

# Spanish adaptation of social withdrawal motivation and frequency scales

Sílvia Indias García and Joaquín De Paúl Ochotorena  
Universidad del País Vasco (UPV-EHU)

## Abstract

**Objective:** To adapt into Spanish three scales measuring frequency (SWFS) and motivation for social withdrawal (CSPS and SWMS) and to develop a scale capable of assessing the five motivations for social withdrawal. **Method:** Participants were 1,112 Spanish adolescents, aged 12-17 years. The sample was randomly split into two groups in which exploratory and confirmatory (CFA) factor analyses were performed separately. A sample of adolescents in residential care ( $n = 128$ ) was also used to perform discriminant validity analyses. **Results:** SWFS was reduced to eight items that account for 40% of explained variance (PVE), and its reliability is high. SWMS worked adequately in the original version, according to CFA. Some items from the CSPS were removed from the final Spanish version. The newly developed scale (SWMS-5D) is composed of 20 items including five subscales: Peer Isolation, Unsociability, Shyness, Low Mood and Avoidance. Analyses reveal adequate convergent and discriminant validities. **Conclusions:** The resulting SWFS-8 and SWMS-5D could be considered useful instruments to assess frequency and motivation for social withdrawal in Spanish samples.

**Keywords:** Social withdrawal, peer isolation, adolescence, Spanish adaptation, instrumental study.

## Resumen

**Adaptación española de Escalas de Motivación y Frecuencia de Aislamiento Social. Objetivo:** la adaptación al español de tres escalas que miden frecuencia (SWFS) y tipo de motivación para el aislamiento social (SWMS y CSPS). **Método:** la muestra se compone de 1.112 adolescentes españoles de entre 12 y 17 años, dividida aleatoriamente en dos grupos en los que se realizaron análisis factoriales exploratorios y confirmatorios (CFA) separadamente. También se utilizó una muestra de adolescentes en acogimiento residencial ( $n = 128$ ) para realizar análisis de validez discriminante. **Resultados:** el SWFS se redujo a ocho ítems que alcanzan el 40% de varianza explicada (PVE), y tiene una fiabilidad alta. El SWMS funcionó perfectamente en su estructura original de acuerdo al CFA. Se eliminaron algunos ítems del CSPS. La nueva escala (SWMS-5D) consta de 20 ítems, incluye las cuatro subescalas del SWMS (Rechazo iguales, Asociabilidad, Timidez y Bajo Ánimo) y la subescala "Evitación" del CSPS, y mostró una estructura adecuada en el CFA. Los análisis revelan validez discriminante y convergente adecuadas. **Conclusión:** las escalas resultantes (SWFS-8 y SWMS-5D) podrían considerarse instrumentos útiles para medir frecuencia y motivación para el aislamiento social en muestras españolas.

**Palabras clave:** aislamiento social, rechazo iguales, adolescencia, adaptación española, estudio instrumental.

Social withdrawal in adolescents is not considered such a salient or urgent-to-address behavior as are externalizing behaviors. However, withdrawn children or adolescents are, just as Morris and colleagues stated back in the 1950s, "those who are bothering themselves rather than others" (Morris, Soroker, & Burruss, 1954, p. 743). Lack of or poor social interaction, especially in a critical period for the development of social skills, could facilitate the onset and progression of interpersonal difficulties, anxiety, depressive symptoms and loneliness (Coplan & Bowker, 2014), or refusal to attend school (Lee, Lee, Choi, & Choi, 2013).

Social withdrawal has typically been associated with shyness, fear or social anxiety. However, multidimensional theories suggest

that different types of social withdrawal should be considered according to personal variables such as motivation for social interaction (Asendorpf, 1990). From a clinical point of view, social withdrawal has commonly been classified in diagnostic manuals as a symptom of a major disorder rather than a disorder by itself. Nevertheless, findings of previous research suggest that, even in extreme cases of social withdrawal (e.g., *hikikomori*), it is not always possible to find a clear comorbidity with a major disorder (Lee et al., 2013).

