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Abstract

Cognitive models, both from the appraisal and inferential confusion approaches, have proposed that the self could be a relevant variable in the development and maintenance of obsessive-compulsive (OC) disorder. In this study we aim to analyze the role played by the fear of self, that is, the sort of person we would be afraid to become, in the obsessional area. Specifically, this study aims to: (1) study the psychometric properties of the Spanish version of the Fear of Self Questionnaire (FSQ), and (2) analyze the role of the fear of self predicting OC beliefs and symptoms. 359 non-clinical participants completed a set of questionnaires including the FSQ. Confirmatory factor analysis replicated the original one-factor solution of the FSQ-8 and 20 item versions. The FSQ demonstrated excellent reliability, and the fear of self was a relevant variable predicting OC symptoms and cognitions, especially unacceptable obsessions. The Spanish version of the FSQ retains the good psychometric properties of the original and support the relevance of fear of self to unacceptable obsessions.

Keywords	OCD; fear of self; appraisal; self; FSQ
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Highlights

- The Spanish version of Fear of Self Questionnaire shows good psychometric properties
- Fear of self plays a role in predicting obsessive-compulsive symptoms
- Fear of self is especially relevant to explain unacceptable obsessions

Validation of the Spanish version of the Fear of Self Questionnaire

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Validation of the Spanish version of the Fear of Self Questionnaire

Abstract

Cognitive models, both from the appraisal and inferential confusion approaches, have proposed that the self could be a relevant variable in the development and maintenance of obsessive-compulsive (OC) disorder. In this study we aim to analyze the role played by the fear of self, that is, the sort of person we would be afraid to become, in the obsessional area. Specifically, this study aims to: (1) study the psychometric properties of the Spanish version of the Fear of Self Questionnaire (FSQ), and (2) analyze the role of the fear of self predicting OC beliefs and symptoms. 359 non-clinical participants completed a set of questionnaires including the FSQ. Confirmatory factor analysis replicated the original one-factor solution of the FSQ-8 and 20 item versions. The FSQ demonstrated excellent reliability, and the fear of self was a relevant variable predicting OC symptoms and cognitions, especially unacceptable obsessions. The Spanish version of the FSQ retains the good psychometric properties of the original and support the relevance of fear of self to unacceptable obsessions.

Keywords: OCD, fear of self, appraisal, self, FSQ.

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1. Introduction

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Different cognitive models have been used to explain the development and maintenance of obsessive-compulsive disorder (OCD). Appraisal based theories propose that the dysfunctional appraisal of an intrusive thought based on specific OCD-related beliefs facilitate its conversion into an obsession (e.g., Rachman, 1997; Salkovskis, 1985). However, these models do not clarify why only some intrusions, and not others, escalate into obsessions (Doron, Kyrios, & Moulding, 2007; García-Soriano & Belloch, 2012). Yet, it is recognized that OCD-vulnerable individuals are more likely to misinterpret intrusive thoughts that have personal meaning or significance (Purdon & Clark, 1999; Salkovskis, 1985), thus recognizing that the individual's self-view may also be a key element on OCD development. Obsessions have been frequently described as egodystonic, defined by Purdon et al. (2007) as a thought "...that is perceived as having little or no context within one's own sense of self or personality" (p. 200). In one study participants with OCD reported that their most disturbing obsession contradicted valued aspects of the self significantly more than their least distressing obsession (Rowa, Purdon, Summerfeldt, & Antony, 2005). Moreover, it has been proposed that those intrusive thoughts that are misinterpreted are those whose content represent a perceived failure to maintain standards in one or more obsession-relevant self-evaluative domains (García-Soriano, Clark, Belloch, del Palacio, & Castañeiras, 2012), which has found support in one study with clinical participants, especially regarding contamination, checking, order, or hoarding symptoms (García-Soriano & Belloch, 2012). Similarly, it has been suggested that intrusive thoughts that are misinterpreted are those based in highly valued self-domains in which an individual feels incompetent, with various studies supporting that a sensitivity to moral self-beliefs is a vulnerability factor to develop and maintain OCD symptoms (Doron et al., 2007; Doron, Moulding, Kyrios, & Nedeljkovic, 2008).

