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INTRODUCING THE EARLY TRAUMA INVENTORY SELF REPORT - SHORT FORM AND ITS QUALITATIVE AND QUANTITATIVE VALIDATION FOR THE SLOVENIAN GENERAL POPULATION

PREDSTAVITEV KVALITATIVNE IN KVANTITATIVNE VALIDACIJE SLOVENSKE RAZLIČICE KRATKE OBLIKE VPRAŠALNIKA ZA SAMOOCENO TRAVM IZ OTROŠTVA

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ABSTRACT

Introduction: Traumatic experience in childhood or adolescence has a significant impact on the development of chronic mental and physical conditions in adulthood. Thus, it is very important for health professionals, especially primary care physicians to have an inventory in order to detect early trauma for planning appropriate treatment, such as the Early Trauma Inventory (ETI). The aim of this paper is to test the psychometric properties of the Slovenian translation of the short, self-rated version (ETISR-SF), and to further validate the instrument.

Methods: The research was done in two parts – qualitative and quantitative. In the qualitative part, a questionnaire was translated and culturally adapted using the Delphi method. For the quantitative part, 51 patients with substance use disorders hospitalized at the Centre for the Treatment of Drug Addictions were recruited, along with 133 controls. The psychometric properties of the questionnaire were checked. Internal consistency was calculated using Cronbach's alpha, test-retest reliability was examined graphically using a Bland-Altman plot. Discriminant validity between groups was gauged using the independent samples t-test.

Results: Consensus in the Delphi study was reached in the second round. Cronbach's alpha varied between 0.60 - 0.85. Of the four domains, physical abuse had the lowest Cronbach's alpha. The test-retest reliability is high for all domains, with correlation coefficients ranging from 0.82 to 0.96. The non-clinical sample differed significantly from the clinical sample.

Conclusion: The Slovenian translation of ETISR-SF is a satisfactory instrument for the evaluation of trauma before the age of 18.

Keywords: childhood trauma, Early Trauma Inventory, psychometric properties, validation studies, addictions

IZVLEČEK

Uvod: *Po poročilu Nacionalnega inštituta za javno zdravje smo v Sloveniji lani prvič ugotavljali razširjenost obremenjujočih izkušenj v otroštvu. Večina anketiranih (76 %) je v otroštvu doživela vsaj eno, dobra četrtina (27 %) pa štiri ali več obremenjujočih izkušenj. Travmatične izkušnje v otroštvu ali mladostništvu pomembno vplivajo na razvoj kroničnih duševnih in telesnih motenj v odrasli dobi in predstavljajo pomemben javnozdravstveni problem povsod po svetu. V Sloveniji še nimamo veljavnega in zanesljivega vprašalnika za presejanje, s katerim bi pri odraslih lahko ugotavljali zgodnje travmatične izkušnje. Vprašalnik za samooceno travm iz otroštva - kratka oblika (The Early Trauma Inventory Self Report - Short Form ETISR-SF) je eden takih vprašalnikov, ki omogoča hiter in zanesljiv pregled potencialnih travmatičnih dogodkov v otroštvu in mladostništvu. Z njim lahko hitro dobimo izhodišče za bolj poglobljeno raziskovanje v klinično-terapevtski praksi. Namen prispevka je predstaviti preverjanje psihometričnih lastnosti slovenskega prevoda kratke samoocenjevalne različice ETISR-SF in dodatno potrditi veljavnost vprašalnika.*

Metode: *Raziskava je bila izvedena v dveh delih. V kvalitativnem delu je bil vprašalnik preveden in kulturološko prilagojen s pomočjo študije delphi. Od povabljenih 51 specializantov psihiatrije se jih je v študijo delphi vključilo 8. V kvantitativnem delu so bile preverjene psihometrične lastnosti vprašalnika v klinični in neklinični populaciji. Vključenih je bilo 51 pacientov z motnjo odvisnosti od psihoaktivnih snovi, hospitaliziranih na Centru za zdravljenje odvisnih od prepovedanih drog, in 133 oseb v kontrolni skupini. Notranja konsistentnost je bila izračunana z uporabo koeficienta alfa Cronbach, zanesljivost preizkusnega testiranja je bila grafično preučena s pomočjo ploskve Blanda Altmana. Diskriminantna veljavnost med skupinami je bila ocenjena s t-testom za neodvisne vzorce.*

