern. The latent DSO factor was linked with depression, worse general well-being, symptoms of borderline personality pattern, difficulties in emotion regulation, lower self-esteem, and problems with anxiety and avoidance in romantic relationships. Associations with the depression and borderline personality pattern symptoms were stronger for the DSO factor, in comparison to the PTSD factor.

Previous studies reported associations of anxiety symptoms with both PTSD and CPTSD (Facer-Irwin, Karatzias, Bird, Blackwood, & MacManus, 2021; Hyland et al., 2021). As PTSD is often viewed

as a fear-based disorder (Bisson, 2013), strong associations between posttraumatic stress symptoms and general anxiety are to be expected. Studies with the ITQ also show the relationship of depressive symptoms with both PTSD and CPTSD, with stronger associations with CPTSD (Hyland et al., 2021). We also found a negative association between the DSO symptoms and general well-being. Other studies also found that individuals with CPTSD tend to have a higher psychiatric burden and lower levels of psychological well-being compared to those with PTSD and those with no trauma-related diagnosis (Cloitre et al., 2018; Karatzias, Hyland, Ben-Ezra, & Shevlin, 2018). One would anticipate that DSO symptoms would be more strongly associated with enduring changes in self-organization (Bondjers et al., 2019). Associations of the DSO factor with difficulties in emotion regulation, lower self-esteem, and problems in relationships with romantic partners in the current study confirm the validity of the ITI as being able to detect problems in self-organization described in the ICD-11.

The distinction between CPTSD and borderline personality disorder (BPD) has been much debated over the last years (Karatzias & Levendosky, 2019). Research shows that PTSD, CPTSD, and BPD are distinct but potentially comorbid syndromes (Ford & Courtois, 2021; Frost, Hyland, Shevlin, & Murphy, 2020). In the current study, we found borderline pattern symptoms to be related to both PTSD and DSO, although the association between borderline symptoms and the DSO factor was stronger. Additionally, contrary to what had been hypothesized, the analysis showed that dissociative symptoms were significantly related to the PTSD factor but not to the DSO factor. This was despite observations that CPTSD is often accompanied by dissociative experiences such as voice-hearing (Brewin, 2020). Some studies also show that people with CPTSD have higher levels of dissociative experiences compared to those with PTSD and those with no trauma-related diagnosis (Hyland, Shevlin, Fyvie, Cloitre, & Karatzias, 2020). Bondjers et al. (2019) found that the ITI DSO, but not the PTSD factor was associated with dissociative experiences.

Other research shows that dissociation can be related to symptoms of both PTSD and DSO. For example, some studies found that the CPTSD symptom clusters of re-experiencing, affective dysregulation, and disturbed relationships were independently associated with dissociative experiences (Hyland et al., 2020). In the ITI, the symptom cluster of affective dysregulation can be either endorsed if a person had been experiencing affective hyperactivation or deactivation, or both. In our sample the hyperactivation symptom was endorsed by 52% of cases, and deactivation by only 18% of the sample. Also, since the participants were self-referred, our sample did not include many severe clinical cases of CPTSD. This may provide some explanation for the non-significant relation between DSO symptoms and dissociation.

This was the first study evaluating the agreement between the clinician-administered ITI and the self-report ITQ. We found moderate consistency between the self-report ITQ and the ITI interview scores for the PTSD, DSO, and CPTSD. Agreement on endorsement of PTSD criteria (with both PTSD and CPTSD cases included) was moderate, and for the DSO and CPTSD criteria it was fair. Moderate diagnostic consistency across the ITQ and the ICD-11 PTSD interview derived from the CAPS-5 using the ITI scoring approach was found in a previous study (Hansen, Vægter, Cloitre, & Andersen, 2021).