47 The inferential confusion model (O'Connor & Robillard, 1995, 1999) proposes that
48 obsessions appear through a dysfunctional reasoning process (“inferential confusion”) where
49 the person confuses a remote possibility with a real probability. According to this model, the
50 self also plays a relevant role: people suffering from OCD would tend to confuse the real self
51 with the feared self, the sort of person we would be afraid to become, in the obsessional area
52 (Aardema & O'Connor, 2007; Aardema et al., 2013). That is, people suffering from OCD
53 would employ an erroneous reasoning process investing more in the sort of person they could
54 be (imagined or feared self) than in who they actually are (real self), in particular among those
55 with blasphemous, sexual and aggressive obsessions.

56 In line with these theories and findings, Aardema et al. (2013) developed a measure to
57 evaluate this construct, the Fear of Self-Questionnaire (FSQ). The original version consisted
58 of a 41-item questionnaire based on the literature and clinical expertise, that was shortened to
59 a 20-item version with a one-factor solution. The reliability of this version was excellent and
60 showed an adequate divergent validity with other OC related measures. The FSQ was related
61 to OCD symptoms, and significantly predicted obsessions and obsessive-compulsive beliefs.
62 In a second study, the authors reduced the measure into a final version of 8 items, with the
63 same one-factor solution. The FSQ-8 was highly correlated with the FSQ-20 and showed a
64 satisfactory internal consistency.

65 The FSQ-20 has already been translated into Italian and validated with a sample of
66 non-clinical participants. As in the English 20 and 8-items versions, the one-factor solution
67 was probed to be satisfactory (Melli, Aardema, & Moulding, 2015) . Also, a recent study
68 reported that the fear of possible selves is higher in OCD patients with repugnant obsessions
69 than in OCD patients with other obsessional contents, or in patients with other disorders
70 (eating, body dimorphic, mixed anxiety and depression) (Aardema et al., 2017). Moreover, in
71 both these studies with clinical OCD samples, fear of self predicted a significant proportion of

72 repugnant obsessions variance over and above the negative emotional symptoms, and other
73 cognitive domains as obsessional beliefs or inferential confusion construct (Aardema et al.,
74 2017; Melli et al., 2015).

75 In spite of the potential relevance of the fear of self-construct to explain the
76 development and maintenance of OCD, and the satisfactory psychometric properties of the
77 Fear of Self Questionnaire, this instrument has not been validated in a Spanish population.
78 Thus, the aim of the present study was two-fold: first, to examine the psychometric properties
79 of the Spanish version of the FSQ; and second, to replicate previous findings with the FSQ in
80 the prediction of obsessive beliefs and obsessive-compulsive symptoms.

81 **2. Method**

82 **2.1 Participants**

83 The sample consisted in a group of 359 participants (271 female) with a mean age of
84 29.16 years (range [18-65]; $SD = 14.09$). The great majority of participants were
85 undergraduate students (64%), community participants also participated in the study. Out of
86 the 359 subjects, 14 of them reported having a diagnosis of a psychological disorder. Most of
87 the sample was single (71.6%) with a medium-high (69%) socioeconomic level. Part of the
88 sample ($n = 175$; 67.20% female; M age = 38.62 years, $SD = 14.71$) completed only part of
89 the evaluation protocol.

90 **2.2. Measures**

91 Fear of Self Questionnaire (FSQ-20; Aardema et al., 2013). This is the questionnaire
92 under study, and it is described in detail in the introduction section. The FSQ-20 was
93 translated into Spanish by one of the authors of this study (S.LL.). Afterwards, a native
94 English speaker bilingual in Spanish translated the Spanish version in English. The original
95 English version and the translation were compared and discrepancies were discussed with the
96 primary author of the questionnaire (F.A.) until arriving to an agreement.

