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# Partner's Emotional Dependency Scale: Psychometrics

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Introduction. Emotional dependency in a partner implies an excessive permanent affectional bonding to the other individual that is dysfunctional, associated with low self-esteem and conceals a lack of affection. Emotional dependency generates a series of negative emotional consequences: symptoms of anxiety and depression, obsessive thoughts, sleep disorders and abandonment of social relations and leisure. In recent decades several tools have been developed to measure emotional dependency, but they are more focused on measuring dependent personality disorder, centered on an exclusively young population or are not validated in the Spanish population. The aim of this research is to design and validate a new scale to overcome these limitations.

Method. The sample population included 166 adults (53 men and 113 women) from the general population, to whom a new scale was applied (partner's emotional dependency scale, SED), as well as the CDE (Emotional Dependency Questionnaire).

**Results.** The scale has a unidimensional structure, showing good internal consistency (Cronbach's alpha = .90) and a high convergent validity with the CDE (r = .86). There is no difference between men and women with regarding emotional dependency. Some cut-off points have been established based on the degree of emotional dependency (low, moderate, high and extreme).

**Conclusions.** The SED is a brief assessment tool, simple to conduct and allows the degree of emotional dependency to be assessed unidimensionally with regard to a stable intimate relationship (current or past) in a normative population.

Key words: Emotional Dependency, Intimate Relationship, Partner's Emotional Dependency Scale, Assessment Scale, Psychometrics

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# Escala de Dependencia Emocional de la Pareja: propiedades psicométricas

Introducción. La dependencia emocional de la pareja implica una vinculación afectiva permanente excesiva de la otra persona, que resulta disfuncional, que se asocia con una baja autoestima y que encubre carencias afectivas. La dependencia emocional genera una serie de consecuencias emocionales negativas: síntomas ansioso-depresivos, pensamientos obsesivos, alteraciones del sueño y abandono de relaciones sociales y de ocio. En las últimas décadas se han desarrollado diferentes instrumentos para medir la dependencia emocional, pero están más centrados en medir el trastorno de personalidad por dependencia, se focalizan en una población exclusivamente joven o no están validados en población española. El objetivo del estudio es diseñar y validar una nueva escala que haga frente a estas limitaciones.

Método. La muestra ha contado con 166 personas adultas (53 hombres y 113 mujeres) de la población general, a las que se ha aplicado la nueva escala (*Partner's Emotional Dependency Scale*, SED) y el CDE (Cuestionario de Dependencia Emocional).

**Resultados.** La escala presenta una estructura unidimensional, muestra una buena consistencia interna (alfa de Cronbach=0,90) y una alta validez convergente con el CDE (r=0,86). No hay diferencias entre hombres y mujeres respecto a la dependencia emocional. Se establecen unos points de corte en función del grado de dependencia emocional (bajo, moderado, alto y extremo).

**Conclusiones.** La SED es un instrumento de evaluación breve, sencillo de cumplimentar y que permite evaluar unidimensionalmente el grado de dependencia emocional con respecto a la relación de pareja estable (actual o pasada) en una población normativa.

Palabras Clave: Dependencia Emocional, Relación Íntima, Escala de Dependencia Emocional de la Pareja, Escala de Evaluación, Psicometría

# INTRODUCTION

Emotional sensitivity and emotion regulation have been found to be predictive of most personality dimensions and symptoms of most personality disorders<sup>1,2</sup>. More specifically, emotional dependency in a partner implies an excessive permanent affectional bonding to the other individual that is dysfunctional, associated with low self-esteem and conceals a lack of affection. This dependency is accompanied by a biased perception of reality, an intolerance of loneliness and an inner emptiness. Specifically, an intimate relationship, regardless of what type it is, takes priority over any other activity or value in the life of the affected person<sup>3</sup>.

Functionally speaking, a person may be considered dependent when they perceive that the current and past assessment of their stable intimate relationship is negative and they consider to break off that relationship, but feel unable to do so, without financial dependency or threats that explain the permanence of that relationship<sup>4</sup>.

From an attachment perspective, dependency is a display of pathological, anxiety/ambivalent attachment behaviours in interpersonal relationships that express unsatisfied emotional needs and prevent the relationship from ending despite dissatisfaction<sup>5,6</sup>.

