RESULTS AT LONG-TERM AMONG THREE PSYCHOLOGICAL TREATMENTS FOR ADOLESCENTS WITH GENERALIZED SOCIAL PHOBIA (I): STATISTICAL SIGNIFICANCE

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Abstract

The purpose of this study is to examine the effects of several psychological treatments for social phobia during adolescence. The sample consisted of 59 adolescents who met the criteria for DSM-IV (American Psychiatric Association, 1994) generalized social phobia. Subjects were assigned to one of three experimental treatments (N=44) or a control condition (N=15), and treatment was provided in school settings. Assessments were conducted at pretest, posttest and after a 1-year follow-up. Between-group and within-group analyses were conducted. Overall, short-term and long-term results show that the active treatments were superior to the control for treating adolescents with generalized

social phobia. Specifically, experimental treatments resulted in a significant improvement of self-esteem and social skills as well as a reduction of the symptoms of social anxiety and interference with family, social, and academic life. Issues that may contribute to future research are also discussed.

KEY WORDS: *Adolescence, follow-up, social phobia, social skills, treatment*.

Resumen

El propósito de este estudio es examinar los efectos de varios tratamientos psicológicos para la fobia social durante la adolescencia. La muestra consistió en 59 adolescentes que satisfacían el criterio del DSM-IV (Asociación Psiquiátrica Americana, 1994) para la fobia social generalizada. Se asignaron los sujetos a uno de tres tratamientos experimentales (N=44) o una condición control (N=15), llevándose a cabo el tratamiento en la universidad. Se realizaron evaluaciones en el pretratamiento, postratamiento y en un seguimiento de 1 año. Se llevaron a cabo análisis entre grupos e intragrupo. Los resultados a corto y largo plazo mostraron que los tratamientos activos eran superiores al grupo control en el tratamiento de los adolescentes con fobia social generalizada. Específicamente, los tratamientos experimentales producían una mejora significativa de la autoestima y las habilidades sociales así como una disminución de los síntomas de ansiedad social y su interferencia con la vida familiar, social y académica. Finalmente, se plantean algunos temas que pueden contribuir a la investigación futura.

PALABRAS CLAVE: *Adolescencia, seguimiento, fobia social, habilidades sociales, tratamiento*.

Introduction

Social phobia is increasingly recognized as an important disorder among adolescents (Albano, Detweiler and Logsdon-Conradsen, 1999). During adolescence, the development of social phobia interfere with academic performance, social relations and increase vulnerability to a depressive episode, and alcohol/substance use (Albano, DiBartolo, Heimberg & Barlow, 1995; Clark & Kirisci, 1996; Francis, Last & Strauss, 1992; Lépine & Pélissolo, 1998; Pervin & Last, 1993; Seipp, 1991; Stein *et al.,* 2001; Wittchen, Stein & Kessler, 1999). In addition, social phobia precedes the onset of other disorders an onset prior to age 11 is associated with a chronic course (Beidel, 1998). Therefore, a psychological therapy focused on early detection and intervention may be very relevant in terms of treatment effectiveness (lower costs in treatment application time and subjective suffering), the prevention of comorbid disorders and the elimination of detrimental long-term outcome.

Social phobia is an understudied disorder in adolescence. With the exception of the studies published by Albano, Marten, Holt, Heimberg and Barlow (1995), Hayward *et al.,* (2000) or ourselves (Olivares & García-López, 2001) there are no other published studies. Furthermore, as far as we know, none controlled studies have been conducted to evaluate the differential effects of treatments for generalized social phobia in a school setting. The purpose of this study is to examine the effectiveness of three multi-component psychological programs for the

treatment of Spanish adolescents with generalized social phobia. There are three specific aims: (1) to undertake a transcultural study in order to determine the efficacy of the only existing set of treatments intended for adolescent population with social phobia: *Cognitive-Behavioral Group Therapy for Adolescents* (CBGT-A; Albano, Marten & Holt, 1991); (2) to adapt a form of treatment for the above-mentioned population which we term *Social Effectiveness Therapy for Adolescents-Spanish version*[i] (SET-A$_{SV}$; Olivares, García-López, Beidel & Turner, 1998) which was developed based on interventions by Turner and Beidel for adult social phobics (SET; Turner, Beidel & Cooley, 1994) and child social phobics (SET-C; Beidel, Turner & Morris, 1996), and (3) to evaluate the effects of a new treatment program called *Therapy for Adolescents with Generalized Social Phobia (Intervención en Adolescentes con Fobia Social Generalizada*-IAFSG-; Olivares & García-López, 1998), constructed at the same time as SET-A, but including basic distinct elements such as cognitive therapy as well as changes in implemention (such as non-obligatory assistance to the tutorship) and cost effectiveness (length of the treatment is reduced to four sessions which is equivalent to one month of treatment).

