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Reliability and Validity of the Spanish Adaptation of EOSS, Comparing Normal and Clinical Samples

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Abstract

The Experiencing of Self Scale (EOSS) was created for the evaluation of Functional Analytic Psychotherapy (Kohlenberg & Tsai, 1991, 2001, 2008) in relation to the concept of the experience of personal self as socially and verbally constructed. This paper presents a reliability and validity study of the EOSS with a Spanish sample (582 participants, 18 to 70 years old; 198 men and 384 women), gathered from different cities, universities and clinical centers. The clinical sample consisted of 162 people undergoing psychological or psychiatric treatment and 420 people without problems. Standard questionnaires (Eysenk Personality Questionnaire-Revised, Rosenberg Self-Esteem and Dissociative Experiences Scale) which measure similar self-concepts were used to explore the validity of the EOSS. The results show high internal reliability (Cronbach's α =.935) and both high and significant correlations with the "neuroticism" scale of the EPQ-R (.212, $p<.001$), "dissociation» of the DES ($r=.483$, $p<.001$) and negative self-esteem of the RSES ($r=-.544$, $p<.001$). The partial and total scores of EOSS also differentiated the clinical sample with high scores from the standard sample ($t=7.78$, $p<.001$). In conclusion, the EOSS has high internal reliability, high validity with similar self-concept scales, and it is also useful for evaluating people with psychological problems of self.

Keywords

Functional Analytic Psychotherapy, Experiencing of Self Scale, reliability, validity, questionnaire, clinical sample

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The Oxford English Dictionary defines "self" as something a person intrinsically is, who they are at a particular moment, and able to express different attributes depending on the situation. Particularly, it is the sense of 'being' that distinguishes one person from another and which makes them human. William James spoke about the philosophical concept of "ego" as opposed to the psychological "self" organized in a hierarchy of material, social and spiritual self. From a neuropsychological standpoint "self" is also defined as the recognition of events, feelings, thoughts etc., produced and perceived by the individual as a spatial and sensory unit (Churchland, 2002a). It could also be represented as a 'fundamental ability' and a state that can successfully respond to changes and which can adapt to different situations and events (Churchland, 2002a, 2002b; Miller et al., 2001). Although the concept of self began with psychodynamic theory (see Cohut, 1971), Winnicott (1961) proposed the development of self as part of the mother-child relationship, and confirmed that the mother constructs the child´s "self" in the process of looking after it. But from a behaviorist point of view, it was Bandura (1977) who elaborated the social-cognitive construct of self-efficacy. Other authors, such as Rosenberg (1965, 1979), Coopersmith (1977) or Marx & Winne (1978), maintain a global construct, a unidimensional self-concept with different contents but which cannot be separated from each other. Since then a further 37 theories on self-concept have been published (see Robins, Noem & Chach, 1999).

An internal and profound cognitive explanation of the inner self related to "who am I" is not an explanation in itself. The cognitive self needs to recognize the nature of self and how it has materialized as such. From a behavioral perspective it is not denied the self-experience of being, but their nature and causes must be explained, instead of supposing him a mental thing. The experience of self has been given a behaviorist definition by Skinner (1957, 1974) as personal conduct and behavior which can be explained and changed by the same learning processes as any other personal conduct or behavior. Unlike other behavior, however, it is a private experience, unique to the individual person who experiences it and inaccessible to anyone else. Skinner described it as the discriminative verbal behavior about one's own behavior. Also, this self-referencing behavior necessarily has a social origin based on the verbal learning experiences of responding to other people's questions about oneself (*What did you do? Who did it? What do you think? How do you feel?*). Hence, it is a consequence of all those situations when we have to manage, control and explain ourselves and our behavior to other people. These experiences reinforce and shape in us a sense of self, at first public but which progressively becomes private. As the child grows up and reaches adolescence and adulthood the concept of self becomes ever more experienced and stable. It is important to identify both the conditions when the private behavior occurs and the conditions when the same behavior does not occur. The personal history of the person should also be taken into account

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when identifying why certain behavior occurs in specific contexts and not in others. In short, the discriminative stimulus controlling the experience has to be identified with respect to "self", as do the conditions of reinforcement in the persons past which later maintains it. From a behaviorist perspective, consistent with *Relational Frame Theory* (RFT, Hayes, 1991, Dymond & Barnes, 1997) the self is established as a context, as a "point of view or place of reference", which is generalized by multiple verbal examples.

