

Effectiveness of a program for early detection/intervention in children/adolescents with generalized social phobia

Raquel Sánchez-García and José Olivares*

University of Murcia

Título: Eficacia de un programa para la detección/intervención temprana en niños/adolescentes con fobia social generalizada.

Resumen: El objetivo de este trabajo es estudiar los efectos del tratamiento psicológico *Intervención en Adolescentes con Fobia Social* (IAFS; Olivares, 2005) en su versión 10-14 años, analizando también sus efectos sin el componente de reestructuración cognitiva. La muestra la componen 82 niños y adolescentes (73% chicas; 27% varones) con Fobia Social Generalizada y una edad media 11.91 años (DT=1.33; rango: 10-14 años). Los participantes fueron asignados aleatoriamente a tres condiciones experimentales: 25 al Grupo Control Lista de Espera, 28 a la condición IAFS completo y 29 a la condición IAFS sin reestructuración cognitiva.

Los resultados muestran cambios significativos (mejoría) en todas las variables dependientes evaluadas en las dos condiciones de tratamiento.

Palabras clave: Tratamiento; niños y adolescentes; fobia social generalizada; muestra comunitaria; experimental; programa IAFS.

Abstract: The aim of this paper is to study the effects of the psychological treatment *Intervención en Adolescentes con Fobia Social / Intervention in Adolescents with Social Phobia* (IAFS / IASP; Olivares, 2005) in the version for 10-14 year olds, analysing its effects without the cognitive restructuring component. The sample is composed of 82 children and adolescents (73% female; 27% male) with generalized social phobia and a mean age of 11.91 years (SD = 1.33; range: 10-14 years). Participants were randomly assigned to three experimental conditions: 25 to the wait list control group, 28 to the complete IAFS condition and 29 to the IAFS without cognitive restructuring condition.

The results show significant changes (improvement) in all the dependent variables evaluated in the two treatment conditions.

Key words: Treatment; children and adolescents; generalized social phobia; community sample; experimental; IAFS program.

Introduction

Social phobia is characterized by a persistent and intense fear of relating to others or of performing in public for fear of displaying anxiety responses or acting in a way that would be humiliating or embarrassing (DSM-IV-TR; American Psychiatric Association, 2000). It is a problem that causes a clinically significant interference in the realization of daily activities. It also presents a high prevalence both in the clinical population and the community, with percentages that vary between 2% and 20% (such as Jefferys, 1997 or Tillfors, 2004), reaching 8.2% in the Spanish adolescent population (Olivares, 2005). In fact, social phobia is the disorder with the greatest rates of prevalence together with major depression and the consumption of alcohol (APA, 2000).

The mean age of onset is between 11 and 12 years (see Beidel and Turner 2005; Kessler, Berglund, Demier, Jin, Merikangas and Walters, 2005). In Spain, Olivares, Rosa and Piqueras (2006) found a mean age of onset of 9.5 years, reported by adolescents between the ages of 14 and 17 years inclusive, who fulfilled the criteria for a diagnosis of generalized social phobia. The subjects that report a start of the disorder prior to 14 years of age generally present a chronic and insidious course, in addition to a higher probability of suffering comorbid disorders and problems in the academic arena and social relationships, both very important for the adolescent's social-emotional development (Morris, Hirshfeld-Becker, Henin and Storch, 2004).

The clinical relevance of social phobia comes from its interference in the performance of daily activity (see Beidel and Turner, 2005 or Wittchen and Fehm, 2003). These stud-

ies have found that children and adolescents that have difficulties in social relationships with their peers have a greater risk of suffering from emotional and social problems (see Stein, Fuetsch, Müller, Höler, Lieb and Wittchen, 2001 or Trianes, Blanca, García, Muñoz and Fernández, 2007). Moreover, various studies have shown the relevance of the negative consequences of this disorder, highlighting the decline in academic performance, the risk of dropping out of school, the development of other anxiety disorders and of the state of mind, as well as a higher probability of beginning to consume toxic substances (see DeWitt, McDonald and Offord, 1999 or Morris, Steward and Ham, 2005).

All of these findings indicate the importance of early intervention in reducing or eliminating the impact of the disorder on the development of children and preventing potential unbalances in that of adolescents (Olivares, Rosa and Olivares, 2007).

In recent years the study of social phobia in childhood and adolescence has aroused considerable interest in the scientific community. This interest has been reflected in the epidemiological arena and in that of its evaluation and treatment (La Greca, 1999; Masia-Warner, Fisher, Shrout, Rathor and Klein, 2007 or Olivares, Rosa, Caballo, García-López, Orgiles and López-Gollonet, 2003). In spite of this, treatments developed with the purpose of intervening prematurely continue to be scarce and those that have reported data relating to their efficacy in interventions carried out in the community are even fewer. One program that meets the two aforementioned characteristics is the *Intervención en Adolescentes con Fobia Social / Intervention in Adolescents with Social Phobia* (IAFS / IASP; Olivares, 2005), which has been tested many times in very varied interventions that offer empirical and experimental support to its efficacy and efficiency in adolescents between the ages of 14 and 18 years inclusive. Thus, for example, some have used pre-experimental designs (Olivares, Rosa and Vera-Villarreal,

* **Dirección para correspondencia [Correspondence address]:** José Olivares. Departamento de Personalidad Evaluación y Tratamiento Psicológicos. Facultad de Psicología. Universidad de Murcia. Apto. 4021, 30100 Espinardo, Murcia (Spain). Email: jorelx@um.es

2003) and others have been quasi-experimental and experimental studies (Olivares, García-López, Beidel, Turner, Albano and Hidalgo, 2002; Olivares, Rosa and Olivares, 2007; 2008). Its efficacy has also been studied through meta-analytical studies (such as Olivares, Rosa, Caballo, García-López, Orgilés and López-Gollonet, 2003), with the finding that the effect sizes attained by the IAFS are not only superior to those of other treatments with which it has been compared but also the number of treatment sessions is smaller (Olivares *et al.*, 2002).