The specific hypotheses are as follows:

A. Each treatment would show pre-post-follow-up statistically significant improvement to the control group, finding: (1) a decrease in social anxiety, measured by means of specific social phobia instruments such as the Social Phobia and Anxiety Inventory (SPAI[ii]; Social Phobia subscale and Difference score), the Total score of the Social Anxiety Scale for Adolescents (SAS-A) and the Personal Report of Confidence as Speaker (PRCS); (2) a decrease in the scores obtained in the subscale of fears or worries of negative evaluations from peers (FNE) of the SAS-A, which measures the cognitive component of social phobia; (3) a decrease in the scores obtained in the measures specifically designed to evaluate avoidance responses: the subscale of social avoidance and distress to new social situations or unfamiliar peers (SAD-N) and the subscale of social avoidance and distress to generalized social inhibition (SAD-General) of the SAS-A; (4) an increase in the scores obtained in the Social Skills Scale for Adolescents (Escala de Habilidades Sociales para Adolescentes; EHSPA); (5) the elimination or decrease of the scores obtained in the Inadaptation Scale; (6) an increase in the scores obtained in the Rosenberg Self-Esteem Scale and (7) the absence or decrease of the number of phobic social situations included in the social phobia section of the semistructured interview Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV).

B. Each treatment would show statistically significant pre-post-follow-up differences using the measures described above.

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i SET-A as used here differs markedly from SET developed by Turner et al. (1994) and Beidel et al. (1996).

ii Authors of all questionnaires mentioned are indicated in the Assessment section.

Method

Subjects

The sample consisted of 59 adolescents who met DSM-IV diagnostic criteria for generalized social phobia (APA, 1994), with a greater number of girls (46; 77.97%) than boys (13; 22.03%), and a mean age of 15.92 years (SD=0.79, range 15-17 years). Ninety three percent of the adolescents lived in families with both parents. Table 1 shows supplementary data on the subjects who completed the entire study (pretest, posttest, and follow-up).

Table 1
Another variables for the four groups

		SET-A$_{sv}$ (N=14)	CBGT-A (N=15)	IAFSG (N=15)	CONTROL (N=15)
AGE (years)	M	15.57	16.07	15.87	15.87
	SD	0.65	0.70	0.91	0.74
GENDER (percentage)	BOYS	4 (28.57%)	5 (33.33%)	4 (26.67%)	5 (33.33%)
	GIRLS	10 (71.43%)	10 (66.67%)	11 (73.33%)	10 (66.67%)
GRADE	9th		6.6%	20.0%	
	10th	85.7%	73.4%	40.0%	73.4%
	11th	14.3%	20.0%	40.0%	26.6%
PERCENTAGE OF SUBJECTS REPEATING THE YEAR		28.6%	26.7%	26.7%	26.7%
MEAN DURATION OF THE DISORDER (years)	M	6.31	8.37	7.67	7.07
	SD	4.71	5.48	4.01	4.81
COMORBIDITY	Panic disorder with agoraphobia	7%	7%	13%	13%
	Generalized anxiety disorder	29%	27%	20%	27%
	Obsessive-compulsive disorder	7%	7%	7%	7%
	Specific phobia	79%	67%	60%	73%
	Postraumatic stress disorder	7%	7%	7%	7%
	Major depression	21%	40%	20%	33%
	Dysthymia	14%	20%	20%	13%
	Alcohol/Substance abuse	7%	7%	7%	13%
	Avoidant personality disorder	100%	93%	100%	100%
	Selective Mutism (past episode)	7%	13%	7%	13%
DROUPOUT RATES		30%	29%	17%	
ATTENDANCE RATES TO TREATMENT		84.37%	88.75%	86.67%	