However, in our study, if only PTSD cases were analysed, the diagnostic agreement between the ITI and the ITQ was poor. Diagnostic interviews are considered the gold standard for PTSD assessments as they are based on the clinical judgement of a trained interviewer who understands the conceptual basis of the symptoms (Siqveland et al., 2017). However, self-report measures ensure more simple and fast administration; consequently, they are used more frequently. The ITQ provides both dimensional and diagnostic scoring algorithms which have their advantages and limitations (Redican et al., 2021). Our analysis revealed that each symptom cluster was endorsed more often when measured by the ITQ. As the ITQ is a screening instrument, it is more likely to detect people at risk who would not meet the criteria following a thorough clinical assessment (Siqveland et al., 2017). In line with the current analysis, studies with the PTSD Checklist for DSM-5 (PCL-5) and the clinician-administered PTSD Scale for DSM-5 (CAPS-5) also showed some degree of diagnostic discordance with clinician ratings yielding lower estimates of PTSD than self-report measures (Bovin et al., 2016; Marmar et al., 2015). There might be multiple reasons for the discrepancies between the results provided by self-report vs clinician-administered assessment. For example, in one study feedback from the study participants regarding their attributions for discrepant symptoms between the PCL-5 and the CAPS-5 were analysed (Kramer, 2019). The most commonly reported reasons for discrepancies were found to be time-frame reminders, comprehension of symptoms, trauma-related attribution errors, increased awareness, and general errors (e.g. not paying attention, forgetting a relevant experience, not reading or hearing the entire question, etc.) while self-reporting. On the other hand, participants might feel less social stigma while filling in self-report measures (Marmar et al., 2015). For now, the ITI and the ITQ use very similar diagnostic algorithms, but with empirical data from future studies with larger samples available, different algorithms or cut-off scores for the ITQ might

be found to be more accurate at detecting people at risk for posttraumatic disorders. This may also vary for different populations, as the studies with the PCL-5 and the CAPS-5 had already demonstrated (Bovin et al., 2016; Geier, Hunt, Nelson, Brasel, & deRoon-Cassini, 2019; Morrison, Su, Keck, & Beidel, 2021).

There are several limitations of the study that have to be taken into consideration. Firstly, a relatively small predominantly young female sample participated in the study. Since our sample was self-referred, it is possible that individuals with severe or extreme symptoms of PTSD or DSO were not included in the study. Also, most of the study variables, except for the ITI, were measured with self-report instruments. Clinical interviews could provide a more accurate evaluation of other mental health indicators. The study was also conducted during the COVID-19 pandemic, and online data collection was used, which could have affected the findings. Furthermore, only the Lithuanian version of the ITI was used in the study and may not be generalizable to the ITI in other languages. To sum up, research in different countries and larger samples with participants of different sociodemographic characteristics and various severity of posttraumatic symptoms is needed for further investigation of the validity of the ITI.

Notwithstanding its limitations, this is one of the first studies exploring the validity of the ITI, a diagnostic tool for the clinical assessment of the ICD-11 PTSD and CPTSD. Since the ICD-11 is planned to officially come into effect in 2022 (World Health Organization, 2018b), it is crucial to have valid instruments readily available for the thorough clinical assessment of a new diagnostic category of complex PTSD as soon as possible. Such diagnostic tool is highly needed in everyday clinical practice and research. Our study demonstrated that the ITI is a reliable and valid tool for assessing and diagnosing ICD-11 PTSD and CPTSD. Moreover, the interviews in the study were conducted via videoconferencing, which confirms that the ITI can be conducted online if required, for example, during the pandemic, or it can also be offered to the patients as an alternative for an in-person interview.

Disclosure statement

Neil Roberts, Marylene Cloitre, Jonathan Bisson and Chris Brewin are co-authors of the ITI. The remaining co-authors of the current publication have no conflict of interest to disclose.

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Data availability

The detailed sociodemographic information of the dataset does not fully protect the anonymity of the respondents. For this reason, the entire dataset cannot be made publicly available. However, excerpts of the data on a higher aggregation level can be provided upon justified request by the first author, OG.

References

Ben-Ezra, M., Karatzias, T., Hyland, P., Brewin, C. R., Cloitre, M., Bisson, J. I., … Shevlin, M. (2018). Posttraumatic stress disorder (PTSD) and complex PTSD (CPTSD) as per ICD-11 proposals: A population study in Israel. *Depression and Anxiety*, *35*(3), 264–274. doi:10.1002/da.22723

Biliunaite, I., Kazlauskas, E., Sanderman, R., Truskauskaite-Kuneviciene, I., Dumarkaite, A., & Andersson, G. (2021). Internet-based cognitive behavioral therapy for informal caregivers: Randomized controlled pilot trial. *Journal of Medical Internet Research*, *23*(4), 1–15. doi:10.2196/21466

Bisson, J. I. (2013). What happened to harmonization of the PTSD diagnosis? The divergence of ICD11 and DSM5. *Epidemiology and Psychiatric Sciences*, *22*(3), 205–207. doi:10.1017/S2045796013000164