Kohlenberg & Tsai (1995) have developed a theory of self based on Skinner's theory. The theory begins with the child's explicit verbal learning process in which self-referencing phrases are reinforced ("*baby wants, I, my, I want, I have, their own name…").* After multiple experiences of this kind, the child acquires a verbal concept of "generalized self" as a person who acts, wants, asks, plays, cries, feels hunger, etc., in other words, an active individual. The experiences that are referenced by the child (e.g, *"I want food"*) have public references which are used by the parents and others to reinforce, maintain or stop behavior (e.g., the parent sees the child reaching for food on the table). These reinforcing experiences shape a public self, but at the same time a private self only observable to the individual and which consists of private experiences that could also be under public control (hunger, coldness, tiredness, and pain).

If these private experiences occur in a social context that is inconsistent, unstructured, random or lacking correspondence between the private and public experiences, then an inconsistent self can be developed, which is dependent on the social context of each specific moment (for example; I cannot be sad if nothing bad has happened, I cannot be hungry if it is not time for a meal, I cannot cry or be angry because I'll be punished). Such a person would have difficulty distinguishing between their own needs and those of other people. They will try to gain affection by giving in to other people's needs and desires, by being charming, lying or manipulating in order to obtain exclusive social reinforcement. During adolescence this sense of self is stronger and is reinforced by peers and friends. In many cases the self is gradually defined by the tastes, wishes and needs of the group and not by the individual private experience. A very social sense of self is developed during this stage by fulfilling other people's needs, by pleasing other's emotions and by continuous self-comparison with peers. Adulthood, and more diverse social experiences, progressively allow for the development of a more stable self, based on personal experiences rather than on strict social control. By varying the social contexts (partner, friends, colleagues) the concept of self is confirmed as different from the rest, as the center from which one acts and which is controlled by the needs, desires, thoughts and emotions of the private character when social control would be more apt. Many people with emotional or personality problems would not have these problems if they were under exclusive social control.

According to the Kohlenberg and Tsai's theory (1991, 1995), the self, which should come to be controlled by private events, may show changes and alterations controlled by the immediate social environment, for example, with individuals with psychopathological personality problems (e.g., histrionic, narcissistic, dependent, avoidant). For example, some people with "self" problems such as *Borderline Personality Disorders* (BPD) have a more unstable concept of self which is influenced by other people's opinions. The American Psychiatric Association, with reference to BPD, confirms *"The major symptoms of this disorder revolve around unstable relationships, poor or negative sense of self, inconsistent moods, and significant impulsivity" (DSM-IV-TR, 2001).* People with a weak sense of self tend to experience great changes of opinion, plans, preferences, tastes, values and even friends. Briere & Runtz (2002) underscore the lack of self-understanding in these people and the tendency to confuse their own thoughts, feelings and points of view with those of the people around them.

Various instruments have been created to evaluate self-concepts. The Questionnaire *Tennessee Self Concept Scale* (Fitts & Warren, 1996) has been widely used in studies focusing on self-concept in school children and adolescents, although mainly in humanistic psychology. It includes a scale of *ethic-moral* self-concept and another of *one's personal self*. This is understood as the individual's self-perception of interior values, their adjustment as a person and the evaluation of their own personality, independent of others. Although it is unidimensional, it has three internal factors (identity, satisfaction and behavior) and five external factors (physical, moral-ethical, personal, family and social). It has 18 items on a Likert scale of five points, with high reliability (α=.70) and high correlations with personality traits, emotional stability and personal adaptation.

Flury & Ickes (2004, 2007) have created the SOSS (*The Sense of Self Scale*) questionnaire to evaluate the strength of people's sense of self. It has 12 items that cover diverse problematic components such as: a lack of self-understanding, sudden changes of emotions, feelings and values, the tendency to confuse personal feelings and emotions with other people's perspectives, and feelings about personal fragility or weakness. It is evaluated on a Lickert scale of 1 to 4. It was applied on a sample of 337 university students (67% women), along with many other questionnaires on personality, depression and BPD. It has high internal consistency (α = .86) and test-retest reliability (r = .83), as well as high correlations (from r = .19 to r = .59) with fear of rejection, neuroticism and borderline symptomatology. Although they did not use a clinical simple, their objective was to identify weakness in the sense of self in different clinical BPD cases in relation to emotional changes, instability, dichotomic thoughts, self-hurting etc., which are common to people with this disorder.