Rezultati: *V kvalitativnem delu raziskave je bilo soglasje s prevodom doseženo po dveh krogih delphi z nekaj manjšimi jezikovnimi popravki. V kvantitativnem delu raziskave se je 56 (42 %) oseb iz kontrolne skupine odzvalo na ponovno izpolnjevanje vprašalnika čez 14 dni. Zanesljivost preizkusa ponovnega testiranja je visoka za vsa področja s korelacijskimi koeficienti od 0,82 do 0,96. Koeficient Cronbach alfa se je gibal med 0,60 in 0,85. Del o fizični zlorabi je pokazal nižjo vrednost Cronbach alfe kot ostali deli (splošna travma, psihična in spolna zloraba). Zanesljivost dela o čustveni in spolni zlorabi je visoka (a = 0,85 in a = 0,82). Neklinični vzorec se je statistično značilno razlikoval od kliničnega vzorca.*

Zaključek: *Slovenski prevod ETISR-SF je zadovoljiv instrument za hitro oceno travmatskih izkušenj do 18. leta starosti.*

Ključne besede: *travmatske izkušnje v otroštvu, Vprašalnik za samooceno travm iz otroštva, psihometrične lastnosti, validacijske študije, odvisnosti*

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1 INTRODUCTION

According to the Diagnostic and Statistical Manual of Mental Disorders V, childhood trauma is defined as exposure to actual or threatened death, serious injury, or sexual violence (1). It has a significant impact on the development of chronic mental and physical conditions in adulthood, which results in increased use of medical services, especially emergency units (2-4). Childhood trauma is also associated with impaired psycho-social functioning and lower quality of life (2). Experiencing childhood trauma compromises both neural structure and function, rendering individuals susceptible to later cognitive deficits and psychiatric illnesses, such as schizophrenia, depression, bipolar disorder, anxiety, posttraumatic stress disorder (PTSD), substance abuse, and even suicide, in adolescence, young adulthood or later life (5, 6). Somatoform symptoms, which may relate to other psychological consequences of trauma, such as depression, anxiety, dissociation, and PTSD, are also linked to traumatic exposure (7). Stress is associated with a multiple immune and endocrine changes (8). Exposure to multiple and chronic stressors represents a particular risk for asthma, environmental sensitivity in the form of allergies to medications, cardiovascular health, gastrointestinal problems and migraine headaches (2, 4, 8, 9). The more severe the abuse is, the stronger is the association with poor outcomes in adulthood (3). Psychosomatic disorders, which in family practice are also called medically unexplained symptoms (MUS), are frequently associated with a history of traumatization (10). In a Slovenian family medicine practice it was found that 8.6% of patients had MUS attendees (11). A recent study by the Slovenian National Institute of Public Health showed that 76% of participants reported at least one and 27% four or more traumatic experiences in childhood (12). These are important findings for both psychiatrists and primary care physicians (9). To better understand patients' symptoms, it is important for health professionals to have a structured and comprehensive tool for measuring traumatic events in childhood (13). One of these is the Early Trauma Inventory (ETI) (14), created by Bremner et al. as a comprehensive expert-rated interview. A self-rated version (ETI-SR) was later developed and briefer self-rated short form (ETISR-SF) was made after a psychometric analysis identified redundant items (15). The ETISR-SF has been proven to be a valid instrument for retrospective self-assessment of childhood trauma in diverse populations (subjects with substance use disorders, war veterans, depressive patients and puerperae) (15-19), and has good test-retest reliability (17-19). It consists of 27 items in the four domains of physical, emotional, sexual abuse, and general trauma (15). It categorically assesses the existence of these events before the age of 18 (15).

The ETISR-SF has been translated with preserved psychometric properties to several cultural contexts and languages, including: Spanish (17), Korean (18), Brazilian Portuguese (19), Dutch (20) and Swedish (21). However, to the best of our knowledge, it has not yet been translated or psychometrically tested with regard to Slovenian. The benefits of this instrument lay in early, quick and economical screening for traumatic experiences, which could enable health care professionals to prevent more serious health and social consequences and also spare the system some costs due to unnecessary and often invasive diagnostic procedures. This represents a major advantage for the public health system, and gives a starting point for more in-depth exploration in clinical-therapeutic practice and research work.

2 METHODS

2.1 Aims

The aims of this study were to obtain semantic, cultural and conceptual translation and equivalence of the ETISR-SF questionnaire in Slovenian, examine the psychometric properties and further validate the instrument.

