



# A pilot study on sensitivity of outcome measures for treatments of generalized social phobia in Spanish adolescents<sup>1</sup>

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**ABSTRACT.** The translation and adaptation into Spanish of the instruments developed in other countries, for the anxiety social measures, requires the verification of their psychometrics properties for the population on assigned to. The purpose of this instrumental study is to examine the treatment sensitivity of six instruments that they have been designed to measure social anxiety, to verificate the changes generated for this treatment in a sample of Spanish adolescents. The sample was consisting of 44 adolescents (aged 15-17 years), who met the criteria for generalized social anxiety, received the three experimental conditions each one of them received a different treatment. Adolescents completed the measures at pre-, post-treatment and 1-year follow-up. Scales were found to be sensitive to treatments over time, with high effect sizes. The results indicated that all of the measures reliably tapped treatment effects and supported utility of these scales as treatment-outcome measures for Spanish adolescents with generalized social phobia.

**KEYWORDS.** Adolescence. Assessment. Sensitivity. Social anxiety. Instrumental study.

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**RESUMEN.** La traducción y adaptación al español de los instrumentos desarrollados en otros países para la medida de la ansiedad social requiere que se verifiquen sus propiedades psicométricas para la población a la que se va destinar su uso. El propósito de este estudio piloto es aportar indicios empíricos sobre la potencial sensibilidad, a los cambios generados por el tratamiento en una muestra de adolescentes españoles, de seis instrumentos de evaluación que han sido traducidos y adaptados para evaluar la ansiedad social en esta población. La muestra estuvo integrada por 44 adolescentes que cumplían los criterios para el diagnóstico del trastorno de ansiedad social de tipo generalizado. Los sujetos fueron asignados a tres condiciones experimentales, cada una de las cuales recibió un tratamiento cognitivo-conductual distinto. Fueron evaluados antes, después y en una medida de seguimiento realizada un año después de haber finalizado el tratamiento. Los resultados muestran que todas las escalas fueron sensibles al cambio terapéutico, lo que da apoyo empírico provisional a su utilidad para medir los cambios generados por los tratamientos en los adolescentes españoles con fobia social generalizada.

**PALABRAS CLAVE.** Adolescencia. Evaluación. Sensibilidad. Ansiedad social. Estudio instrumental.

**RESUMO.** A tradução e adaptação para espanhol de instrumentos desenvolvidos noutros países, para medir a ansiedade social requerem que se verifiquem as suas propriedades psicométricas para a população a que se destina o seu uso. O propósito deste estudo piloto é analisar a sensibilidade potencial às mudanças geradas pelo tratamento numa amostra de adolescentes espanhóis, de amostra de seis instrumentos de avaliação que foram traduzidos e adaptados para avaliar a ansiedade social nesta população. A amostra foi composta por 44 adolescentes que cumpriam os critérios para o diagnóstico de perturbação de ansiedade social de tipo generalizado. Os sujeitos foram distribuídos por três condições experimentais, cada uma das quais recebeu um tratamento comportamental e cognitivo diferente. Foram avaliados antes e depois e numa medida de seguimento realizada um ano após a finalização do tratamento. Os resultados mostram que as escalas foram sensíveis à mudança terapêutica, o que apoia empiricamente a sua utilidade para medir as mudanças geradas pelos tratamentos nos adolescentes espanhóis com fobia generalizada.

**PALAVRAS CHAVE.** Adolescência. Avaliação. Sensibilidade. Ansiedade social. Estudo instrumental.

## Introduction

European psychologists have expressed the need for institutions to adopt a more active role in promoting good testing practice (Muñiz *et al.*, 2001). Most of the tests used in Latino countries were originally developed in other cultures, which is a problem that appears to be especially relevant in the translation and/or adaptation of assessment measures (Muñiz, Prieto, Almeida, and Bartram, 1999). The social anxiety disorder, also known as social phobia, «is a marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible

scrutiny by others» (American Psychiatric Association, 2000). In spite of social phobia being one of the most common anxiety disorders in adolescents, it has been understudied until the last decade (Beidel and Turner, 1998). Recent years have witnessed a growing body of literature on assessment for adolescent's social phobia. However, by our knowledge no research has provided specific data on sensitivity of outcome measures for treatments of generalized social phobia in an adolescent population. The purpose of this instrumental study (Montero and León, 2005) is to address this issue. For drawing up this article, we followed the proposal by Ramos-Álvarez and Catena (2004).

