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Development and validation of the global assessment of post-traumatic stress scale

Desarrollo y validación de la escala global de evaluación de estrés postraumático

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abstract

This research develops and validates a new scale in Spanish to assess post-traumatic stress in adults, called *Global Assessment of Posttraumatic Stress Scale* (in Spanish, *Escala Global de Estrés Postraumático* –EGEP–).The EGEP was designed as a self-report measure aimed to assess posttraumatic symptoms, providing Posttraumatic Stress Disorder (PTSD) diagnosis based on DSM-IV criteria and also symptoms severity scores. It includes all the PTSD diagnostic criteria, and other posttraumatic symptoms, such as negative cognition, dissociation or blame. EGEP was validated in a sample of 175 victims of different traumatic events. Results showed that EGEP provides reliable and valid information: internal consistency ($\alpha = 0.92$) and item analyses were satisfactory; confirmatory factor analysis showed good fit of model for the DMS-IV criteria; and diagnostic performance when compared with CIDI was adequate (sensitivity 91% and specificity 75%). All in all, the EGEP provides complete information for the assessment of trauma and PTSD in a brief self-report format that could be useful in clinical and research settings and that has been validated in Spanish populations.

key words

Posttraumatic stress; factorial structure; validation.

resumen

En esta investigación se ha desarrollado y validado una escala de evaluación en español para evaluar el estrés postraumático en adultos, denominada Escala Global de Estrés Postraumático (EGEP). La EGEP es un instrumento autoaplicado que tiene como objetivo evaluar sintomatología postraumática y ofrecer un diagnóstico de Trastorno de Estrés Postraumático (TEPT) basado en criterios DSM-IV. Esta escala incluye la totalidad de los criterios diagnósticos para el TEPT y otros síntomas pos-

traumáticos, como emociones negativas, disociación o culpa. La EGEP ha sido validada en una muestra de 175 víctimas de diferentes acontecimientos traumáticos. Los resultados indican que la EGEP ofrece información válida y fiable, ya que se obtiene una consitencia interna de $\alpha = 0.92$ y el análisis de ítem es satisfactorio. Además el análisis confirmatorio ofrece un buen ajuste al modelo propuesto para el DSM-IV y la capacidad diagnóstica comparada con la CIDI es adecuada, porque la sensibilidad es de 91% y la especificidad del 75%. Por todo ello, la EGEP se presenta como una escala autoaplicada para aplicar en población española que permite la evaluación de sintomatología postraumática y TEPT.

palabras clave

Estrés postraumático, estructura factorial, validación.

Introduction

Since Post Traumatic Stress Disorder (PTSD) was included as a diagnostic category in the DSM-III (American Psychiatric Association, 1980), a good number of instrument aimed to its diagnosis and assessment have been designed and validated. Actually a number of self-report and interview instruments have been developed for one or various of the following purposes: (a) diagnosis; (b) assessment of posttraumatic symptoms severity; (c) screening of post-trauma psychopathology; (d) assessment of posttraumatic symptom not included in diagnostic criteria (e.g. posttraumatic cognitions, beliefs, guilty,…); and (e) review of trauma trajectory.

Although a good part of these instruments have shown their utility and have demonstrated adequate reliability and validity, they present some shortcomings that limit their use. Firstly, the most commonly used interviews (e.g. *Clinical Administered PTSD Scale* –CAPS–; Blake et al., 1990) are highly demanding in time and effort, both for the interviewer and the patient, and are difficult to apply in certain settings and individuals. On the other hand, they provide a clinical judgment that could be essential in therapeutic and diagnostic decisions.

Secondly, among instruments (interviews or self-report) aimed to PTSD diagnosis, the omission of some of the diagnostic criteria is frequent. Thus the assessment of the exposure to threatening or catastrophic events is often absent; probably taking for granted that the individual has actually been exposed to them. All the same, this omission makes PTSD diagnosis questionable since it

excludes the specific etiologic factor that makes PTSD different from other anxiety disorders (McFarlane, 2000). Even more, when information about the traumatic event is included, no specific reference to the connection between the event and the symptoms is considered, which makes difficult to determine whether the present symptomatology is associated with the exposure to the traumatic event or not.