SET-A$_{sv}$: Social Effectiveness Therapy for Adolescents-Spanish version, CBGT-A: Cognitive-Behavioral Group Therapy, IAFSG: Intervención en Adolescentes con Fobia Social Gneralizada (Therapy for Adolescents with Generalized Social Phobia); M: Mean; SD: Standard Deviation

Design

A quasi-experimental design was used, to compare the three experimental groups and the control group, with independent measures in the treatment factor as well as multiple and repeated measures in the evaluation factor. The experimental conditions were: (a) the treatment program «Social Effectiveness Therapy for Adolescents-Spanish version» (SET-A$_{sv}$; Olivares *et al.,* 1998); (b) the treatment program termed «*Cognitive-Behavioral Group Therapy for Adolescents*» (CBGT-A; Albano *et al.,* 1991) and (c) the treatment program labeled «*Therapy for Adolescents with Generalized Social Phobia» (Intervención en Adolescentes con Fobia Social Generalizada*-IAFSG-; Olivares & García-López, 1998). The integrity of treatments was ensured by the use of detailed written treatment manuals in each condition. To maximize participation and minimize dropouts, treatment sessions were delivered during the high-school day, in classrooms or offices of the high schools attended by the subjects. To avoid stigmatization, treatments were called «Social skills course», as the same title as others developed at high-schools each year. There were 3-4 subjects per treatment group for each condition. Thus, SET-A$_{sv}$ was made up of six groups (3 groups of three persons and 3 groups of four persons), CBGT-A was made up of six groups (4 groups of three persons and 2 groups of four persons) and IAFSG was made up of five groups (2 groups of three and 3 groups of four subjects).

Again in an effort to prevent dropouts, subjects were assigned to these groups depending on their schedule availability. No other restriction was applied. The control group consisted of subjects chosen randomly among those who rejected treatment. The treatments were carried out by the second author along with another six therapists and supervised by the first author. To control for therapist effects, the six therapists: a) were grouped at random forming three couples that were also appointed at random to the three experimental groups and b) demonstrated 2-years of experience. Further, to assess therapist comparability in terms of effectiveness, subjects scored them on a 10-point Likert scale at postest and follow-up. No significant differences among the active treatments were found. Pretest, posttest, and 12-months follow-up assessments were conducted by different interviewers for each group. At the posttest and 1-year follow-up assessments, interviewers were kept blind to information regarding treatment status or experimental group assigned. All subjects and at least one parent for each subject provided written informed consent.

Assessment Measures

Subjects completed the measures described above at pre- and posttest and at 12-month follow-up.

Socal Phobia and Anxiety Inventory (SPAI). Turner, Beidel, Dancu and Stanley (1989) developed a self-report inventory that assesses behavioral, physiological and cognitive symptoms associated with social phobia. The SPAI is comprised of two scales: the 32 item Social Phobia (SP) subscale and the 13-item Agoraphobia subscale. Finally, in order to control for social anxiety atributtable to agoraphobia, a

Difference score is computed. This score is calculated by substracting the Social Phobia subscale from the Agoraphobia subscale.

Social Anxiety Scale for Adolescents (SAS-A) La Greca and Lopez (1998) developed the SAS-A from a conceptualization of social anxiety by Watson and Friend (1969). The three primary factors of the SAS-A include a subscale reflecting fears or worries of negative evaluations from peers (FNE) and two subscales reflecting social avoidance and distress: one that is specific to new social situations or unfamiliar peers (SAD-New) and one that reflects generalized social inhibition (SAD-General). In general, SAS-A consists of 22 items (4 are filler items) arranged in a 5-point Likert rating format. A Total score can be obtained by summing the ratings for the 18 anxiety items, and can range from 18 to 90.

Personal Report of Confiance as Speaker (PRCS). This questionnaire consists of 30 true-false items to measure subjective public speaking anxiety. Half of the items are keyed «true» and half are keyed «false», with keyed items receiving a score of one and other items receiving a zero score. The total score is the sum of all items and can range from 0 to 30.

Inadaptation Scale (Echeburúa & 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. This instrument has six items that range from 1 to 6 on a Likert-type scale. The range of the total scale is from 6 to 36 (the higher the score, the poorer the adaptation).