Continuing with the research of the effects of this treatment package, the purpose of the present study is two-fold. Firstly, we test the efficacy of the IAFS in an age range in which it has not yet been applied: children and adolescents from a community sample who fulfill the diagnostic criteria for generalized social phobia (APA, 2000) and who are between the ages of 10 and 14 years. Secondly, we study the weight of the cognitive component in the effects produced by this mode of treatment.

Method

Participants

The recruiting of the sample was carried out in two phases.

Phase 1: After obtaining permission from the board of directors and the parents' associations of the centers, the Inventory of Anxiety and Social Phobia (SPAI-C, Beidel, Turner and Morris, 1995) and the revised Social Anxiety Scale for Children (SASC-R, La Greca and Stone, 1993) were administered to 2931 pupils of 5th and 6th year primary and 1st and 2nd year secondary in 17 public and semi-public educational centers in the Region of Murcia, chosen at random from the schools in urban areas. Of these, 11 pupils refused to take part in the study, 9 were excluded from the statistical analyses due to the existence of items that were incorrectly answered and 18 others were also excluded because they were over 14 years of age. The definitive sample was made up of 2893 participants (52.8% boys and 47.2% girls), in the age range of 10-14 years ($M=12.30$; $SD 1.208$).

As we did not have cut-off points for the tests applied in this age range, we used as a reference the score in the SPAI-C or SASC-R greater than or equal to two standard deviations above the mean, each of these being calculated with the results of the sample. 528 participants fulfilled these criteria (18.25%).

Phase 2. The Anxiety Disorders Interview Schedule for Children (ADIS-IV-C/P; Silverman and Albano, 1997) was applied, with 162 participants fulfilling the criteria for the diagnosis of social phobia, of whom 98 had generalized social phobia –GSP– (61%) and 64 (39.5%) specific social phobia –SSP. Out of the 98 with GSP, 89 agreed to take part in the treatment and 9 refused for several reasons; out of the 89, 7

were eliminated because they failed to go to three consecutive treatment sessions (exclusion criteria). All those that had SSP were offered the possibility of receiving treatment out of school hours.

The sample was made up of 82 participants (60 girls - 73%- and 22 boys -27%-) with a mean age of 11.91 years ($SD=1.33$; range: 10-14 years), all were Spanish, and none had undergone nor was in the process of undergoing psychological or pharmacological treatment for social phobia or any other psychological or psychiatric disorder.

The parents and tutors were informed in detail about the intervention process. Furthermore, their written consent was sought as a necessary condition for their children's participation and for the recording of the observational tests.

Design

We chose an experimental, inter-subject and multivariate design, comprising three experimental conditions with independent measures in the treatment factor and multiple and repeated measures in the evaluation factor.

We distributed the participants at random into the three experimental conditions: (a) the Wait List Control Group - WLCG ($n=25$), (b) the *Complete* IAFS group ($n=28$, split into three units of treatment: two groups of 9 and one of 10), and (c) the IAFS *without cognitive restructuring* group ($n=29$, grouped at random into 2 groups of 10 and one of 9).

Procedure

All of the participants were evaluated in the pre-test, in the post-test and in a follow-up carried out at 6 months. The WLCG members began to receive psychological treatment after taking part in the first follow-up evaluation; the rest (IAFS and IAFS *without cognitive restructuring*) were evaluated in the follow-up after 12 months. In each evaluation, the modified version of the ADIS-IV-C interview (Silverman and Albano, 1997) and the questionnaires of the Inventory of Social Phobia for Children (SPAI-C; Beidel, Turner and Morris, 1995) and the Revised Scale of Social Anxiety for Children (SASC-R; La Greca and Stone, 1993) were administered:

- *ADIS-IV-C* (Silverman and Albano, 1997): This is an interview that enables both the diagnosis of social phobia and a differential diagnosis. The ADIS-IV-C has proven to have a good test-retest reliability (0.63-0.80) for anxiety disorders, including social phobia (Silverman, Saavedra and Pina, 2001) and has reported a great concordance amongst reviewers (correlation coefficients that range from 0.82 to 0.95, Wood, Piacentini, Bergman, McCracken and Barrios, 2002).

- *SPAI-C* (Beidel, Turner and Morris, 1995): This test has 26 empirically extracted items that measure the anxiety experienced in different social situations, including the cognitive, somatic and motor components of social phobia. The SPAI-C presents a high internal consistency (0.95) and an

adequate test-retest reliability (0.86 at two weeks; Beidel, Turner and Morris, 1995). It is an instrument that discriminates between social phobia and other anxiety and behavior disorders. It is useful in orienting the diagnosis and as a measure of the efficacy of the treatment (Beidel, Turner, Hamlin and Morris, 2000). In a Spanish adolescent population, values have been found of 0.92 for internal consistency and of 0.56 at six months for test-retest reliability, (Olivares, Rosa, Sánchez-García, Piqueras, 2004; Sánchez-García, 2006), in line with the values reported in other studies (such as Gauer, Picón, Vasconcellos, Turner and Beidel, 2005).

- *SASC-R* (La Greca and Stone, 1993): Developed from the conceptualization of social phobia by Watson and Friend (1969), who identified two fundamental aspects of this disorder in adults: the fear of negative evaluation (FNE) and social avoidance and distress (SAD). It consists of 22 items that are grouped into three sub-scales: Fear of Negative Evaluation (FNE), Social Avoidance and Distress in New Situations (SAD-N) and Generalized Social Avoidance and Distress (SAD-G). Both the complete set and the three sub-scales have good reliability and validity in the Spanish version (Sandín, Valiente, Chorot, Santed, and Sánchez-Arribas, 1999).

