

The contribution of the therapist's competence in the treatment of adolescents with generalized social phobia

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Abstract

Background: The purpose of this study was to explore which of the outcomes attained by the application of the psychological program Intervención en Adolescentes con Fobia Social (Intervention in Adolescents with Social Phobia) can be attributed to the therapist's competence. **Method:** The experimental study consists of three conditions: Waiting list control, Group treated by expert psychologists, and Group treated by inexperienced psychologists, with a sample of 110 Spanish adolescents whose mean age was 15.42 years (SD = 0.97, range: 14-18). All participants met the criteria for diagnosis of Generalized Social Phobia and most of them were female (65.45%). **Results:** (i) The effect size attributable to the therapist was low compared to the effect size associated with the manual-based treatment program in the dependent variables measured, and (ii) Expert therapists attained a much greater remission of the criteria for the diagnosis of Generalized Social Phobia among participants than did the inexperienced therapists. **Conclusions:** The IAFS Program was responsible for most of the change measured in participants.

Keywords: Therapist's competence; Spanish adolescents; generalized social phobia; IAFS program.

Resumen

Contribución de la competencia del terapeuta en el tratamiento de adolescentes con fobia social generalizada. Antecedentes: el propósito de este estudio fue verificar la parte de los efectos generados por la aplicación del Programa para la Intervención en Adolescentes con Fobia Social que pueden ser atribuidos a la competencia del terapeuta. **Método:** estudio experimental integrado por Grupo de control lista de espera, Grupo tratado por psicólogos expertos y Grupo tratado por psicólogos inexpertos. La muestra estuvo formada por 110 adolescentes españoles con una edad media de 15,42 años (DT: 0,97; rango: 14-18), siendo la mayoría chicas (65,45%). Todos cumplieron los criterios requeridos para el diagnóstico de Fobia Social Generalizada. **Resultados:** (i) el Tamaño del efecto que se puede atribuir a los terapeutas es bajo frente a las magnitudes que alcanza el tamaño que se puede asociar con el Programa manualizado de tratamiento en las variables dependientes medidas, (ii) los resultados obtenidos por los terapeutas expertos son mucho más relevantes que los de los inexpertos respecto de la remisión de los criterios requeridos para el diagnóstico de Fobia Social Generalizada. **Conclusiones:** los efectos generados por el Programa de tratamiento son claramente superiores a los que pueden atribuirse a los terapeutas.

Palabras clave: competencia del terapeuta; adolescentes; fobia social generalizada; Programa IAFS.

Social Phobia (SP) is characterized by a marked and persistent fear of social situations and has a prevalence of approximately 7% among children and adolescents in the United States (American Psychiatric Association [APA], 2013) and between 8% (Olivares, 2005) and 12,06% (Inglés et al., 2008) in Spanish adolescents. This disorder has significant negative consequences for patients' personal and social development and academic performance. Therefore, SP is an important risk factor for individuals' health and quality of life (Buckner, Ecker, & Proctor, 2011; Dalrymple & Zimmerman, 2011; Eng, Coles, Heimberg, & Safren, 2005) and implies considerable financial costs for health care systems (Acarturk et al., 2009).

Due to the above, the evaluation and treatment of social phobia is a source of concern for clinicians and researchers (Labrador & Ballesteros, 2011), which has led to the development of several psychological treatments that have shown their efficacy in adults, children, and adolescents (APA, 2012; NICE, 2013). However, very few studies (see Alarcón-Soriano, 2014; or Webb, DeRubeis, & Barber, 2010), none of them in adolescents with SP, have investigated the effects of the therapist's competence as compared to those obtained by applying a treatment following a manual (see Andersson, Carlbring, & Furmark, 2012; or Webb et al., 2010), and reported results are not convergent (see Alarcón-Soriano, 2014). For instance, O' Malley, Suh, and Strupp (1983) or Kuyken and Tsivrikos (2009) reported a positive relationship between therapist competence and treatment outcomes, whereas Shaw et al. (1999), Svartberg and Stiles (1992) or Webb et al. (2010) found no significant correlation between these two variables. Therefore, further research is necessary in order to provide evidence to clarify the relevance of this variable.