Briere & Runtz (2002) have also created a questionnaire the *Inventory of Altered Self-Capacities (IASC)* to evaluate people with BPD in reference to the dysfunction in relating to self and others. It has 63 items grouped into 7 subscales: interpersonal conflicts, idealization-disillusion, fear of rejection, identity difficulties, susceptibility to being influenced, emotional deregulation and activities for reducing tension. They used a sample of 620 people from the general public, 289 university students and 116 with clinical problems (the average age of the whole sample was 31, and 75% were women). The questionnaire has high internal consistency (α = .89, with a range in subscales between .82 and .93). A high correlation was also found with other questionnaires on depression, personality, suicidal intentions, substance abuse, problematic sexual behavior, which are common to people with this disorder.

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The *Experiencing of Self Scale* (EOSS) evaluates the concept and experience of self, as a social construct and influenced by others as Kohlenberg and Tsai's (1991, 1995) theory. The first investigation by the authors (Kanter, Parker & Kohlenberg, 2001) was with 284 students and 14 people with BPD. They found that the people with BPD scored higher in their dependency on others, and that there was a high correlation with other dissociation measures and low self-esteem. According to their research on the EOSS scale it appears that: (a) the more relevant the public stimulus becomes, the greater influence it has over the concept of self; (b) greater public control over "self" relates to lower self-esteem, a more unstable self, and greater dissociation; and (c) public control, with greater instability and dissociation, is especially relevant in people with psychological problems such as BPD.

EOSS items specifically ask respondents about their feelings, needs, attitudes, opinions and actions, and the degree to which these experiences are influenced by casual social relations versus intimate relations and if they occur in company versus when alone. The original scale has 20 items and scores are on a Likert scale of 7 points (from 1 *never* to 7 *always*). The original study (Kanter, Parker, & Kohlenberg, 2001) compared EOSS scores to scores on the *Self-Esteem Scale* (Rosenberg, 1965) and the *Dissociative Experiences Scale* (Bernstein & Putman, 1986), to check the correlation with other similar constructs. The sample consisted of 284 students (with an average age of 19.2 and 59% women), but the clinical sample consisted of only 14 people diagnosed with BPD (with an average age of 41 and 86% women). The internal consistency was α = .91 and each subscale was between .83 and .93. A factor analysis was carried out to confirm the subscales related to the influence of casual relationships when with other people, casual relationships when alone, close relationships when with other people, and close relationships when alone. As the authors expected, they found scores increased with the social control (from being alone to close relationship). They also found a positive correlation with the experience of dissociation (r = .34) and a negative correlation with self-esteem (r = -.26). They also found significantly higher in scores obtained by people with BPD.

The objective of this paper is to obtain reliability and validity scores from the EOSS questionnaire (in a version with 37 items), comparing a normal sample and a clinical sample of Spanish people. The research group intended to evaluate a measure of self which distinguishes people with self-concept problems from the general population, and which could also function as a pre-post evaluation on the efficiency of treatment when this kind of problem has been addressed and solved during psychotherapy.

METHOD

SAMPLE

The participants for the sample were chosen from 18 different centers including universities and private clinics. The whole sample is Spanish and from 4 different cities. Data were collected from a total of 582 participants, aged between 18 and 70 (mean = 30.10 year's old, SD = 10.3). 384 participants were women (65.9%) and 198 were men (34.1%). Table 1 shows the distribution according to sex, age, marital status, studies, occupation, residence and treatment. The general sample is made up mainly of women, less than 35 years old, single, at university and living in the family home. In the total sample 27.5% were receiving psychological or psychiatric treatment of some sort, or both.

INSTRUMENTS

The *Experiencing of Self Scale* (Kanter, Parker & Kohlenberg, 2001) is a questionnaire with 37 items, valued on a Likert scale from 1 (never) to 7 (always). It has 4 sections depending on the kind of relationship, casual or close and the presence or not of other people. Section 1 evaluates the general experience of self. Section 2 evaluates the influence of other members of the general public on expression of needs, opinions, attitudes and actions. Section 3 evaluates the same influence on expressions but when the participant is with a person of a more intimate nature. Section 4 evaluates spontaneity, creativity, dissociation and sensitivity to criticism. In the research group's first publication, using a version with 20 items, the internal consistency was α = .91 and each subscale was between .83 and .93. The great majority of the sample was of university students and only a few participants had clinical problems. The scale used here was translated and adapted into Spanish and used on a small sample. It was revised by three clinical professionals before being applied.