The Rosenberg Self-Esteem Scale (Rosenberg, 1965) evaluates feelings of satisfaction with oneself. This scale consist of 10 items structured on a Likert-type scale, 5 of which are presented in a positive way and 5 in a negative way, the objective being to measure acquiescence. The range of points obtained is from 10 to 40 (the higher the score, the greater the self-esteem).

Social Skills Scale for Adolescents (Escala de Habilidades Sociales para Adolescentes –EHSPA–; Méndez, Martínez, Sánchez & Hidalgo, 1995). The EHSPA consists of 160 items divided into four social areas where adolescents spend much of their time: high-school, friends, family and street. Each item is scored on a 5-point Likert scale from 0 («no difficulty») to 4 («very difficulty»). It can be administered individually or in a group to adolescents between the ages of 12 and 18 years old. The results are interpreted by the higher the score, the higher the lack of social skills.

Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV). DiNardo, Brown and Barlow (1994) developed this semi-structured interview in order to assess current and lifetime DSM-IV anxiety, mood and substance use disorders. A modified version of this instrument was used in this study, including avoidant personality disorder and past episodes of elective mutism criteria according to DSM-IV. Initial findings indicate an adequate level of interrater agreement for anxiety, mood and substance use disorders in a Spanish-speaking population ($k \geq 0.75$; Olivares & García-López, 1997). 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 study.

Procedure

SET-A$_{sv}$ (*Social Effectiveness Therapy for Adolescents-Spanish version*; Olivares *et al.,* 1998) was developed from programs created for adult population (SET) and child population (SET-C). SET-A$_{sv}$ 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. To this end, in this last phase there is a gradual transfer of responsibility from the therapist to the subject so that he may learn to plan and apply activities of self exposure in vivo. The need of continuing exposure to social situations that, in spite of the end of the treatment, may still set off some anxiety response, is also emphasized to the subject.

The CBGT-A (*Cognitive-Behavioral Group Therapy for Adolescents*; Albano *et al.,* 1991) includes 16 groupal treatment sessions, which are developed during a period of 14 weeks. All the sessions was 90 minutes hours long with a group format. The first four sessions are conducted twice a week; the remaining twelve were held on a weekly basis. The CBGT-A is divided in two phases of eight session each: (a) Educative and Skills building and (b) Exposures. During the first phase, the therapist gives information about the treatment program and makes a presentation of the explanatory model of social phobia. Afterwards, in the Skills building unit, social skills, problem solving training and cognitive restructuring (Beck's cognitive model) are worked on. Regarding the second phase, the Exposure, behavior rehearsals and in vivo exposures were carried out in vivo in order to cope with the social situations that the adolescents fear.

The *Therapy for Adolescents with Generalized Social Phobia* (*Intervención en Adolescentes con Fobia Social Generalizada-IAFSG-*; Olivares y García-López, 1998) consists of 12 group sessions with a 90 minute length and a weekly frequency. In these, the subjects are trained in social skills and Beck's cognitive restructuring techniques. In addition, in the group sessions there are exposures carried out to such situations as: (a) beginning 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. Afterwards, each speech was analyzed from different points of view; in the first place, from the evaluation made by the subject that had given the speech; secondly, from the feedback of the group mates and finally it was all compared with the feedback given by the video recording made by the camera.

Along with the group sessions, the subjects had a weekly individual counseling schedule available, in which a range of issues could be discussed from the possibility of receiving advice for the preparation of self exposing tasks up to studying in depth the concepts developed in the group sessions. The schedule was two hours a week, distributed along a flexible program that was drawn according to the number of subjects that requested counseling for that week. These individual sessions were optional, unlike SET-A$_{sv}$.

Results

There were no pretreatment differences among the four groups on the variables presented in Table 1 (p>0.05), although high comorbidity rates on major depression for CBGT-A was found. As for dependent measures, Univariate analysis of variance (ANOVA) revealed significant differences on the PRCS [F(3,55)= 4.31, p=.008] at pretest. Because the groups were not equivalent in the pretest, an analysis of covariance (ANCOVA) was used.