Unlike dependent personality disorder, people who are emotionally dependent on their partners can be independent in other spheres (social or employment, for example). In some ways emotional dependency on a partner is more similar to an addictive disorder: partner submission and idealisation, with false expectations of change in a partner; unconditional love and controlling behaviour; and in the event of a relationship coming to an end, desperate attempts to get back together due to suffering a sort of emotional abstinence syndrome7. Low self-esteem and the presence of obsessive personality traits, as well as a history of a lack of affection or previous traumatic intimate relationships, may lead to emotional dependency<sup>8</sup>. In these cases, individuals prefer to continue suffering instead of facing the new reality of breaking up with their partner and being forced to cross the unknown abyss. At a clinical level, emotional dependency may share traits in common with a dependent personality and an addictive disorder9.

New technologies may lead to the development of emotional dependency on a partner, contribute to prolonging and perpetuating a toxic behavioural pattern for the dependent person and may also make it difficult to overcome this condition due to the enormous possibility of permanent contact with and control of the person on whom the individual depends<sup>10</sup>. Emotional dependency is linked to a series of negative emotional consequences: symptoms of anxiety and depression, obsessive thoughts, difficulty concentrating, sleep disorders, abandonment of social relationships, neglect of leisure activities and professional projects, etc. If the relationship has ended, there is a compulsive need to resume contact with the partner (despite a history of suffering and humiliation). It is no longer about *I love you*, but rather *I need you* (toxic relationship)<sup>3</sup>. There is also a close relationship between emotional dependency and partner violence, either as a victim or as an aggressor<sup>9,11</sup>.

In recent decades, different tools have been developed to measure emotional dependency. Among those published in the English-speaking world are the Interpersonal Dependency Inventory (IDI)<sup>12</sup>, the Spouse-Specific Dependency Scale (SSDS)<sup>13</sup> and the Relationship Profile Test (RPT)<sup>14</sup>. All of the above tools focus more on measuring dependent personality disorder than emotional dependency on a partner as such. The SSDS was only applied to university students with an average age of 19.9 years, which makes it difficult to generalise across other adult age ranges. The IDI, meanwhile, is more focused on dependency on other significant persons in an excessively general way. Finally, the RPT was validated on psychology students (average age: 18 years).

In the Spanish-speaking world, two further tools have been created: the Emotional Dependency Questionnaire (CDE)<sup>15</sup> and the Emotional Dependency Scale in Partner Relationships in Young People and Adolescents (DEN)<sup>16</sup>. The CDE, prepared following Beck's cognitive model, is a brief tool obtained from a large and representative sample of different age groups, but it has not been validated in the Spanish population and measures, as well as the central factors, six sub-scales, which are excessive in a 23-item tool, especially as some of them only contain 2 or 3 items (for example, fear of loneliness, expression of limits or attention-seeking), which under-represent the corresponding constructs. The DEN, meanwhile, is an interesting tool validated among the Spanish population, but referring to partner relationships in young people and adolescents, with an average age of 20.46 years.

For the above reasons, this research aims to construct and validate a brief partner's emotional dependency scale in the adult Spanish population in relationships with a minimum duration of six months, determine if there are differences between men and women in this variable and calculate some percentiles that allow a person's degree of dependency on their partner to be identified (emotional dependency should not be considered as a dichotomous variable), which allows for early detection of the problem and the establishment of specific intervention programmes.

## METHOD

## Participants

The total sample was made up of 166 individuals, 53 men (31.9%) and 113 women (68.1%), with an average age of 39.17 years (SD=11.60) and ranging from 21 to 63 years, taken from the general population. 80.5% were in active employment and the majority (76.9%) had university qualifications, 18.2% secondary education and 4.8% primary education.

In terms of civil status, 74.7% of the sample was married or in a relationship, 21.1% single and 4.2% separated or divorced. The relationship length was between 1 and 40 years (M=14.44; SD=10.95). 56% of the sample had children (range: 1-5, Mdn=1, SD=1.16).

The inclusion criteria to be part of the study were as follows: a) 18 or over; b) in a relationship currently (or have been in one recently) lasting at least six months; and c) respond to all the items in the **Partner's Emotional Dependency Scale** and the Emotional Dependency Questionnaire.

### Instruments

- Partner's Emotional Dependency Scale (SED) (Appendix). A questionnaire containing 22 items aimed at assessing emotional dependency on a partner and measured using a Likert scale ranging between 0 and 4 (range: 0-88 points). The higher the score, the higher the emotional dependency (all items point in this direction, only number 1 is inverted). This tool aims to assess a partner's emotional dependency through various questions taking into account the heterogeneity of this construct. This scale is a self-report that can be used both in a group and in an individual format.
- Emotional Dependency Questionnaire (Cuestionario de Dependencia Emocional, CDE)<sup>15</sup>. Adapted to the Colombian population, this tool has 23 items (range: 23-138 points) measured using a Likert scale that goes from 1 (not at all like me) to 6 (exactly like me). This test measures six dimensions of emotional dependency (number of items, α of the original test [α obtained in this research]): separation anxiety (7 items, .87 [.87]), couple's affective expression (4 items, .83 [.89]), change of plans (4 items, .75 [.72]), fear of loneliness (3 items, .80 [.83]),

borderline expression (3 items, .62 [.50]) and attention seeking (4 items, .78 [.75]). The internal consistency (Cronbach's alpha) of the total score was .927 ( $\alpha$ =.938 in this study).