The *Eysenk Personality Questionnaire-Revised (Eysenk, Eysenk & Barret, 1985)* is a questionnaire with 100 items. The participants have to answer yes/no questions according to if the description of the item fits with their usual way of thinking and behaving. It has different subscales such as Hardness-Psychoticism, Extraversion, Neuroticism-Emotionality, and the Lie Scale. It should be noted that these are not the same factors as the first version but the revision of the questionnaire has improved its reliability with an α between .71 and .92 and a test-retest between .73 and .94. The Spanish version used here is from Aguilar, Tous & Andres (1988).

The Rosenberg Self-Esteem Scale (Rosenberg, 1965, 1989) is a questionnaire with 10 items organized in order of how the individuals see themselves, how they would like to see themselves and how they depict themselves or would like to depict themselves in front of others. However, it is a unidimensional scale and all the factorial analyses tend towards only one fundamental factor of self-esteem. It scores on a scale of 1 to 4 according to the participant's grade of agreement with each item. This scale has been used in a number of studies, in various countries, with both university students, the general public and clinical patients. It has shown a high internal consistency throughout prior studies (α = .85 to .88) and a reliable test-retest (r = .84). This paper has used the Spanish version by Martin, Nunez, Navarro & Grijalvo (2007).

The *Dissociative Experiences Scale* (Bernstein & Putman, 1986) is a questionnaire with 28 items evaluated on a Likert scale of 0 to 100 (never to always). It measures the participant's grade of experience related to each item on the list. It has been applied to a clinical sample and has high reliability (α = .93) and test-retest (between r = .78 and r = .96). It has been used on a student sample and also a clinical sample, even for the differential diagnoses of schizophrenia. In this case the scores were higher than

Table 1. Sample distribution about sex and clinical treatment through categories.

	Men	Women	Total	Standard	Clinical	Total
Marital status			*			**
Single	125	304	429	339	90	429
Married	42	54	96	55	41	96
Coupled	5	10	15	10	6	16
Separated	16	14	30	10	19	29
Widowed	0	3	3	1	2	3
Others	2	4	6	5	4	9
Age			**			**
Less 25	70	224	294	255	39	294
26 to 35	52	79	131	89	41	130
36 to 45	37	44	81	35	47	82
46 to 55	22	24	46	22	24	46
56 to 65	3	13	16	7	9	16
66 to 70	1	1	2	0	2	2
Occupation			**			**
Student	89	247	336	289	47	336
Worker	47	78	125	76	51	127
Student & Worker	3	24	27	21	6	27
Self-employed	19	7	26	8	17	15
Unemployed	28	15	43	14	28	42
Houseworker	4	21	25	12	13	25
Studies			**			**
Primary	19	13	32	10	20	30
Secondary	13	10	23	12	11	23
Bachelor	19	43	62	41	22	63
Professional	25	25	50	32	18	50
University	83	211	294	228	67	295
Postgrade	31	90	121	97	24	121
Residence			**			**
Home alone	20	32	52	25	27	52
Own family	44	76	120	71	50	121
Parents family	70	154	224	176	48	224
Others	51	128	179	147	31	178
Treatment			**			**
No-treatment	121	298	419	420	0	420
Medical	9	28	37	0	37	37
Psychiatric	6	6	12	0	12	12
Psychological	37	38	75	0	75	75
Both	15	22	37	0	38	38
Total	190	392	582	420	162	582

(Chi² * p<.05 ** p<.01)

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those recorded in the general population. This paper has used the Spanish version by Icara, Colom & Orengo (1996).

PROCEDURE

To create the EOSS questionnaire the original version was translated into Spanish then two clinical experts revised the translated version. This was followed by a pilot study with a sample of 20 students to correct any possible errors, difficulties in understanding the items, or in the application itself. The items on the finished version were then numbered from 1 to 35 to facilitate the analysis of the data once collected. Section 1 of the EOSS, with items 1 to 7, refers to oneself in general; Section 2 has items 8 to 17 and refers to the influence on the experience of self of people the participant knows; Section 3 refers to the influence of personal or intimate relationships and includes items 18 to 27; Section 4 refers to oneself in relation to others with items 28 to 37. A score is obtained in each section as well as a total score. The participants answer all items with a Likert scale of 1 to 7 (from never to always) according to the frequency the item in question occurs, is thought, or is felt.