Between-Group Analysis

At posttest (covariate: pretest), there was a significant difference between the three treated groups and the control group on the SPAI-SP, PRCS, SAS-A/Total, SAS-A/FNE, SAS-A/SAD-N, Inadaptation Scale and the Self-Esteem Scale (p≤.001; Power: 93-99%), as well as on the SPAI-Difference, SAS-A/SAD-G and the ADIS-SP (p≤.006; Power: 82-95%). At follow-up (covariate: pretest), statistically significant differences were found among the four conditions in the SPAI-SP, SAS-A/Total, SAS-A/FNE, SAS-A/SAD-G, EHSPA, Inadaptation Scale and the ADIS-SP (p≤.001; Power: 93-99%), as well as in the SPAI-Difference, PRCS, SAS-A/SAD-N and the Scale (p≤.025; Power: 75-95%).

Examining change from posttest to follow-up, there were significant differences between the three treated groups and the control group in the SAS-A/FNE (p≤.05; Power: 99%), EHSPA (p≤.001; Power: 99%) and the ADIS-SP (p≤.001; Power: 99%).

Table 2 shows the mean and the standard deviation of each measures for each treatment group at each assessment period. Tables 3-5 present the *post-hoc* comparisons of the SET-A$_{sv}$, CBGT-A and IAFSG with respect to the control group. These data indicate that each of the three treatments was significantly improved in comparison to the control group for the majority of the measures analyzed at posttest as well as at follow-up (covariate pretest) and to a lesser degree at follow-up, adjusted for posttest.

Table 2
Means and standard deviations for self-report measures by treatment condition

		SET-A$_{sv}$		CBGT-A		IAFSG		CONTROL	
		M	SD	M	SD	M	SD	M	SD
SPAI-SP	PRETEST	133.71	19.32	126.33	42.64	137.60	19.37	131.60	20.65
	POSTTEST	66.64	25.32	69.87	37.81	68.20	40.76	105.47	33.60
	FOLLOW-UP	60.50	32.28	71.07	46.05	56.93	44.91	101.80	35.78
SPAI-Differen-ce	PRETEST	115.14	15.72	101.60	34.87	109.60	187.56	112.00	21.73
	POSTTEST	56.43	22.45	53.00	31.54	54.40	31.54	88.73	29.39
	FOLLOW-UP	51.07	30.96	56.60	39.23	47.60	36.89	82.80	30.23
SAS-A/ Total	PRETEST	61.43	13.92	62.40	118.74	68.27	10.16	69.40	8.79
	POSTTEST	45.29	11.50	43.00	10.82	42.13	12.01	60.67	12.84
	FOLLOW-UP	45.21	11.63	41.33	12.73	35.20	13.26	60.07	15.21
PRCS	PRETEST	24.29	3.15	23.07	6.68	25.93	3.59	26.73	2.34
	POSTTEST	15.57	6.36	14.07	5.66	12.73	5.67	26.33	2.19
	FOLLOW-UP	13.43	8.67	14.33	8.28	11.87	7.45	22.93	6.74
SAS-A/ FNES	PRETEST	30.14	4.80	28.40	10.86	33.07	5.92	34.20	4.68
	POSTTEST	22.57	6.87	18.27	5.76	20.67	6.04	30.40	6.79
	FOLLOW-UP	21.36	6.63	18.47	6.82	16.53	6.66	30.27	8.92
SAS-A/ SAD-N	PRETEST	21.14	4.75	20.87	6.12	22.00	4.17	23.07	4.08
	POSTTEST	13.00	3.06	15.80	5.09	13.80	4.68	19.93	5.20
	FOLLOW-UP	15.21	4.23	15.00	4.97	12.33	5.12	18.80	4.57
SAS-A/ SAD-G	PRETEST	11.71	3.50	13.13	4.48	13.20	3.05	12.87	2.10
	POSTTEST	9.71	3.15	8.93	2.19	7.67	3.31	11.00	3.12
	FOLLOW-UP	8.64	3.00	8.53	3.52	6.13	2.33	11.00	4.41
EHSPA	PRETEST	247.93	70.96	253.40	105.70	246.80	98.36	261.93	107.95
	POSTTEST	159.86	74.66	187.60	104.39	184.33	124.60	225.73	102.25
	FOLLOW-UP	143.93	72.03	104.39	96.70	103.20	66.55	238.20	81.58

