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Spanish adaptation of the Solution-Focused Inventory (SFI)

Adaptación española del Cuestionario Centrado en Soluciones

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Abstract

The aim of this study was to examine the psychometric properties of the Solution-Focused Inventory (SFI) in a Spanish population, replicating the original validation study of Grant et al. (2012). The SFI, designed to evaluate solution-focused thinking, is a 12-item scale with three subscales: Problem Disengagement, Goal Orientation and Resource Activation. The instrument was adapted and translated into Spanish, then two studies were carried out to examine its psychometric properties. The first study confirmed the instrument´s structure, and its good internal consistency. The second study confirmed its convergent validity; SFI was positively correlated with measures of well-being, resilience, satisfaction with life and perspective taking, and negatively correlated with psychopathology. This second study confirmed the stability of the SFI scores across time. In sum, these two studies provide additional support for the reliability and validity of the SFI as a measure of solution-focused thinking, and open its use to Spanish-speaking populations.
Key words: Solution-focused thinking; positive psychology; well-being measures; psychometric properties; instrumental study

Resumen

El objetivo de este estudio fue analizar las propiedades psicométricas del Cuestionario Centrado en Soluciones (CCS) en una muestra española, replicando el estudio original de Grant et al. (2012). El CCS diseñado para evaluar los pensamientos centrados en las soluciones, compuesta de tres subescalas: Distanciamiento del problema, Orientación a la Meta y Activación de recursos. Fue traducido y adaptado al castellano, posteriormente se realizaron dos estudios para examinar sus propiedades psicométricas. El primer estudio confirmó la estructura del instrumento y obtuvo una buena consistencia interna. El segundo estudio confirmó su validez convergente; el CCS correlacionó positivamente con el bienestar, resiliencia, satisfacción con la vida y toma de perspectiva, y negativamente con una medida de psicopatología. El segundo estudio confirmó la estabilidad, a lo largo del tiempo. Estos dos estudios confirman que el CCS es una medida que evalúa pensamientos centrados en las soluciones y puede ser utilizado para población española.
Palabras clave: Pensamiento centrado en la solución; psicología positiva; medidas de bienestar; propiedades psicométricas; estudio instrumental.

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Introduction

Solution-Focused Brief Therapy (SFBT) is a therapeutic approach developed by de Shazer and his team in the 1980's (de Shazer, Dolan, & Korman, 2007). On the one hand, this approach is mainly based on helping people to identify and enhance the resources available to solve their problems and, on the other, on helping them to describe the desired solutions and construct different ways of achieving them to create positive change in their lives.

Solution-focused brief therapy started being used exclusively in the field of family therapy, although in recent years, interest about applying it to a broad array of areas such as social work, school settings, nursing, or coaching, among others, has grown (Ferraz & Wellman, 2008, 2009; Franklin, 2012).

Two recent meta-analyses (Kim, 2008; Stams, Dekovic, Buist, & de Vries, 2006)2008; Stams, Dekovic, Buist, & de Vries, 2006 indicate that the solution-focused approach achieves positive, albeit moderate, results. In a systematic qualitative review of 43 controlled outcome studies, Gingerich and Peterson (2012)¡D conclude that, compared with other traditional psychological treatments, SFBT produces equivalent results and, in some cases, positive changes occur in less time and, therefore, at a lower cost for users.

However, one of the major limitations of available controlled studies is that they do not use reliable instruments to assess the core aspects of the solution-focused approach in order to determine how such aspects influenced the process of change in individuals. To overcome this limitation, Grant et al. (2012) designed and validated a questionnaire that assesses the psychological factors that may underlie the process of solution-focused change. Thus, researchers and therapists can design investigations with a more robust and appropriate methodology.

The design of Grant's questionnaire was based on the review of the solution-focused literature. The authors identified two key components: 1) constructing solutions through people›s identification of their desired goals; and (2) the identification of exceptions to the problem, using the individuals› own resources and strengths (de Shazer, 1991; DeJong & Berg, 1998)P.</author><author>Berg, I.K.</author></authors></contributors><titles><title>Interviewing of solutions</title></titles><dates><year>1998</year></dates><pub-location>Pacific Grove, CA</pub-location><publisher>Brooks/Cole</publisher><urls></urls></record></Cite></EndNote>. Lastly, they argued that the solution-focused approach also involves (3) distancing oneself from the problems (Biswass-Diener, 2010) activities and strategies for success.</title></titles><dates><year>2010</year></dates><pub-location>London</pub-location><publisher>Wiley</publisher><urls></urls></record></Cite></EndNote>, thus, proposing a third component.