97 Obsessive-Compulsive Inventory-Revised (OCI-R; Foa et al., 2002; Spanish version:
98 Belloch et al., 2013). The OCI-R is a 18 items self-report questionnaire which assesses
99 distress associated with various obsessive–compulsive symptoms on six subscales In the
100 present study we have employed the Obsessing subscale (OCI-R Obsessing), and the total
101 score of the instrument removing the influence of the Obsessing scale (OCI-R Not Obsessing
102 subscale). That is, a mean of the score on the washing, checking, ordering, hoarding, and
103 neutralizing subscales. The internal consistency (Cronbach's α) was .81 for the OCI-R
104 Obsessing and .86 for the OCI-R Not Obsessing subscale.

105 Obsessive Beliefs Spanish Inventory-Revised (OBSI-R; Belloch et al., 2010). This is a
106 50-items self-report questionnaire designed to evaluate dysfunctional beliefs hypothetically
107 related to the maintenance and/or the development of the OCD. In the present study the total
108 score Cronbach's α was .95.

109 Obsessional Concerns and Self Questionnaire (OCSQ; García-Soriano & Belloch,
110 2012) is a 39 items self-report questionnaire that assess the extent to which respondents
111 consider OC content domains relevant to their self-worth. In the present study the internal
112 consistency of the total score was .95.

113 Ego-Dystonicity Questionnaire (EDQ; Purdon et al., 2007; Spanish version: Belloch,
114 Roncero, & Perpiñá, 2012). The EDQ is a 27 items self-report which measures the ego-
115 dystonicity associated with an unwanted thought.. In the present study, the internal
116 consistency of the total score was .92.

117 Depression Anxiety Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1995; Spanish
118 version: Daza, Novy, Stanley, & Averill, 2002). The DASS-21 is a 21 items self-report
119 questionnaire designed to measure the negative emotional states of depression, anxiety and
120 stress. In the present study the total score internal consistency of the total score was .93.

121 **2.3 Procedure**

122 Recruitment of participants was conducted following the “snowball” method by 4th
123 year students at the BA program from a Spanish university. The students attended a two-hour
124 training seminar where they received training about the purpose of the study and how to
125 present the study and the instruments to prospective participants. Each student individually
126 administered the assessment protocol to community volunteers. Participants were volunteers
127 and students who obtained course credit for their recruitment efforts. All the participants
128 provided written informed consent prior to completing the questionnaires. Two weeks later,
129 part of the participants ($n=102$) completed the FSQ-20 again. Half of the participants (51%,
130 $n=184$) completed a set of questionnaires that included, along with others, the above
131 described questionnaires. The other half ($n=175$) only completed the FSQ. The study received
132 the approval of the Ethical Committee from the University.

133 **2.4 Data Analysis**

134 Firstly, we computed the descriptive analyses of the FSQ items: mean, standard
135 deviation, skewness, and kurtosis. Secondly, we analyzed the internal structure of both
136 versions of the FSQ by means of confirmatory factor analysis¹. Given the expected floor
137 effect for several of the FSQ items, which implies a high departure from normality (e.g., "I
138 must be very careful in order to avoid doing something awful"), we treated the responses as
139 categorical (ULSMV estimator in *Mplus*). ULSMV appears to be the advisable method in
140 these cases, in particular for small to medium sample sizes (e.g., Forero, Maydeu-Olivares, &
141 Gallardo-Pujol, 2009). Goodness-of-fit of all the derived models was assessed with the
142 common cut-off values for the fit indices (Hu & Bentler, 1999): CFI and TLI with values
143 greater than .95 and RMSEA less than .06 were indicative of a satisfactory fit. These cut-off
144 values must be interpreted with caution as they were derived models estimated with

¹ In the case of unidimensional models without correlated uniquenesses, confirmatory factor analysis models, exploratory factor analysis models, and exploratory structural equation models offer the same results and fit.