2.2 Instruments

2.2.1 Socio-Demographic Characteristics Questionnaire

The participants answered demographic questions assessing gender (male/female), age (years), marital status (single/married/in relationship/separated/widowed), children (yes/no), number of children, with whom currently living (alone/with parents/with child/with partner/with partner and child/with friends/homeless/other), level of education (several options were offered), employment status (several options were offered). The in-patients group gave additional data: participation in drug substitution programme, history of overdose, self-injury, attempted suicide and age of drug use.

2.2.2 The Early Trauma Inventory Self Report – Short Form

The ETISR-SF is a 27-item questionnaire, used for the assessment of physical, emotional, and sexual abuse, as well as general traumatic experience that may have occurred before the age 18, and it can be self-administered in about 15 min. Each of the items is answered 'yes' (coded as 1) or 'no' (coded as 0). There are an additional three items, which are at the end of questionnaire. One of these asks the subjects to choose one event that had the greatest impact on his/her life, and other two items measure the subsequent reactions, i.e. fear or depersonalization.

2.3 Design and Participants of the Study

Validation of the ETISR-SF questionnaire was done in two parts of the study, using qualitative and quantitative methods.

2.3.1 Qualitative Part of the Study

The ETISR-SF was translated from its original English version with permission from J. D. Bremner. It was first translated from English to Slovenian by two doctoral students, employed at the University Psychiatric Hospital Ljubljana, with fluent knowledge of English. In order to reconcile the equivalence of the translated versions of the inventory, these were compared and discussed by a team of six health care experts from the Centre for the Treatment of Drug Addiction (three psychiatrists, two psychologists and social worker), with all having good knowledge of English and Slovenian, resulting in few minor corrections. A sample of 51 residents of psychiatry at the University Psychiatric Hospital Ljubljana were invited via email to participate in the Delphi method to achieve consensus. All participants were provided with a written explanation of the aims and procedure of the study. Among those 51 invited experts, eight took part in the study. Each participant was asked to validate or reject a translation by rating each statement on a scale from 1 to 5, where 1 meant "strongly disagree" and 5 "totally agree". If they rated a translation with 3 or less they were asked to explain their disagreement and possibly propose more a suitable translation. The principal researcher evaluated the answers. Successful validation for each statement was obtained when at least 75% of the participants rated it 4 or above. If a statement did not meet this criterion, the principal researcher proposed a new translation, taking into account the participants' suggestions, which was then again sent to the group. Consensus was reached in the second round. Two independent English translators undertook back-translation. The back-translated inventory was very similar to the original version, and was confirmed by the author.

2.3.2 Quantitative Part of the Study

In the second part, ETISR-SF questionnaires were distributed to non-clinical and clinical populations. The non-clinical population was recruited among employees at the University Psychiatric Hospital Ljubljana, in order to examine the test-retest reliability. Questionnaires were distributed to 160 participants and were anonymous. In the first round 133 were returned, and after 14 days a further 56 questionnaires. Questionnaires were also completed by 51 in-patients at the Centre for the Treatment of Drug Addiction. Patients signed Consent Forms in which they were given all the related information about the study.

As the items were dichotomous, the means and standard deviations per item were calculated with means indicating the percentage of respondents who had experienced a particular traumatic event. Total score and the scores for each domain were obtained by counting the number of endorsed items (15). Discriminative validity was assessed by comparison of the following groups with regard to the ETISR-SF numerical score: patients with a history of drug abuse and healthy subjects (controls), and subjects experiencing severe fear, horror or out-of-body experiences at the time of traumatic the event, and subjects without such feelings. The independent samples t-test was used. Test-retest reliability was examined graphically by means of a Bland-Altman plot and the correlation between the two measurements was calculated. Cronbach's coefficient alpha was calculated as a measure of internal consistency of the questionnaire. Item-to-total correlation and Cronbach's alpha minus item reliability was calculated to identify items that influence the poorer validity and internal consistency of a particular subscale. P values<0.05 were considered statistically significant. Statistical analysis was performed using SPSS version 26.

3 RESULTS

3.1 Qualitative Part of the Study

The first Delphi round for the four parts of ETISR-SF plus three additional questions at the end of the inventory showed acceptable agreement in most of the statements. The first part of the inventory, on general trauma, showed agreement in all except two statements (Q5, Q11). Q5 was rated as adequate by only 1/8 (12.5%) of participants and Q11 by 3/8 (37.5%) participants (Table 1).