Two situational tests were also applied in each evaluation: "Starting and holding a conversation" and "Giving an improvised speech". In the first one, the participants had to start, maintain and finish a conversation with a stranger for a duration of three minutes. We used collaborators that were of the same age as the participants (10 to 14 years), and who were unknown to them and had been specially trained to maintain a neutral position and not to start or keep the conversation going, except in previously determined cases. The objective of the second situational test was to evaluate the participants' public speaking abilities. Each participant had to give an improvised three-minute speech on a subject that they could choose from five options: the Internet, mobile telephones, sports, school and the tabloid press. The audience consisted of three people, who had been previously trained to remain attentive to the speech but without giving social reinforcement contingent to the presentation (facial expressions of approval, pleasant smile, etc.) They were told that they could stop their speech or conclude before the three minutes were up, if they so wished. This test was constructed following the instructions of Turner, Beidel, Dancu and Keys (1986).

The speech was filmed and watched independently afterwards by two observers. The Register of Psychophysiological and Motor Correlates of Anxiety / El Registro de Correlatos Psicofisiológicos y Motores de Ansiedad (Olivares, 1990) was used for each of the situational tests. This register contains 13 items and each item includes 12 intervals of 15 seconds of duration. The occurrence of the behavior described is registered. We used the first item, "Lack of eye

contact: does not look the speaker in the eye during the interval," in our study.

Description of the treatment

Intervention in Adolescents with Social Phobia (LASP/LAFS) version 10-14 years: The IAFS Protocol 10-14 years version (Olivares and Sánchez-García, 2006) is an adaptation of the Intervention in Adolescents with Social Phobia (IAFS; Olivares, 2005). This version preserves the structure and components of the original format. Its purpose is to expose the participants to the feared social situations, using the transmission of information (educational component), training in social skills and cognitive restructuring. The exposure starts with the realization of group activities and finishes with individual application (homework tasks).

Like the IAFS Protocol, the 10-14 year old version consists of four principal components: In the *Educational* component, information on the contents of the treatment is given, an explanatory model of social phobia is presented, the (individual) behavioral objectives are planned and the expectations in respect of the treatment and the behavioral objectives proposed by each participant are evaluated. The component related to *Training in Social Skills* comprises contents such as starting and holding conversations, assertiveness, giving and receiving compliments, making and maintaining friends and training in public speaking. Also included are exercises of cognitive flexibility which aim to train the participant in creating options. The third component is *Exposure*. The IAFS dedicates ten of its twelve sessions to exposure, both in the group training context in the clinical arena, as well as being directed in natural contexts. Thus, for example, for exposure in the clinical context to situations such as starting and maintaining conversations with people of the same or opposite sex, boys and girls unknown to and of the same age as the participants are used as co-therapists. The co-therapists are trained on how to act in a set of situations of highly frequent occurrence, so that they are not the ones that bear the weight of the relationship. The exposure is complemented with the use of audiovisual feedback, to which the feedback of fellow group members is added. The fourth component consists of *Cognitive Restructuring*. A combination of Beck's cognitive therapy and Ellis's rational emotional therapy are used in this component. Video feedback is also used in the sessions dedicated to talking in public.

The treatment is applied in 12 weekly sessions of group training, each lasting for 90 minutes.

Results

For the study of the quantitative variables, repeated measures analyses of variance were carried out with the results of the pre-test, post-test and follow-up at 6 months in the wait list control group and with those of the pre-test, post-test and follow-ups at 6 and 12 months in the IAFS conditions (*complete* and *without cognitive restructuring*). For the inter-group

comparison one-way variance analysis was used. Analyses of covariance were used in the variables in which the groups were not equivalent in the pre-test: the number of social relation situations feared/avoided and eye contact (measured using the ADIS-IV-C and the situational test "Starting and

holding a conversation", respectively). The effect sizes were calculated from the numerical variables at the different moments in which measures were taken.

The means, standard deviations and the results of the repeated measures analyses of variance are shown in Table 1.

Table 1: Means, standard deviations and variance analysis for the SPAI-C and the SASC-R.

	WLCG (N=25)		COMPLETE IAFS (N=28)		IAFS WITHOUT CR (N=29)		
	M	SD	M	SD	M	SD	
SPAI-C	PRE-TEST	28.88	28.56	6.01	27.66	5.40	
	POST-TEST	30.80	5.75	15.45	7.77	12.75	8.03
	FOLL.- 6 M	27.64	4.01	11.91	6.03	13.21	8.55
	FOLL.- 12 M	---	---	11.41	7.44	13.03	10.07
	Results ANOVA	F(2,30) = 1.370; p = .269 Linear Tendency F(1,15) = 0.426; p = .524 Square Tendency F(1,15) = 2.273; p = .152		F(3,81) = 41.13; p = .000 Linear tendency F(1,27) = 79.027; p = .000 Square tendency F(1,27) = 21.67; p = .000		F(3,84) = 28.549; p = .000 Linear tendency F(1,28) = 36.007; p = .000 Square tendency F(1,28) = 63.630; p = .000	
SASC-R	PRE-TEST	35.48	32.04	17.82	28.07	13.07	
	POST-TEST	35.36	5.33	15.89	6.81	11.45	6.48
	FOLL.- 6 M	38.80	6.71	12.14	6.86	12.24	7.34
	FOLL.-12 M	---	---	11.04	8.025	11.21	7.68
	Results ANOVA	F(2,48) = 0.558; p = .576 Linear tendency F(1,24) = 0.593; p = .449 Square tendency F(1,24) = 0.483; p = .494		F(3,81) = 24.076; p = .000 Linear tendency F(1,27) = 33.634; p = .000 Square tendency F(1,27) = 16.454; p = .000		F(3,84) = 24.743; p = .000 Linear tendency F(1,28) = 31.721; p = .000 Square tendency F(1,28) = 23.036; p = .000	

WLCG: Wait List Control Group **IAFS:** Intervention in Adolescents with Social Phobia **CR:** Cognitive Restructuring **SPAI-C:** Social Phobia Inventory for Children **SASC-R:** Revised Social Anxiety Scale for Children.