## Procedure

The sample of this instrumental study was obtained between January 2015 and June 2017 in a general population belonging to people in active employment in the Basque Country. The assessment tools were administered by psychology graduates who had received prior training to carry out this task. The participants responded voluntarily to the SED and the CDE after having signed an informed consent form in which the main aspects of this research were explained, and the confidentiality of the data obtained was assured.

### Data analysis

The internal consistency of the SED was calculated using Cronbach's alpha and the item discrimination index based on the corrected item-total correlation. The dimensionality of the SED was analysed using an Exploratory Factor Analysis with the total sample. The following was calculated: a) dispersion matrix: Polychoric correlations; b) factor extraction: Unweighted Least Squares (ULS); c) factor rotation: Promin17; and d) determination of the number of dimensions: Optimal implementation of Parallel Analysis (PA)<sup>18</sup>, Minimum Average Partial Test (MAP)<sup>19</sup>, and Root Mean Square Error of Approximation (RMSEA). The possible unidimensionality of the questionnaire was also examined using overall and item-level assessment<sup>20</sup>, calculating Unidimensional Congruence (UniCo), Explained Common Variance (ECV) and Mean of Item Residual Absolute Loadings (MIREAL). The data were treated as essentially unidimensional if values UniCo>.95, ECV>.85 and MIREAL<.30. To calculate concurrent validity, the Pearson correlation coefficient was used between the SED and the CDE. Spearman's correlation coefficient was also calculated between SED and CDE items (total score and sub-scales). The correlation effect size (ES) was considered: |r|=.1, .3 and .5 correspond to small, medium, and large ES, respectively. The differences between mean values in men and women were compared using the Student's *t*-test and Hedges' *q* (|g| = .2, .5 and .8 correspond to small, medium, and large)ES, respectively). Finally, in order to get a classifying criterion, the percentiles of the SED were obtained in the total sample. The analyses were performed using the programs SPSS 24.0 and FACTOR 10.7.01<sup>21</sup>.

# RESULTS

# Reliability of the Partner's Emotional Dependency Scale

*Internal consistency.* The Cronbach's alpha was .90 (.91 based on standardised elements) for the SED total score (22

Table 1Descriptive statistics and reliability in the Partner's Emotional Dependency Scale (SED)						
	lfi	item delet	ed	Correlatio	Correlations	
Items	Mean	SD	α	r <sup>c</sup> <sub>Item-total</sub>	R <sup>2</sup>	
Item 1 <sup>a</sup>	17.17	12.15	0.900	0.38	0.32	
Item 2	16.11	11.96	0.900	0.40	0.32	
Item 3	16.39	11.65	0.897	0.54	0.44	
Item 4	16.63	11.80	0.899	0.47	0.35	
Item 5	16.03	11.86	0.898	0.49	0.39	
Item 6	17.04	11.80	0.895	0.57	0.50	
Item 7	17.60	11.97	0.895	0.61	0.55	
Item 8	16.78	11.92	0.896	0.53	0.39	
Item 9	17.33	11.70	0.893	0.65	0.58	
ltem 10	17.72	12.14	0.898	0.47	0.35	
ltem 11	17.69	12.09	0.897	0.53	0.50	
ltem 12	17.58	12.03	0.896	0.58	0.59	
ltem 13	17.07	11.94	0.899	0.44	0.40	
ltem 14	17.01	11.97	0.899	0.44	0.29	
ltem 15	17.60	12.00	0.897	0.52	0.57	
ltem 16	17.29	11.77	0.893	0.67	0.61	
ltem 17	17.72	12.13	0.898	0.50	0.36	
ltem 18	17.67	12.07	0.897	0.56	0.50	
ltem 19	17.27	11.92	0.896	0.53	0.41	
ltem 20	17.72	12.05	0.896	0.58	0.59	
Item 21	16.81	11.66	0.892	0.71	0.54	
Item 22	16.88	11.85	0.899	0.46	0.32	

<sup>a</sup>=Reverse score;  $\alpha$ =Cronbach's alpha;  $r_{\text{item-total}}^{\circ}$ =Corrected item-total correlation;  $R^2$ =Squared multiple correlation; Mean discrimination (Range) of the SED=.529 (.381-.707)

items). The mean discrimination was .53. Eliminating any of the 22 items did not increase the reliability of the scale (Table 1).