Table 1. ETISR-SF part one – General trauma scale Likert scores, mean and median – Round 1 (N=8).

Results	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11
>3 (n/8)	8	7	8	8	1	8	8	6	6	7	3
>3 (%)	100	87.5	100	100	12.5	100	100	75	75	87.5	37.5
Mean	4.25	4	4.37	4.37	2.875	4.25	4.25	4	4	4	3
Median	4	4	4	4	3	4	4	4	4	4	3

Legend: n – number of participants; Q – question

The, second part of the inventory, on physical abuse, showed agreement in all except one statement (Q4). Q4 was rated as adequate by just 1/8 (12.5%) of the participants (Table 2).

Table 2. ETISR-SF part two – Physical abuse scale Likert scores, mean and median – Round 1 (N=8).

Results	Q1	Q2	Q3	Q4	Q5
>3 (n/8)	8	7	6	1	6
>3 (%)	100	87.5	75	12.5	75
Mean	4.625	4.25	3	2.875	4.25
Median	5	4	3	3	4.5

Legend: n – number of participants; Q – question

The third part of the inventory, on emotional abuse, showed agreement in all except two statements (Q2, Q3). Q2 was rated as adequate by 2/8 (25%) of participants, and Q3 by only 1/8 (12.5%) of the participants (Table 3).

Table 3. ETISR-SF part three – Emotional abuse scale Likert scores, mean and median – Round 1 (N=8).

Results	Q1	Q2	Q3	Q4	Q5
>3 (n/8)	8	2	1	5	8
>3 (%)	100	25	12.5	62.5	100
Mean	4.25	3	2.75	3.75	4.625
Median	4	3	3	4	5

Legend: n – number of participants; Q – question.

The fourth part of the inventory, on sexual abuse, showed agreement in all except one statement (Q5). Q5 was rated as adequate by 2/8 (25%) of participants (Table 4).

Table 4. ETISR-SF part four – Sexual abuse scale Likert scores, mean and median – Round 1 (N=8).

Results	Q1	Q2	Q3	Q4	Q5	Q6
>3 (n/8)	5	8	8	8	2	7
>3 (%)	62.5	100	100	100	25	87.5
Mean	3.875	4.25	4.37	4.5	2.875	4.25
Median	4	4	4	4.5	2.5	4

Legend: n – number of participants; Q – question.

Three additional questions at the end of the inventory showed agreement in all statements (Table 5).

Table 5. ETISR-SF additional three items scale Likert scores, mean and median – Round 1 (N=8).

Results	Q1	Q2	Q3
>3 (n/8)	7	7	7
>3 (%)	87.5	87.5	87.5
Mean	4.125	4.125	4.25
Median	4	4	4.5

Legend: n – number of participants; Q – question.

In second Delphi round, concerning Q5 and Q11 for the part on general trauma, Q4 for the part on physical abuse, Q3 for the part on emotional abuse and Q5 for the part on sexual abuse, the participants proposed few alternative translations, which were discussed by the team from the Centre for the Treatment of Drug Addiction and then sent back to the participants for valuation. Consensus was thus reached in the second round (Table 6).

3.2 Quantitative Part of the Study - Study Subjects

Overall, 184 subjects agreed to participate in this research, 51 (27.7%) patients with substance use disorders and 133 (72.3%) healthy subjects (controls). Ninety-seven (52.7%) of the participants were female. The mean (SD) age of the participants was 37.8 (9.2) years. More than half (54.3%) had less than university education. The majority of participants (75%) were employed. Twenty-nine (56.9%) participants with substance use disorders were included in an opioid substitution programme, 21 (41.2%) reported the experience of overdose, 11 (21.6%) self-injury and 14 (27.4%) attempted suicide. The mean age (SD) of the patients with substance abuse disorders when trying their first drug was 15.1 (3) years.

Table 6. Mean and median: ETISR-SF – general trauma Q5, Q11, physical abuse Q4, emotional abuse Q3 and sexual abuse Q5 – Round 2 (N=8).