The groups that received the IAFS treatment are those that presented a statistically significant decrease at the post-test, which was maintained in the follow-ups at 6 and 12 months. As for the WLCG, the data show that significant changes did not take place at the different times in which the measures were taken. Regarding the SASC-R scores, a very notable improvement of the *complete* IAFS Group and IAFS *without cognitive restructuring* was produced at the post-test, which increased at follow-ups, and statistically significant differences were found at the three times when measures were taken. These results are also shown for the SASC-R sub-scales (see Table 2). The groups that received the IAFS treatment are those that presented statistically significant decrease at the post-test, which were maintained in the follow-ups at 6 and 12 months. As for the WLCG, the data show that significant changes did not take place at the different times in which the measures were taken. Regarding the SASC-R scores, a very notable improvement of the *complete* IAFS Group and IAFS *without cognitive restructuring* was produced at the post-test, which increased at follow-ups, and statistically significant differences were found at the three times that measures were taken. These results are also shown in the SASC-R sub-scales (see Table 2).

As can be seen in Table 3, in the treatment groups there is a reduction in the mean number of social situations feared or avoided by the participants in the social phobia section. The data show that the *complete* IAFS condition achieved the greater benefits in the post-test, which also increased in the follow-ups at 6 and 12 months.

With regards to the observational tests ("Giving an improvised speech" and "Starting and holding a conversation"), in Figures 1 and 2 the mean scores are shown from the intervals in which there was no eye contact. In the *complete* IAFS group there was a notable decrease in the number of intervals in the situation "starting and maintaining a conversation" which continues to decrease until it gets to 0, at 12 months of evaluation [F(3,81) = 115.037; p = .000]. Similar results were found in the condition IAFS *without cognitive restructuring* [F(3,81) = 32.841; p = .000]. Significant differences in the WLCG did not take place either in the linear or the square tendency [F(1,24) = .052; p = .822; F(1,24) = 1.359; p = .255].

In relation to the situation "Giving an improvised speech", significant changes were produced in the two treatment groups [F(3,81) = 60.794; p = .000; F(3,81) = 40.845; p = .000]. In the *complete* IAFS group the participants did not score in any interval in the evaluations carried out at 6 and 12 months. The participants in the IAFS without cognitive restructuring group scored only in one interval. Just as occurred in the situation "Starting and holding a conversation", statistically significant differences were not found in the WLCG [F(2,48) = 0.1329; p = .274]. However, on this occasion the behavior "Lack of eye contact: does not look the speaker in the eye during the time of the interval" appeared in only 5 intervals (see Figures 1 and 2).

Table 2: Means, standard deviations and ANOVAS of the subscales FNE, SAD-N, SAD-G.

	WLCC (N=25)		COMPLETE IAFS (N=28)		IAFS WITHOUT CR (N=29)		
	M	SD	M	SD	M	SD	
FNE	PRE-TEST	16.76	10.83	16.68	11.67	13.48	6.77
	POST-TEST	15.92	2.96	8.32	3.96	5.79	3.74
	FOLL.-6 M	19.00	5.40	5.68	4.34	6.00	3.98
	FOLL.-12 M	---	---	5.54	4.80	5.17	3.97
	Results ANOVA	F(2,48) = 1.529; p = .227 Linear tendency F(1,24) = 1.221; p = .280 Square tendency F(1,24) = 2.033; p = .167		F(3,81) = 19.981; p = .000 Linear tendency F(1,27) = 26.859; p = .000 Square tendency F(1,27) = 12.19; p = .001		F(3,84) = 19.247; p = .000 Linear tendency F(1,28) = 28.040; p = .000 Square tendency F(1,28) = 14.019; p = .001	
SAD-N	PRE-TEST	12	6.856	10.18	5.08	9.78	4.91
	POST-TEST	11.28	3.824	5.57	2.56	3.81	2.86
	FOLL.-6 M	11.44	5.181	5.14	2.52	4.59	2.96
	FOLL.-12 M	---	---	4.11	2.81	4.52	3.796
	Results ANOVA	F(2,48) = 0.180; p = .836 Linear tendency F(1,24) = 0.203; p = .657 Square tendency F(1,24) = 0.159; p = .694		F(3,81) = 19.662; p = .000 Linear tendency F(1,27) = 30.694; p = .000 Square tendency F(1,27) = 8.938; p = .006		F(3,78) = 15.085; p = .000 Linear tendency F(1,28) = 16.233; p = .000 Square tendency F(1,28) = 17.481; p = .000	
SAD-G	PRE-TEST	6.72	4.81	5.18	3.50	5.10	2.51
	POST-TEST	8.20	2.121	2	1.49	1.97	1.40
	FOLL.-6 M	9.56	4.06	1.32	1.02	1.52	1.50
	FOLL.-12 M	---	---	1.39	1.50	1.38	1.47
	Results ANOVA	F(2,48) = 2.707; p = .077 Linear tendency F(1,24) = 3.550; p = .129 Square tendency F(1,24) = 0.007; p = .935		F(3,81) = 21.123; p = .000 Linear tendency F(1,27) = 27.831; p = .000 Square tendency F(1,27) = 18.015; p = .000		F(3,84) = 30.713; p = .000 Linear tendency F(1,28) = 44.998; p = .000 Square tendency F(1,28) = 32.625; p = .000	

WLCC: Wait List Control Group **IAFS:** Intervention in Adolescents with Social Phobia **CR:** Cognitive Restructuring **SPAI-C:** Social Phobia Inventory for Children **SASC-R:** Revised Social Anxiety Scale for Children. **FNE:** Fear of Negative Evaluation. **SAD-N:** Social Avoidance and Distress in New Situations. **SAD-G:** Generalized Social Avoidance and Distress.