As far as symptoms assessment is concerned, it is usually limited, since the instruments often consider only the number of symptom but not their frequency or severity; moreover, they only consider those symptoms included in the diagnostic classification systems, missing symptoms that are essential for treatment decision (e.g. secondary emotion) (Brewin, 2001).

Additionally, the validation of these instruments shows some methodological problems. Specifically, a good part of the psychometric studies have focused on individuals who have been exposed to a single traumatic event. For instance, the *Personal Beliefs and Reactions Scale* (PBRS; Resick, 1993) was validated with female rape victims, while the *Harvard Trauma Questionnaire* (HTQ; Mollica et al., 1992) focused exclusively on Indochina refugees. Therefore the reliability and validity of these instruments with other trauma victims is unknown.

Altogether, the *Posttraumatic Diagnostic Scale* (PDS*;* Foa, Cashman, Jaycox, & Perry, 1997) overcomes a good part of these limitations. It was designed as a brief self-report instrument to aid in the diagnosis of PTSD, mirroring the DSM-IV (American Psychiatric Association, 1994) diagnostic criteria, and to provide quantitative data of the severity of PTSD symptoms. Even more, it was validated with victims of a wide range of traumatic events. Nevertheless, the PDS has not been adapted and validated to Spanish samples. In Spain, the most widely used instrument is the *Posttraumatic Stress Symptom Severity Scale* (Escala de Gravedad de Síntomas del TEPT) by Echeburúa, Corral, Amor, Sarasua and Zubizarreta (1997) that has been specifically developed and adapted to Spanish population; nonetheless it shows some of the problems described above. Thus, this instrument is focused on the evaluation of a single traumatic event and does not include the assessment of post-traumatic symptoms, regardless of diagnostic classification (e.g. guilty).

Consequently, we aimed to develop a brief self-report instrument for the assessment of PTSD in adults in Spanish population with the following features: (1) inclusion of all the diagnostic criteria for PTSD; (2) explicit connection between event and symptoms; (3) inclusion of other significant post-traumatic symptoms not considered in diagnostic criteria; (4) sound psychometric properties; and (5) validated in Spanish population exposed to different traumatic events. In this article we describe the design and development of this

instrument and present evidence on its reliability, factorial validity, convergent validity and diagnostic performance in Spanish victims of diverse traumatic events.

Materials and methods

Design and development of the *Global Assessment of Posttraumatic Stress Scale* (Escala Global de Estrés Postraumático –EGEP–)

The EGEP was designed as a self-report measure in Spanish aimed to assess posttraumatic symptoms following DSM-IV criteria and to provide both PTSD diagnosis and symptoms severity scores. In addition, it targets other posttraumatic symptoms that are not included in the criteria, namely self-blame, mistrust, feeling of danger, detachment, derealisation, depersonalization, and decreased self-value. The development of the instrument was based on the *PDS* (Foa et al., 1997), the *Posttraumatic Stress Symptoms Severity Scale* (Echeburúa et al., 1997), the *Posttraumatic Cognition Inventory* (PTCI; Foa, Tollin, Ehlers, Clark & Orsillo, 1999), the *Questionnaire to Rate Traumatic Experiences* (TQ; Davidson, Hughes & Blazer, 1990), and the *Traumatic Life Events Questionnaire* (TLEQ; Kubany et al., 2000). According to PTSD features, the EGEP consisted of three sections:

(1) *Events:* it includes a checklist of 11 traumatic events plus an additional open category. Individuals are asked to indicate how many of these events they have directly experienced, witnessed, or learnt that have occurred to a close relative or friend. Afterwards, individuals are asked to choose the most disturbing event for them and to describe it briefly. All subsequent items of the scale refer to the chosen event as most disturbing. This section also includes 14 items about the features of the event: severity, timing, individual's feelings, and event's implications (e.g. serious injury, death of others, life-threatening potential, gruesome scenes…). This section provides information about Criterion A for PTSD DSM-IV diagnosis.