Results	GT - Q5	GT - Q11	PA - Q4	EA - Q3	SA - Q5
Mean	4.25	4.5	4	4	4.625
Median	4	4.5	4	4	5

Legend: GT – general trauma; PA - physical abuse; EA - emotional abuse; SA - sexual abuse; Q – question

Table 7. Participants' characteristics.

	n=184 (%)
Sex	
Female	97 (52.7)
Male	87 (47.3)
Mean age (SD) in years	37.8 (9.2)
Education	
Elementary school	27 (14.7)
Vocational school	22 (12)
High school	51 (27.7)
University or more	84 (45.7)
Working status	
Unemployed	40 (21.7)
Employed	138 (75)
Student	5 (2.7)
Retired	1 (0.5)
Group	
Controls	133 (72.3)
Patients	51 (27.7)
Drug substitution program	29 (56.9)
Overdosed	21 (41.2)
Self-injury	11 (21.6)
Suicide attempt	14 (27.4)
Mean age (SD) of 1st drug use	15.1 (3)

3.3 Quantitative Part of the Study - Validity

The validity of ETISR-SF was measured by its ability to distinguish between patients with known drug abuse and healthy controls. It was also assessed by comparing participants reporting experiencing severe fear, horror, frustration or having out-of-body experiences when experiencing any traumatic event described in the ETISR-SF and participants without such feelings.

The results of the comparison in all ETISR-SF subscales' scores between patients and healthy controls are summarized in Table 8. The controls had statistically significantly lower scores on all ETI domains.

Table 8. Mean ETI scores in healthy subjects (controls) and patients and results of an independent samples t-test.

Subscale (range)	Controls (n=133)	Patients (n=51)	t value	P
General trauma (0 - 11)	2.2 (1.9)	3.7 (2.2)	-4.66	< 0.001
Physical abuse (0 - 5)	2.2 (1.4)	2.8 (1.3)	-2.88	0.005
Emotional abuse (0 - 5)	1.1 (1.6)	2.6 (1.9)	-5.09	< 0.001
Sexual abuse (0 - 6)	0.4 (0.8)	1.1 (1.9)	-2.6	0.012

The results of the comparison in all ETISR-SF domains' scores between subjects that experienced severe fear, horror, out-of-body experiences during the traumatic event and those without such feelings are summarized in Table 9. Those without such feelings had statistically significantly lower scores on all ETI domains.

Table 9. Mean ETI scores in subjects experiencing severe fear or having out-of-body experiences and subjects without such feelings and the results of the independent samples t-test.

Subscale (range)	No severe fear or out of body experience (n=95)	Severe fear or out of body experience (n=89)	t value	P
General trauma (0 - 11)	1.7 (1.5)	3.7 (2.2)	-7.04	<0.001
Physical abuse (0 - 5)	2 (1.3)	2.8 (1.3)	-3.84	<0.001
Emotional abuse (0 - 5)	0.6 (1.2)	2.5 (1.8)	-8.49	<0.001
Sexual abuse (0 - 6)	0.2 (0.5)	1 (1.6)	-4.19	<0.001

3.4 Quantitative Part of the Study - Reliability

The internal consistency of the domains, as measured by Cronbach's alpha, is above Nunnally's proposed threshold of 0.7 (22) for the emotional abuse and sexual abuse domains (Table 4), and under this (around 0.60) for the general trauma and physical abuse domains. Values of Cronbach's alpha ≥0.60 are, however, considered acceptable (23,24). Test-retest reliability is high for all the domains, with correlation coefficients ranging from 0.82 to 0.96 (Table 10).

Table 10. Internal consistency and test-retest reliability.

Subscale	Cronbach's α (n=184)	Test - retest (n=58)
General trauma	0.64	0.84***
Physical abuse	0.60	0.82***
Emotional abuse	0.85	0.93***
Sexual abuse	0.82	0.96***

***p<0.0001

Descriptive statistics by item are provided in Table 11. The most commonly experienced events are being slapped in the face (81%) and being pushed or shoved (67%). The item-to-total correlation indicates items that threaten the domain's validity and internal consistency, while the Cronbach's alpha values are listed if an item is omitted from the domains. In the physical abuse domain one item that is poorly correlated with the total domain score, and for which its omission would result in a higher Cronbach's alpha, is the experience of being "burned with a cigarette". In contrast, the omission of none of the general trauma domain items would result in the higher internal consistency of the domain.

Table 11. Frequency of traumatic events, item-to-total correlation and value of Cronbach's alpha if item is omitted.