Table 3: Means, standard deviations and ANOVAS of the number of social situations feared/avoided.

	WLCC (N=25)		COMPLETE IAFS (N=28)		IAFS WITHOUT CR (N=29)		
	M	SD	M	SD	M	SD	
NUMBER OF SITUATIONS	PRE-TEST	10.80	3.93	10.82	3.43	9.14	3.61
	POST-TEST	9.52	3.10	2.54	2.04	3.61	3.05
	FOLL.-6 M	8.84	1.95	3.18	2.54	2.36	2.39
	FOLL.-12 M	---	---	2.25	2.06	2.86	3.84
	Results ANOVA	F(2,48) = 2.77; p = .073 Linear tendency F(1,24) = 4.565; p = .043 Square tendency F(1,24) = 0.204; p = .656		F(3,81) = 74.201; p = .000 Linear tendency F(1,27) = 106.983; p = .000 Square tendency F(1,27) = 70.258; p = .000		F(3,81) = 44.623; p = .000 Linear tendency F(1,27) = 67.343; p = .000 Square tendency F(1,27) = 38.095; p = .000	
SITUATIONS OF PER-FORMANCE	PRE-TEST	4.64	1.95	4.50	1.79	4.25	1.95
	POST-TEST	4.24	1.45	1.43	1.14	1.82	1.52
	FOLL.-6 M	4.12	1.36	1.46	1.45	1.64	1.98
	FOLL.-12 M	---	---	1.07	1.27	1.68	1.98
	Results ANOVA	F(2,48) = 0.765; p = .471 Linear tendency F(1,24) = 1.038; p = .318 Square tendency F(1,24) = 0.205; p = .654		F(3,81) = 44.98; p = .000 Linear tendency F(1,27) = 83.148; p = .000 Square tendency F(1,27) = 29.462; p = .001		F(3,81) = 19.650; p = .000 Linear tendency F(1,27) = 30.809; p = .000 Square tendency F(1,17) = 18.006; p = .000	
SITUATIONS RELATING TO OTHERS	PRE-TEST	6.20	2.43	6.32	1.98	4.89	2.09
	POST-TEST	5.28	2.75	1.11	1.49	1.79	1.91
	FOLL.-6 M	4.64	1.80	1.71	1.58	0.71	1.08
	FOLL.-12 M	---	---	1.18	1.362	1.18	2.21
	Results ANOVA	F(2,48) = 2.861; p = .067 Linear tendency F(1,24) = 6.573; p = .017 Square tendency F(1,24) = 0.053; p = .819		F(3,81) = 68.764; p = .000 Linear tendency F(1,27) = 88.900; p = .000 Square tendency F(1,27) = 78.760; p = .000		F(3,81) = 44.041; p = .000 Linear tendency F(1,27) = 87.519; p = .000 Square tendency F(1,27) = 32.483; p = .000	

WLCC: Wait List Control Group **IAFS:** Intervention in Adolescents with Social Phobia **CR:** Cognitive Restructuring **M:** Mean **SD:** Standard Deviation.

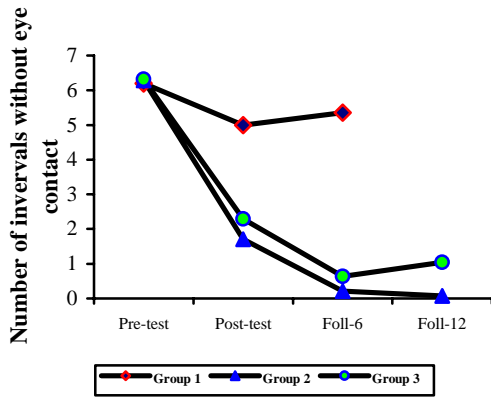


Figure 1: Mean number of intervals without eye contact in the situational test "Starting and holding a conversation"

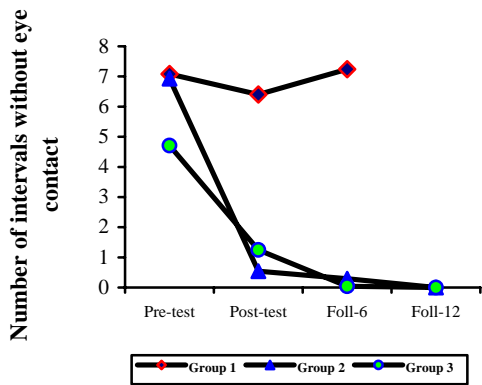


Figure 2: Mean number of intervals without eye contact in the situational test "Giving an improvised speech"

Regarding the comparisons between the experimental conditions, the results of the analyses of variance were statistically significant both in the post-test and in the follow-up at 6 months (see Table 4).

Table 4: Results of the ANOVA in the post-test and follow-up at 6 months for studying inter-group differences.

	Post-Test	Follow-up 6 months
	F(2,80)	F(2,80)
SPAI-C	52.240**	46.036**
SASC-R	105.041**	125.688**
FNE	56.029**	71.578**
SAD-G	117.659**	76.148**
SAD-N	39.314**	26.973**
Social situations feared or avoided	31.817**	31.817**
Eye contact	80.063**	67.900**

** = $p < .01$ SPAI-C: Social Phobia Inventory for Children SASC-R: Revised Social Anxiety Scale for Children; FNE: Subscale "Fear of negative evaluation" SAD-N: Subscale "Social Avoidance and Distress in New Situations" SAD-G: Subscale "Generalized Social Avoidance and Distress". Social situations feared or avoided measured through the Semi-structured Interview of Anxiety Disorders, Children's Version; Eye contact measured through situational tests.

Analysis of covariance was carried out for the social situations of relation and the test "Starting and maintaining a conversation" since the groups were not homogeneous in the pre-test. The results show statistically significant differences in the two variables both in the post-test [$F(2,77) = 29.117, p = .000$]; [$F(2,77) = 41.533, p = .000$], respectively], and in the follow-up at 6 months [$F(2,77) = 45.688, p = .000$]; [$F(2,77) = 99.511, p = .000$], respectively].