Bondjers, K., Hyland, P., Roberts, N. P., Bisson, J. I., Willebrand, M., & Arnberg, F. K. (2019). Validation of a clinician-administered diagnostic measure of ICD-11 PTSD and Complex PTSD: The International Trauma Interview in a Swedish sample. *European Journal of Psychotraumatology*, *10*(1), 1665617. doi:10.1080/20008198.2019.1665617

Bovin, M. J., Marx, B. P., Weathers, F. W., Gallagher, M. W., Rodriguez, P., Schnurr, P. P., & Keane, T. M. (2016). Psychometric properties of the PTSD checklist for diagnostic and statistical manual of mental disorders–Fifth Edition (PCL-5) in veterans. *Psychological Assessment*, *28*(11), 1379–1391. doi:10.1037/pas0000254

Brewin, C. R. (2020). Complex post-traumatic stress disorder: A new diagnosis in ICD-11. *BJPsych Advances*, *26*(3), 145–152. doi:10.1192/bja.2019.48

Brewin, C. R., Cloitre, M., Hyland, P., Shevlin, M., Maercker, A., Bryant, R. A., … Reed, G. M. (2017). A review of current evidence regarding the ICD-11 proposals for diagnosing PTSD and complex PTSD. *Clinical Psychology Review*, *58*, 1–15. doi:10.1016/j.cpr.2017.09.001

Carlson, E. B., Waelde, L. C., Palmieri, P. A., Macia, K. S., Smith, S. R., & McDade-Montez, E. (2018). Development and Validation of the dissociative symptoms scale. *Assessment*, *25*(1), 84–98. doi:10.1177/1073191116645904

Chen, F., Curran, P. J., Bollen, K. A., Kirby, J., & Paxton, P. (2008). An empirical evaluation of the use of fixed cutoff points in RMSEA test statistic in structural equation models. *Sociological Methods and Research*, *36*(4), 462–494. doi:10.1177/0049124108314720

Cloitre, M., Hyland, P., Bisson, J. I., Brewin, C. R., Roberts, N. P., Karatzias, T., & Shevlin, M. (2019). ICD-11 posttraumatic stress disorder and complex posttraumatic stress disorder in the United States: A population-based study. *Journal of Traumatic Stress*, *32*(6), 833–842. doi:10.1002/jts.22454

Cloitre, M., Shevlin, M., Brewin, C. R., Bisson, J. I., Roberts, N. P., Maercker, A., … Hyland, P. (2018). The International Trauma Questionnaire: Development of a self-report measure of ICD-11 PTSD and complex PTSD. *Acta Psychiatrica Scandinavica*, *138*(6), 536–546. doi:10.1111/acps.12956

Deegan, J. J. (1978). On the occurrence of standardized regression coefficients greater than one. *Educational and Psychological Measurement*, *38*(4), 873–888. doi:10.1177/001316447803800404

Facer-Irwin, E., Karatzias, T., Bird, A., Blackwood, N., & MacManus, D. (2021). PTSD and complex PTSD in sentenced male prisoners in the UK: Prevalence, trauma antecedents, and psychiatric comorbidities. *Psychological Medicine*, 1–11. doi:10.1017/S0033291720004936

Flora, D. B., & Curran, P. J. (2004). An empirical evaluation of alternative methods of estimation for confirmatory factor analysis with ordinal data. *Psychological Methods*, *9*(4), 466–491. doi:10.1037/1082-989X.9.4.466

Ford, J. D., & Courtois, C. A. (2021). Complex PTSD and borderline personality disorder. *Borderline Personality Disorder and Emotion Dysregulation*, *8*(1), 1–21. doi:10.1186/s40479-021-00155-9

Frost, R., Hyland, P., Shevlin, M., & Murphy, J. (2020). Distinguishing complex PTSD from Borderline personality disorder among individuals with a history of sexual trauma: A latent class analysis. *European Journal of Trauma & Dissociation*, *4*(1), 100080. doi:10.1016/j.ejtd.2018.08.004

Gegieckaite, G., & Kazlauskas, E. (2020). Do emotion regulation difficulties mediate the association between neuroticism, insecure attachment, and prolonged grief? *Death Studies*, 1–9. doi:10.1080/07481187.2020.1788667

Geier, T. J., Hunt, J. C., Nelson, L. D., Brasel, K. J., & deRoon-Cassini, T. A. (2019). Detecting PTSD in a traumatically injured population: The diagnostic utility of the PTSD Checklist for DSM-5. *Depression and Anxiety*, *36*(2), 170–178. doi:10.1002/da.22873