In short, Grant et al. (2012) designed a questionnaire with 12 items grouped in 3 factors that correspond to these three components. The Goal Orientation (GO) factor reflects the identification of courses of action to achieve the proposed goals and review progress. The Activation of Resources (AR) factor involves positive thoughts about solutions and the perception of the availability of resources to solve the problems. Finally, the Distancing oneself from the Problem (DP) factor reflects the tendency to focus on negative thoughts about the problem, which prevents achieving one's goals. The authors proposed three theoretical models. The one with the best fit to the data and which was most theoretically consistent was a model with 3 first-order factors (GO, AR, and DP) under a second-order factor. This instrument had adequate internal reliability, both for the three first-order factors and for the global factor (Cronbach alpha coefficients of between .68 and .83) (Grant et al., 2012).

The goal of this study is to adapt this questionnaire to a Spanish population and analyze its psychometric properties, to obtain a useful and reliable instrument to assess the psychological aspects underlying the process of solution-focused change in Spanish-speaking individuals.

This paper presents the results of two studies, replicating Grant et al´s (2012) paper. In the first study, the internal structure of the questionnaire is assessed through exploratory and confirmatory factor analysis (EFA and CFA, respectively), and its reliability is also analyzed. The second study analyzes the evidence of external validity and the test-retest reliability of the instrument. To perform these studies, we followed the indications proposed by Carretero-Dios and Pérez (2007).

Study 1: Exploratory Factor Analysis, Internal Consistency and Confirmatory Factor Analysis

Method

Participants and procedure

Data were gathered in two stages. In stage one, we selected a sample of 429 professionals, mainly from the healthcare sector (78,5% females and 21,5% males; mean age = 41,12 years, *SD* =11,42). Most of them had university

studies (75,2%). 65% were married and most of them (93%) were active workers.

In two stage, the data set was collected from a sample of undergraduate psychology students (82,3% females and 17.7% males; mean age = 23.40 years, *SD* =5.47), of whom 87% were single.

Data were gathered in two different ways, either through printed or digital internet questionnaires. In the first stage, the questionnaires were sent by email, Facebook, and professional distribution lists, and 429 individuals completed all the questionnaires. In the second stage, printed questionnaires were distributed to volunteer undergraduate psychology students, and 141 students completed all questionnaires.

Instrument

"Cuestionario Centrado en Soluciones" (in English, the Solution-Focused Inventory [SFI]) (Grant et al., 2012). This questionnaire was translated and adapted to Spanish population, taking into account the following steps: (a) Firstly, the SFI was independently translated into Spanish by two bilingual professionals; (b) the two translations were compared and discussed both by the two professionals and the research team to achieve the final version of the instrument; (c) the final Spanish version of the questionnaire was back-translated into English by another professional; (d) the two English versions were compared by the research team and the confirming the practical equivalence of the two versions, both conceptually and semantically; and (e) to assess the comprehension of all the items and of the response scale of the questionnaire, the translated version was completed by 15 psychology students. All the students stated that it was easy to understand, although 10 of the 15 participants suggested that an item in which the word "resilient" appeared should be clarified, because many of them thought that it might be difficult to understand for people with no knowledge of psychology. This suggestion was considered by the research team and, after the word "resilient", the following definition was added in parenthesis: "*capable of overcoming negative events and adapting well to the new situation"*.

The final questionnaire consists of 12 items, with three subscales of 4 items each with a 6-point Likert-type response scale for each item (from 1 = completely disagree to 6 = completely agree). Higher scores are indicative of greater degrees of solution-focused thinking.

Results

In order to confirm the questionnaire's internal structure, EFA was performed on the professional sample, using maximum likelihood method with Promax rotation. The analysis was conducted using SPSS 22. Item descriptive statistics, inter-item correlations, and internal consistency of subscales and total scale were also analyzed. The data of the student sample were used to confirm the factor structure. CFA using maximum likelihood method was conducted using AMOS 22.

Descriptive statistics and inter-item correlations

Table 1 shows the descriptive statistics of the 12 items of the SFI in samples of professionals and students. Although the professionals obtained higher means in almost all of the items, the differences were not relevant, presenting small effect sizes.