# Validity of the Partner's Emotional Dependency Scale

Construct validity (factor structure). The adequacy of the correlation matrix was analysed using the Kaiser-Meyer-Olkin (KMO) test=.885 and Bartlett's test (231)=1420.9(p<.001). Table 2 shows factor loads, communality values and other statistics that serve as criteria to analyse the possible unidimensionality of the scale. The factor loads of the items were between .44 and .82, while communalities were between .19 and .67. Items 1, 2, 14 and 22 showed less communality than the others. In turn, the different procedures for determining the number of dimensions suggest a single factor that would explain the 45.33% of the variance: MAP=.02734, RMSEA=.034, Bias-Corrected Bootstrap 95% Confidence Interval=[.0148, .0483].

On the other hand, both the overall assessment (Uni-Co=.977, ECV=.871, and MIREAL=.222) and the item-level assessment (18 items have I-UniCo values>.95, 16 items I-ECV values>.85 and 17 items I-REAL values<.30) suggest that the data can be treated as essentially unidimensional.

After analysing the reliability and dimensionality of the SED, therefore, the items are observed to assess a dimension related to the construct of emotional dependence in the relationship.

Convergent validity. The total SED score was statistically related to the total CDE score (r=.86, p<.01) and its different sub-scales: separation anxiety, couple's affective expression, change of plans, fear of loneliness, borderline expression and attention seeking, with values ranging between .61 and .79 (see Table 3).

Although all items on the SED were statistically related to the different CDE sub-scales (except item 1, which was not statistically related to the attention-seeking dimension), the different magnitudes of association ranged from small to large. Overall, items 3, 5, 12, 19, 21 and 22 of the SED were those most related with the CDE total score (effect size large, *r*>.50). Specifically, the SED items most related to the different CDE sub-scales (effect size large) were the following: items 3, 12, 19, 21 and 22 (separation anxiety), items 5, 12 and 21 (couple's affective expression), item 14 (change of plans), item 19 (fear of loneliness), item 22 (borderline expression), and item 21 (attention seeking).

Table 2	Factorial Matrix and Closeness to Unidimensionality Assessment of the Partner's Emotional Dependency Scale (SED) in the Total Sample (N=166)					onal
		Item-level assessment				
Items	BCa 95% Cl	Communality	Communality Comunalidad		I-ECV	I-REAL
Item 1 <sup>a</sup>	0.45	[0.41 - 0.59]	0.21	0.99	0.90	0.16
Item 2	0.44	[0.44 - 0.53]	0.19	0.86	0.63	0.35
Item 3	0.64	[0.64 - 0.66]	0.41	0.98	0.84	0.29
ltem 4	0.54	[0.55- 0. 63]	0.29	0.99	0.89	0.20
ltem 5	0.55	[0.55 - 0.64]	0.30	0.99	0.90	0.19
Item 6	0.63	[0.62 - 0.70]	0.40	0.88	0.64	0.49
ltem 7	0.73	[0.67 - 0.82]	0.54	0.94	0.73	0.46
ltem 8	0.60	[0.58 - 0.73]	0.36	1.00	0.96	0.12
Item 9	0.79	[0.73 - 0.90]	0.62	1.00	0.95	0.18
Item 10	0.74	[0.64 - 10.0]	0.54	1.00	0.98	0.12
Item 11	0.69	[0.64 - 0.82]	0.47	0.99	0.87	0.27
Item 12	0.76	[0.75 - 0.85]	0.58	0.97	0.80	0.39
Item 13	0.54	[0.50 - 0.62]	0.29	1.00	0.97	0.10
Item 14	0.50	[0.52 - 0.70]	0.25	1.00	0.93	0.14
ltem 15	0.68	[0.64 - 0.89]	0.47	0.94	0.73	0.43
ltem 16	0.73	[0.68 - 0.82]	0.53	0.99	0.89	0.26
Item 17	0.71	[0.65 - 0.83]	0.51	1.00	1.00	0.01
ltem 18	0.76	[0.70 - 0.90]	0.58	1.00	0.99	0.09
ltem 19	0.62	[0.60 - 0.68]	0.38	0.99	0.87	0.25
ltem 20	0.82	[0.68 - 10.0]	0.67	1.00	0.94	0.22
ltem 21	0.78	[0.78 - 0.84]	0.61	1.00	1.00	0.02
ltem 22	0.51	[0.51 - 0.66]	0.26	1.00	0.91	0.17