The purposes of the present study were (a) to provide evidence of the magnitude of the effects on the results that can be attributed

to the therapist's competence, compared to the effects of a manual-based program (Intervención en Adolescentes con Fobia Social Generalizada —IAFS— [Intervention in Adolescents with Generalized Social Phobia]; Olivares, 2005), hereinafter referred to as *the Program*, and (b) to discuss the results in light of those reported by other researchers.

Method

Participants

We administered the Social Anxiety Scale for Adolescents (SAS-A) to 3,260 students in 3rd and 4th year of compulsory secondary education (*Enseñanza Secundaria Obligatoria*, ESO) and 1st year of High school (*Bachillerato*) in 9 randomly selected public and state-subsidized high schools of the Spanish region of Murcia. We excluded 73 participants (2.23%) for not adequately completing the SAS-A. The final sample was composed of 3,187 participants —1,823 girls (57.20%) and 1,364 boys (42.80%). In the second stage of the study, we selected participants based on a previously determined cut-point (SAS-A \geq 57; Olivares, García-López, Turner, La Greca, & Beidel, 2002). In the sample, 294 (9.22%) participants had a score equal to or higher than this cut-point. Participants in this subset were assessed with the ADIS-IV-C interview (Silverman & Albano, 1996; Silverman, Albano, & Sandin, 2001); of these, 185 were found to meet the criteria for the diagnosis of Generalized Social Phobia (GSP) and were privately informed of the results of the assessment.

Exclusion criteria: not presenting the written consent signed by at least one parent or equivalent, meeting the diagnostic criteria for severe psychopathology (for example, depression, borderline personality disorder, narcissistic disorder, paranoid disorder,

schizophrenia, etc.), long history of substance abuse, aggressive behavior, missing three consecutive treatment sessions, and not having previously received psychological treatment. Inclusion criteria to be part of the sample and participate in the intervention were meeting the criteria for GSP. These criteria were met by 117 (63.24%) participants, who had a mean age of 15.42 years ($SD = 0.97$; range: 14-17) and were mostly girls (61.8%).

Instruments

Evaluation of participants' expectations. At pretest, we used an ad hoc one-item scale (range: 0-4) in which participants indicated the extent to which they hoped to improve as a consequence of treatment (0 = *Not at all*; 4 = *A lot*).

All participants completed the following measures at pretest, posttest, and follow-up:

Social Anxiety Scale for Adolescents (SAS-A; La Greca & López, 1998). The Spanish language version of the SAS-A has received psychometric support across different adolescent samples (see Inglés, La Greca, Marzo, García-López, & García-Fernández, 2010). With respect to reliability, García-López, Olivares, Hidalgo, Beidel, and Turner (2001) found that test-retest coefficients ranged from .75 (SAD-General) to .86 (total SAS-A) over 10 days, whereas Olivares et al. (2005) found internal consistency coefficients ranging from .80 (SAD-General) to .94 (FNE).

Personal Report of Confidence as a Speaker (PRCS; Gilkinson, 1942). The psychometric properties of this instrument in the Spanish adolescent population have been assessed by Méndez, Inglés, and Hidalgo (1999) with good results (Cronbach's alpha internal consistency was .91).

Escala de Inadaptación (Inadaptation Scale —IE—; Echeburúa, & Corral, 1987). This scale has shown good psychometric properties in clinical contexts (Echeburúa, Corral, & Fernández-Montalvo, 2000). The internal consistency alpha coefficient is .83, and the diagnostic efficacy of the scale is 90% (sensitivity 86%, specificity 100%).

Society and Adolescent Self Image (SASI; Rosenberg, 1965). This instrument has shown good reliability in the Spanish adolescent population: $\alpha = 0.82$ (internal consistency) and test-retest = .85 (Oliva et al., 2011).