145 maximum-likelihood. Localized areas of strain were assessed with modification indices and
 146 standardized expected parameter change. Thirdly, we computed the reliability of the two
 147 versions: (a) internal consistency computed with Cronbach's alpha, and (b) test-retest
 148 correlation. Fourthly, we computed the inter-correlations between the different scales and age
 149 and sex. Fifthly, we computed three hierarchical regression models with OCI-R Not
 150 Obsessing subscale, OCI-R Obsessing subscale, and OBSI-R total score as criteria variables.
 151 For each regression we had three steps: (1) DASS-21 as the only predictor controlling for the
 152 emotional symptoms; (2) OCSQ, EDQ, and OBSI-R (not when it was the criterion) describing
 153 relevant and OCD domains; and finally, the (3) FSQ-20 was included.

154 3. Results

155 3.1 Item Descriptives, Internal Structure, and Reliability

156 The descriptives of the items can be seen in Table 1. As expected, the items presented
 157 low means ($M_{\text{mean}} = 2.19$, range [1.44, 3.46]) and low standard deviations ($M_{\text{SD}} = 1.28$, range
 158 [0.86, 1.60]). In average, the items tended to show a positive skewness ($M_{\text{Sk}} = 1.20$, range [-
 159 0.13, 2.66]) and kurtosis ($M_{\text{K}} = 1.27$, range [-0.98, 8.15]).

160
 161 Table 1. Item Description and Factor Loadings of the Fear of Self Questionnaire (FSQ)

	Descriptives				Loadings	
	<i>M</i>	<i>SD</i>	<i>Sk</i>	<i>K</i>	FSQ-20	FSQ-8
1. I often question my own character.	3.46	1.40	-0.13	-0.86	.58	.51
2. It requires constant attention to ensure I am thinking and behaving appropriately.	2.62	1.30	0.59	-0.40	.58	—
3. I often worry about what my inner thoughts might reveal about my character.	2.71	1.42	0.55	-0.69	.68	—
4. I fear perhaps being a violent, crazy person.	1.81	1.18	1.62	2.02	.72	—

5. I can easily imagine myself as the kind of person that should definitely feel guilty.	2.09	1.33	1.28	0.85	.63	.62
6. I often question my moral character.	2.09	1.26	1.10	0.50	.71	—
7. I often question my own sanity.	1.96	1.29	1.46	1.47	.72	.71
8. I often question my own identity.	2.07	1.34	1.25	0.74	.72	—
9. I often question my own intentions or desires.	2.70	1.42	0.47	-0.69	.64	—
10. I am sometimes afraid to look inside of myself because I am afraid of what I could find.	2.09	1.36	1.22	0.54	.77	.75
11. I feel like a bad part of me is always trying to express itself.	1.81	1.20	1.54	1.56	.80	—
12. I worry about being the sort of person who might do very immoral things.	1.58	1.05	2.15	4.59	.83	.81
13. I often worry about having a negative 'agenda'.	1.89	1.18	1.59	2.28	.79	—
14. I am afraid of the kind of person I could be.	1.66	1.07	2.18	5.07	.82	—
15. I often accuse myself of having done something wrong.	3.04	1.54	0.25	-0.98	.66	—
16. I'm afraid of the kind of person I might become if I'm not very careful.	1.95	1.24	1.43	1.39	.80	.82
17. I often doubt that I am a good person.	2.00	1.24	1.24	0.74	.78	—
18. I fear becoming the sort of person I detest.	2.58	1.60	0.61	-0.92	.69	—
19. I often feel that I do not honestly show the negative reality inside myself.	2.26	1.36	0.95	0.02	.78	.80
20. I must be very careful in order to avoid doing something awful.	1.44	0.86	2.66	8.15	.76	.80