To run the test 18 centers and services were asked to collaborate (universities, university psychological attention services, associations for people with psychological problems and private clinics of psychology). After the objectives were explained and consent was given, the participants were each given a copy of all the questionnaires without any reference to the names of the questionnaires. The questionnaires were filled out anonymously without including any personal details or any mention of their clinical history. The first page included socio-demographic questions such as marital status, level of education, employment status, residence and if they were taking any medical or psychological treatment and what it was for. The questionnaires were filled in individually and data was treated anonymously with each participant being referred to by their initials and a number. It took between 15 and 30 minutes to complete all the questionnaires. The data was then filed and put through the SPSS-20 program for Mac.

RESULTS

There were significant gender differences in socio-demographic variables (see Table 1). There were more single women than men ($\chi^2 = 15.03$, $p < .01$), there were more female students ($\chi^2 = 55.98$, $p < .001$), more female students at university level ($\chi^2 = 28.64$, $p < .001$) and more females below the age of 35. No difference was found in relation to the place of residence. Despite this distribution it is curious to observe that there were more men (35.6%) receiving psychological or psychiatric treatment than women (24.0%) ($\chi^2 = 8.61$, $p < .01$).

A significant difference was found in the total sample between participants on psyquiatric or psychological treatment and those not on treatment. 27.8% of participants were receiving some treatment, and these were categorized as the clinical sample, as opposed to 72.2% of the participants who were not receiving any treatment for psychological problems (see Table 1). Among the participants receiving treatment there was a large majority of single people with a small number of married people ($\chi^2 = 45.60$, $p < .001$). The clinical sample consists of a large number of people either employed or unemployed ($\chi^2 = 100.97$,

Table 2. Factor analysis of principal components without rotation. Three factors explain the 53,84% of variance. Factor 1 is about negative self, Factor 2 about positive self, and Factor 3 about disociation of self.

Items	Factor 1	Factor 2	Factor 3
Section 1			
EOSS_01	.590	-.223	.206
EOSS_02	.603	-.180	.222
EOSS_03	.457	-.143	.482
EOSS_04	.565	-.299	.143
EOSS_05	-.025	.583	.390
EOSS_06	-.135	.611	.233
EOSS_07	.479	.055	.155
Section 2			
EOSS_08	.595	.002	.252
EOSS_09	.698	-.086	.232
EOSS_10	.710	-.093	.215
EOSS_11	.763	-.081	.217
EOSS_12	.712	-.072	.185
EOSS_13	.709	-.093	.223
EOSS_14	.745	-.150	.151
EOSS_15	.749	-.135	.105
EOSS_16	.769	-.186	.093
EOSS_17	.740	-.168	.054
Section 3			
EOSS_18	.600	.300	-.207
EOSS_19	.683	.257	-.295
EOSS_20	.742	.196	-.292
EOSS_21	.748	.251	-.338
EOSS_22	.745	.212	-.359
EOSS_23	.687	.182	-.340
EOSS_24	.746	.179	-.415
EOSS_25	.751	.171	-.420
EOSS_26	.757	.189	-.443
EOSS_27	.728	.205	-.438
Section 4			
EOSS_28	.506	-.163	.394
EOSS_29	.552	-.249	.178
EOSS_30	.044	.717	.350
EOSS_31	.001	.717	.235
EOSS_32	.522	-.021	.148
EOSS_33	.476	-.173	.408
EOSS_34	.606	-.213	.144
EOSS_35	.101	.683	.379
EOSS_36	.063	.658	.354
EOSS_37	.494	.211	.062

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Table 3. Correlation matrix of different questionnaires with EOSS. In grey high correlations of EOSS with neuroticism and dissociative experiences, and negative high correlation with self-esteem are underlined. (p<.05 ** p<.01)*