Gratz, K. L., & Roemer, L. (2004). Multidimensional Assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, *26*(1), 41–54. doi:10.1023/B:JOBA.0000007455.08539.94

Hansen, M., Vægter, H. B., Cloitre, M., & Andersen, T. E. (2021). Validation of the Danish international trauma questionnaire for posttraumatic stress disorder in chronic pain patients using clinician-rated diagnostic interviews. *European Journal of Psychotraumatology*, *12*(1). doi:10.1080/20008198.2021.1880747

Hayes, A. F., & Krippendorff, K. (2007). Answering the Call for a standard reliability measure for coding data. *Communication Methods and Measures*, *1*(1), 77–89. doi:10.1080/19312450709336664

Ho, G. W. K., Karatzias, T., Cloitre, M., Chan, A. C. Y., Bressington, D., Chien, W. T., … Shevlin, M. (2019). Translation and validation of the Chinese ICD-11 International Trauma Questionnaire (ITQ) for the Assessment of Posttraumatic Stress Disorder (PTSD) and Complex PTSD (CPTSD). *European Journal of Psychotraumatology*, *10*(1), 1608718. doi:10.1080/20008198.2019.1608718

Hyland, P., Shevlin, M., Brewin, C. R., Cloitre, M., Downes, A. J., Jumbe, S., … Roberts, N. P. (2017). Validation of post-traumatic stress disorder (PTSD) and complex PTSD using the International Trauma Questionnaire. *Acta Psychiatrica Scandinavica*, *136*(3), 313–322. doi:10.1111/acps.12771

Hyland, P., Shevlin, M., Fyvie, C., Cloitre, M., & Karatzias, T. (2020). The relationship between ICD-11 PTSD, complex PTSD and dissociative experiences. *Journal of Trauma and Dissociation*, *21*(1), 62–72. doi:10.1080/15299732.2019.1675113

Hyland, P., Vallières, F., Cloitre, M., Ben-Ezra, M., Karatzias, T., Olff, M., … Shevlin, M. (2021). Trauma, PTSD, and complex PTSD in the republic of Ireland: Prevalence, service use, comorbidity, and risk factors. *Social Psychiatry and Psychiatric Epidemiology*, *56*(4), 649–658. doi:10.1007/s00127-020-01912-x

Karatzias, T., & Cloitre, M. (2019). Treating adults with complex posttraumatic stress disorder using a modular approach to treatment: Rationale, evidence, and directions for future research. *Journal of Traumatic Stress*, *32*(6), 870–876. doi:10.1002/jts.22457

Karatzias, T., Hyland, P., Ben-Ezra, M., & Shevlin, M. (2018). Hyperactivation and hypoactivation affective dysregulation symptoms are integral in complex posttraumatic stress disorder: Results from a nonclinical Israeli sample. *International Journal of Methods in Psychiatric Research*, *27*(4), 1–7. doi:10.1002/mpr.1745

Karatzias, T., & Levendosky, A. A. (2019). Introduction to the Special section on complex posttraumatic stress disorder (CPTSD): The evolution of a disorder. *Journal of Traumatic Stress*, *32*(6), 817–821. doi:10.1002/jts.22476

Karatzias, T., Murphy, P., Cloitre, M., Bisson, J., Roberts, N., Shevlin, M., … Hutton, P. (2019). Psychological interventions for ICD-11 complex PTSD symptoms: Systematic review and meta-analysis. *Psychological Medicine*, *49*(11), 1761–1775. doi:10.1017/S0033291719000436

Karatzias, T., Shevlin, M., Fyvie, C., Hyland, P., Efthymiadou, E., Wilson, D., … Cloitre, M. (2016). An initial psychometric assessment of an ICD-11 based measure of PTSD and complex PTSD (ICD-TQ): Evidence of construct validity. *Journal of Anxiety Disorders*, *44*, 73–79. doi:10.1016/j.janxdis.2016.10.009

Karatzias, T., Shevlin, M., Fyvie, C., Hyland, P., Efthymiadou, E., Wilson, D., … Cloitre, M. (2017). Evidence of distinct profiles of posttraumatic stress disorder (PTSD) and complex posttraumatic stress disorder (CPTSD) based on the new ICD-11 trauma questionnaire (ICD-TQ). *Journal of Affective Disorders*, *207*, 181–187. doi:10.1016/j.jad.2016.09.032

Kazlauskas, E., Gegieckaite, G., Hyland, P., Zelviene, P., & Cloitre, M. (2018). The structure of ICD-11 PTSD and complex PTSD in Lithuanian mental health services. *European Journal of Psychotraumatology*, *9*(1), 1414559. doi:10.1080/20008198.2017.1414559

Kline, R. B. (2011). Principles and practice of structural equation modeling. In *Principles and practice of structural equation modeling* (*3rd* ed.). Guilford Press.