<sup>a</sup>=Reverse score; BCa 95% CI=Bias-Corrected and accelerated bootstrap 95% Confidence Intervals for loading values; I-UniCo=Item Unidimensional Congruence (larger than .95 suggests that data can be treated as essentially unidimensional); I-ECV=Item Explained Common Variance (larger than .85 suggests that data can be treated as essentially unidimensional); I-REAL=Item REsidual Absolute Loadings (lower than .30 suggests that data can be treated as essentially unidimensional).

# Gender differences in total scores on the Partner's Emotional Dependency Scale and the Emotional Dependency Questionnaire

The mean differences among men (n=53, M=19.45, SD=12.89) and women (n=113, M=17.26, SD=12.25) on the SED were not statistically significant, t(164)=1.05, p=.291, Hedges' g=.17, 95% Confidence Interval [-.15, .50]. Similarly, the mean differences among men (n=53, M=45.98, SD=18.37) and women (n=113, M=42.48, SD=16.82) on the

CDE were not statistically significant, t(164)=1.21. p = .227. Hedges' g=.20, 95% Confidence Interval [-.13, .53].

# Calculation of percentiles for the Partner's Emotional Dependency Scale

The percentiles for the total score in the SED were calculated to create a classification criterion for the normative group. Those individuals scoring less than 10 points ( $\leq$ 25th

Table 3			ations between ionnaire (CDE) a				D) and
	CDE Total	CDE-SA	CDE-CAE	CDE-CP	CDE-FL	CDE-BE	CDE-AS
SED Total	0.86**	0.79**	0.71**	0.72**	0.67**	0.61**	0.64**
Item 1	-0.25**	-0.22**	-0.20**	-0.19*	-0.27**	-0.25**	-0.13
Item 2	0.36**	0.30**	0.29**	0.48**	0.15*	0.22**	0.30**
Item 3	0.53**	0.55**	0.43**	0.42**	0.35**	0.25**	0.44**
Item 4	0.37**	0.32**	0.29**	0.40**	0.24**	0.18*	0.30**
Item 5	0.59**	0.46**	0.63**	0.44**	0.35**	0.31**	0.47**
Item 6	0.41**	0.36**	0.38**	0.36**	0.26**	0.25**	0.37**
Item 7	0.38**	0.35**	0.30**	0.31**	0.32**	0.32**	0.32**
Item 8	0.43**	0.43**	0.31**	0.43**	0.33**	0.28**	0.29**
Item 9	0.49**	0.45**	0.38**	0.35**	0.40**	0.41**	0.38**
ltem 10	0.38**	0.38**	0.26**	0.32**	0.25**	0.31**	0.24**
Item 11	0.46**	0.44**	0.37**	0.33**	0.35**	0.36**	0.36**
ltem 12	0.60**	0.56**	0.54**	0.37**	0.44**	0.42**	0.47**
Item 13	0.38**	0.34**	0.31**	0.33**	0.23**	0.30**	0.27**
Item 14	0.43**	0.39**	0.31**	0.51**	0.28**	0.32**	0.19**
Item 15	0.44**	0.47**	0.34**	0.30**	0.38**	0.34**	0.29**
ltem 16	0.47**	0.45**	0.36**	0.47**	0.33**	0.29**	0.29**
ltem 17	0.34**	0.34**	0.29**	0.22**	0.24**	0.25**	0.28**
ltem 18	0.43**	0.39**	0.37**	0.35**	0.32**	0.38**	0.40**
ltem 19	0.57**	0.54**	0.48**	0.37**	0.66**	0.39**	0.45**
ltem 20	0.45**	0.47**	0.39**	0.24**	0.36**	0.39**	0.34**
Item 21	0.68**	0.60**	0.62**	0.47**	0.45**	0.46**	0.56**
ltem 22	0.58**	0.50**	0.47**	0.49**	0.40**	0.49**	0.37**
No. of items	23	7	4	4	3	3	2
Range	23-138	7-42	4-24	4-24	3-18	3-18	2-12
Μ	43.60	13.54	9.52	7.57	4.90	37.0	4.36
DT	17.36	6.54	4.75	3.31	2.68	1.33	2.31
α	0.938	0.874	0.892	0.718	0.830	0.503	0.754