163

164 This first model (M1) with the FSQ-20 did not meet the common cut-off values for
 165 goodness-of-fit (CFI = .928, TLI = .919, RMSEA = .088). The higher modification index,
 166 equal to 41.0 (expected standardized parameter change = .45), corresponded to correlated
 167 uniqueness between Item 2 and Item 3. In M2 we added this parameter and, although model
 168 fit was improved, it was still below the desired thresholds. Sequentially, we added new
 169 correlated uniquenesses (Items 5 and 15, Items 8 and 9; Items 1 and 2). In none of these
 170 models the CFI and TLI were greater than .95 or the RMSEA lower than .06. We did not test
 171 further models with the FSQ-20 as it was clear at reaching a well-fitting model required many
 172 parameters without theoretical justification. In the final tested model with the FSQ-20, the
 173 included correlated uniquenesses ranged from .33 to .45.

174 For the FSQ-8 responses (M6) the model fit was much better without correlated
 175 uniquenesses (CFI = .981, TLI = .974, RMSEA = .070). Although the RMSEA was over the
 176 intended cut-off value, the maximum modification index was small –8.8– and all the expected
 177 standardized parameter changes were below .29.

178 The item loadings for the FSQ-20 and FSQ-8 items can be seen in Table 2. In both
 179 cases, item loadings were medium-high (for the FSQ-20, $M_{\text{loading}} = .72$, range [.58, .83]; for
 180 the FSQ-8, $M_{\text{loading}} = .73$, range [.51, .82]).

181

182 Table 2. Goodness of fit indices for the different models

Models	$\chi^2 \dagger$	<i>df</i>	CFI	TLI	RMSEA
M1. FSQ-20	643.1	170	.928	.919	.088
M2. FSQ-20 + CU (2 & 3)	604.7	169	.933	.925	.085
M3. FSQ-20 + CU (2 & 3 + 5 & 15)	570.4	168	.938	.930	.082
M4. FSQ-20 + CU (2 & 3 + 5 & 15 + 8 & 9)	535.5	167	.944	.936	.078

214 $\beta_{\text{FSQ-20}} = 0.19$, $t(124) = 2.027$, $p = .045$). When predicting the OCI-R Obsessing scale, in the
 215 first step, the DASS-21 made a significant contribution explaining 27% of the variance. In
 216 Step 2, when adding OCD relevant domains, the explained variance significantly increased
 217 6%, and the dysfunctional beliefs (OBSI-R) emerged also as a significant predictor. In Step 3,
 218 adding the FSQ scores, the explained variance significantly increased by 7%, the OBSI-R was
 219 no longer a predictor, and only the DASS-21 and the FSQ emerged as significant predictors
 220 in the final model (OCI-R Obsessing, $R_{\text{Model3}}^2 = .40$, $\beta_{\text{FSQ-20}} = 0.36$, $t(124) = 3.716$, $p < .001$).
 221 Finally, when predicting the dysfunctional beliefs (OBSI-R), the DASS-21 explained a 16%
 222 of the variance. In step 2, the variance increased in 33% with emotional and self variables
 223 making significant contributions. And in step 3, the explained variance significantly increased
 224 by 5%, with only the self variables making a significant contribution (OCSQ, EDQ, FSQ) (
 225 $R_{\text{Model3}}^2 = .54$, $\beta_{\text{FSQ-20}} = 0.29$, $t(125) = 3.568$, $p = .001$) (Table 4).

226

227 Table 4. Hierarchical regressions predicting obsessive-compulsive symptoms (OCI-R) and
 228 dysfunctional beliefs (OBSI-R).