A useful distinction between "active isolation" (individuals not regularly engaged in social interaction because they are being rejected and isolated by others) and "social withdrawal" (individuals not regularly engaged in social interaction because of their own will) was proposed by Rubin (1982). From a similar point of view, the motivation to approach and/or to avoid social exchange could be considered as a key factor to explain different types of social withdrawal. Combinations of high or low interest in approaching people and high or low interest in avoiding them (Asendorpf, 1990) would lead to four potential outcomes: (a)

the social, not withdrawn person – individuals with high social approach and low social avoidance motivations; (b) shy social withdrawal – individuals with high social approach and high social avoidance motivations, who wish to socialize, but stay away from social contact because of fear and anxiety; (c) unsociable social withdrawal – individuals with both low social approach and low avoidance motivations, who show a non-fearful preference for solitary activities; and (d) avoidant social withdrawal – individuals with low social approach and high social avoidance motivations, who clearly avoid interaction and show few signs of ambivalence.

Findings of several studies support the hypothesis that social withdrawal would be differently associated with severity of loneliness, anxiety, peer rejection, victimization or other consequences (Coplan & Bowker, 2014), depending on the personal motivation to have no social contact.

Social withdrawal has traditionally been measured with subscales included in broader instruments aimed at assessing children's behavioural problems. The Withdrawal subscale of the Youth Self-Report (YSR) Spanish version (Lemos, Vallejo, & Sandoval, 2002) has four and six items for boys' and girls' samples, respectively. The Peer Problems subscale in the Spanish version of the Strengths and Difficulties Questionnaire (SDQ; Ortuño-Sierra, Chocarro, Fonseca-Pedrero, Sastre i Riba, & Muñoz, 2015) is composed of five items measuring social withdrawal. The Sensitive–Isolated subscale from the Revised Class Play (RCP; Masten, Morison, & Pellegrini, 1985) instrument was developed to assess frequency of social contacts. Scores obtained from all these subscales are interpreted as an indicator of social withdrawal intensity.

After reviewing these scales' items and comparing them to those in the instruments aimed to measure exclusively motivation for social withdrawal, it is not clear whether subjects are responding to questions that address their *desires* for social exchange rather than the existence and intensity of *actual* social withdrawal. Therefore, instruments able to make a clear distinction between frequency of social withdrawal and motivation for social withdrawal are needed.

About frequency scales: The Play Observation Scale (Rubin, 2001) has been used to identify both extremely withdrawn and aggressive children who are "at risk" of later psychological difficulties. It is an observational instrument showing an 80–90% of inter-observer agreement and uniformly high kappas computed on various data sets. On the other hand, the Social Withdrawal Frequency Scale (SWFS) (Kim, Rapee, Oh, & Moon, 2008) was specifically designed to assess how often the subject socially withdraws at high school. Scores from the SWFS can be interpreted as an indicator of frequency of personal engagement in daily social activity. The SWFS showed good internal consistency in a comparative study of Australian and Korean university students (Cronbach's alpha = .900 and .895 for Australian and Korean samples, respectively) and was composed of a single factor. As far as we know, the SWFS is the only self-report instrument explicitly developed to assess the frequency of social withdrawal.

Concerning motivation scales, as far as we know, only two scales were developed to assess social withdrawal motivation based on the social approach and avoidance motivation model (Asendorpf, 1990):

- 1) The Child Social Preference Scale (CSPS; Coplan, Prakash, O'Neil, & Armer, 2004), composed of 14 items answered by parents and teachers, was developed to measure both

Shyness and Unsociability motivations for social withdrawal in children. Bowker and Raja (2011) revised and modified the CSPS into a self-reported inventory and added items to measure two more motivations for social withdrawal: Avoidance and Peer Isolation. Findings from their study showed that their final 15-item scale accounted for 59.67% of the total variance, and was composed of four dimensions with internal consistencies ranging from .65 to .84.

- 2) The Social Withdrawal Motivations Scale (SWMS; Kim et al., 2008) was developed by the same authors as the SWFS and tested in the same Australian–Korean transcultural study. Just like the CSPS, the SWMS measures the two classic subtypes (Shyness and Unsociability) along with Peer Isolation, and adds a subscale called Low Mood, which was identified as a relevant motivation for social withdrawal in adolescents (Puig-Antich et al., 1993). Factorial analysis of the SWMS showed a four-factor model for both samples with internal consistence indexes ranging from .716 to .844 for the Australian sample and from .744 to .775 for the Korean sample.

The first purpose of the present study was to adapt into Spanish the scale measuring frequency of social withdrawal (SWFS) and both instruments specifically developed to measure motivations for social withdrawal (CSPS and SWMS). Moreover, a relevant purpose was to explore the viability of combining both motivation scales in order to develop a single scale able to assess the main five motivations for social withdrawal described previously (Shyness, Unsociability, Avoidance, Peer Isolation and Low mood), which could be called the SWMS-5D.