(2) *Symptoms* (28 items) including the 17 DSM-IV PTSD symptoms (i.e. 5 re-experiencing –Criterion B–, 7 avoidance and numbing –Criterion C–, and 5 arousal –Criterion D–), and 9 additional symptoms (named Subjective Clinical Symptoms –SCS–) to address other posttraumatic sequelae that have been documented in research and conceptualization, such as, shattered assumptions and negative cognitions (Foa et al., 1999; Janoff-Bulman, 1992; Resick & Miller, 2009), negative emotional states (Miller & Resick, 2007), or dissociative symptoms (Griffin, Resick & Mechanic, 1997; Yufik, & Leonard, 2010). The person must indicate

whether he/she had experienced the symptom in the last month, and if so, the degree of discomfort that it causes on a 0-4 scale (0 = no discomfort; 4 = extreme). These later are used to compute severity scores. Two final items rate the duration of the symptoms (Criterion E) and their onset moment.

(3) *Functioning* assesses the resulting impairment in different life areas with 7 items (Yes/No) that address Criterion F.

Initial version of the scale was revised based on recommendations from 12 expert reviewers. For review by the reviewers it was created a questionnaire that allowed evaluate issues related to relevance and representativeness of each item, conciseness and clarity of each item, adequacy of response format, key aspects and omitted of the test and content validity.

After the changes made, based on the proposals suggested by the expert group, we proceeded to amend the final draft of the EGEP and it was conducted a pilot study with 10 participants, applying the entire assessment battery.

The final version of the EGEP has been published recently (Crespo & Gómez, 2012). Table 2 shows the content of each item and below are presented some items; «Repeated and distressing memories of the event, images or thoughts» (Re-experiencing), «Avoiding activities, places or people that remind the event» (Avoidance and numbing), «Trouble falling or staying asleep» (Arousal) and «Feeling blame about made or did not make during the event (SCS)».

Participants

Participants (n=175) were recruited among people on treatment from several trauma services in Madrid area (Spain). Specifically, they were: Hospital Nuestra Señora de América, Hospital Militar Gómez Ulla, Beccaria, Stop-Accidentes, ANVDV-Asociación Nacional de Víctimas de Delitos Violentos , ICAS-Atención en Catástrofes, Comedor de Refugiados Políticos de la CAM, Centro de la Mujer Rosa de Luxemburgo de Leganés, Centro de la Mujer de Collado-Villalba, Servicios Sociales de Entrevías, IPSE-Intervención Psicológica Especilizada and ACAL-Asociación contra el Acoso Laboral.

Inclusion criteria for the study were: (a) exposure to a traumatic event involving death or life-threatening situations or some injury, either by implying actual or threatened death or injury, by directly experiencing it, witnessing it, or learning that it had occurred to a beloved person; (b) the event occurred at least 1 month before the assessment; (c) aged 18 years or older; and (d) mastery of Spanish. Exclusion criteria were: (a) current psychosis; (b) cognitive impairment; and (c) substance intoxication at assessment time.

The mean age of participants was 39.21 (SD=12.63), ranging 18-76 years; 70% were female; 52% were married or cohabiting with their partners, 30% were single, 11.5% were divorced or separated, and 6.5% were widowed, they were mostly Spanish (92%) and the rest come from several Latin-American countries; around 37% had completed high school; and about 33% were employed full time.

Materials

To establish diagnostic performance, the PTSD Section of the *Composite International Diagnostic Interview* –CIDI- (WHO, 1990) was used as «golden standard», since it was the only interview adapted to Spanish population for the evaluation of PTSD with an application time not exceeding 15 minutes.

Convergent validity was assessed using Spanish versions of the following self-report instruments: (a) *Beck Depression Inventory* (BDI II; Beck, Steer & Brown, 1996; Spanish version by Sanz, Navarro & Vazquez, 2003), with good internal consistency in this study sample (α=0.93); (b) *Beck Anxiety Inventory* (BAI; Beck, Brown, Epstein & Steer, 1988; Spanish version by Sanz & Navarro, 2003), with good internal consistency in this study sample (α=0.94); (c) *CAGE Questionnaire* (Ewing, 1984; Spanish version by Rodriguez-Martos, Navarro, Vecino & Perez, 1986) that screens alcohol abuse with sensitivity 100% and specificity 98% for cut-off point 1 that was the applied here; and (d) *Brief Symptoms Inventory* (BSI; Derogatis, 1982; Spanish version by the author), with excellent internal consistency in this study sample (α=0.96).