	OCI-R Not Obsession			OCI-R Obsession			OBSI-R		
<i>Step 1</i>	ΔR^2	ΔF	<i>p</i>	ΔR^2	ΔF	<i>p</i>	ΔR^2	ΔF	<i>p</i>
	.18	27.28	< .001	.27	46.85	< .001	.16	24.76	< .001
<i>Coefficients</i>	β	<i>t</i>	<i>p</i>	β	<i>t</i>	<i>p</i>	β	<i>t</i>	<i>p</i>
DASS	0.42	5.22	< .001	0.52	6.84	< .001	0.40	4.98	.000
<i>Step 2</i>	ΔR^2	ΔF	<i>p</i>	ΔR^2	ΔF	<i>p</i>	ΔR^2	ΔF	<i>p</i>
	.23	15.83	< .001	.06	3.71	.013	.33	41.37	< .001
<i>Coefficients</i>	β	<i>t</i>	<i>p</i>	β	<i>t</i>	<i>p</i>	β	<i>t</i>	<i>p</i>
DASS	0.23	3.10	.002	0.42	5.29	< .001	0.25	3.74	< .001
OCSQ	0.30	3.03	.003	-0.12	-1.14	.255	0.65	8.99	< .001

EDQ	0.01	0.11	.916	0.16	1.94	.055	-0.17	-2.41	.018
OBSI-R	0.26	2.64	.009	0.28	2.69	.008	—	—	—
<i>Step 3</i>	ΔR^2	ΔF	<i>p</i>	ΔR^2	ΔF	<i>p</i>	ΔR^2	ΔF	<i>p</i>
	.02	4.11	.045	.07	13.81	<.001	.05	12.73	.001
<i>Coefficients</i>	β	<i>t</i>	<i>p</i>	β	<i>t</i>	<i>p</i>	β	<i>t</i>	<i>p</i>
DASS	0.13	1.40	.165	0.22	2.40	.018	0.06	0.79	.430
OCSQ	0.33	3.29	.001	-0.07	-0.73	.468	0.62	9.04	<.001
EDQ	-0.01	-0.18	.859	0.12	1.49	.138	-0.18	-2.77	.006
OBSI-R	0.19	1.93	.056	0.16	1.56	.120	—	—	—
FSQ-20	0.19	2.03	.045	0.36	3.72	<.001	0.29	3.57	.001

229 *Note:* Bold *p*-values correspond to those statistically significant, $p < .05$.

230 FSQ=Fear of Self-Questionnaire; OCI-R=Obsessive-Compulsive Inventory-Revised;

231 DASS-21=Depression Anxiety Stress Scale-21; OCSQ=Obsessional Concerns and Self

232 Questionnaire; EDQ=Ego-Dystonicity Questionnaire; OBSI-R=Obsessive Beliefs Spanish

233 Inventory-Revised

234

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4. Discussion

236 The Spanish version of the Fear of Self Questionnaire shows strong psychometric

237 properties and excellent reliability in a community sample, retaining the good psychometric

238 properties of the original version of the instrument (Aardema et al., 2013), and replicating the

239 properties of the Italian version (Melli et al., 2015). The confirmatory factor analyses

240 supported the unidimensional structure of the measure for the long (20 items) and short

241 version (8 items) showed in the original (Aardema et al., 2013; Aardema et al., 2017) and

242 Italian (Melli et al., 2015) versions. Results show an excellent reliability for both versions of

243 the FSQ through the internal consistency and temporal stability, similar to that reported in the
244 original (Aardema et al., 2013) and Italian version (Melli et al., 2015). 5