CDE-SA=Separation Anxiety; CDE-CAE=couple's affective expression; CDE-CP=change of plans; CDE-FL=Fear to Loneliness; CDE-BE=borderline expression; CDE-AS= ttention seeking; \* $p \le .05$ ; \*\* $p \le .01$ . =Cronbach's alpha

Percentiles     SED Total     Classification       1     0.00     Low (0-9 points)       2     0.00     Low (0-9 points)       3     2.00     Low (0-9 points)       4     2.68     Low (0-9 points)       5     3.35     Low (0-9 points)       10     5.00     Moderate (10-21 points)       20     8.00     Points)       35     12.00     Moderate (10-21 points)       40     13.00     Low (0-9 points)       45     14.00     Low (0-9 points)       55     16.00     Low (0-9 points)       60     17.00     Low (0-9 points)       61     18.55     Low (0-9 points)       80     24.60     Low (0-9 points)       81     29.00     Low (0-9 points)       82	Table 4	Table 4Percentile scores of the Partner's Emotional Dependency Scale (SE the Total Sample (N=166)	
2   0.00     3   2.00     4   2.68     5   3.35     10   5.00     15   7.00     20   8.00     25   9.00     30   11.00   Moderate (10-21 points)     35   12.00     40   13.00	Percentiles	SED Total	Classification
3   2.00     4   2.68     5   3.35     10   5.00     15   7.00     20   8.00     25   9.00     30   11.00   Moderate (10-21 points)     35   12.00   Points)     40   13.00   45     45   14.00   50     55   16.00   100     60   17.00   100     70   21.00   100     75   22.00   High (22-36 points)     80   24.60   100     85   29.00   100     87   33.00   100     88   34.92   100     90   37.30   Extreme (37-88 points)     92   39.28   100     94   42.98   100     95   45.65   100     96   46.64   100     97   48.99   100     98   53.64   100	1	0.00	Low (0-9 points)
4   2.68     5   3.35     10   5.00     15   7.00     20   8.00     25   9.00     30   11.00   Moderate (10-21 points)     35   12.00     40   13.00     45   14.00     50   15.00     55   16.00     60   17.00     65   18.55     70   21.00     75   22.00   High (22-36 points)     80   24.60     85   29.00     88   34.92     89   36.00     90   37.30   Extreme (37-88 points)     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	2	0.00	
5   3.35     10   5.00     15   7.00     20   8.00     25   9.00     30   11.00   Moderate (10-21 points)     35   12.00     40   13.00     45   14.00     50   15.00     55   16.00     60   17.00     65   18.55     70   21.00     75   22.00   High (22-36 points)     80   24.60     85   29.00     87   33.00     88   34.92     89   36.00     90   37.30   Extreme (37-88 points)     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	3	2.00	
10   5.00     15   7.00     20   8.00     25   9.00     30   11.00   Moderate (10-21 points)     35   12.00     40   13.00     45   14.00     50   15.00     55   16.00     60   17.00     65   18.55     70   21.00     75   22.00   High (22-36 points)     80   24.60     87   33.00     88   34.92     89   36.00     90   37.30     91   42.98     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	4	2.68	
15   7.00     20   8.00     25   9.00     30   11.00   Moderate (10-21 points)     35   12.00   Points)     40   13.00   Points)     45   14.00   Points)     50   15.00   Points)     55   16.00   Points)     60   17.00   Points)     65   18.55   Points)     70   21.00   Points)     80   24.60   Points)     80   24.60   Points)     80   24.60   Points)     80   24.60   Points)     81   34.92   Points)     82   29.00   Points)     83   34.92   Points)     84   34.92   Points)     92   39.28   Points)     94   42.98   Points)     95   45.65   Points)     96   46.64   Points)     97   48.99   Points)     98   53.64   Points)	5	3.35	
20   8.00     25   9.00     30   11.00   Moderate (10-21 points)     35   12.00   points)     40   13.00   45     45   14.00   50     50   15.00   50     55   16.00   60     60   17.00   40     65   18.55   40     70   21.00   High (22-36 points)     80   24.60   40     85   29.00   83     86   34.92   40     88   34.92   53.64     94   42.98   53.64	10	5.00	
25   9.00     30   11.00   Moderate (10-21 points)     35   12.00   points)     40   13.00	15	7.00	
30   11.00   Moderate (10-21 points)     35   12.00   points)     40   13.00	20	8.00	
35   12.00   points)     40   13.00   45     45   14.00   50     50   15.00   55     50   15.00   55     60   17.00   65     65   18.55   70     70   21.00   High (22-36 points)     80   24.60   24.60     85   29.00   88     33.00   88   34.92     89   36.00   90     90   37.30   Extreme (37-88 points)     92   39.28   94     94   42.98   145.65     95   45.65   145.65     96   46.64   145.65     97   48.99   145.65     98   53.64   145.65	25	9.00	
35   12.00     40   13.00     45   14.00     50   15.00     55   16.00     60   17.00     65   18.55     70   21.00     75   22.00     80   24.60     85   29.00     87   33.00     88   34.92     89   36.00     90 <b>37.30</b> Extreme (37-88 points)     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	30	11.00	
45   14.00     50   15.00     55   16.00     60   17.00     65   18.55     70   21.00     75   22.00     80   24.60     85   29.00     87   33.00     88   34.92     89   36.00     90   37.30     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	35	12.00	points)
50   15.00     55   16.00     60   17.00     65   18.55     70   21.00     75   22.00     76   22.00     80   24.60     85   29.00     87   33.00     88   34.92     89   36.00     90   37.30     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	40	13.00	
55   16.00     60   17.00     65   18.55     70   21.00     75   22.00     76   24.60     85   29.00     87   33.00     88   34.92     89   36.00     90   37.30     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	45	14.00	
60   17.00     65   18.55     70   21.00     75   22.00   High (22-36 points)     80   24.60     85   29.00     87   33.00     88   34.92     89   36.00     90   37.30     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	50	15.00	
65   18.55     70   21.00 <b>75 22.00 76 22.00 80</b> 24.60     85   29.00     87   33.00     88   34.92     89   36.00 <b>90 37.30 Extreme (37-88 points)</b> 92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	55	16.00	
70   21.00     75   22.00   High (22-36 points)     80   24.60     85   29.00     87   33.00     88   34.92     89   36.00     90   37.30     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	60	17.00	
75   22.00   High (22-36 points)     80   24.60     85   29.00     87   33.00     88   34.92     89   36.00     90   37.30     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	65	18.55	
80   24.60     85   29.00     87   33.00     88   34.92     89   36.00     90   37.30     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	70	21.00	
85   29.00     87   33.00     88   34.92     89   36.00     90   37.30   Extreme (37-88 points)     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	75	22.00	High (22-36 points)
87   33.00     88   34.92     89   36.00     90   37.30   Extreme (37-88 points)     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	80	24.60	
88   34.92     89   36.00     90   37.30   Extreme (37-88 points)     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	85	29.00	
89   36.00     90   37.30   Extreme (37-88 points)     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	87	33.00	
90   37.30   Extreme (37-88 points)     92   39.28     94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	88	34.92	
9239.289442.989545.659646.649748.999853.64	89	36.00	
94   42.98     95   45.65     96   46.64     97   48.99     98   53.64	90	37.30	Extreme (37-88 points)
9545.659646.649748.999853.64	92	39.28	
96   46.64     97   48.99     98   53.64	94	42.98	
97 48.99   98 53.64	95	45.65	
98 53.64	96	46.64	
	97	48.99	
99 63.65	98	53.64	
	99	63.65	