Koo, T. K., & Li, M. Y. (2016). A guideline of selecting and reporting intraclass correlation coefficients for reliability

research. *Journal of Chiropractic Medicine*, *15*(2), 155–163. doi:10.1016/j.jcm.2016.02.012

Kramer, L. B. (2019). *Self-rated versus clinician-rated assessment of posttraumatic stress disorder: An evaluation of diagnostic discrepancies between the PTSD checklist for DSM-5 (PCL-5) and the clinician-administered PTSD scale for DSM-5 (CAPS-5)* [Doctoral dissertation]. Auburn University. Retrieved September 6, 2021, from http://etd.auburn.edu/handle/10415/6746

Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, *16*(9), 606–613. doi:10.1046/j.1525-1497.2001.016009606.x

Kroenke, K., Spitzer, R. L., Williams, J. B. W., & Löwe, B. (2010). The patient health questionnaire somatic, anxiety, and depressive symptom scales: A systematic review. *General Hospital Psychiatry*, *32*(4), 345–359. doi:10.1016/j.genhosppsych.2010.03.006

Kvedaraite, M., Gelezelyte, O., Karatzias, T., Roberts, N. P., & Kazlauskas, E. (2021). Mediating role of avoidance of trauma disclosure and social disapproval in ICD-11 post-traumatic stress disorder and complex post-traumatic stress disorder : Cross-sectional study in a Lithuanian clinical sample. *BJPsych Open*, *7*(e217), 1–7. doi:10.1192/bjo.2021.1055

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, *33* (1), 159–174. doi:10.2307/2529310

Lechner-Meichsner, F., & Steil, R. (2021). A clinician rating to diagnose CPTSD according to ICD-11 and to evaluate CPTSD symptom severity: Complex PTSD Item Set additional to the CAPS (COPISAC). *European Journal of Psychotraumatology*, *12*(1). doi:10.1080/20008198.2021.1891726

Lee, D. J., Witte, T. K., Bardeen, J. R., Davis, M. T., & Weathers, F. W. (2016). A factor analytic evaluation of the difficulties in emotion regulation scale. *Journal of Clinical Psychology*, *72*(9), 933–946. doi:10.1002/jclp.22297

Maercker, A., Brewin, C. R., Bryant, R. A., Cloitre, M., Van Ommeren, M., Jones, L. M., … Reed, G. M. (2013). Diagnosis and classification of disorders specifically associated with stress: Proposals for ICD-11. *World Psychiatry*, *12*(3), 198–206. doi:10.1002/wps.20057

Maercker, A., Hecker, T., Augsburger, M., & Kliem, S. (2018). ICD-11 prevalence rates of posttraumatic stress disorder and complex posttraumatic stress disorder in a German nationwide sample. *Journal of Nervous and Mental Disease*, *206*(4), 270–276. doi:10.1097/NMD.0000000000000790

Marmar, C. R., Schlenger, W., Henn-Haase, C., Qian, M., Purchia, E., Li, M., … Kulka, R. A. (2015). Course of posttraumatic stress disorder 40 years after the Vietnam war findings from the national Vietnam veterans longitudinal study. *JAMA Psychiatry*, *72*(9), 875–881. doi:10.1001/jamapsychiatry.2015.0803

Morrison, K., Su, S., Keck, M., & Beidel, D. C. (2021). Psychometric properties of the PCL-5 in a sample of first responders. *Journal of Anxiety Disorders*, *77*(2020), 102339. doi:10.1016/j.janxdis.2020.102339

Muthén, L. K., & Muthén, B. O. (2017). *Mplus. The comprehensive modeling program for applied researchers user's guide* (8th ed.). Los Angeles, CA: Muthén & Muthén.