245 As expected, both versions of the FSQ showed higher associations with the
246 unpleasantness associated to the obsessions (OCI-R Obsessing) than with the other obsessive-
247 compulsive symptoms. This result is congruent with theoretical proposals (O'Connor &
248 Aardema, 2007), and it is supported by previous studies using both non-clinical and clinical
249 OCD samples (Aardema et al., 2013, 2017; Melli et al., 2015) 5. Overall results confirm the
250 relevance of the fear of self construct in those people showing higher emotional and
251 obsessive-compulsive symptoms, especially regarding unacceptable obsessions. A recent
252 study with clinical samples also supported the relevance of the fear of self in different clinical
253 groups including anxious/ depressive patients (Aardema et al., 2017). The fear of possible
254 selves shows small significant associations with other self-constructs relevant in OCD as the
255 self-worth contingencies and egodystonicity. This last result was not expected, as previous
256 research (Aardema et al., 2013) showed moderate associations between fear of self and
257 egodystonicity. The differences between the present study and Aardema et al. (2013) study
258 could be due to the fact that participants appraise the egodystonicity of different unwanted
259 unpleasant thoughts in each study, and as it has been observed previously, egodytonicity
260 varies across different obsessional contents and thoughts (Purdon et al., 2007). Low
261 associations between the fear of self and the other self-constructs, indicate that they retain
262 different elements of the self in relation with OCD. Whereas the fear of self construct
263 evaluates the fear of possible selves ; self-worth contingencies construct's appraise the extent
264 to which participants consider OC content domains (e.g., cleanliness) relevant to their self-
265 worth; and egodystonicity measures if an unwanted thought is inconsistent with the real self.
266 Our results suggest that the inconsistency between an unpleasant thought and the real self,
267 may not be associated with the fear of possible selves.

293 excessive concern with interpersonal relationships combined with a tendency to sacrifice
294 personal needs and autonomy could play a key role (Careau, O'Connor, Freeston, & Turgeon,
295 2007). Moreover, further research should analyse its relevance in other disorders of the OCD
296 spectrum. In fact, a recent study suggests its relevance in body dysmorphic and eating
297 disorders (Aardema et al., 2017), thus suggesting the possibility to develop common strategies
298 to different disorders.

299

5. References

300 Aardema, F., & O'Connor, K. (2007). The menace within: Obsessions and the self. *Journal of*
301 *Cognitive Psychotherapy, 21*, 182-197.

302 Aardema, F., Moulding, R., Radomsky, A. S., Doron, G., Allamby, J., & Souki, E. (2013). Fear
303 of self and obsessionality: Development and validation of the Fear of Self Questionnaire.
304 *Journal of Obsessive-Compulsive and Related Disorders, 2*(3), 306–315.

305 Aardema, F., Moulding, R., Melli, G., Radomsky, A. S., Doron, G., Audet, J.-S., & Purcell
306 Lalonde, M. (2017). The role of feared possible selves in obsessive-compulsive and related
307 disorders: A comparative analysis of a core cognitive self-construct in clinical samples. *Clinical*
308 *Psychology & Psychotherapy, (July)*, 1–11.

309 Belloch, A., Roncero, M., García-Soriano, G., Carrió, C., Cabedo, E., & Fernández-Álvarez,
310 H. (2013). The Spanish version of the Obsessive-Compulsive Inventory-Revised (OCI-R):
311 Reliability, validity, diagnostic accuracy, and sensitivity to treatment effects in clinical samples.
312 *Journal of Obsessive-Compulsive and Related Disorders, 2*(3), 249–256.

313 Belloch, A., Morillo, C., Luciano, J. V, García-Soriano, G., Cabedo, E., & Carrió, C. (2010).
314 Dysfunctional belief domains related to obsessive-compulsive disorder: a further examination
315 of their dimensionality and specificity. *The Spanish Journal of Psychology, 13*(1), 376–88.

316 Belloch, A., Roncero, M., & Perpiñá, C. (2012). Ego-syntonicity and ego-dystonicity associated
317 with upsetting intrusive cognitions. *Journal of Psychopathology and Behavioral Assessment,*
318 *34*(1), 94–106.