Descriptive statistics of the SED (Range: 0-88): Mean=17.96, SD=12.47, Skewness=1.376 (p=.188), Kurtosis=2.103 (p=.375)

percentile) were classed as having low levels of emotional dependency; between 10 and 21 points moderate dependency; between 22 and 36 points high dependency; and more than 37 points extreme dependency (≥90th percentile) (Table 4).

# CONCLUSIONS

In this research, the psychometrics of a new brief tool (the SED) were studied to assess emotional dependency in intimate relationships using an adult Spanish population currently in or which has been in a stable relationship. It is the first specific scale in this field.

The SED is a unidimensional 22-item tool that assesses the overall degree of emotional dependency in the general population. The psychometrics of the scale are satisfactory. Specifically, the internal consistency of the scale was high (alpha=.90), as was convergent validity with the total CDE score (r=.86). As for the validity of the construct, the exploratory factor analysis and the calculation of unidimensional congruence lead us to confidently conclude the existence of a single factor that allows us to explain the 45.3% variance in the variable examined (partner's emotional dependency). This result differs from that of other studies, which have obtained different dimensions, probably because they used statistical different procedures and the factors obtained are saturated by very few items.<sup>15,16</sup>

Unlike the results of other studies<sup>15</sup>, there are no gender differences in this research between men and women in terms of emotional dependency. It is likely that the behaviour among one gender or another differs, but we have not studied this factor here, leaving it to future research.