Subscale (range)	Mean (SD)	Item-to-Total Correlation	Cronbach's α (minus item)
General trauma			
Natural disaster	10% (31)	0.13	0.64
Serious accident	22% (41)	0.26	0.62
Serious personal injury	27% (45)	0.33	0.61
Serious injury/illness of parent	33% (47)	0.33	0.61
Separation of parents	22% (41)	0.24	0.62
Serious illness/injury of sibling	10% (31)	0.17	0.63
Serious injury of friend	41% (49)	0.29	0.62
Witnessing violence	37% (48)	0.49	0.57
Family mental illness	23% (42)	0.41	0.59
Alcoholic parents	28% (45)	0.34	0.60
See someone murdered	9% (29)	0.14	0.64
Physical abuse			
Slapped in the face	81% (39)	0.27	0.58
Burned with a cigarette	13% (34)	0.11	0.64
Punched or kicked	39% (49)	0.48	0.46
Hit with a thrown object	40% (49)	0.45	0.48
Pushed or shoved	67% (47)	0.44	0.49
Emotional abuse			
Often put down or ridiculed	27% (45)	0.67	0.82
Often ignored or made to feel you didn't count	39% (49)	0.65	0.82
Often told you are no good	26% (44)	0.65	0.82
Most of the time treated in cold or uncaring way	26% (44)	0.74	0.80
Parents fail to understand your needs	35% (48)	0.62	0.83
Sexual abuse			
Touched on intimate parts in a way that was uncomfortable	24% (43)	0.52	0.85
Someone rubbing their genitals against you	8% (27)	0.62	0.79
Forced to touch someone's intimate parts	8% (27)	0.67	0.78
Someone had genital sex with you against your will	7% (25)	0.71	0.77
Forced to perform oral sex	5% (23)	0.69	0.78
Forced to kiss someone in sexual way	5% (22)	0.53	0.81

The agreement between the first and second measurements was also examined graphically, using a Bland-Altman plot. The mean score for each domain on the two measurements for each participant was calculated and is shown on the x-axis, while the difference between scores is depicted on the y-axis. The expected mean difference between the scores of the two measurements is 0. The horizontal solid line shows the mean difference between the scores of the two measurements and is an estimate of bias, while the dotted lines represent 95% limits of agreement. Outliers lie above the upper and below the bottom dotted line. The indicator of high agreement between the two measurement occasions is if most points lie inside the mean±1.96 SD difference interval. The agreement between measurements is highest for the emotional abuse scale, but evident also for other domains.

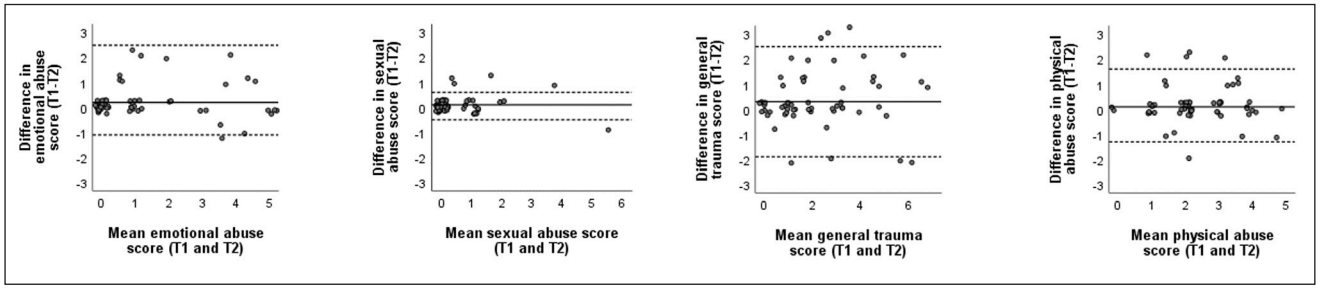

Figure 1. Bland-Altman plots for the test-retest reliability. Each plot illustrates the agreement between time 1 and time 2 measurements and identifies possible outliers. Each participant is represented on the graph with the mean value of the two assessments (x-axis) and difference between the assessments (y-axis). Reference lines show the mean difference between time 1 and time 2 (solid line), and 95% limits of agreement for the mean difference (dotted lines).

4 DISCUSSION

In this paper, we wanted to validate a Slovenian version of ETISR-SF and it was done in two parts, using both qualitative and quantitative methods.