Table 2 presents the correlations between all the items of the SFI for both samples. Examination of the correlations shows that the items were positively correlated. Second, there were groups of correlations with some items presenting a high correlation with each other and a low one with other items. In general, the correlations ranged between 0,01 (p >0,05) and 0,82 (p <0,01) in the sample of professionals and from 0,04 (p >0,05) to 0,74 (p <0,01) in the sample of students.

Exploratory Factor Analysis

We performed EFA on the sample of professionals. The results appear in Table 3. Factor extraction with the Kaiser criterion yielded three factors, which explained 33,9, 14,3, and 6,4% of the variance, respectively. The solution explained 54,6% of the total variance.

Previously, the adequacy of the data for the analysis factor was verified using the Kaiser-Meyer- Olkin (KMO), criterion, as well as the Bartlett's sphericity test. The KMO criterion was 0,83, exceeding the standard of 0,75 proposed by the authors to be considered adequate. Bartlett's test rejected the hypothesis of a diagonal correlation matrix (c^2 = 2230,8, p = 0,000), indicating significant relationships between the variables. The three extracted factors coincided with those found by Grant:

Factor 1. Goal Orientation (GO), which included Items 9, 10, 11, and 12. The factor loadings were the highest of the entire factor solution, ranging between 0,54 and 0,95, as were the item-total correlations, ranging from 0,55 to 0,82.

Table 1. *Descriptive statistics for each item of the Solution-Focused Inventory scale in professional and university student samples*

		Professional sample (N=428)			University student sample (N=141)			Mean differences			
	Items	Range	M	SD	Range	M	SD	t	p	d	r
SFI-1	*Tiendo a pasar más tiempo analizando mis problemas que buscando sus posibles soluciones* (I tend to spend more time analysing my problems than working on possible solutions)[R]	1 – 6	4.33	1.38	1 – 6	4.08	1.38	1.87	0.062	0.18	0.08
SFI-2	*Tiendo a quedarme atascado/a pensando en mis problemas* (I tend to get stuck in thinking about problems)[R]	1 – 6	4.45	1.36	1 – 6	3.94	1.46	3.83	0.000	0.37	0.16
SFI-3	*Siempre hay una solución para cada problema* (There is always a solution to every problem)	1 – 6	4.92	1.16	1 – 6	4.60	1.25	2.79	0.005	0.27	0.12
SFI-4	*Tiendo a centrarme en lo negativo* (I tend to focus on the negative)[R]	1 – 6	4.50	1.48	1 – 6	4.08	1.52	2.88	0.004	0.28	0.12
SFI-5	*No soy muy bueno/a dándome cuenta cuando las cosas van bien* (I'm not very good at noticing when things are going well)[R]	1 – 6	4.89	1.28	1 – 6	4.53	1.39	2.81	0.005	0.27	0.12
SFI-6	*Siempre hay suficientes recursos para solucionar un problema si sabes dónde buscar* (There are always enough resources to solve a problem if you know where to look)	1 – 6	4.80	1.13	1 – 6	4.60	1.15	1.83	0.068	0.18	0.08
SFI-7	*La mayoría de las personas son más resilientes (capaces de sobreponerse a los eventos negativos y adaptarse bien a la nueva situación) de lo que ellos se creen* (Most people are more resilient than they realise)	1 – 6	4.83	1.07	1 – 6	4.78	1.06	0.43	0.666	0.04	0.02
SFI-8	*Los contratiempos son una oportunidad para convertir los fracasos en éxitos* (Setbacks are a real opportunity to turn failure into success)	1 – 6	4.56	1.23	1 – 6	4.29	1.09	2.34	0.020	0.23	0.10
SFI-9	*Me imagino mis metas y trabajo para conseguirlas* (I imagine my goals and then work towards them)	1 – 6	4.82	1.13	1 – 6	4.97	0.96	-1.57	0.117	0.15	0.09
SFI-10	*Tengo en cuenta mis progresos con el fin de conseguir mis metas* (I keep track of my progress towards my goals)	1 – 6	4.70	1.12	1 – 6	4.74	1.05	-0.32	0.748	0.03	0.01
SFI-11	*Soy muy bueno/a desarrollando planes efectivos de acción* (I'm very good at developing effective action plans)	1 – 6	4.02	1.15	1 – 6	3.94	1.12	0.70	0.482	0.07	0.03
SFI-12	*Siempre consigo mis metas* (I always achieve my goals)	1 – 6	3.96	1.09	1 – 6	4.01	1.09	-0.42	0.674	0.04	0.02

Note. Spanish items (original items); [R]Indicates reverse-scored items

Factor 2. Problem Disengagement (PD), formed by inverted items 1, 2, 4, and 5. The factor loadings were high (.52 - .88), as were the item-total correlations (.39 - .72).