## Method

### Participants

A total amount of 1,112 students (50.9% female) from seventh to twelfth grade, aged 12–17 years ( $M_{\text{age}} = 14.28$  years,  $SD = 1.56$ ; 18% were twelve, 16% thirteen, 20.1% fourteen, 20.1% fifteen, 18% sixteen and 7.8% seventeen), with parental informed consent, participated in the present study. The students were recruited from two middle schools and two high schools from two provinces in Spain (Gipuzkoa and Barcelona).

Moreover, a total of 128 adolescents (48.8% female,  $M_{\text{age}} = 15.23$  years,  $SD = 1.56$ ) from Navarra (another Spanish province) and Gipuzkoa's Child Protection Services who were living in residential care was used in order to test discriminant validity. It was assumed that this group of participants would report higher scores than the community sample in both social withdrawal scales (frequency and motivation).

Some participants ( $n = 116$ ) were excluded from the analyses due to incomplete answers on the applied scales, so group sample sizes for each scale's analyses were not identical. The study protocol was approved by the Ethics Committee of the University of the Basque Country.

### Instruments

Social Withdrawal Frequency Scale (SWFS; Kim et al., 2008). The SWFS measures the frequency of social withdrawal during adolescence. It is a 13-item scale and respondents rate how often

they are socially withdrawn at high school in a Likert scale from 1 (*never*) to 7 (*all the time*).

Social Withdrawal Motivation Scale (SWMS; Kim et al., 2008). The scale assesses Peer Isolation, Unsociability, Shyness and Low Mood social withdrawal motivations specifically during high school. It has 16 items (four for each subscale) and participants are asked to rate how strongly they agree or disagree with each statement on a Likert scale from 1 (*totally false*) to 7 (*exactly true*).

Child Social Preference Scale-Revised (CSPS-R; Bowker & Raja, 2011). The complete 19-item revised scale was used. Participants rate their agreement with each statement on a five-point Likert scale ranging from 1 (*not at all*) to 5 (*a lot*). It assesses Peer Isolation, Unsociability, Shyness and Avoidance social withdrawal motivations.

UCLA Loneliness Scale – Version 3 (UCLA; Russell, 1996). The Spanish version of the UCLA (Vázquez & Jiménez, 1994) was used in order to test convergent validity of social withdrawal frequency and motivation scales. It is composed of 20 items that measure subjective feelings of loneliness in a 1-4 Likert scale. Total scores range from 20 to 80, with higher scores reflecting greater loneliness.

*Procedure*

A translation and back translation from English to Spanish was conducted by two English-Spanish bilingual psychologists to construct the Spanish version of the social withdrawal instruments. The number of Likert scale levels and the item direction were maintained in the Spanish version.

*Data analysis*

Two separate factor analytic procedures were conducted for each scale and also for the new scale proposal. First, the sample

was divided into two groups by randomly selecting approximately 50% of the cases. Then, each group was assigned to either an exploratory (EFA) or confirmatory (CFA) factorial analysis. EFAs were conducted on one group using principal axis factoring to observe factor loadings, eigenvalues and percentage of explained variance. Orthogonal varimax rotation was used, as we theorize that each subtype of social withdrawal is mostly independent from the others. Item-factor correlations and scale reliabilities were also used to assess scale structure. Then, CFAs were conducted on the other group to test the factor structure and the model fit, according to commonly accepted rules: comparative fit index (CFI) over .90, root mean square error of approximation (RMSEA) values under .10, Tucker–Lewis Index (TLI) values near .95 or greater, and a standardized root mean square residual (SRMR) near .08 or less (Brown, 2015). Pearson correlations and overall multivariate analysis of variance (MANOVA) were conducted to assess convergent and discriminant validity and gender and age effects. Follow-up one-way ANOVAs were conducted for each measure and when applicable, the Student-Newman-Keuls (SNK) method was used to examine post-hoc differences between groups.

Results

SWFS

The EFA ( $n = 477$ ) revealed three factors accounting for 56.8% of the total variance. The SWFS is referred to as a single-factor scale, but knowing EFA often produces distinct factors comprising positively and negatively worded components (Brown, 2015), one more EFA was conducted, limiting the number of factors to two. Factor 1 did indeed contain positively worded items, and Factor 2 contained reverse-worded items, and they accounted for 48.8% of the variance of the data. The scale obtained a Cronbach’s alpha of .83, the reverse-items factor  $\alpha = .63$  and the positive-items factor  $\alpha = .83$  (see Table 1).