The qualitative part of the study obtained semantic, cultural and conceptual translation and equivalence of ETISR-SF questionnaire in Slovenian using the Delphi method (Tables 1-5). Consensus was reached in the second round with minor adjustments (Table 6).

In the quantitative part of the study we examined the psychometric properties in clinical and non-clinical samples. The clinical sample was composed of in-hospital patients with substance use disorders (Table 7).

The ETISR-SF results showed statistically significant differences between these two groups, which is an indicator of discriminant validity. Patients with substance use disorders reported more traumatic events than the healthy control group, especially in the domains of general trauma and emotional abuse (Table 8). This was supported by comparing respondents experiencing extreme fear or out-of-body experiences and those without such feelings, which represent emotional responses to traumatic events (Table 9). More reported traumatic events in all domains were statistically significant related to emotional responses. The results from a study by Brajovic et al. showed that physical abuse is more strongly associated with alcohol use patterns than emotional abuse (25). Persons who had experienced four or more categories of childhood exposure to traumatic events, compared to those who had experienced none, had 4- to 12-fold increased health risks for alcoholism, drug abuse, depression, and suicide attempts, as well as 2- to 4-fold increases in smoking and poor self-rated health (26). The number of traumatic exposures showed a graded relationship to the presence of adult diseases, including ischemic heart disease, cancer, chronic lung disease, skeletal fractures, and liver disease (26). The Adverse Childhood Experiences (ACE) Study suggested that the impact of adverse childhood experiences on adult health status is strong and cumulative (26). Secondary prevention of the effects of adverse childhood experiences will first require increased recognition of their occurrence, and then effective understanding of the behavioural coping devices that are commonly adopted to reduce the emotional impact of these experiences (26).

The second psychometric property was reliability. Cronbach's alpha, as a measure of internal consistency, varied among the different domains. The general trauma and physical abuse domains exhibited lower internal consistency (α=0.64 and α=0.60, respectively) than emotional and sexual abuse (α=0.85 and α=0.82, respectively) (Table 10). Values were lower than those reported in other studies (15, 18, 19, 21) and similar for a Spanish version used with postpartum women (17). In the domain of general trauma, there are a few events which are obviously not typical for our cultural environment, like "natural disaster", "serious illness/injury of sibling" and "saw someone murdered" (Table 11). Within the physical abuse domain there is also an event which exhibits a low correlation with the overall score and reduces the Cronbach's alpha of the domain. Such events poorly correlate with the overall score on the scale and reduce its reliability, compared to the results found in other research, which indicate possible cultural differences in this regard. Similar findings can be found in a German validation of the inventory (27). The reliability of the scale for the domains of emotional and sexual abuse is very strong. Moreover, the values of the Cronbach's alpha coefficient are not problematic, and we have thus decided not to exclude items in order to maintain comparability of the questionnaire with other countries.

The test-retest reliability of the Slovenian version of the ETISR-SF is high for all subscales, with correlation coefficients ranging from 0.82 to 0.96 (Table 10). A graphical exploration of the test-retest reliability via

a Bland-Altmen plot also indicates high measurement stability on all subscales (Figure 1). That indicates the temporal stability of the measurement, which we want in practice. Similar findings were reported in other countries (17, 19, 21).

4.1 Limitations of the Study

One limitation of this research in the first, qualitative part was the poor response rate of the invited participants, although a higher number would probably not significantly affect the results of the translation. In the second, quantitative part a limitation is that there is no similar instrument in Slovenia to determine the external validity of the ETISR-SF. As yet there is nothing similar to the ETI interview, which can be used to ascertain trauma-related characteristics such as duration, start, frequency, seriousness, perpetrator relationship or subjective significance for trauma survivor. A disadvantage of questionnaires is that they only capture a few properties of potentially traumatic events, and not the subjective meaning that they have for the person who experienced them (28).

In spite of these limitations, this study's validation of the first questionnaire in Slovenian for the detection of early traumatic experience in adults showed that the instrument is valid for use in various part of the health care system.

5 CONCLUSION

Our findings showed that the Slovenian version of the ETISR-SF is a satisfactory instrument for the evaluation of childhood physical, emotional, and sexual abuse, as well as general trauma.