Factor 3. Resource Activation (RA), comprised of Items 3, 6, 7, and 8. This factor presented lower loadings on two items; in this regard, we underline item 7, whose performance was weaker, as also occurred in Grant's work. The item-total correlations were satisfactory, though a bit lower than those of the previous factors (0,24 - 0,56). The three factors were positively correlated with each other, as expected.

Descriptive statistics and internal consistency of the factors

Descriptive statistics and the Cronbach alpha coefficients of total scale and the three subscales are shown in Table 4.

Table 2. *Pearson product moment correlations between 12 scale items in the professional and the university student samples*

		Professional sample											
		SFI-1	SFI-2	SFI-3	SFI-4	SFI-5	SFI-6	SFI-7	SFI-8	SFI-9	SFI-10	SFI-11	SFI-12
University student sample	SFI-1		0.72**	0.01	0.52**	0.39**	0.09	-0.03	0.10*	0.22**	0.22**	0.24**	0.24**
	SFI-2	0.74**		0.11*	0.58**	0.45**	0.08	0.02	0.13**	0.25**	0.26**	0.26**	0.26**
	SFI-3	0.30**	0.28**		0.13**	0.14**	0.56**	0.24**	0.32**	0.38**	0.38**	0.33**	0.32**
	SFI-4	0.60**	0.60**	0.38**		0.46**	0.14**	0.03	0.15**	0.19**	0.24**	0.18**	0.24**
	SFI-5	0.28**	0.28**	0.31**	0.36**		0.16**	0.03	0.16**	0.14**	0.25**	0.23**	0.21**
	SFI-6	0.22**	0.22**	0.62**	0.32**	0.27**		0.37**	0.43**	0.35**	0.42**	0.38**	0.44**
	SFI-7	0.10	0.14	0.21*	0.13	0.04	0.29**		0.38**	0.28**	0.29**	0.22**	0.21**
	SFI-8	0.18*	0.14	0.42**	0.27**	0.23**	0.46**	0.31**		0.44**	0.46**	0.35**	0.37**
	SFI-9	0.19*	0.15	0.26**	0.31**	0.22**	0.39**	0.30**	0.40**		0.82**	0.62**	0.55**
	SFI-10	0.27**	0.25**	0.21*	0.40**	0.22**	0.39**	0.25**	0.33**	0.72**		0.63**	0.63**
	SFI-11	0.26**	0.22**	0.25**	0.32**	0.17*	0.36**	0.32**	0.24**	0.53**	0.51**		0.61**
	SFI-12	0.29**	0.22**	0.36**	0.31**	0.19*	0.33**	0.27**	0.24**	0.48**	0.43**	0.58**	

Note. * *p*< .05; ** *p*< .01

Table 3. *Pattern matrix for the EFA and item-total correlations of the SFI (N=428)*

	GO	PD	RA	h^2	item-total Correlation
SFI-1^R	0.001	0.812	–0.064	0.647	0.67
SFI-2^R	0.023	0.877	–0.073	0.767	0.73
SFI-3	0.129	–0.007	0.540	0.383	0.48
SFI-4^R	–0.021	0.678	0.050	0.462	0.64
SFI-5^R	0.012	0.519	0.083	0.296	0.51
SFI-6	–0.090	0.037	0.968	0.859	0.61
SFI-7	0.176	–0.096	0.328	0.189	0.42
SFI-8	0.343	–0.002	0.298	0.318	0.48
SFI-9	0.947	–0.050	–0.077	0.790	0.77
SFI-10	0.928	–0.022	–0.006	0.841	0.81
SFI-11	0.632	0.069	0.092	0.511	0.70
SFI-12	0.535	0.100	0.194	0.494	0.67
Factor Correlations	1	0.371	0.550		
		1	0.167		

Note. ^{R}*Indicates reverse-scored items*

The Cronbach alpha coefficient reached adequate values for all subscales and for the total scale, with the lowest value corresponding to Factor RA.

The distribution of the scores was more restricted in the sample of professionals, however for students' sample was wider, from minimum to maximum score for each subscale. For both samples, the distributions were asymmetric, negative, and leptokurtic, except for the case of the subscale PD, in which it was slightly platykurtic. No statistically significant gender differences or correlations with age were found in any of the subscales or in the total scale.