Table 1  
SWFS subscale and item means, standard deviations, variance explained, item-factor correlations, eigenvalues, Chronbach’s alpha and exploratory factor analysis loadings

SWFS	Mean	SD	PVE	I-F	EV	$\alpha$	Scale 1	Scale 2
<b>1. Withdrawal</b>	1.91	.73	.40		5.21	.83		
3) Feel excluded	1.75	.99		.76			.74	
1) Being alone	2.14	1.00		.70			.66	
2) Avoid social activities	1.66	.96		.71			.65	.33
6) Isolate myself	1.97	1.16		.69			.64	
7) Avoid talking	1.67	.90		.65			.63	
9) Alone during breaks	1.38	.94		.62			.57	
12) Silent while in group	2.47	1.25		.73			.55	.48
11) Just watch others	2.26	1.41		.62			.55	
<b>2. Reverse items (EX)</b>	3.04	.91	.09		1.14	.63		
5) Socialize with others	1.99	1.19		.75			.39	.70
4) Chat with others	1.86	1.03		.72			.42	.68
13) Talk while in group	2.52	1.35		.72			.39	.66
8) Ask others to interact	5.66	1.64		.44			-.35	.53
10) Participate in get-togethers	3.18	1.80		.68				.48
<b>SWFS Total</b>			.49			.84		

Note: N = 477 for SWFS, SD = standard deviation, PVE = proportion of explained variance, I-F = item-factor correlation, EV = eigenvalue,  $\alpha$  = Chronbach’s alpha, (EX) = excluded, factor loadings <.30 are not shown

A CFA ( $n = 519$ ) was performed with the other half of the sample. The two-factor model fit indices were not optimal ( $\chi^2(64) = 289.19$ ; CFI = .86; TLI = .83; RMSEA = .08; SRMR = .06), so an additional CFA was conducted excluding reverse items, due to most of them not meeting criteria on EFA loadings (>.30 loads on Factor 1, see Table 1). This one-factor eight positive-worded items version of SWFS showed closer to acceptable indices,  $\chi^2(20) = 102.79$ , CFI = .89, TLI = .84, RMSEA = .09, SRMR = .05.

**SWMS**

The EFA ( $n = 508$ ) showed a four-factor structure that mimicked the original scale except for one item: item 9 should be in the Low Mood subscale (.39), but did also load high (>.30) with both Peer Isolation (.47) and Unsociability (.40) subscales, so it seemed quite a problematic item. The 16-item model accounted for 64% of the total variance. The overall scale alpha was .88 and the factors' Cronbach's alphas ranged from .84 to .71 (see Table 2).

Next, a CFA was conducted ( $n = 504$ ) specifying the factor structure from the original scale (with item 9 in Low Mood). Fit indices demonstrated adequate fit,  $\chi^2(98) = 378.2$ , CFI = .91, TLI = .89, RMSEA = .07, SRMR = .06. So, in order to make comparisons possible, we preferred to keep the original structure with item 9 in the Low Mood factor.

**CSPS**

The EFA ( $n = 540$ ) suggested a five-factor solution that accounted for the 52.4% of the total variance. As this factorial

structure was not comparable with those of Bowker and Raja (2011), another EFA was conducted, forcing the analysis to extract four factors. Results showed a Peer Isolation subscale identical to the original, and a Shyness subscale without item 14 (.71 load on Unsociability). Three items from the Unsociability subscale (3, 4 and 8) appeared in the Avoidance subscale, so Unsociability was left with two items forming another factor along with item 14 from Shyness. This four-factor structure accounted for the 47% of the total variance (see Table 3).

Those four items not working properly (3, 4, 8 and 14) were removed and another EFA was performed using the default Kaiser stopping criterion (eigenvalues greater than 1). Item 11 was also removed from this 15-item version because it loaded high on both Peer Isolation (.43) and Shyness (.40). Finally, 14 of the original 19 items were retained and the EFA model accounted for 53.7% of the variance in the data. The overall scale alpha was .77 and the factors matched the four subscales of the original version, with Cronbach's alphas ranging from .75 to .27 (see Table 3).