Procedure

After giving informed consent, participants were assessed in a single session. First self-report questionnaires were applied; second the CIDI's PTSD module was applied by trained interviewers with degree in Psychology. Following Foa et al. (1997), this order was chosen to circumvent possible influence of the interviewer's questions on the participants' responses to the EGEG. Of the total of 175 measures collected, 31 participants only completed self-report questionnaires; consequently diagnostic performance was computed for 144 data sets.

Data Analysis

Internal consistency for total scores and for each symptoms cluster was determined using the Cronbach alpha for continuous variables, and the Kuder-Richardson formula (KR-20) for dichotomous variables (acceptable minimum

0.70). Furthermore, items analysis was performed for each item taking its symptoms cluster (or subscale) as reference and computing the alpha coefficients of the scale if item deleted and the homogeneity coefficient (acceptable minimum 0.40).

We used confirmatory factor analysis (CFA) to assess the adjustment to theoretical structure derived from the diagnostic criteria of DSM-IV, applying the Weighted Least Mean Squares (WLMS) as estimation method. Hu and Bentler (1998) suggested that in this analysis a comparative fixed index (CFI) of at least 0.90, a root mean squared error of approximation (RMSEA) less than 0.08, and a standardized root mean square residual (SRMR) less than 0.08 together would indicate a good fit between the hypothesized model and the data.

Criterion-related validity was examined through Pearson correlation coefficients between the severity scores obtained from the EGEP and the other measures of psychopathology.

Finally, ROC (Receiving Operating Characteristics) curves were applied to establish cut-off points (i.e. number of items endorsed) required for PTSD diagnosis for each symptoms cluster, taking as reference the CIDI, which was considered as «gold standard». Specifically, reexperiencing, avoidance-numbing, and arousal scales took as reference the number of symptoms required in DSM-IV PTSD diagnosis (i.e. one, three and two, respectively); since there are no reference in DSM-IV about the number of symptom required for functioning criteria, nor for SCS, in both cases they were established by comparison with the PTSD diagnosis by the CIDI. Cut-off points were chosen considering the area under the curve (minimum acceptable lever 0.50); moreover, since the EGEP was designed as a diagnostic measure, they should consider values with good sensitivity even if it implies lower specificity (Kassirer, 1989). Consequently, diagnostic performance of the EGEP was established by comparing PTSD diagnosis after applying the selected cut-off points in the EGEP with a diagnosis from the CIDI by Bayes analysis; sensitivity, specificity, positive predictive value, negative predictive value, accuracy and Kappa and Youden index were calculated.

Results

Characteristics of participants

Participants experienced a mean of 6.2 traumatic events along their lives (SD=4.56), including directly experienced (M=3.2; SD=1.88), witnessed (M=1.00; SD=1.76), and heard of it happening to a close person (M=2.06; SD=2.14). They had experienced a wide range of traumatic events; among

the events that they identified as the one that bothered them the most and to which they referred the posttraumatic symptoms were: Accidents (23.4%), harassment (22.9%), terrorism (13.1%), life-threating illness (12.6%), rape or sexual abuse (9.1%), physical violence (9.1%), and death of a beloved person (6.9%). The events considered as «most traumatic» were mainly directly experienced (79.4%); 19.4% had witnessed it and in only 1.2% of the cases, it had occurred to a beloved person. Additionally, 91% of the participants assessed the event as severe or extreme (none of them assessed it as light). For 85% of the victims, the event involved gruesome scenes, for 57.2% threats to their physical integrity, and for 51.7% it included life-threatening situations. Most of the events had occurred during adulthood (only 11% had occurred in childhood or adolescence) and were experienced in only one occasion (52%) and it occurred more than three months ago (81%).

Reliability

As can be seen in Table 1, *internal consistency* values for the symptom clusters and the total scores of the EGEP were all adequate and remained over the acceptable level (range 0.74 to 0.92 for intensity, and 0.69 to 0.87 for presence of the symptoms). The only exception was the cluster of arousal symptoms when considering presence values (0.59).