Confirmatory Factor Analysis

To establish the stability of the factor structure, we conducted CFA with structural equations, using the maximum

likelihood estimation method, on the sample of students. Three models were tested, replicating the models tested by Grant et al. (2012). Model 1 is a unifactorial model, Model 2 has three oblique factors (PD, GO, and RA), and Model 3 includes the three factors of Model 2, under a second-order factor.

Table 5 presents the goodness of fit indices of the three models. The fit of the measurement model was assessed by means of the chi-square goodness-of-fit statistic. As chi-square tends to be significant with large samples, we calculated the *χ2/df ratio*. If this ratio is lower than 6, it is assumed that the fit of the model is appropriate. This index is called the relative chi-square, because it is calculated to determine the independence of sample size. Carmines and McIver (1981) set a value of 3 for an acceptable model. In addition, and following the recommendation to use several fit indices to ensure the fit of the proposed model, the following goodness-of-fit indices were taken into account: The goodness-of-fit index (GFI), the Tucker-Lewis index (TLI), the comparative fit index (CFI), and from the indices based on the parameter of non-centrality, we used the root mean square error of approximation (RMSEA) and its confidence interval. In general, values less than 3 for *χ2/gl*; greater than .90 for TLI and CFI; and less than or equal to .06 for the RMSEA were considered indicative of good fit (Hu & Bentler, 1999).

As Models 1 and 2 are nested, we also calculated the difference in chi-square (*Δχ2*). A significant result indicates that the least parsimonious model has a significantly better fit than the initial model. Models 2 and 3 presented the same results, so the decision about which model to choose was taken according to conceptual issues.

Model 1 presented an inadequate solution. The chi-square test was significant ($\chi^2(54) = 269{,}08$, $p = .000$) and the *χ2/df ratio* was 4.98, higher than expected. GFI and CFI obtained values of 0,733 and 0,645, respectively, and TLI presented a value of 0,566, well below the established cut-off point. The estimate of the RMSEA was 0,169 [0,149, 0,189]. Model 3 presented a better fit ($\chi^2(3) = 182{,}40$, $p = 0{,}000$), and all of the values of the goodness-of-indices showed a good fit. The three factors had positive correlations with each other: .40 (PD and GO), .42 (PD and RA), and .60 (GO and RA).

Table 4. *Descriptive statistics and Cronbach's a reliability estimates for the three subscales and the global SFI scale in the professional and the university student samples.*

	Nº Items	M (SD)	Range	Skewness	Kurtosis	Cronbach's a
Professional sample						
Total SFI scale	12	54.78 (8.71)	23 – 72	–0.597	0.270	0.834
PD	4	18.16 (4.41)	4 – 24	–0.678	–0.182	0.814
GO	4	17.51 (3.83)	4 – 24	–0.906	0.887	0.878
RA	4	19.11 (3.36)	6 – 24	–0.806	0.693	0.711
University student sample						
Total SFI scale	12	52.55 (8.88)	18 – 70	–0.654	0.765	0.842
PD	4	16.60 (4.49)	4 – 24	–0.618	–0.092	0.786
GO	4	17.66 (3.42)	4 – 24	–0.858	1.355	0.822
RA	4	18.27 (3.35)	8 – 24	–0.491	0.024	0.717

Table 5. *Fit statistics for the different models proposed to underlie the university student sample (N = 141)*

	Fit statistics							
Model	χ^2	Gl	p	χ^2/gl	GFI	TLI	CFI	RMSEA [IC 90%]
1	269.08	54	0.000	4.983	0.733	0.566	0.645	0.169 (0.149 – 0.189)
2	86.68	51	0.001	1.700	0.903	0.924	0.941	0.071 (0.044 – 0.096)
Dif χ^2	182.40	3	0.000					
3	86.68	51	0.001	1.700	0.903	0.924	0.941	0.071 (0.044 – 0.096)

Note. *Model 1: one-factor model; Model 2: three-factor model; Model 3: two-level hierarchical model with second-order factor*

As it obtained the same goodness-of-fit indices as Model 2, and on the basis of this pattern of correlations and the proposals of the authors of the instrument, we selected Model 3— with three oblique factors and a second-order factor—as the best model (see Figure 1). The factor loadings of the items were high, ranging between 0,59 and 0,85, except for items 5 and 7, in which, albeit adequate, they were lower (0,38). As observed in the EFA, item 7 presented lower values than the rest of the items of the factor to which it belongs. Like the original authors, we tested the model eliminating this item. However, as the global fit did not improve, we decided to retain it. On the other hand, the coefficients of the second-order factor loaded high: 0,53 for the PD Factor, 0,75 for the GO Factor, and .79 for the RA Factor. The second-order factor explained 29% of the variance of PD, 56% of the variance of GO, and 63% of the variance of RA.