A post-hoc analysis of comparison was carried out using the Tukey test on the dependent variables, which proved to be statistically significant. Differences were found between the complete IAFS group and IAFS without cognitive restructuring vs. WLCG and there were no differences found between the two conditions in the post-tests and follow-ups at 6 and 12 months (see Table 5).

Finally, the effect sizes were high in the IAFS groups, in the post-test and follow-up at 6 months (see Table 6).

Table 5: Post-hoc test for the variables that showed significant differences between the experimental conditions in the post-test and follow-up at 6 months.

	POST-TEST		FOLLOW-UP 6 MONTHS		
	Complete IAFS vs. WLCG	IAFS w/out CR vs. WLCG	Complete IAFS vs. IAFS w/out CR	Complete IAFS vs. WLCG	IAFS w/out CR vs. Complete IAFS
SPAI-C	.000	.000	.473	.000	1.000
SASC-R	.000	.000	.035	.000	1.000
FNE	.000	.000	.026	.000	1.000
SAD-G	.000	.000	1.000	.000	.000
SAD-N	.000	.000	.165	.000	1.000
Performance	.000	.000	.865	.000	1.000
Relation	.000	.000	.684	.000	.050
EC "Conv."	.000	.000	1.000	.000	1.000
EC "Speech"	.001	.000	.909	.000	1.000

WLCG: Wait List Control Group IAFS: Intervention in Adolescents with Social Phobia CR: Cognitive Restructuring SPAI-C: Social Phobia Inventory for Children. SASC-R: Revised Social Anxiety Scale for Children FNE: Subscale "Fear of Negative Evaluation". SAD-N: Subscale "Social Avoidance and Distress in New Situations" SAD-G: Subscale "Generalized Social Avoidance and Distress". Performance and social situations feared or avoided measured through the Semi-structured Interview of Anxiety Disorders, Children's Version EC "Speech" and "Conv.": Eye contact during the situational tests "Giving a speech" and "Holding a conversation".

Table 6: Differences of the effect sizes obtained in the post-test and follow-ups at 6 and 12 months.

		EFFECT SIZE DIFFERENCES BETWEEN THE GROUPS		
		Complete IAFS vs. WLCG	IAFS w/ out CR vs. WLCG	Complete IAFS vs. IAFS w/ out CR
SPAI-C	POST-TEST	+2.23	+2.51	-0.34
	FOLL.- 6	+3.04	+2.08	+0.17
	FOLL.-12	---	---	+0.18
SASC-R	POST-TEST	+3.16	+3.94	+0.66
	FU- 6	+3.93	+3.71	+0.01
	FU-12	---	---	+0.02
Situations	POST-TEST	+2.65	+1.89	+0.40
	FOLL.-6	2.44	+2.90	-0.32
	FOLL.-12	---	---	+0.19
EC "Conv.?"	POST-TEST	+2.07	+1.68	+0.40
	FOLL.- 6	+2.63	+2.78	-0.44
	FOLL.-12	---	---	0.00
EC "Speech"	POST-TEST	+0.94	+0.79	+0.20
	FOLL.- 6	+2.59	+2.19	+0.40
	FOLL.-12	---	---	+0.78

WLCG: Wait List Control Group **IAFS:** Intervention in Adolescents with Social Phobia **CR:** Cognitive Restructuring **SPAI-C:** Social Phobia Inventory for Children. **SASC-R:** Revised Social Anxiety Scale for Children **FNE:** Subscale "Fear of Negative Evaluation". **SAD-N:** Subscale "Social Avoidance and Distress in New Situations" **SAD-G:** Subscale "Generalized Social Avoidance and Distress". **Social and performance situations feared or avoided** measured through the Semi-structured Interview of Anxiety Disorders, Children's Version **Eye Contact:** measured through the situational tests "Holding a conversation" and "Giving a speech". **FOLL.-6** and **FOLL.-12:** Follow-up carried out at 6 and 12 months respectively **EC "Speech"** and **"Conv.":** Eye contact during the situational tests "Giving a speech" and "Holding a conversation".

Discusión

We found statistically significant differences in the experimental conditions with the measures SPAI-C and SASC-R, in the post-test and in the follow-ups carried out at 6 and 12 months. These data are consistent with those obtained in other previous investigations by Spanish authors (see for example Olivares and García López, 2001; Olivares, Rosa and Vera-Villarroel, 2003 or Palomares, 2006). They also coincide with the data reported by researchers such as Albano, DiBartolo, Heimberg and Barlow (1995), Beidel *et al.*, (2000) or Chavira and Stein, (2002) in samples of adolescents.

In relation to the number of social situations feared or avoided, statistically significant differences were found at all moments of evaluation in the IAFS conditions. As can be seen in Table 3, the participants that received treatment had a significant reduction in social situations feared or avoided between the pre-test and follow-up at 6 months. This did not happen however with the WLCG participants. These results agree with those found in other studies that have used equivalent scores through clinical severity scales (Amorós, 2006; Masia-Warner *et al.*, 2007; Ruiz, 2003; and Spence, Donovan and Brechman-Toussaint, 2000).

Furthermore the results show that a significant increase in eye contact was produced from the pre-test to the post-test and in the follow-ups at 6 and 12 months, in both situational tests in the groups tested. The participants who had received treatment held eye contact with their partner or audience regularly in both tests; however, those from the non-treated group avoid eye contact in at least 50% of the registered time intervals. These data are consistent with those found by Palomares (2006).

As we can see in the results section, statistically significant differences were found between the IAFS and the WLCG groups in all the variables measured, but not between the *complete* IAFS and IAFS *without cognitive restructuring* groups for any of the variables measured in the follow-up at 12 months. On the one hand this proves the success of the treatment when compared with no treatment and, on the other, it contributes indications with respect to the scarce relevance in the results of the cognitive restructuring component for this problem and in this age group.