Based on the fact that the differences between a couple's healthy dependence (healthy emotional attachment) and pathological dependence are a matter of degree, as a classification criterion, this study has calculated the percentiles of the total SED score (range: 0-88). Specifically, it has been determined that high emotional dependence is established from a score of 22 (75th percentile) and extreme from a score of 37 (90th percentile). This is an interesting point that does not feature in all the scales analysed. It allows the problem to be detected early on and intervention strategies to be formed for the individuals affected by pathological dependency<sup>22</sup>.

If the degree of emotional dependence of a person on their partner can be assessed with a certain degree of precision, the greater or lesser vulnerability of a victim to male violence can be determined, as well as the difficulties of getting out of it, or the greater or lesser propensity of certain persons to become abusers based on their dependence on the victim<sup>23,24</sup>. This topic was not the subject of this work (because the sample was limited to the general population), but could be studied in future research.

In further studies this scale could also be applied to clinical samples, such as people affected by anxiety disorders, depression, chemical and behavioural addictions<sup>25</sup> and personality disorders, most of all in borderline personality disorder<sup>2, 24,26</sup>.

This study does, however, have some limitations, such as the relatively small sample size and the over-representation of women. In future research, it would be worth analysing the psychometrics of this tool and considering its use in clinical samples, for preventive and therapeutic reasons. Another limitation is that there are four items (1, 2, 14 and 22) on the scale that show less communality with the rest of the test. One possible explanation is the complex and heterogeneous nature of this construct, which makes it difficult to assess. Item 1, for example, ("In general, are you satisfied with yourself?") relates to different variables, such as self-esteem and, to a lesser degree, emotional dependency. In any case, we have decided to maintain these four items for theoretical reasons (greater theoretical coherence and representativeness of the construct) and practical reasons (there is no reduction in the reliability of the scale).

In conclusion, the SED is a brief assessment tool, simple to conduct and allows the degree of emotional dependency to be assessed unidimensionally with regard to a stable intimate relationship (current or past) in a normative population.

### ETHICAL RESPONSIBILITIES

### Protection of human and animal subjects

the authors declare that the procedures followed are according to the ethical norms of the responsible human experimentation committee, the World Medical Association and the Helsinki Declaration.

### Confidentiality of data

The authors declare that they followed the protocols of their centre of work regarding the publication of patient data.

#### Right to privacy and informed consent

The authors have obtained the informed consent of the patients and/or subjects referred to in the paper. This document is held by the corresponding author.

#### CONFLICT OF INTERESTS

The authors have no conflict of interests to declare.

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### Appendix

# Partner's emotional dependency scale (SED)

Instructions: Read the questions below and answer by marking the responses you think best describe how you feel and behave. The response options are as follows

	0	1	2	3	4	
	Completely untrue	Partly untrue	Somewhere in between	Partly true	Completely true	
1.	In general, are you satis	0 1 2 3 4				
2.	Do you often act as tho	0 1 2 3 4				
3.	Does the possibility of y	our relationship with your par	tner ending often cause you a	nguish or sadness?	0 1 2 3 4	
4.	Do you often apologise them being angry?	to your partner when they are	e angry, even though you know	that you are not responsible	for 0 1 2 3 4	
5.	Do you need your partn	er to continually show you af	fection?		0 1 2 3 4	
6.	Do you normally do thin relationship?	ngs or activities that you don't	like just to please your partne	r or avoid ending the	0 1 2 3 4	
7.	Do you often justify you	ur partner's conflicts, criticism	s or infidelities as a lesser evil in	n the relationship?	0 1 2 3 4	
8.	Do you usually feel guil	ty about arguments with your	partner?		0 1 2 3 4	
9.	Do you feel incapable o	f leaving your partner despite	the upset and suffering the rel	ationship causes you?	0 1 2 3 4	
10.	Have you pushed yourse behaviour, reckless enda	0 1 2 3 4				
11.	Do you think that you a	are not up to your current part	ner's standards and that you m	ay therefore lose them?	0 1 2 3 4	
12.	Do you feel the need to and who they are with?	re 0 1 2 3 4				
13.	Do you think that the w	0 1 2 3 4				
14.	Do you make all your jo	0 1 2 3 4				
15.	Do you constantly suffe	0 1 2 3 4				
16.	Have you given up your	0 1 2 3 4				
17.	Do you often think that	0 1 2 3 4				
18.	Has your partner expres continually know their	0 1 2 3 4				
19.	Do you feel helpless and	0 1 2 3 4				
20.	0. Are you convinced or do you constantly suspect that your partner is thinking of ending the relationship?					
21.	Do you continually feel	0 1 2 3 4				
22.	Do you think you would	0 1 2 3 4				