	EPQ P	EPQ E	EPQ N	EPQ M	DES	RSES	EOSS 1	EOSS 2	EOSS 3	EOSS 4	EOSS Total
EPQ_P	1	.558**	.626**	-.607**	.067	-.025	-.025	-.016	.024	.034	-.011
EPQ_E	.558**	1	.519**	-.526*	-.033	.181**	-.212**	-.026	-.026	-.207**	-.117**
EPQ_N	.626**	.519**	1	-.589**	.081	-.243**	.226**	.128**	.140**	.187**	.212**
EPQ_M	-.607**	-.526**	-.589**	1	-.058	.060	-.059	-.130**	-.050	-.024	-.086*
DES	.067	-.033	.081	-.058	1	-.305**	.341**	.454**	.334**	.276**	.452**
RSES	-.025	.181**	-.243**	.060	-.305**	1	-.648**	-.396**	-.276**	-.586**	-.544**
EOSS_1	-.016	-.212**	.226**	-.059	.341**	-.648**	1	.565**	.416**	.726**	.774**
EOSS_2	.024	-.026	.158**	-.130**	.454**	-.396**	.565**	1	.597**	.446**	.845**
EOSS_3	.034	-.026	.140**	-.050	.344**	-.276**	.416**	.597**	1	.335**	.823**
EOSS_4	-.011	-.207**	.187**	-.024	.276**	-.586**	.726**	.446**	.335**	1	.707**
EOSS_Total	.017	-.117**	.212**	-.086*	.452**	-.544**	.744**	.845**	.823**	.707**	1

p < .001) with only a small number of students ($\chi^2 = 38.04$, p < .001). The clinical sample's age is also older ($\chi^2 = 91.35$, p < .001), and they either reside with their own families or with their parents (χ^2 Chi2 = 40.67, p < .001). These participants receive either psychological treatment (46.3%), medical-psychiatric treatment (30.2%), or both (23.5%).

In order to obtain internal reliability for the EOSS questionnaire, Cronbach´s α was used for each section (Section 1 = .586, Section 2 = .936, Section 3 = .952, Section 4 = .715) and for the questionnaire as a whole (.935). The reliability is very high when the normal sample is analyzed independently (.929) or when the clinical sample is analyzed independently (.937). The internal correlations between the different sections, specifically the total scores, are highly significant (from .416 to .845, p < .01).

First, a confirmatory factorial analyses was carried out looking for the 4 factors identified by the original authors to correspond with the questionnaire's 4 sections when they applied it to an English sample (Kanter, Parker & Kohlenberg, 2001). This paper used only 5 items of each section, selected from the items about feelings, wants, attitudes, opinions and actions when they are influenced by casual acquaintances or by close relationships, and also when people are alone or are with others. An attempt to make a similar confirmatory analysis with sections II and III shown only one principal factor with all 20 items, but using covariances matrix and varimax rotation shown three factors (items 8 to 13, items 14 to 17, and 18 to 27).

However the present factorial analysis, as usual in other questionnaires, was made with all the items. The current analysis, using principle components without rotation, found 7 components, of which 3 main factors can be clearly defined and which make up 54.83% of the variance. The first factor includes all the negative items related to self (28 items: *I feel empty, I feel lost, my attitudes and my actions are influenced by other people, I am sensitive to criticism*, etc.*)*. The second factor includes the positive items related to self (6 items: *I am creative, I am spontaneous*,). A third factor could be defined, including 3 items referring to *I have the sensation of being out of my body* but these three items also could be included as part of the first factor with slightly lower loadings (see Table 2). The factorial analyses with *Varimax* and *Oblimin* rotations show similar results, even though they defined a fourth factor, which would be integrated in the first, and which would constitute all the items in section 4 of EOSS. To summarize, although not consistent with the original factors used by the original EOSS authors, we identified a negative-self factor (items 1, 2, 4, 7 to 27, 29, 32, 34 & 37), a positive-self factor (items 5, 6, 30, 31, 35, 36) and a dissociation factor (items 3, 28, 33).