Anxiety Disorders Interview Schedule for DSM-IV. Child Version (ADIS-IV-C; Silverman & Albano, 1996). For children between 7-16 years the ADIS-IV: C/P is a reliable instrument for diagnosis. For example, Silverman, Saavedra and Piña (2001) found that test-retest reliability with a 7 to 14 day- interval was will adequate to excellent (kappa coefficient = .63 - .80 for children's interview; .65 - .88 for parents' interview, and .80 - .92 for the combined diagnosis). Good inter-reviewer agreement has been reported for anxiety disorders, with correlation coefficients ranging from .82 - .95 (Wood, Piacentini, Bergman, McCracken, & Barrios, 2002) and test-retest reliability of $r = .71$, with the total number of "yes" in each diagnostic subcategory (Silverman & Rabian, 1995).

The assessment was performed by four previously trained examiners grouped into opposite-sex pairs of individuals. In the assessment, the therapist' level of competence was masked to avoid confounding effects.

An observation test was also performed at pretest, posttest, and follow-up. It included three interviews with each participant,

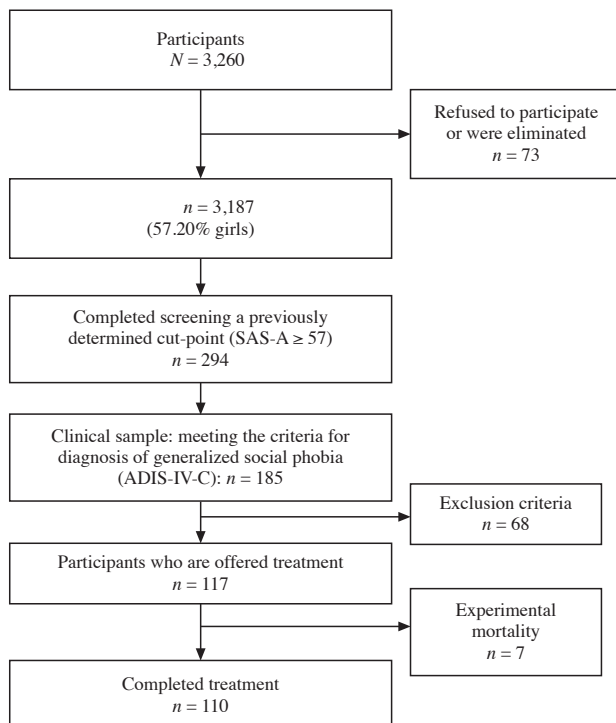


Figure 1. Participants' flow chart

who had to start and maintain a conversation with a stranger for three minutes. The topics were participants' expectations about the psychological treatment (pretest), their personal assessment of the treatment received-positive and negative aspects and suggestions for improvement (posttest) and a description/assessment of the difficulties they had faced and how they had solved them (follow-up). This test was led by two examiners of different sex who interacted with participants of the opposite sex and were trained not to start or carry the weight of the conversation with the participants.

After obtaining the written consent of participants and their parents, each participant's performance was filmed with a video camera to record the total duration of eye contact with the examiner—DEC—(maximum 180 seconds) and the number of pauses greater than 2 seconds—Pauses—during the verbal interaction. The recordings were viewed and coded by two independent observers previously trained for that purpose. Inter-observer correlations were high: DEC ($r = .90$) and Pauses ($r = .92$).

Procedure

In the third stage, we held an informative session with parents and children to explain the objectives, structure, and detailed functioning of the Program and to clarify any questions about it. We chose a two-factor partially repeated measures experimental design. The repeated measures factor contained data recorded at different times (pretest, posttest, and follow-up at 6 and 12 months), and the between-subject factor was the therapist's level of competence in applying the psychological treatment, which was divided into two categories (see Nezu & Nezu, 2005):

- (1) *Expert*: Clinical psychologists (degree in psychology) with more than two years of experience treating individual cases and applying psychological treatment to groups with social anxiety who correctly answers 95% of the issues presented in a 40-item inventory, with dichotomic response format (true or false), extracted from IAFS Program Manual (Olivares, Rosa-Alcázar, García-López, Bermejo, & Palomares, 2005), related to how to prevent and, if necessary, to confront and solve the difficulties that can emerge during the application of a group treatment for adolescents with GSP.
- (2) *Inexperienced*: Psychologists (degree in psychology) with no experience in applying psychological treatment.