## Method

### *Participants and procedure*

The sample ranged in age from 15 to 17 years ( $M = 15.84$ ,  $SD = .62$ ) and was composed of 13 boys (30%) and 31 girls (70%). The sample consisted of 44 Hispanic subjects enrolled in three psychological treatments to overcome generalized social anxiety. The experimental conditions were: a) the treatment program termed «Cognitive-Behavioral Group Therapy for Adolescents» (CBGT-A) (Albano, Marten, and Holt, 1991), b) the treatment protocol «Social Effectiveness Therapy for Adolescents-Spanish version» (SET-A<sub>sv</sub>) (Olivares, García-López, Beidel, and Turner, 1998), and c) the treatment program labeled «Therapy for Adolescents with Generalized Social Phobia» (Intervención en Adolescentes con Fobia Social Generalizada, IAFSG) (Olivares and García-López, 1998).

SET-A<sub>sv</sub> (Social Effectiveness Therapy for Adolescents-Spanish version; Olivares *et al.*, 1998) consists of 29 treatment sessions over a period of 17 weeks. The components of this program are Educational, Social Skills Training, Exposure and Programmed Practice. The sessions are held twice a week except those concerning the educative phase (one time only) and programmed practice, which is held once a week. The Educational, Social Skills Training and Exposure components are conducted during the first thirteen weeks. The Educational component occurs during the first group session; afterwards the other two components are applied simultaneously once a week over 12 weeks. The Social Skills Training sessions are implemented in a group, 60-minutes, including how to begin and maintain conversations, give and receive compliments, establish and maintain friendships, assertiveness, etc. Concurrently, exposure sessions are conducted with an individual format, for approximately 30-minutes. The last treatment component, Programmed Practice, is developed along four individual 60-minute sessions, once the Social Skills Training and in vivo Exposure are finished. Its aim is to maximize generalization and consolidation of the benefits of the treatments in the adolescent's natural environment.

The CBGT-A (Cognitive-Behavioral Group Therapy for Adolescents; Albano *et al.* (1991) includes 16 group treatment sessions, which are conducted over a period of 14 weeks. All the sessions are 90 minutes long and held in group format. The first four sessions are conducted within a 2-week period; the remaining twelve sessions are held on a weekly basis. The CBGT-A is divided in two phases of eight sessions each: a) Educative and Skills Building and b) Exposures. During the first phase, the therapist provides information about the treatment program and delivers a presentation of the

explicatory model of social phobia. Afterwards, in the skills building unit, social skills, problem solving training and cognitive restructuring (Beck's cognitive model) are presented and taught. During the second phase, Exposure, behavior rehearsals and in vivo exposures are carried out both within session and assigned as homework in order to address personally relevant social situations that are feared by the adolescents.

The Therapy for Adolescents with Generalized Social Phobia (Intervención en Adolescentes con Fobia Social, IAFS) (Olivares and García-López, 1998) is a school-based program and consists of 12 weekly group sessions, each 90-minutes in length. Techniques include social skills, exposure and Beck's cognitive restructuring techniques. In addition, treatment includes exposure to social situations using peer assistants, such as: a) initiating and maintaining conversations with persons of the same or the opposite sex (for this purpose, unknown peers by the subjects are used as cotherapists to interact with them) or b) speaking in public in front of their group mates and the therapist during 5-10 minutes each time. The exposure tasks were recorded by a video camera and used as feedback. The videofeedback was used as an objective feedback and helps to detect safety behaviors. In addition to videofeedback, verbal feedback of the group members was utilized as an additional source of information to establish a more realistic self-image. Part of the last session was focused on relapse prevention. Along with group sessions, weekly individual counseling was scheduled as needed. These individual sessions were optional, unlike SET-ASV<sub>sv</sub>. Optional telephone consultations with therapists were also available.