Traumatic experiences in childhood represent an important public health problem that has become a global epidemic in modern times. The consequences of early traumatic experiences can be indicated as psychosomatic and somatoform disorders, causing unnecessary, expensive and invasive diagnostics, and loss of time for starting proper treatment. Therefore, we urgently need a quick and economic measurement tool for early screening of traumatic events in childhood for use in the primary health care system. Such a tool would enable health care professionals to optimize the diagnostic process and refer patients to therapeutic and/or psychiatric treatment in a timely manner.

CONFLICTS OF INTEREST

The author declares that no conflicts of interest exist.

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ETHICAL APPROVAL

The study protocol was approved, as a part of PhD thesis by the Slovenian National Medical Ethics Committee No. 0120-121/2019/9 on 22nd October 2019.

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Appendix 1. Vprašalnik za samooceno travm iz otroštva – kratka oblika (ETISR-SF).

Prvi del. Splošne travme. Pred 18. letom.

1.	Ali ste bili kdaj izpostavljeni življenjsko nevarni naravni nesreči?	DA	NE
2.	Ali ste bili kdaj udeleženi v hudi nesreči?	DA	NE
3.	Ali ste kdaj imeli hudo telesno poškodbo ali bolezen?	DA	NE
4.	Ali ste kdaj doživeli smrt ali hudo bolezen starša ali skrbnika?	DA	NE
5.	Ali so se vaši starši razšli ali ločili?	DA	NE
6.	Ali ste kdaj doživeli smrt ali hudo poškodbo brata ali sestre?	DA	NE
7.	Ali ste kdaj doživeli smrt ali hudo poškodbo prijatelja?	DA	NE
8.	Ali ste bili kdaj priča nasilju nad drugimi, vključno z družinskimi člani?	DA	NE
9.	Ali je kdo v vaši družini imel duševno motnjo ali doživel "živčni zlom"?	DA	NE
10.	Ali so imeli vaši starši ali skrbniki težave z alkoholom ali drogami?	DA	NE
11.	Ali ste kdaj videli nekoga umorjenega?	DA	NE

Drugi del. Fizično kaznovanje. Pred 18. letom.

1.	Ali ste kdaj dobili klofuto?	DA	NE
2.	Ali so vas kdaj opekli z vročo vodo, cigareto ali čim drugim?	DA	NE
3.	Ali so vas kdaj tepli ali brcali?	DA	NE
4.	Ali vas je kdaj zadel predmet, ki ga je kdo vrgel v vas?	DA	NE
5.	Ali so vas kdaj porinili ali odrinili?	DA	NE

Tretji del. Čustvena zloraba. Pred 18. letom.

1.	Ali so vas pogosto poniževali ali zasmehovali?	DA	NE
2.	Ali so vas pogosto ignorirali ali pa ste se počutili neupoštevane?	DA	NE
3.	Ali so vam pogosto govorili, da niste za nič?	DA	NE
4.	Ali so pogosto z vami ravnali na hladen, neskrben način ali ste se počutili neljubljene?	DA	NE
5.	Ali vaši starši ali skrbniki pogosto niso uspeli razumeti vas ali vaših potreb?	DA	NE

Četrti del. Dogodki, povezani s spolnostjo. Pred 18. letom.

1.	Ali se je kdo kdaj dotaknil vaših intimnih ali drugih delov telesa (npr. prsi, stegen, spolovil) na način, ki vas je presenetil ali vam je bil neprijeten?	DA	NE
2.	Ali je kdaj kdo drgnil svoje spolovilo ob vas?	DA	NE
3.	Ali ste bili kdaj prisiljeni v dotikanje druge osebe po intimnih ali zasebnih delih njihovega telesa?	DA	NE
4.	Ali je kdo imel z vami spolni odnos proti vaši volji?	DA	NE
5.	Ali ste bili kdaj prisiljeni imeti oralni spolni odnos proti vaši volji?	DA	NE
6.	Ali ste bili kdaj prisiljeni poljubiti nekoga na seksualni in ne prijateljski način?	DA	NE

Če ste na katerokoli od zgornjih vprašanj odgovorili z "DA", odgovorite na naslednji vprašanji za tisti dogodek, ki je najbolj vplival na vaše življenje. Pri odgovarjanju upoštevajte, kako ste se počutili v času dogodka.

1.	Ali ste občutili hud strah, grozo ali nemoč?	DA	NE
2.	Ali ste imeli občutek, kot da bi bili izven svojega telesa ali kot da bi bili v sanjah?	DA	NE