M: Mean, SD: Standard deviation, SET-A$_{sv}$: Social Effectiveness Therapy for Adolescents-Spanish version, CBGT-A: Cognitive-Behavioral Group Therapy, IAFSG: Intervención en Adolescentes con Fobia Social Generalizada (Therapy for Adolescents with Generalized Social Phobia)

Table 2
Means and standard deviations for self-report measures by treatment condition
(continuation)

		SET-A$_{sv}$		CBGT-A		IAFSG		CONTROL	
		M	SD	M	SD	M	SD	M	SD
Inadaptation Scale	PRETEST	20.07	5.00	17.73	6.06	19.20	5.51	21.93	4.99
	POSTTEST	12.50	3.98	15.20	6.39	10.20	3.49	20.33	5.37
	FOLLOW-UP	11.64	5.47	12.87	5.67	9.80	4.07	19.47	7.20
Self-Esteem Scale	PRETEST	28.14	3.25	26.60	7.22	27.47	4.79	25.40	2.35
	POSTTEST	28.43	5.53	30.00	4.07	31.80	4.38	24.87	3.85
	FOLLOW-UP	32.14	4.70	31.80	5.65	33.13	5.08	26.07	6.15
ADIS-Social Phobia section	PRETEST	9.00	2.11	8.40	2.68	8.80	1.66	8.87	1.60
	POSTTEST	2.43	3.20	2.67	3.09	2.47	3.11	5.80	3.41
	FOLLOW-UP	1.36	2.50	3.00	2.78	1.80	2.34	6.60	3.20

M: Mean, SD: Standard deviation, SET-A$_{sv}$: Social Effectiveness Therapy for Adolescents-Spanish version, CBGT-A: Cognitive-Behavioral Group Therapy, IAFSG: Intervención en Adolescentes con Fobia Social Generalizada (Therapy for Adolescents with Generalized Social Phobia)

Within-Group Analysis

As shown on Table 2, while in the SET-A$_{sv}$, CBGT-A and IAFSG there was significant improvement from pretreatment to postreatment; in the control group there was only a slight reduction in scores. At follow-up, subjects that received the SET-A$_{sv}$ and IAFSG continued showing a decrease in these scores (except the SAS-A/SAD-N measure in the case of SET-A$_{sv}$). For the CBGT-A, there was a decrease in the magnitude of the effects reached at posttest for the SPAI-SP, SPAI-Difference, SAS-A/FNE, PRCS and ADIS-SP.

In general, the results indicate that those receiving the active treatments were significantly improved in comparison to the control condition.

Discussion

As indicated, the main purpose of this study was to compare the effectiveness of three multi-component treatment programs in relation to: (a) a control group (between group comparisons) and (b) themselves (within group comparisons).

Table 3
Post-hoc test at postest where pretest served as covariate

	SET-A$_{sv}$		CBGT-A		IAFSG	
	P		P		P	
SPAI-SP	***		*		***	
SPAI-DIF	***		*		**	
SASA-FNE	*		****		****	
SASA-SAD-N	***		NS		***	
SASA-SAD-G	NS		NS		***	
SASA-Total	*		***		****	
SELF-ESTEEM	NS		*		***	
INADAPTATION	****		NS		****	
PRCS	****		****		****	
EHSPA	NS		NS		NS	
ADIS-SP	*		MS		*	

* P≤ 0.0   P: Significance level
** P≤ 0.01   ET-A$_{sv}$: Social Effectiveness Therapy for Adolescentes-Spanish version
*** P≤ 0.005   CBGT-A: Cognitive- Behavioral Group Therapy for Adolescents
**** P≤ 0.001   IAFSG: Intervención en Adolescentes con Fobia Social Generalizada (Therapy
NS: No significant   for Adolescents with Generalized Social Phobia)
MS: Marginally significant

With respect to the control group, the results indicate statistically significant differences in improvement for experimental conditions when compared to the control group; mainly at posttest and follow-up when adjusted to pretest. These results are similar other studies conducted with adolescent and adult population (Hayward *et al.,* 2000; Mulkens, Bögels & deJong, 1999; Newman, Hofmann, Trabert, Roth & Taylor, 1994; Turner, Beidel, Cooley, Woody & Messer, 1994).