### *Assessment measures*

This study evaluated the sensitivity of six measures: a) The Social Phobia and Anxiety Inventory (SPAI) (Turner, Beidel, Dancu, and Stanley, 1989), which is comprised of two scales: the 32 item Social Phobia subscale (SPAI-SP) and the 13-item Agoraphobia subscale. In order to control social anxiety attributable to agoraphobia, a Difference score was derived; b) The Social Anxiety Scale For Adolescents (SAS-A) (La Greca and Lopez, 1998). The SAS-A includes three subscales (fear of negative evaluations from peers-FNE-, social avoidance and distress to new social situations or unfamiliar peers-SAD-New- and generalized social avoidance and inhibition (SAD-General). A Total score can be obtained by summing the subscale scores; c) Personal Report of Confidence as Speaker (PRCS) (Paul, 1966). This questionnaire consists of 30 true-false items to measure subjective public speaking anxiety; d) Maladjustment Scale (Echeburúa and Corral, 1987). This scale measures the degree to which a disorder affects different areas of daily life: work and/or studies, social life, free time, relationship with one's partner, and relationship with one's family. The range of the total scale is from 6 to 36 (the higher the score, the poorer the adjustment); e) The Rosenberg Self-Esteem Scale (Rosenberg, 1965) evaluates feelings of self-satisfaction. The range of points obtained is from 10 to 40 (the higher the score, the greater the self-esteem) and f) Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV) (DiNardo, Brown, and Barlow, 1994). The social phobia section (ADIS-SP) consists of 13 dimensional ratings that evaluate fear and avoidance using a clinical severity rating (a 9-point scale ranging from 0, none, to 8, very severely disturbing/disabling). Number of feared social

situations was employed as a dependent measure in this work. All of these scales have demonstrated its psychometric properties in adolescent population (Clark *et al.*, 1994; García-López, Olivares, Hidalgo, Beidel, and Turner, 2001; La Greca, 1998; Olivares, *et al.*, 2002; Olivares *et al.*, 2005).

## Results and discussion

There were no pretreatment differences among the three treatments on the six measure analysed ( $p > .05$ ). For the social phobia group, paired samples t-tests were performed to determine if scales were sensitive to treatment effects over time. Results showed statistically significant pre-, posttest differences on the ADIS-SP [ $t(43)=14.61$ ,  $p<.001$ ], the SPAI-SP [ $t(43)=13.17$ ,  $p<.001$ ], the SPAI-Difference [ $t(43)=12.83$ ,  $p<.001$ ], the SAS-A/FNE [ $t(43)=10.04$ ,  $p<.001$ ], the SAS-A/SAD-N [ $t(43)=9.23$ ,  $p<.001$ ], the SAS-A/SAD-G [ $t(43)=7.30$ ,  $p<.001$ ], the SAS-A/Total [ $t(43)=10.55$ ,  $p<.001$ ], the Self-esteem Scale [ $t(43)=3.95$ ,  $p<.001$ ], the Maladjustment Scale [ $t(43)=7.44$ ,  $p<.001$ ], and the PRCS [ $t(43)=11.46$ ,  $p<.001$ ]. Results also demonstrated statistically significant pre-, follow-up differences on the ADIS-SP [ $t(43)=15.76$ ,  $p<.001$ ], the SPAI-SP [ $t(43)=11.13$ ,  $p<.001$ ], the SPAI-Difference [ $t(43)=9.98$ ,  $p<.001$ ], the SAS-A/FNE [ $t(43)=9.37$ ,  $p<.001$ ], the SAS-A/SAD-N [ $t(43)=9.49$ ,  $p<.001$ ], the SAS-A/SAD-G [ $t(43)=8.81$ ,  $p<.001$ ], the SAS-A/Total [ $t(43)=10.42$ ,  $p<.001$ ], the Self-esteem Scale [ $t(43)=6.18$ ,  $p<.001$ ], the Maladjustment Scale [ $t(43)=8.30$ ,  $p<.001$ ] and the PRCS [ $t(43)=9.45$ ,  $p<.001$ ].