Next, a CFA ( $n = 545$ ) was conducted using data from the other randomly selected half of the sample and specifying the 14-item factor structure. Indices were adequate, confirming the factor structure and demonstrating a good model fit,  $\chi^2(71) = 156.10$ , CFI = .93, TLI = .91, RMSEA = .05, SRMR = .04).

*Correlations between CSPS and SWMS*

All correlations were statistically significant. Inter-correlations between SWMS's subscales ranged from .38 to .55, similar to the original study, where they obtained values from .43 to .59 for the

Table 2

SWMS subscale and item means, standard deviations, variance explained, item-factor correlations, Eigenvalues, Chronbach's alpha and exploratory factor analysis loadings

SWMS	Mean	SD	PVE	I-F	EV	$\alpha$	Scale 1	Scale 2	Scale 3	Scale 4
<b>1. Peer isolation</b>	1.83	1.01	.37		6.00	.84				
11) No spend time with me	1.75	1.12		.85			.83			
15) No interact with me	1.71	1.07		.85			.82			
2) Feel ostracized	1.88	1.24		.82			.75			
4) Not many friends	1.96	1.41		.81			.67			
<b>2. Unsociability</b>	2.31	1.08	.11		1.72	.71				
16) Prefer to be alone	2.14	1.47		.77				.73		
8) Not motivated to mix	2.17	1.47		.75				.70		
14) No interest to socialize	1.77	1.20		.73			.36	.68		
6) Don't like share feelings	3.18	1.77		.70				.60		.33
<b>3. Shyness</b>	3.33	1.43	.09		1.43	.78				
1) I am shy	3.69	1.91		.82					.84	
10) Nervous in public	3.86	2.03		.82					.82	
13) Nervous group activity	2.69	1.73		.74					.66	
3) Uncomfortable new social environments	3.09	1.69		.72				.46	.55	
<b>4. Low mood</b>	2.11	1.09	.07		1.10	.78				
7) Preoccupied	2.49	1.60		.85						.81
5) Moody for worries	1.97	1.27		.79						.81
12) Depressed mood	1.76	1.20		.75			.32			.72
9) Feel withdrawn from life	2.23	1.51		.73			.47	.40		.39
<b>SWMS Total</b>			.64			.88				

Note: N = 508 for SWMS, SD = standard deviation, PVE = proportion of explained variance, I-F = item-total correlation, EV = eigenvalue,  $\alpha$  = Chronbach's alpha, factor loadings <.30 are not shown

Australian sample and from .39 to .76 for the Korean sample (Kim et al., 2008). Inter-correlations between CSPS's subscales ranged from .23 to .53, also similar to those obtained in the original study (.16 to .56) (Bowker & Raja, 2011).

Both instruments (SWMS and CSPS) share three subscales: Peer Isolation, Unsociability and Shyness. Correlations between similar dimensions from each scale were moderate: Peer Isolation = .63, Unsociability = .55, and Shyness = .47.

**SWMS-5D**

A relevant objective of this study was to develop a scale including the five motivations for social withdrawal that have been measured through SWMS and CSPS. Each of the instruments holds an exclusive subscale (Low Mood for SWMS and Avoidance for CSPS) that would automatically become part of the new SWMS-5D scale, even though the internal consistency reliability for the Avoidance scale was not optimal (i.e., <.60), it was considered of interest to retain it in order to be able to assess every motivation.

According to the data obtained in the previous stages, SWMS seemed to work better than CSPS in this Spanish sample for it demonstrated better reliability indices and a higher proportion of explained variance. Thus, a scale containing the whole SWMS scale and CSPS's Avoidance subscale was tested.

An EFA ( $n=486$ ) forced into a five-factor structure was performed, and results matched the five subscales of the original versions except for item 9 from the Low Mood subscale, which failed to load on the appropriate factor. Cronbach's alphas ranged from .83 to .50 for each of the subscales (see Table 4). With the goal of maintaining every subscale, a CFA ( $n = 501$ ) was conducted specifying the five-factor structure with item 9 in the Low Mood factor. Model fit indices indicated good fit,  $\chi^2(160) = 509.59$ , CFI = .90, TLI = .89, RMSEA = .07, SRMR = .06, and confirmed the five-factor structure.

Correlations between subscales from SWMS-5D were statistically significant, ranging from .29 (Shyness with Avoidance) to .55 (Peer Isolation with Low Mood). Correlations between each of the five dimensions of the SWMS-5D and total scores from the selected eight items of the Social Withdrawal Frequency Scale (SWFS-8) were also statistically significant and can be considered as moderated, ranging from .45 to .66.