319 Daza, P., Novy, D. M, Stanley, M. A, & Averill, P. (2002). The Depression Anxiety Stress
320 Scale-21: Spanish translation and validation with a Hispanic sample. *Journal of*
321 *Psychopathology & Behavioral Assessment, 24*(3), 195-205

- 322 Careau, Y., O'Connor, K.P., Turgeon, L, & Freston, M.H. (2012) Childhood experiences and
323 adult beliefs in obsessive-compulsive disorder: evaluating a specific etiological model. *Journal*
324 *of Cognitive Psychotherapy*, 26, 236-256.
- 325 Doron, G., Kyrios, M., & Moulding, R. (2007). Sensitive domains of self-concept in obsessive-
326 compulsive disorder (OCD): Further evidence for a multidimensional model of OCD. *Journal*
327 *of Anxiety Disorders*, 21,433–444
- 328 Doron, G., Moulding, R., Kyrios, M., & Nedeljkovic, M. (2008). Sensitivity of self beliefs in
329 obsessive–compulsive disorder (OCD). *Anxiety and Depression*, 25, 874–884
- 330 Foa, E. B., Huppert, J. D., Leiberg, S., Langner, R., Kichic, R., Hajcak, G., & Salkovskis, P. M.
331 (2002). The Obsessive – Compulsive Inventory : Development and Validation of a Short
332 Version. *Psychological Assessment*, 14(4), 485–496.
- 333 Forero, C. G., Maydeu-Olivares, A., & Gallardo-Pujol, D. (2009). Factor analysis with ordinal
334 indicators: A Monte Carlo study comparing DWLS and ULS estimation. *Structural Equation*
335 *Modeling*, 16, 625-641.
- 336 García-Soriano, G., Clark, D. A., Belloch, A., del Palacio, A., & Castañeiras, C. (2012). Self-
337 worth contingencies and obsessionality : A promising approach to vulnerability? *Journal of*
338 *Obsessive-Compulsive and Related Disorders*, 1, 196–202.
- 339 García-Soriano, G., & Belloch, A. (2012). Exploring the role of obsessive-compulsive relevant
340 self-worth contingencies in obsessive-compulsive disorder patients. *Psychiatry Research*,
341 198(1), 94–9.
- 342 Hu, L.T., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis:
343 Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.

- 344 Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states:
345 Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and
346 Anxiety Inventories. *Behaviour Research and Therapy*, 33, 335-343
- 347 Melli, G., Aardema, F., & Moulding, R. (2015). Fear of Self and Unacceptable Thoughts in
348 Obsessive – Compulsive Disorder. *Clinical Psychology and Psychotherapy*, 226–235.
- 349 O’Connor, K., & Aardema, F. (2007). Self Themes in Obsessive-Compulsive Disorder. *Journal*
350 *of Cognitive Psychotherapy*, 21(3), 179–181.
- 351 O’Connor K. P., & Robillard S. (1995). Inference processes in obsessive-compulsive disorder:
352 some clinical observations. *Behaviour Research and Therapy*, 33,887-896
- 353 O’Connor K. P., & Robillard S. (1999). A cognitive approach to modifying primary inferences
354 in obsessive compulsive disorder. *Journal of Cognitive Psychotherapy*, 13,1-17
- 355 Purdon, C., & Clark, D. A. (1999). Metacognition and obsessions. *Clinical Psychology &*
356 *Psychotherapy*, 6(2), 102–110.
- 357 Purdon C., Cripps E., Faull M., Joseph S., & Rowa, K. (2007) Development of a measure of
358 ego-dystonicity. *Journal of Cognitive Psicotherapy*, 21,198-21
- 359 Rachman, S. (1997). A cognitive theory of obsessions. *Behaviour Research and Therapy*, 35,
360 793–802.
- 361 Rowa, K., Purdon, C., Summerfeldt, L. J., & Antony, M. M. (2005). Why are some
362 obsessions more upsetting than others? *Behaviour Research and Therapy*, 43(11), 1453–65.
- 363 Salkovskis, P. M. (1985). Obsessional–compulsive problems: A cognitive–behavioral analysis.
364 *Behaviour Research and Therapy*, 23, 571–583.