Oltmanns, J. R., & Widiger, T. A. (2019). Evaluating the assessment of the ICD-11 personality disorder diagnostic system. *Psychological Assessment*, *31*(5), 674–684. doi:10.1037/pas0000693

Raykov, T. (1997). Estimation of composite reliability for congeneric measures. *Applied Psychological Measurement*, *21*(2), 173–184. doi:10.1177/01466216970212006

Redican, E., Nolan, E., Hyland, P., Cloitre, M., McBride, O., Karatzias, T., … Shevlin, M. (2021). A systematic literature review of factor analytic and mixture models of ICD-11 PTSD and CPTSD using the International Trauma Questionnaire. *Journal of Anxiety Disorders*, *79*, 102381. doi:10.1016/j.janxdis.2021.102381

Roberts, N. P., Cloitre, M., Bisson, J., & Brewin, C. R. (2019). *International trauma interview (ITI) for ICD- 11 PTSD and complex PTSD (Test Version 3.2)*.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Schmitt, D. P., & Allik, J. (2005). Simultaneous administration of the Rosenberg self-esteem scale in 53 nations: Exploring the universal and culture-specific features of global self-esteem. *Journal of Personality and Social Psychology*, *89*(4), 623–642. doi:10.1037/0022-3514.89.4.623

Šeibokaitė, L., Endriulaitienė, A., Sullman, M. J. M., Markšaitytė, R., & Žardeckaitė-Matulaitienė, K. (2017). Difficulties in emotion regulation and risky driving among Lithuanian drivers. *Traffic Injury Prevention*, *18* (7), 688–693. doi:10.1080/15389588.2017.1315109

Siqveland, J., Hussain, A., Lindstrøm, J. C., Ruud, T., & Hauff, E. (2017). Prevalence of posttraumatic stress disorder in persons with chronic pain: A meta-analysis. *Frontiers in Psychiatry*, *8*. doi:10.3389/fpsyt.2017.00164

Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine*, *166* (10), 1092–1097. doi:10.1001/archinte.166.10.1092

Topp, C. W., Østergaard, S. D., Søndergaard, S., & Bech, P. (2015). The WHO-5 well-being index: A systematic review of the literature. *Psychotherapy and Psychosomatics*, *84*(3), 167–176. doi:10.1159/000376585

Truskauskaite-Kuneviciene, I., Brailovskaia, J., Kamite, Y., Petrauskaite, G., Margraf, J., & Kazlauskas, E. (2020). Does trauma shape identity? Exploring the links between lifetime trauma exposure and identity status in emerging adulthood. *Frontiers in Psychology*, *11*(September), 1–9. doi:10.3389/fpsyg.2020.570644

Vallières, F., Ceannt, R., Daccache, F., Abou Daher, R., Sleiman, J., Gilmore, B., … Hyland, P. (2018). ICD-11 PTSD and complex PTSD amongst Syrian refugees in Lebanon: The factor structure and the clinical utility of the International Trauma Questionnaire. *Acta Psychiatrica Scandinavica*, *138*(6), 547–557. doi:10.1111/acps.12973

Weathers, F. W., Blake, D. D., Schnurr, P. P., Kaloupek, D. G., Marx, B. P., & Keane, T. M. (2013a). *The clinician-administered PTSD scale for DSM-5 (CAPS-5). Interview available from the National Center for PTSD*. Retrieved September 6, 2021, from www.ptsd.va.gov

Weathers, F. W., Blake, D. D., Schnurr, P. P., Kaloupek, D. G., Marx, B. P., & Keane, T. M. (2013b). *The life events checklist for DSM-5 (LEC-5). Instrument available from the National Center for PTSD*. Retrieved September 6, 2021, from www.ptsd.va.gov

Wei, M., Russell, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The experiences in close relationship scale (ECR)-short form: Reliability, validity, and factor

structure. *Journal of Personality Assessment*, *88*(2), 187–204. doi:10.1080/00223890701268041

WHO Regional Office Europe. (1998). *Wellbeing measures in primary health care/the depcare project. report on a WHO meeting, Stockholm, Sweden, 12-13 February*. Copenhagen, Denmark: WHO Regional Office for Europe. Retrieved September 6, 2021, from https://www.euro.who.int/__data/assets/pdf_file/0016/130750/E60246.pdf

World Health Organization. (2018a). *ICD-11: International classification of diseases 11th revision*. Retrieved September 6, 2021, from https://icd.who.int/en/

World Health Organization. (2018b). *WHO releases new international classification of diseases (ICD 11)*. Retrieved September 6, 2021, from https://www.who.int/news/item/18-06-2018-who-releases-new-international-classification-of-diseases-(icd-11)