*Convergent and discriminant validity*

Convergent validity was assessed through correlations between both the definitive instruments (SWFS-8 and SWMS-5D) and the UCLA scale. Correlations between UCLA total score and SWFS-8 were strong and positive (.67,  $p<.01$ ), and so were for the dimensions of the SWMS-5D (.69 to .36), showing that participants scoring higher in any social withdrawal motivation or in frequency do also

Table 3  
14-item CSPS and excluded items means, standard deviations, variance explained, item-factor correlations, Eigenvalues, Chronbach's alpha and exploratory factor analysis loadings

CSPS	Mean	SD	PVE	I-F	EV	$\alpha$	Scale 1	Scale 2	Scale 3	Scale 4
<b>1. Peer isolation</b>	1.52	.96	.26		3.73	.75				
9) Don't play w/me	1.49	1.23		.79			.79			
17) Don't spend time w/me	1.34	1.06		.72			.74			
13) Don't hang out w/me	1.55	1.30		.76			.72			
5) Often excluded	1.70	1.43		.77			.71			
<b>2. Shyness</b>	2.33	1.26	.11		1.58	.69				
19) Nervous interacting	2.72	1.89		.79				.78		
2) Nervous to play	2.39	1.75		.61				.67		
18) Watch & no approach	2.01	1.65		.69				.65		
7) Turn down chances because shy	2.23	1.71		.61				.64		
(EX) 11) Not join others	1.82	1.53		.58			.43	.40		
(EX) 14) Rarely ask to hang out	2.66	1.76		.47						.71
<b>3. Avoidance</b>	1.93	1.01	.08		1.20	.55				
12) By myself because don't like being w/others	1.43	1.20		.61					.68	
16) Avoid others	1.54	1.32		.60					.62	
15) Prefer being w/others	2.49	1.81		.72					.60	.39
6) Happy playing w/others	2.28	1.78		.69					.58	
<b>4. Unsociability</b>	3.11	1.24	.07		1.02	.27				
1) Don't mind being alone	3.43	1.52		.50						.82
10) No need to be w/others	2.79	1.72		.61					.33	.48
(EX) 3) Don't like others prefer being alone	1.71	1.45		.62					.64	
(EX) 4) Happy both by myself and w/others	2.74	1.76		.61					.43	.31
(EX) 8) Like being alone more than w/others	2.08	1.68		.71					.65	
<b>CSPS Total (14 items)</b>			.54			.77				

Note: N = 540, SD = standard deviation, PVE = proportion of explained variance, I-F = item-total correlation, EV = eigenvalue,  $\alpha$  = Chronbach's alpha, w/ = with, (EX) = excluded, factor loadings <.30 are not shown

score higher in loneliness. Moreover, participants were divided into three percentile groups (<25, 25 to 75 and >75) based on their UCLA scores (López, Del Río, & Ruiz, 2014). A MANOVA was performed to test differences between groups on frequency of social withdrawal (SWFS-8) and on five dimensions of motivation for social withdrawal (SWMS-5D). Significant group differences (Wilks' Lambda = .57,  $F(12, 2166) = 58.12, p < .0001$ ) were found. Follow-up one-way ANOVAs (using SNK as post-hoc analyses) showed significant differences between three groups ( $p < .01$ ) for frequency of social withdrawal (SWFS-8) and for five dimensions of motivation for social withdrawal (SWMS-5D) (see Table 5).

Discriminant validity was tested by comparing scores on social withdrawal frequency and motivation between adolescents from the general population and adolescents living in Child Protection Services' Residential Care. Significant group differences (Wilks' Lambda = .94,  $F(6, 954) = 9.56, p < .0001$ ) were found. Follow-up one-way ANOVAs showed significant differences ( $p < .0001$ ) between both samples in the SWFS-8 and in all SWMS-5D dimensions except for Shyness (see Table 5).