Table 1. Internal consistency for EGEP total scores and subscales (n=175)

	N ítems	Presence[1]	Severity[2]
Re-experiencing	5	0.73	0.87
Avoidance and numbing	7	0.71	0.78
Arousal	5	0.59	0.74
PTSD symptoms	17	0.84	0.90
SCS	9	0.71	0.81
PTSD symptoms + SCS	26	0.87	0.92
Functioning	7	0.69	—

[1]KR-20; [2]α Cronbach; SCS = Subjective Clinical Symptoms

Items analysis (see Table 2) indicated that the item homogeneity may be considered adequate and that the reliability of the subscales decreased with the removal of any item. The only exception was the item referred to «inability to recall important aspects of the event» (included in the avoidance-numbing subscale), which show an item homogeneity index under the adequacy level, though significant, and whose removal increased the internal consistency of the

subscale. Taking into account its content, it could be thought that results about this specific item could be related to loss of consciousness during the traumatic event and the consequent difficulties in the memory of the circumstances surrounding the incident. Therefore, we proceeded to differential analyses of the item focused on the subgroup of participants (n=131) that had not lost consciousness in the event: item homogeneity increase from 0.34 to 0.44; however results about the effect of the removal of the item in the internal consistency of the subscale did not improve.

Table 2. Item homogeneity and α if item deleted for each subscale (n = 175)

Item	Item homogeneity	α if item deleted	Item SD
Re-experiencing (α = 0.87)			
Recurrent and distressing memories of the event	0.84**	0.83	1.30
Recurrent distressing dreams of the event	0.78**	0.86	1.60
Acting or Keeling as in the event was happening again	0.82**	0.84	1.51
Psychological distress at exposure to cues of the event	0.79**	0.84	1.27
Tembling, sweating, increased heart rate… to reminders of the event	0.84**	0.83	1.50
Avoidance and numbing (α = 0.78)			
Efforts to avoid thoughts, feelings or conversation	0.57**	0.77	1.55
Efforts to avoid activities, places or people	0.59**	0.77	1.58
Inability to recall important aspects of the event	0.34**	0.80	1.25
Inability to recall important aspects of the event (without loss of consciousness) (n=131)	0.44**	*0.81*	*1.12*
Dismissed interest or pleasure in activities	0.81**	0.71	1.59
Feelings of detachment or estrangement from others	0.75**	0.73	1.60
Difficulties to experience some feelings	0.77*	0.72	1.52
Feeling if future plans or hopes will not come true	0.71**	0.74	1.57
Arousal (α = 0.74)			
Difficulties falling or staying asleep	0.66**	0.72	1.52
Irritability or outburst of anger	0.69**	0.70	1.54
Problems to concentrate	0.69**	0.70	1.51
Constant alert or vigilance state	0.77**	0.65	1.53
Easily startled	0.69**	0.70	1.50

Item	Item homogeneity	α if item deleted	Item SD
Subjective Clinical Symptoms (α = 0.81)			
Blame of self about what you made or did not make during the event	0.67**	0.79	1.57
Blame of self about surviving the event	0.58**	0.80	1.32
Blame of self about the event	0.58**	0.80	1.36
Feeling that you are no longer able to rely on people	0.57**	0.80	1.35
Feeling that the world is dangerous	0.62**	0.79	1.55
Feeling detached from world around	0.70**	0.78	1.40
Experiences of unreality of one's surroundings	0.68**	0.78	1.28
Feeling as an outsider observer	0.63**	0.79	1.20
Poor self-esteem	0.64**	0.79	1.53

** $p < 0.01$; * $p < 0.05$

Confirmatory factor analysis

Takings as reference the three-factor model considered in DSM-IV criteria for PTSD, a CFA was evaluated with this a priori structure for the 17 items referred to PTSD symptoms. Moreover, since the EGEP incorporates a new cluster of posttraumatic symptoms (i.e. SCS), an additional model was evaluated for the 26 symptoms items (i.e. 17 PTSD symptoms + 9 SCS). Additionally, a one factor model for the 26 symptoms items (Model 0) was calculated to establish the improvement achieved with these models (see Table 3).