Likewise, it is confirmed that in all the dependent variables measured the IAFS conditions present bigger effect size magnitudes than the WLCG, as expected.

We can conclude from all of this that, in the first place, an improvement was produced in the participants that received treatment in all the dependent variables controlled, a fact that leads us to claim that the IAFS, with and without cognitive restructuring, is shown to be efficacious when it is applied to children and adolescents with generalized social phobia within the range of our sample. Secondly, we can confirm that, in this study, the component of cognitive restructuring did not produce a significant increase in the improvement of the results as has happened in other previous investigations (see, for example, Amorós, 2006). Consequently, the results of the present study support the use of the IAFS program in the treatment of generalized social phobia between the ages of 10 and 14 years with and without cognitive restructuring.

With regards to issues to be resolved in future investigations, there remains the study of the effect of an increase/decrease in the number of treatment sessions, as well as their duration or the intensity of the exposure operationalized both in terms of the homework tasks and the dynamics of the training in the safe clinical context. The same oc-

curs with the analysis of the effect of the changes in the characteristics of gender and the composition of the pairs of therapists and co-therapists the application of the group and individual treatment, the size of the treatment groups, etc. It will also be necessary to study the social validity of the changes, both in the educational arena through sociograms and teachers' assessment as well as in the family context by means of a structured and quantified report by the parents or tutors of the children. Moreover, we deem it very important both to study the role of parental participation, which can be relevant in this age range as it is the parents who are responsible for applying all or part of the program under the supervision and orientation of the psychologist (Gil-Bernal and Hernández-Guzmán, 2009) and to research the effect of the individual attention complementary to the group treatment (see Olivares-Olivares, Rosa and Olivares, 2008). Finally, we understand that it is a challenge for future studies to study in greater detail the relations of efficiency of this adaptation of the IAFS when it is used with and without the component of cognitive restructuring given that the results obtained do not allow us to be conclusive regarding this matter.

Referencias

- Albano, A. M., DiBartolo, P. M., Heimberg, R. G. and Barlow, D. H. (1995). Children and adolescents: Assessment and treatment. En R. G. Heimberg, M. R. Liebowitz, D. A. Hope y F. R. Schneier (Eds.), *Social phobia: Diagnosis, assessment and treatment* (pp. 387-425). Nueva York: Guilford Press.
- American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders* (fourth edition, revised text). Washington, DC: APA.
- Amorós, M. (2006). *Efectos de la eliminación de los componentes de reestructuración cognitiva y focalización de la atención en la eficacia de la Intervención en Adolescentes con Fobia Social (IAFS)*. Doctoral thesis. University of Murcia.
- Beidel D. C. and Turner S. M. (2005). *Childhood anxiety disorders. A guide to research and treatment*. Nueva York: Routledge.
- Beidel, D. C., Turner, S. M. and Morris, T. L. (1995). A new inventory to assess childhood social anxiety and phobia: The Social Phobia and Anxiety Inventory for Children. *Psychological Assessment*, 7, 73-79.
- Beidel, D. C., Turner, S. M., Hamlin, V. and Morris, T. L. (2000). The Social Phobia and Anxiety Inventory for Children (SPAI-C): External and discriminative validity. *Behavior Therapy*, 31, 75-87.
- Chavira, D. A. and Stein, M. B. (2002). Combined Psychoeducation and treatment with selective serotonin reuptake inhibitors for youths with generalized social anxiety disorder. *Journal of Child and Adolescent Psychopharmacology*, 12(1), 47-54.
- Gauer, G. J., Picón, P., Vasconcellos, S.J., Turner, S.M. and Beidel, D.C. (2005). Validation of the social phobia and anxiety inventory for children (SPAI-C) in a sample of Brazilian children. *Brazilian Journal of Medical and Biological Research*, 38, 795-800.
- DeWitt, D. J., McDonald, K. and Offord, D. R. (1999). Childhood stress and symptoms of drug dependence in adolescence and early adulthood: Social phobia as a mediator. *American Journal of Orthopsychiatry*, 69, 61-72.
- Gil-Bernal, F and Hernández-Guzmán, L. (2009). Tratamiento cognitivo-conductual para niños mexicanos con fobia social. *Anuario de Psicología*, 40 (1), 89-104.
- Kessler, R. C., Berglund, P., Demier, O., Jin, R., Merikangas, K. R. and Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62, 593-602.
- La Greca, A. M. (1999). The social anxiety scales for children and adolescents. *Behaviour Therapist*, 22, 133-136.
- La Greca, A. M. and Lopez, N. (1998). Social anxiety among adolescents: Linkages with peer relations and friendships. *Journal of Abnormal Child Psychology*, 26, 83-94.
- La Greca, A. M. and Stone, W. L. (1993). The Social Anxiety Scale for Children-Revised: Factor structure and concurrent validity. *Journal of Clinical Child Psychology*, 22, 17-27.
- Jefferys, D. (1997). Social phobia. The most common anxiety disorder. *Australian Family Physician*, 26, 1064-1067.
- Masia-Warner, C., Fisher, P., Shrout, P., Rathor, S. and Klein, R. (2007). Treating adolescents with social anxiety disorder in school: an attention control trial. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 48, 676-686.
- Morris, T. L., Hirshfeld-Becker, D. R., Henin, A. and Storch, E. A. (2004). Developmentally sensitive assessment of social anxiety. *Cognitive and Behavioral Practice*, 11, 13-28.
- Morris, E. P., Steward, S. H. and Ham, L.S. (2005). The relationship between social anxiety disorder and alcohol use disorders: A critical review. *Clinical Psychology Review*, 25, 734-760.
- Olivares, J. (1990). *Registro de Correlatos Psicofisiológicos y Motores de Ansiedad*. Unpublished manuscript.
- Olivares, J. (2005) (Dir. and Coord.). *Programa IAFS. Protocolo para el tratamiento de la fobia social en adolescentes*. Madrid: Pirámide.
- Olivares, J., García-López, L. J., Turner, S., La Greca, A.M. and Beidel, D. (2002). A pilot study on normative data for two social anxiety measures: The Social Phobia and Anxiety Inventory and the Social Anxiety Scale for Adolescents. *International Journal of Clinical and Health Psychology*, 2, 467-476.
- Olivares-Olivares, P. J., Rosa, A. I. and Olivares, J. (2007). Validez social de la Intervención en Adolescentes con Fobia Social: padres frente a profesores. *Terapia Psicológica*, 25, 63-71.
- Olivares-Olivares, P.J., Rosa, A. I. and Olivares, J. (2008). Does individual attention improve the effects of treatment groups of adolescents with social phobia? *International Journal of Clinical and Health Psychology*, 8, 465-481.