*Gender and age effects*

Through MANOVA, significant main effects for gender (Wilks' Lambda = .95,  $F(6, 1042) = 8.91, p < .0001$ ) and age (Wilks' Lambda

= .97,  $F(6, 1042) = 5.96, p < .0001$ ) were found (see Table 5). No interaction between gender and age was found. Regarding social withdrawal motivation, females presented higher scores than males in Shyness,  $F(1, 1047) = 19.26, p < .0001$ , and in Low Mood,  $F(1, 1047) = 13.69, p < .0001$ . However, males presented higher scores in Avoidance than females,  $F(1, 1047) = 5.05, p = .025$ . Concerning age, ANOVAs showed that older adolescents reported higher scores than younger adolescents in Shyness,  $F(1, 1047) = 15.58, p < .0001$ , in Low Mood,  $F(1, 1047) = 19.30, p < .0001$ , and in Unsociability,  $F(1, 1047) = 16.74, p < .0001$ . Regarding social withdrawal frequency, only gender effects were found, so that females presented higher scores than males,  $F(1, 1047) = 5.46, p = .020$ .

Discussion

It seems the social approach and avoidance motivation model (Asendorpf, 1990) can be a helpful perspective to explain the social withdrawal phenomena. It has even been empirically proved (Bowker & Raja, 2011, Kim et al., 2008) that, using this model, young people could be classified not only as socially withdrawn or not (a matter of frequency of social contacts), but also according to the underlying reasons or motivations to be or not be isolated. Several social and psychological consequences of social withdrawal have been observed for each motivational subgroup

Table 4  
SWMS-5D's variance explained, Eigenvalues, Chronbach's alpha and exploratory factor analysis loadings

SWMS-5D	PVE	EV	$\alpha$	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5
<b>1. Peer isolation</b>	.34	6.69	.83					
11				.84				
15				.84				
2				.75			.32	
4				.68				
<b>2. Shyness</b>	.09	1.75	.77					
10					.84			
1					.78			
13					.69			
S W M S 3					.62	.38		
<b>3. Unsociability</b>	.08	1.64	.72					
8						.70		
16						.65		.33
14						.63		
6						.60		.37
<b>4. Low mood</b>	.06	1.21	.79					
5							.79	
7							.78	
12							.68	
9				.50			.40	
<b>5. Avoidance</b>	.05	1.01	.50					
C S P S 12								.76
15								.65
6								.64
16						.34		.43
<b>SWMS-5D Total</b>	.62		.88					

Note: N = 497, PVE = proportion of explained variance, EV = eigenvalue,  $\alpha$  = Chronbach's alpha, factor loadings <.30 are not shown

of social withdrawal (Coplan & Bowker, 2014), so individual assessment of social withdrawal motivations could be useful to develop differential (and presumably more efficient) treatment strategies for each of them when needed.

Few instruments have been developed to specifically assess frequency and underlying motivations for social withdrawal, and these instruments had previously only been used in English (in Australia, the United States and Europe) and/or Korean (used in South Korea). Social and cultural differences in social exchange and rules for social relationships could be extremely relevant for the appropriate measurement of social withdrawal frequency and motivation. Only in a small number of countries, including Canada, India, Korea, Australia, and now also Spain, have studies using instruments aimed to assess underlying motivations for social withdrawal (CSPS and SWMS) been conducted. Nonetheless, this is the first study administering both scales to a large sample of adolescents and comparing findings from items and dimensions of both scales.

Thirteen items from the SWFS were organized with the EFA in two factors, one for direct items and the other for reverse items, suggesting that both dimensions could be measuring different kinds of behaviour related with social withdrawal. It is possible that reverse items could be more difficult to understand, or do not measure the same concept as direct items do, or that participants react and respond to the items differently (Brown, 2015). A practical proposal is to reduce the Spanish version of the SWFS into the eight positively worded items, which reach .83 in internal structure reliability and provide the relevant information about frequency of social withdrawal, accounting for the .40 of explained variance.

The Child Social Preference Scale-Revised (CSPS-R) was originally composed of 19 items and was later reduced to 15 items in its application in India (Bowker & Raja, 2011). In the present study, the original scale (19 items) was translated into Spanish and administered to the full sample of participants. Results showed that a group of five items (3, 4, 8, 11, 14) could not be included in the dimensions measuring different motivations for social withdrawal. Excluding them from the Spanish version was considered the best solution. Two of our excluded items (4 and 14) match items excluded by Bowker and Raja (2011) (4, 14, 16, 18).

Thus, in the 14-item Spanish version, Peer Isolation, Shyness and Avoidance dimensions hold four items each, while Unsociability is left with two.

The Spanish version of the Social Withdrawal Motivations Scale (SWMS) worked adequately in this Spanish sample. All of its 16 items were retained and the CFA confirmed its four-factor structure (Peer Isolation, Unsociability, Shyness and Low Mood) exactly as in the original version, so it appears the adaptation has been correctly done. It accounts for the .64 of explained variance and its internal reliability is high.