Overall fit indices supported the three-factor structure for 17 symptoms (Model 2), and the four-factor structure for 26 symptoms (Model 1). Altogether, the indices assessed both models as adequate representations of the observed data (cf. CFI and RMSEA); nevertheless, SRMR indices are slightly over the threshold value. Model 2 adjusted slightly better than model 1 (χ^2 = 50.13, $p < 0.01$) probably due to its greater simplicity (17 items vs. 26).

Table 3. Fit indices for confirmatory factor analysis (n=175)

Model	Factors (n items)	χ^2	Df	CFI	RMSEA	SRMR
Model 0	One factor (17)	683.54	47	0.56	0.088	0.135
Model 1	F1: Re-experiencing (5)	138.55	72	0.90	0.073	0.121
	F2: Avoidance and numbing (7)					
	F3: Arousal (5)					
	F4: SCS (9)					

Model	Factors (n items)	χ^2	Df	CFI	RMSEA	SRMR
Model 2	F1: Re-experiencing (5)	88.42	43	0.92	0.078	0.120
	F2: Avoidance and numbing (7)					
	F3: Arousal (5)					

F = Factor; SCS = Subjective Clinical Symptoms

Validity

EGEP symptoms severity scores were *correlated with other symptoms and problems* theoretically linked to PTSD in the literature (see Table 4). A consistent pattern of direct significant relationship among EGEP severity scores and psychopathology measures (i.e. depression, anxiety, and overall psychopathology) emerged. On the other hand, correlations with alcohol abuse were low and only reached statistic significance occasionally.

Table 4. Correlations between EGEP severity scores and measures of psychopathology (n=175)

	BDI-II	BAI	CAGE	BSI
Re-experiencing	0.46**	0.54**	0.12	0.51**
Avoidance and numbing	0.65**	0.60**	0.18*	0.70**
Arousal	0.62**	0.65**	0.09	0.69**
SCS	0.67**	0.63**	0.22**	0.70**
Total (17 items)	0.66**	0.68**	0.15*	0.72**
Total + SCS (26 items)	0.71**	0.71**	0.19*	0.77**

** $p < 0.01$; * $p < 0.05$

SCS =Subjective Clinical Symptoms; BDI-II = Beck Depression Inventory; BAI = Beck Anxiety Inventory; CAGE= CAGE questionnaire; BSI=Brief Symptoms Inventory

Diagnostic performance

The diagnostic performance of the EGEP was assessed by comparison with a diagnosis from the CIDI. Cut-off points for each subscale were established through ROC applied to the number of symptoms endorsed in each symptom cluster or subscale. As it is shown in Table 5, values of area under the curve and sensitivity values are satisfactory for all subscales.

Then diagnostic performance of the EGEP was established by comparing PTSD diagnosis in the EGEP (applying the selected cut-off points) with

a diagnosis from the CIDI. Results showed good results and supported the diagnostic performance of the EGEP: sensitivity: 91%; specificity: 75%; positive predictive value: 89%; negative predictive value: 78%; accuracy: 86.1%; Youden index: 0.66; and Kappa index: 0.67 ($p<0.001$).

Table 5. Cut-off points for EGEP subscales (n=144)

	Cut-off point	Under curve area	Sensitivity	Specificity	Accuracy
B. Re-experiencing	1	0.96	97.1%	40.0%	95.1%
C. Avoidance and numbing	3	0.90	92.2%	73.8%	86.8%
D. Arousal	2	0.85	95.5%	41.7%	91.0%
SCS	2	0.72	90.5%	26.5%	68.8%
F. Functioning	2	0.93	96.4%	57.1%	94.4%

SCS =Subjective Clinical Symptoms

Discussion

This study aimed to develop a self-report instrument for the assessment of posttraumatic stress severity and the diagnosis of PTSD in adults in Spanish population, namely EGEP. The test developed, and presented here, provides information about: screening of individual's trajectory of traumatic events; PTSD diagnosis (DSM-IV) considering all the diagnostic criteria and specifiers (i.e. onset and duration of the symptoms); PTSD symptoms severity; and other posttraumatic symptoms presence and severity (e.g. negative cognitions, dissociation, blame…).