Study II: Test-retest reliability and convergent validity

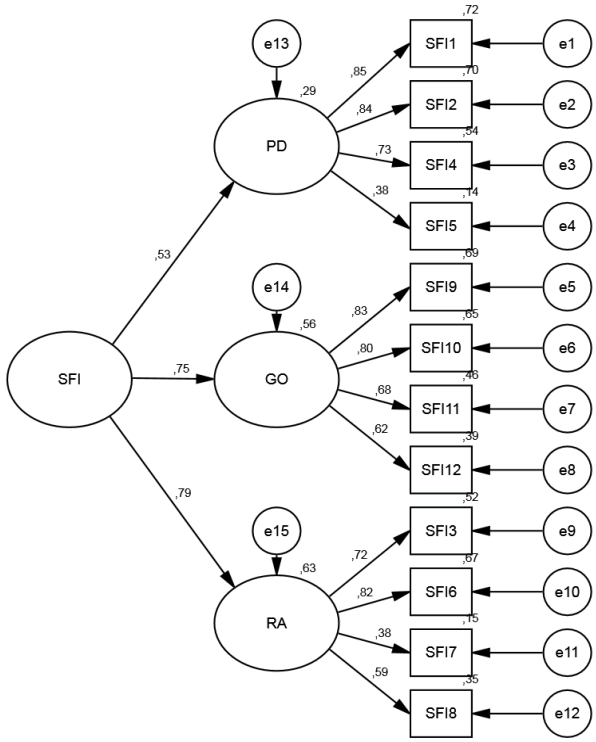
Method

Participants and procedure

Both the sample of professionals and of students completed a battery of questionnaires to assess the evidence of convergent validity of the scale with other conceptually similar variables. To calculate test-retest reliability, the questionnaire was sent by email to all the participants of the group of professionals one month after its first administration. A total of 121 valid questionnaires were received.

Measures

Satisfaction with Life Scale (SWLS). It was used the Spanish adaptation by Atienza, Balague, and García-Merita (2003)F.L.</author><author>Balague, I.</author><author>García-Merita, M.L.</author></authors></contributors><titles><title>Satisfaction with Life Scale: analysis of factorial invariance across sexes.</title><secondary-title>Personality and Individual Differences</secondary-title></titles><periodical><full-title>Personality and Individual Differences</full-title></periodical><pages>1255-1260</pages><volume>35</volume><section>1255</section><dates><year>2003</year></dates><urls></urls></record></Cite></EndNote>. It is a five items scale, and in the Spanish validation obtained good internal consistency *(*α = .80). For this study, Cronbach's alpha was good for both samples (α > .84).



Note. *SFI: Solution-focused Inventory; PD: Problem Disengagement; GO: Goal Orientation; RA: Resource Activation.*

Figura 1. *Graphical representation of Model 3 of University student sample.*

Psychological Well-Being Scale (PWB). We used the Spanish adaptation by (Díaz et al., 2006)<. This scale assess well-being with 29 items on six subscales: autonomy, positive relations with others, environmental mastery, personal growth, self-acceptance, and purpose in life. To obtain a global PWB score, all the items of the subscales are summed. Internal consistency for the Spanish adaptation was higher than .80. In this study, Cronbach's alpha was very high for both samples (α > 0,92).

Psychopathology. It was measured by the Spanish version of Depression, Anxiety and Stress Scale (DASS) adapted to the Spanish population by Fonseca-Pedrero, Paino, Lemos-Giráldez, and Muñiz (2010). It consists of 21 items with three subscales measuring depression, anxiety and stress. Internal consistency of the three subscales, in the Spanish validation, was good (α > 0,73). In this study, a global score was obtained by summing all items of the scale to measure psychopathology. Cronbach's alpha was very high for both samples (α > 0,93).