With respect to the second hypothesis, that the active treatments would decrease the cognitive symptoms of social phobia (measured by the SAS-A/FNE), findings are consistent with those by Mersch (1995) and Butler, Cullington, Munby, Amies and Gelder (1984) who reported that there were pre and posttest differences following the application of cognitive-behavioral treatments, and also those of

Table 4
Post-hoc test at follow-up where posttest served as covariate

	SET-A$_{sv}$			CBGT-A			IAFSG	
	P			P			P	
SPAI-SP	NS			NS			NS	
SPAI-DIF	NS			NS			NS	
SASA-FNE	NS			NS			*	
SASA-SAD-N	NS			NS			NS	
SASA-SAD-G	NS			NS			NS	
SASA-Total	NS			NS			MS	
SELF-ESTEEM	NS			NS			NS	
INADAPTATION	NS			NS			NS	
PRCS	NS			NS			NS	
EHSPA	NS			*			****	
ADIS-SP	****			NS			***	

* P≤ 0.05   P: Significance level
** P≤ 0.01   SET-A$_{sv}$: Social Effectiveness Therapy for Adolescentes-Spanish version
*** P≤ 0.005   CBGT-A: Cognitive- Behavioral Group Therapy for Adolescents
**** P≤ 0.001   IAFSG: Intervención en Adolescentes con Fobia Social Generalizada (Therapy
NS: No significant   for Adolescents with Generalized Social Phobia)
MS: Marginally significant

Salaberría and Echeburúa (1998), with adult population, where there were statistically significant differences from pretest to follow-up.

As for the third hypothesis, that the three active interventions would decrease social avoidance, both SET-A$_{sv}$ and the IAFSG resulted in statistically significant pre-post-follow-up differences in the SAS-A subscales that measure social avoidance symptoms (SAD-N and SAD-G). However, when follow up was adjusted for posttest, statistically significant differences were found only for the IAFSG group. This result is consistent with those of a pilot study of the IAFSG (Olivares & García-López, 2001).

Table 5
Post-hoc test at follow-up where pretest served as covariate

	SET-A$_{sv}$		CBGT-A		IAFSG	
	P		P		P	
SPAI-SP	*		NS		***	
SPAI-DIF	*		NS		*	
SASA-FNE	*		***		****	
SASA-SAD-N	NS		NS		***	
SASA-SAD-G	NS		NS		****	
SASA-Total	NS		**		****	
SELF-ESTEEM	NS		*		*	
INADAPTATION	**		NS		****	
PRCS	*		NS		***	
EHSPA	**		*		****	
ADIS-SP	****		***		****	

* P≤ 0.05 P: Significance level
** P≤ 0.01 SET-A$_{sv}$: Social Effectiveness Therapy for Adolescentes-Spanish version
*** P≤ 0.005 CBGT-A: Cognitive- Behavioral Group Therapy for Adolescents
**** P≤ 0.001 IAFSG: Intervención en Adolescentes con Fobia Social Generalizada (Therapy
NS: No significant for Adolescents with Generalized Social Phobia)
MS: Marginally significant

In comparison to the control group, subjects that received the CBGT-A and the IAFSG show statistically significant improvement of social skills for adolescents with generalized social phobia.

An important aspect of treatment outcome is the ability of a treatment to decrease a disorder's interference with family, social, academic or sentimental life. At posttest and follow-up (covariate pretest), subjects treated with SET-A$_{sv}$ and IAFSG show decreased interference in these areas. In contrast, no statistically significant differences were found for the CBGT-A and the control group at posttest nor at follow-up. The lack of improvement in this area for CBGT-A is similar to the

results of Salaberría and Echeburúa (1998) at posttreatment following treatment with CBGT (adults version), although that study found improvement at follow-up. Furthermore, the lack of statistically significant differences at follow-up between the CBGT-A and the control group is consistent with the results from this treatment in American population (Hayward *et al.,* 2000). Because CBGT and CBGT-A have some different elements, this could account for the differences between our results and those of Salaberría and Echeburúa (1998).