- Olivares, J., Rosa, A. I. and Piqueras, J. A. (2006). Detección temprana y tratamiento de adolescentes con fobia social generalizada. *Psicothema*, 17, 1-8.
- Olivares, J., Rosa, A. I. and Vera-Villarroel, P. (2003). Efectos de la aplicación del protocolo IAFS en una muestra de adolescentes con fobia social generalizada. *Terapia Psicológica*, 21, 153-162.
- Olivares, J., Rosa, A.I., Sánchez-García, R and Piqueras, J.A. (2004). Primeros Resultados sobre las Propiedades Psicométricas Del Inventario de Fobia Social Para Niños: SPAI-C. *VII European Conference on Psychological Assessment*. Málaga.
- Olivares, J., Rosa, A. I., Caballo, V. E., García-López, L. J., Orgilés, M. and López-Gollonet, C. (2003). El tratamiento de la fobia social en niños y adolescentes: una revisión meta-analítica. *Psicología Conductual*, 11, 599-622.
- Olivares, J. and Sánchez-García, R. (2006). *Intervención en Adolescentes con Fobia Social. Versión 10-14 años*. Faculty of Psychology. University of Murcia. Unpublished manuscript.
- Olivares-Olivares, P. J., Rosa, A. I. and Olivares, J. (2007). Validez social de la Intervención en Adolescentes con Fobia Social: padres frente a profesores. *Terapia Psicológica*, 25, 63-71.
- Olivares-Olivares, P.J., Rosa, A. I. and Olivares, J. (2008). Does individual attention improve the effects of treatment groups of adolescents with social phobia? *International Journal of Clinical and Health Psychology*, 8, 465-481.
- Palomares, A. (2006). *Efectos de la tutoría en el tratamiento de adolescentes con fobia social generalizada mediante el programa LAFS*. Unpublished doctoral thesis. Faculty of Psychology, University of Murcia. Murcia.
- Ruiz, J. (2003). *Estudio de las relaciones entre eficacia y eficiencia de la intervención en adolescentes con fobia social (LAFS), en función del tamaño del grupo*. Unpublished doctoral thesis, University of Murcia, Faculty of Psychology, Murcia.
- Sánchez-García, R. (2006). *Propiedades Psicométricas de la versión española del Social Phobia and Anxiety Inventory for Children (SPAI-C)*. Final year dissertation. University of Murcia.
- Sandín, B., Valiente, R. M., Chorot, P., Santed, M. A. and Sánchez-Arribas, C. (1999). Escala de Ansiedad Social para Niños-Revisada (SASC-R): Fiabilidad, Validez y datos normativos. *Análisis y Modificación de Conducta*, 25, 827-847.
- Silverman, M. K, and Albano, A. M. (1997). *The Anxiety Disorders Interview Schedule for Children (ADIS-C/P)*. San Antonio, TX: Psychological Corporation.
- Silverman, W. K., Saavedra, L. M. and Pina, A. A. (2001). Test-retest reliability of anxiety and diagnoses with the Anxiety Disorders Interview Schedule for DSM-IV: child and parent versions. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40, 937-944.
- Spence, S. H., Donovan, C. and Brechman-Toussaint, M. (2000). The treatment of childhood social phobia: The effectiveness of a social skills training based cognitive-behavioral intervention, with and without parental involvement. *Journal of Child Psychology and Psychiatry*, 41, 713-726.
- Stein, M. B., Fuetsch, M., Müller, N., Hötler, M., Lieb, R. and Wittchen, H. U. (2001). Social anxiety disorder and the risk of depression. A prospective community study of adolescents and young adults. *Archives of General Psychiatry*, 58, 251-256.
- Tillfors, M. (2004). Why do some individuals develop social phobia? A review with emphasis on the neurobiological influences. *Nordic-Journal-of-Psychiatry*, 58, 267-276.
- Trianes, M.V., Blanca, M.J., García, B., Muñoz, A. and Fernández, F. (2007). El comportamiento infantil asertivo ante adultos: un examen de relaciones entre variables y fuentes. *Infancia y aprendizaje*, 30, 163-182.
- Turner, S. M., Beidel, D. C., Dancu, C. V. and Keys, D. J. (1986). Psychopathology of social phobia and comparison to avoidant personality disorder. *Journal of Abnormal Psychology*, 95, 389-394.
- Watson, D. and Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of Consulting and Clinical Psychology*, 33, 448-45.
- Wittchen H.U. and Fehm, P. (2003). Epidemiological and natural course of social fears and social phobia. *Acta of Psychiatry Scandinavia*, 108, 4-18.
- Wood, J. J., Piacentini, J. C., Bergman, L. R., McCracken, J. and Barrios, V. (2002). Concurrent validity of the anxiety disorders section of the Anxiety Disorders Interview Schedule for DSM-IV: Child and Parent versions. *Journal of Clinical Child and Adolescent Psychology*, 31, 335-342.

(Artículo recibido: 9-3-2009; aceptado: 28-8-2009)