Perspective Taking Scale (PTS). This is a subscale of the Interpersonal Reactivity Index, adapted to the Spanish

population by Pérez-Albéniz, de Paúl, Etxeberría, Montes, and Torres (2003)r><Year>2003</Year><RecNum>130</RecNum><IDText>Satisfaction with. It has 7 items and measures the individual's ability to adopt the point of view of others. Internal consistency in the Spanish validation was higher than .64. For this study, Cronbach's alpha was good for both samples (α > 0,71).

Brief Resilience Scale (BRS) (Smith et al., 2008). This scale was translated into Spanish for this work. This scale measures an individual's ability to bounce back or recover from stress. Internal consistency was good, higher than. 80. In this study, Cronbach's alpha was good for both samples (α > 0,80).

Results

Convergent validity

In order to explore convergent validity, responses to the global SFI score and its subscales were correlated with the responses to related measures in both samples (see table 6).

As expected, the subscales and the total scale of the SFI both correlated negatively with the DASS and positively with the SWLS and the PWB, as well as with the BRS and with the PTS. Therefore, there was evidence of validity. The magnitude of the relationships was variable, ranging from a minimum of 0,159 (GO with PTS) up to a maximum of .722 (SFI with PWB). In general, the global scale and PD subscale presented higher coefficients, and PWB was the variable with the highest correlations with all the subscales and with the global scale.

Test-retest reliability

A subsample of 121 subjects from the sample of professionals was used to calculate test-retest reliability. We found good stability coefficients: 0,733 for the total SFI, 0,566 for the GO subscale, and 0,730 for the PD subscale. In the case of the RA subscale, the result is improvable (0,413).

Discussion

The aim of our studies was to replicate Grant et al.´s study (2012) on the Solution Focused Inventory and to adapt the SFI for a Spanish Population. After translating the SFI into Spanish, we analysed its internal structure and psychometric features (Study 1) and then studied its validity and test-retest reliability (Study 2).

Our analyses confirm the factorial structure that Grant et al (2012) found, with one second-order factor and three first-order factors that correspond to the SFI subscales: Goal Orientation, Resource Activation and Problem Activation. Each of the subscales shows adequate internal consistency, with values that are practically identical to those found by Grant et al (2012). Also, these three factors make theoretical and clinical sense. GO captures the orientation towards solutions, which includes imagining goals, developing action plans and monitorizing progress; RA speaks to the noticing of exceptions, the confidence in resources, and the

Table 6. *Correlations between SFI and other convergent variables*

		Professional sample								
		SFI	GO	PD	RA	PWB	SWLS	PT	DASS	BRS
University student sample	SFI		0.825**	0.713**	0.713**	0.722**	0.427**	0.283**	-0.437**	0.523**
	GO	0.779**		0.331**	0.562**	0.626**	0.327**	0.159**	-0.285**	0.365**
	PD	0.807**	0.396**		0.157**	0.544**	0.403**	0.299**	-0.469**	0.522**
	RA	0.774**	0.512**	0.394**		0.441**	0.203**	0.160**	-0.191**	0.253**
	PWB	0.762**	0.620**	0.659**	0.502**		0.553**	0.301**	-0.514**	0.484**
	SWLS	0.518**	0.394**	0.481**	0.327**	0.672**		0.111*	-0.406**	0.316**
	PT	0.376**	0.233**	0.316**	0.335**	0.211*	0.012		-0.231**	0.257**
	DASS	-0.438**	-0.287**	-0.479**	-0.227**	-0.542**	-0.432**	-0.139		–0.459**
	BRS	0.502**	0.255**	0.538**	0.350**	0.521**	0.334**	0.188*	-0.353**	

Note. SFI: Solution-Focused Inventory; PWB: Psychological well-being; SWLS: Satisfaction with life; PT: Perspective Taking; DASS: Depression, Anxiety and Stress; BRS: Brief Resilience Scale * p< 0,05; ** p< 0,01