With regard to self-esteem of the subjects, the CBGT-A and IAFSG resulted in significant improvement at posttreatment and follow-up. This is consistent with results of Taylor *et al.* (1997) with adult population, but differs from Salaberría and Echeburúa (1998), where there were statistically significant differences at posttest or follow-up between a cognitive-behavior treatment and no treatment (control group). SET-A$_{sv}$ did not appear to affect self-esteem, consistent with the results of Salaberría and Echeburúa (1998), who did not find statistically significant differences at posttest for the exposure treatment. In spite of the lack of statistically significant differences in SET-A$_{sv}$, it must be pointed out that this treatment as well as the cognitive-behavior treatments (CBGT-A and IAFSG) present a trend for increased the self esteem at posttest as well as at follow-up, although only the latter reached levels of statistic significance in relation to the control group.

In conclusion, we must point out that all three treatment conditions resulted in significant decreased symptoms of social phobia according to the social phobia section of the ADIS-IV. These differences were also obtained at follow-up (covariate pretest) in contrast to the control group for the SET-A$_{sv}$ and in the IAFSG, but not for the CBGT-A. This finding is consistent with Hayward *et al.* (2000). In fact, the subjects in the active treatment conditions reported a significant decrease in the feared social situations, in relation with the control group, at posttest and follow-up, which indicates a generalization of the benefits attained after the posttest. Other studies with infant-juvenile population have also shown that the effects of the treatments are maintained and consolidated in the long term. (v.gr., Albano, Marten *et al.,* 1995 or Beidel & Turner, 2000).

Taking all this resuls together, we may conclude that all three treatments were superior to the control condition across most of the dependent variables at posttest and the follow-up, with adjustment for pretest scores. Additionally, at follow-up the treated subjects showed continued improvements, in accordance with what is found in the studies with adult population of Heimberg, Salzman, Holt and Blendell (1993), Hunt and Andrews (1998), Scholing and Emmelkamp (1996a,b), Turner, Beidel and Cooley-Quille (1995) or Wlazlo, Schroeder-Hartwig, Hand, Kaiser and Münchau (1990). Likewise, at follow-up there were statistically significant improvement over posttreatment in the ADIS-SP for SET-A$_{sv}$ and for the IAFSG in the ADIS-SP, the SAS-A/FNE and the SAS-A/Total. In contrast, CBGT-A did not evidence further significant differences at follow-up when compared to posttreatment.

Finally, consistent with other studies that include a long term follow-up (Akillas & Efran, 1995; Butler *et al.,* 1984; Hayward *et al.,* 2000; Salaberría & Echeburúa, 1998), control subjects showed a change (but not significant) in the scores of some of the self reports at posttest and follow-up.

In view of the results, it is appropiate to conclude that from the point of view of statistic significance, all the treatment groups do provide higher effects than control group. However, there are several limitations to our study. First, the control group consisted of subjects that rejected the psychological treatment, which could be a factor that would affect the comparison of the between-group results. Nevertheless, there were no significant differences found among the four conditions in any of the sociodemographic variables, which minimizes this possibility. This is consistent with data reported by Hunt (2000) and Turner, Beidel, Wolff, Spaulding and Jacob (1996), who reported a lack of differences between acceptors and rejectors to the treatment in the scores obtained on self reports on sociodemographic variables (age, sex, age at onset, educational level) nor in the comorbidity rates. However, variables such as motivation, or subject expectations toward the offer of the treatment, were not analyzed in either study and may constitute a hazard to the internal validity of our research. Second, although non-significant differences were obtained, high comorbidity rates on CBGT-A were found, what might be a factor explaining lower efficacy of this treatment. Third, assessment measures were administered only to the adolescents, which may also constitute another limitation of our research in the light of the debate that exists at the present time about whether the parents or the adolescents are the ones who provide more reliable information. La Greca (1998) maintains that the adolescents should be the main source of information in these cases. However, DiBartolo, Albano, Barlow and Heimberg (1998) found that, even though there was high agreement for the cognitive symptoms, there was inconsistency in avoidance symptoms: parents were the best informers about this latter area since adolescents tend to minimize their avoidance symptoms, perhaps as a result of the desire to make a good impression to the evaluator. Finally, it must be pointed out that there may be a limitation in the generalization of our results to other contexts, since in our research some aspects have not been approached such as to what degree the physical context (size and form of the room in which the research was undertaken) may be a relevant factor in the effects of the treatment (ecological validity) or if the effects of the treatment are irrespective of the time of the day in which the therapy is applied (internal validity).

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