As mentioned before, a relevant goal of this study was to explore the viability of combining the SWMS and the CSPS dimensions in order to develop a single scale able to assess the main five motivations for social withdrawal (Shyness, Unsociability, Avoidance, Peer Isolation and Low Mood). Both SWMS and CSPS share the assessment of three motivations for social withdrawal. Percentage of variance explained (PVE) and Cronbach's alphas were compared in order to choose which instrument's subscales should be maintained in the newly developed mixed instrument (SWMS-5D). SWMS showed better indices and, thus, all of its four subscales were included in the mixed scale together with the CSPS's exclusive subscale (Avoidance). Reliability was not optimal (<.75) for the Avoidance (.50) and the Unsociability (.72) subscales: In previous research (Bowker & Raja, 2011), the Avoidance dimension had an item (16) excluded and reached  $\alpha = .67$ . In this study, the Avoidance dimension showed lower loads in the EFA, and low item-factor and item-item correlations (values range from .16 to .39), probably explaining the lower reliability index. However, we decided to maintain the four items of this dimension in the SWMS-5D in order to have the opportunity to assess Avoidance motivation of social withdrawal. On the other hand, previous research with the Unsociability subscale (Kim et al. 2008) does not provide its reliability's exact datum, but SWMS's four subscale alphas ranged from .72 to .85 for an Australian sample and from .74 to .76 for a Korean sample (unpublished data), so our results may not differ much from theirs. However, the five-factor structure was tested through CFA and findings showed the five-dimension instrument worked adequately.

In conclusion, the SWMS-5D could be considered a useful instrument to assess motivation for social withdrawal in Spanish

Table 5

Pearson's correlation between SWMS-5D dimensions and SWFS-8 with UCLA, and descriptive data of SWMS-5D and SWFS-8 for (1) UCLA groups, (2) General Population and Residential Care groups, and (3) Gender and age groups

		Peer Isolation	Shyness	Unsociability	Low mood	Avoidance	SWFS-8
UCLA	Total	.69**	.36**	.56**	.56**	.47**	.67**
	PCTL <25	4.54 (1.33)	8.04 (3.88)	5.50 (2.51)	5.03 (1.84)	4.70 (1.44)	10.30 (2.20)
	PCTL 25-75	6.51 (2.75)	13.29 (5.38)	8.90 (3.78)	7.89 (3.70)	5.47 (1.83)	14.54 (4.04)
	PCTL >75	12.66 (5.55)	16.21 (5.92)	13.72 (5.45)	13.31 (5.16)	7.70 (2.93)	21.93 (7.68)
Sample	Com.	7.24 (3.81)	13.54 (5.63)	9.54 (4.45)	8.65 (4.40)	5.77 (2.12)	15.27 (5.22)
	Resid.	9.15 (5.07)	13.64 (6.22)	11.57 (5.84)	10.87 (5.63)	6.91 (2.79)	17.78 (8.55)
Sex	Male	7.01 (3.64)	12.51 (5.51)	9.43 (4.37)	7.93 (4.00)	5.89 (2.22)	14.87 (4.87)
	Fem.	7.40 (4.04)	14.00 (5.71)	9.21 (4.46)	8.91 (4.60)	5.58 (2.09)	15.66 (5.81)
Age	12-14	7.10 (4.08)	12.64 (5.67)	8.78 (4.41)	7.89 (4.25)	5.67 (2.27)	14.99 (5.54)
	15-17	7.34 (3.61)	14.03 (5.58)	9.88 (4.36)	9.06 (4.39)	5.80 (2.03)	15.60 (5.23)

PCTL = percentile, \*\* =  $p < .01$ , mean (SD)

samples. However, future investigation is needed to add data about its psychometric indices and it would also be useful to explore the relationship between motivations for social withdrawal and depression or other psychopathology in young people. On the other hand, further investigation would also be necessary to observe how the Spanish version of SWFS works with clear cases of severely socially withdrawn adolescents, which would also serve as convergent validation.

A clear limitation of the study is that the sample was non-representative and that data was collected solely by self-report method. It is also important to note that normal and abnormal

social behaviour is differentially defined by culture and society, so even for its use in other Spanish-speaking regions, such as southern Spain or countries of Latin America, items of the Spanish version proposed in this study should be revised.

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