The advantage of the EGEP over other self-report measures lies in its complete correspondence to all criteria of the DSM-IV, the inclusion of other posttraumatic symptoms that have revealed essential for therapeutic decisions (e.g. timing in the introduction of exposure techniques), the adaptation to Spanish population, and the examination of its psychometric properties in a sample of victims of diverse causes of trauma. All in all, the EGEP provides complete information for the assessment of trauma and PTSD in a brief self-report format that could be used in a variety of settings or fields (cf. clinical, forensic, research).

The results of the validation study described here suggest that the EGEP provides reliable and valid information of PTSD diagnosis, PTSD symptoms severity, and also other posttraumatic symptoms severity. The subscales

have demonstrated high internal consistency; it is worth mentioning the high alpha value of the SCS subscale that has been newly introduced in the EGEP. Furthermore, the reliability values obtained here for the total severity scores are comparable to those obtained for other self-report measures of PTSD, such as the PDS (Foa et al., 1997) or the one by Echeburúa et al. (1997): alpha 0.92 and 0.90 respectively. Moreover, the item analyses have shown that all the items increase the reliability of their subscale. The only exception could be the item referring to «inability to recall aspects of the event» whose inclusion dismisses the consistency of its subscale, even when considering only individuals that had not lost consciousness during the event. Consequently, data suggest taking into account circumstances surrounding the traumatic event when considering the answer to this specific event, especially for diagnostic purposes.

The good fit of the confirmatory model to the three and the four main factors (for 17 PTSD symptoms and 17 symptoms +9 SCS, respectively) corroborates the EGEP construct validity. Actually, the factorial validity indices of the scale are acceptable and support its use for the assessment of PTSD as defined in DSM-IV; moreover, the inclusion of SCS is also supported by the confirmatory model.

The severity scores on the EGEP were highly correlated with other measures of psychopathology, namely depression, anxiety and overall psychopathology. These findings were expected based on previous data (e.g. Schnyder, Moergeli, Klaghofer & Buddeberg, 2001). Nevertheless, it raises the question of whether PTSD is a distinct diagnostic entity, since its symptoms overlap with those of depression and of general anxiety. Actually, some recent proposals recommend to focus PTSD diagnosis in its basic symptoms and to remove all non-specific symptoms that are shared by other disorders (Maercker et al., 2013; Strain & Friedman, 2011). Furthermore, several studies have found a strong association between PTSD and alcohol use (e.g. Kessler, Sonnega, Bromet, Hughe & Nelson, 1995) that is not fully corroborated here. These discrepant findings could be related with transcultural differences, with the specific features of the instrument used to detect alcohol use, or even with social desirability. It is worth mentioning that low relationship between alcohol use and PTSD in victims of violence by an intimate partner has also been found in Spanish samples with other instruments (cf. Rincón, Labrador, Arinero & Crespo, 2004).

The EGEP has show good diagnostic performance against the CIDI; according with its objectives, it has reached excellent sensitivity values (91%) and moderate specificity ones (75%) in order to ensure that most of people with PTSD are diagnosed; thus it aims to reduce the uncertainty level to take therapeutic decisions (Kassirer, 1989). These data are comparable to those obtained by the PDS, which took as reference the SCID reaching a 82% sensitivity

and a 77% specificity. Nonetheless, since a diagnosis requires an evaluation by trained clinicians (Foa et al., 1997), the diagnosis that could be derived from the EGEP should be used for screening purposes and should be complemented with structured diagnostic interviews in order to reach conclusive diagnosis. Consequently, the EGEP may be especially useful for the work with populations at risk for PTSD, as well as for establishing and comparing prevalence rates of PTSD in different populations. Additionally, it could be useful in clinical settings for monitoring treatment outcomes.

Our study is based on a sample obtained among victims of traumatic events that require psychological treatment (i.e. clinical sample). In the future, results should be corroborated in different settings (e.g. forensic) in order to establish the feasibility of the EGEP in other fields. Moreover, it would be necessary to obtain normative data in different settings since the specific aim of the assessment could imply biases. Additionally, the sample size of the present study could be considered modest. Consequently, future research should explore the generalizability of the results in other samples and settings.

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