To explore the validity of the EOSS subscales, the scores were correlated with scores from other questionnaires. Table 3 shows

Table 4. Mean scores of different sections of EOSS, with men/women and standard/clinical sample distribution. Mean scores are always less with women but no significance, and are higher in people with clinical problems. (p<.05 ** p<.01 *** p<.001)*

	Men		Women		Standard		Clinical		
EOSS	Mean	Sd	Mean	Sd	Mean	Sd	Mean	Sd	
Section 1	20.33	6.39	20.16	5.85	18.75	4.74	24.06	7.24	***
Section 2	22.46	10.99	20.78	9.50	19.94	8.94	25.05	11.64	***
Section 3	28.36	13.36	27.60	12.12	26.69	12.06	30.83	13.4	**
Section 4	31.08	7.24	30.88	7.08	29.55	6.23	34.58	8.04	***
Total	102.23	30.96	99.42	27.28	94.92	24.64	114.52	33.15	***

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the correlations of all the questionnaires and the subscales. The total EOSS score and subscale scores present positive, significant correlations with the EPQ-R neuroticism subscale (between .158 and .226, $p < .01$) and negative correlations with the EPQ-R extraversion subscale (between -.117 and -.212, $p < .01$). A positive, significant correlation was also found in all cases with the dissociation questionnaire DES (between .344 and .452, $p < .01$); and a negative correlation in all cases with the self-esteem questionnaire RSE (between -.276 and -.648, $p < .01$). As could be expected from the content of the EOSS questionnaire on self, with a large number of negative items about oneself, it correlates highly with neuroticism and dissociation, while its scores are inverse in reference to self-esteem. In other words, a person who scores high in the EOSS will probably also score high on neuroticism and dissociation and score low on extraversion and self-esteem. These data suggest the usefulness of the EOSS in evaluating the constructs of self-concept and self-esteem, although with the EOSS more emphasis is given to the evaluation of self in relation to other people.

With the objective of standardizing the questionnaire's scores and also possible comparisons with other populations, a *Student's t-test* was run with the intention of identifying any possible differences between men and women in both the EOSS total and its sections. No statistically significant difference was found. However, a significant difference was found between those in the normal sample (those without psychological or psychiatric problems) and those in the clinical simple receiving some kind of treatment. The clinical sample's mean scores were always significantly higher, $p < .001$ (see Table 4). This suggests that the EOSS questionnaire can differentiate clinical populations and the mean scores obtained can be considered the base score (mean score = 95, and clinical score = 114) when making decisions about problems related to self and their possible treatment.

CONCLUSIONS

A Spanish version of the EOSS questionnaire has been applied to a sample of 582 participants and has obtained reliability and validity. The reliability of the total score was very high ($\alpha = .935$) and the subscales also had high consistency. Factor analyses identified 3 principle factors which would allow for more specific comparisons (self-positive, self-negative and dissociation). High validity was also obtained when correlating EOSS scores with similar constructs such as neuroticism, dissociation and lack of self-esteem. The EOSS scores also help differentiate problems related to self, i.e., psychological problems that need treatment. Due to the significant differences in the clinical simple, the EOSS scores can be used as the base score when making clinical decisions about psychological interventions.

The conclusions cannot be considered definitive as it may benefit from comparing EOSS scores to other, more specific, questionnaires such as SOSS (Flury & Ickes, 2007) or IASC (Briere & Runtz, 2002), although they need to be adapted into Spanish in order to validate them against the others. However, this paper preferred to compare the results to other questionnaires, namely, EPQ-R, RSE and DES, which had been used in a larger number of studies on reliability and which also had already been adapted into Spanish. These scales also were also the ones used for comparison by the original authors of EOSS (Kanter, Parker, & Kohlenberg, 2001).

One limitation of this paper is that the clinical population, though large, did not allow for any comparisons between specific disorders such as BPD, as was done in other studies mentioned above. The sample distribution was not necessarily equal due to the larger number of women mostly under 30 years of age. However, no significant differences in EOSS scores were found between the sexes. Although the sample was taken from a number of centers and services, the availability of university students may have affected the sample, but no differences were found between students and other non-university people. To create a more balanced sample it would be necessary to increase the number of men, older participants and also the clinical participants. However, a prior study with a smaller sample came up with almost the same results, in the correlations with other questionnaires, in the kinds of factors and with the differences with the clinical sample (Valero, Ferro, Lopez & Selva, 2011).

Finally, this questionnaire has been used in some clinical cases and has shown that scores reduce after successful treatment, suggesting that it is clinically useful to administer as well (Ferro, Lopez & Valero, 2012). Future investigations would benefit from the systematic application of this questionnaire with clinical cases being treated with Functional Analytic Psychotherapy. The objective would be to explore its usefulness when evaluating the effectiveness of this kind of intervention.

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