possibility to learn from setbacks; and PD measures the capacity to move away from an excessive focus on problems. We find it especially relevant that PD correlates positively but moderately with the other two factors; in our view, this suggests that problem-focused thinking and solution-focused thinking are not necessarily incompatible, as the solution-focused literature sometimes suggests (Connie, 2013; de Shazer, Dolan, & Korman, 2007). On the one hand, an excessive rumination on problem situations may impede the orientation towards goals and the activation of resources to reach them, but some degree of problem focus might not only not be a hindrance to solution-focused thinking, but could even promote it to a certain extent, as research on deliberate rumination after natural disasters suggests (García Martínez, Jaramillo, Martínez, Valenzuela, & Cova Solar, 2014). On the other hand, an active orientation towards goals and resources does not preclude a reasonable dose of preoccupation with the problem, but could shape it into a more constructive focus. In other words, rather than seeing problem-focused and solution-focused thinking as two opposite poles of a continuum, on which focusing more on solutions implies focusing less on problems and viceversa, our data suggest that problem- and solution-focused thinking are better be thought of as two different albeit related dimensions. Furthermore, in a related line of research, both Grant and our team have found a similar pattern of results at the level of verbal behavior, comparing the effect of problem-focused versus solution-focused questions (Grant, 2012; Neipp, Beyebach, Nuñez, & Martínez-González, 2015) Nuñez, & Martínez-González, 2015. In these studies, problem-focused questions and solution-focused questions had different effect on some variables but -contrary to what might be expected- a similar effect on others. In our view, this has important implications, as it suggests that the problem-focused versus solution-focused distinction should not be seen in terms of a "either/or" dilemma, but more from the vantage point of a both/and position.

In Study 2 we obtained test-retest data that confirmed that the stability of SFT scores over time is adequate, and analyzed the correlations of SFI with a variety of other measures. Again, our results were practically identical to those found by Grant. Both globally and on the different subscales, we found positive correlations between the SFI and psychological wellbeing and satisfaction with life, and a negative correlation with depression, anxiety and stress. These results are theoretically consistent, given that solution-focused thinking is characterized by the tendency to focus on the resources and abilities that the person has to reach his or her goals, and these goals are in turn related to well-being and to satisfaction with life (Ehrlich, 2012; Kern, Waters, Adler, & White, 2015; Klug & Maier, 2015; Sheldon, Ryan, Deci, & Kasser, 2004). Therefore, we expected to find, as we did, that persons with higher score on solution-focused thinking would show more satisfaction with life, more psychological wellbeing, and less anxiety, depression and stress.

The global SFI scores and the scores on PD were also moderately correlated with resilience scores. Again, this finding is theoretically coherent, given that in order to reach their goals, individuals often have to overcome their difficulties, distancing themselves from their problems and looking for new ways to reach their goals (Lee et al., 2013; Lopez & Snyder, 2009; Pangallo, Zibarras, Lewis, & Flaxman, 2015).

As in the Grant et al. (2012) study, correlations of SFI global scores and subscale scores were weakest for the perspective taking variable. We agree with Grant in his interpretation that perspective taking probably only plays an important role during certain specific moments of the change process, and may not be as important as PWB or SWL in the long run. Alternatively, it could be argued that perspective taking is an important process, but only as a means in the creation of goals and the activation of resources; once the person orients towards them, the perspective taking process might be of lesser importance.

Future research

In our view, our results confirm the good psychometric properties of the SFT and provide further support to its reliability and validity as a measure of solution-focused thinking. In this way, researchers have at their disposal a solid and theoretically coherent instrument to study solution-focused thinking with Spanish-speaking populations. This opens many possibilities; as for instance the study of how solution-focused thinking is differentially affected by various types of psychological interventions (cognitive coaching, solution-focused, positive psychology interventions) at different moments of the change process. It would also be interesting to study solution-focused as both a moderator and as a mediator of therapeutic change. It would be interesting to establish, for instance, if individuals who score higher on the SFI do benefit more from interventions that fit their style of thinking by actively promoting solution-focused thinking or if, on the contrary, it is precisely the individuals who score lower on the SFI who benefit most from a solution-focused approach because it helps them to change their usual way of thinking. Furthermore, it would

be interesting to use the SFI to analyze what differential effects specific therapeutic techniques within a given approach have. For instance, in the solution-focused therapy field, it could be hypothesized that the use of the Miracle Question (de Shazer, 1991) would impinge directly on the GO scores, whereas conversations on exceptions would have a more direct effect on the RA factor. This type of research would also allow to clarify the connections between solution-focused thinking and solution-focused talk. Another step in this direction would be to establish to what extent changes in solution-focused thinking and/or solution-focused talking translate into behavior change outside the therapy or coaching office. As Grant states, although it is generally assumed that solution-focused thinking is a good thing and is almost invariably associated with positive outcomes, this may be " an over-simplistic view" (Grant, 2012, p.346).

Limitations

In interpreting our results, it should be taken into account that the data were collected from a cohort of health professionals and students, and that therefore the findings may not be representative of other populations of interest. Future research on other populations, and especially on clinical populations, is recommended.

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