Statistical analyses indicate that all the measures were sensitive to the effects of the treatment for generalized social phobics, with individuals scoring significantly more impaired at pretreatment than at posttreatment and follow-up (see Table 1).

**TABLE 1.** Descriptive data.

	Pretest		Posttest		Follow-up	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
ADIS-SP	8.73	1.80	2.52	3.06	2.07	2.58
SPAI-SP	132.52	22.41	68.27	34.67	62.89	41.23
SPAI-Difference	108.64	19.73	54.57	28.63	51.77	35.33
SAS-A/FNE	30.55	6.84	20.45	6.33	18.73	6.84
SAS-A/SAD-N	21.34	3.97	14.23	4.45	14.16	4.87
SAS-A/SAD-G	12.70	3.16	8.75	2.97	7.75	3.15
SAS-A/Total	64.59	11.53	43.43	11.26	40.48	12.97
Self-esteem scale	27.39	3.64	30.11	4.67	32.36	5.08
Maladjustment scale	18.98	4.86	12.64	5.14	11.43	5.15
PRCS	24.43	3.41	14.09	5.97	13.20	8.01

Effect sizes were also computed to represent the sensitivity of our measures to the treatment effects at posttest and follow-up. We have adopted the criteria proposed by Cohen (1988), in which .2 means a low effect size, .5 means average and .8 high. Table 2 displays the effect sizes of the sensitivity of the scales at pretest/posttest and pretest/

follow-up comparisons. As can be observed, all of the scales were highly sensitive to the treatment effects. Either posttest or follow-up, the ADIS-SP seems to be the most sensitive measure, while the Self-esteem scale obtains the lower effect size. Further, the SPAI-SP was more sensitive than the SPAI-Difference, consistent with studies conducted with adults (Taylor, Woody, McLean, and Koch, 1997), which continues arising the question as to which of the SPAI measures to use.

**TABLE 2.** Effect sizes.

	<i>Pretest- Posttest</i>	<i>Pretest-Follow-up</i>
ADIS-SP	2.20	2.38
SPAI-SP	1.98	1.68
SPAI-Difference	1.93	1.50
SAS-A/FNE	1.51	1.41
SAS-A/SAD-N	1.39	1.43
SAS-A/SAD-G	1.10	1.33
SAS-A/Total	1.59	1.57
Self-esteem	0.59	0.93
Maladjustment	1.12	1.25
PRCS	1.73	1.42

Based on all available data, our findings strongly support that all of the scales were found to be sensitive to treatment effects in socially anxious adolescents. Consistent with other studies, the SPAI and SAS-A are the most accurate self-reports, along with the ADIS-SP interview (Olivares, García-Lopez, Hidalgo, and Caballo, 2004). It must be noted that SPAI has demonstrated its usefulness as a treatment-outcome measure for adults and adolescents with generalized social phobia.

While our findings strongly support the sensitivity of scales to treatment effects, generalizability of our results is limited to Hispanic population. Equivalence between different cultural groups is required to making valid cross-cultural comparisons (Van de Vijver and Poortinga, 1997). As for this issue, psychometric properties of anxiety measures seems to be comparable across language versions (Novy, Stanley, Averill, and Daza, 2001). Future studies could include parent's reports since some studies suggest structural differences in parent and child reports of children's symptoms of anxiety (Cole, Hoffman, Tran, and Maxwell, 2000).

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