Each treatment group was randomly assigned a therapist and a different sex co-therapist with the same level of competence; each role was assigned by a draw. The 117 participants were randomly assigned to one of three experimental conditions: Waiting-list control group (WLCG) or one of two treatment groups (Expert group—EG— and Inexperienced group—IG), with 39 participants in each group. There were eight treatment units (range: 9-10 participants), four for each treatment group. The treatment sessions took place in the morning in ad hoc places assigned in the schools. Experimental mortality affected four participants in the WLCG, who did not attend the posttest evaluation, one participant from the EG and two participants from the IG who missed three consecutive treatment sessions and were therefore excluded from the study.

Treatment integrity was controlled by using the IAFS Program manual (Olivares, 2005). The Program consists of 12 weekly 90-minute group treatment sessions. The basic components of the program are the following:

Educational component. Information about the contents of the treatment is provided, presenting an explanatory model of social phobia, planning the desired achievements—target behaviors—and reviewing the individual's expectations for the treatment and each of the target behaviors.

Social skills training. This includes contents such as starting and maintaining conversations, assertiveness, paying and accepting compliments, making and keeping friends as well as training in public speaking.

Exposure. This is the core of the program, and most activities revolve around it. Both in vivo—simulated and real—and imaginary types of exposure are used.

Cognitive restructuring techniques. This component is aimed at teaching the participants to identify the negative automatic thoughts they generate when they evoke past situations, anticipate social situations, or are immersed in a social situation that triggers anxiety responses. It is based on Beck's cognitive therapy and follows a process that includes an educational stage, a training stage, and a stage in which the participants apply the training they have received, as well as Ellis' A-B-C format to challenge automatic and irrational thoughts.

At the end of the group sessions, homework assignments are given. They involve in vivo exposure to natural contexts related to the content of the session(s) already held in the clinical setting. The Program includes the possibility of treating the participants in individual sessions, changing the contents and the length of these sessions depending on the individual's specific needs, ranging between 15 minutes/session (the minimum length predicted) and 30 minutes/session (the maximum desirable length). The sessions are devoted to monitoring the difficulties encountered in the homework assignments and dealing with issues related to the contents and activities of the group sessions.

Currently, the IAFS program meets the criteria of the Task Force on Promotion and Dissemination of Psychological Procedures (1995) to be considered "well established" (see Olivares, 2011).

After obtaining the written consent of the therapists, adherence to the Program was controlled by recording the treatment sessions with a video camera. The recordings were viewed by two independent observers with broad experience in applying the Program. In each session, the observers recorded the number of interventions that did not match the role assigned to the therapist and co-therapist according to the Program manual.

Table 1
Distribution of each Group according to Age, Sex, and School Year

| | | Groups | | |
|-------------------------|---------------------|------------------|----------------|----------------|
| | | WLCG (n = 35) | EG (n = 38) | IG (n = 37) |
| AGE (mean years) and SD | | 15.23 (1.26) | 15.58 (0.76) | 15.30 (0.81) |
| SEX | MALE | 13 (37.10%) | 14 (36.81%) | 11 (29.74%) |
| | FEMALE | 22 (62.93%) | 24 (63.23%) | 26 (70.33%) |
| SCHOOL YEAR | 3º ESO | 57.11% | 36.84% | 35.14% |
| | 4º ESO | 25.74% | 47.41% | 29.72% |
| | 1º-year High school | 17.12% | 15.82% | 35.11% |

Note: WLCG = Waiting list control group; EG = Expert group; IG = Inexperienced group; ESO = Compulsory Secondary Education

After the posttest and for ethical reasons, participants in the WLCG and the three participants who did not attend three consecutive treatment sessions were offered the possibility of joining a non-experimental treatment group. In the analysis of clinical significance, we assessed participants based on the reduction/elimination of the number of feared and/or avoided social situations reported by them at pretest (ADIS-IV-C) using two criteria: (a) Recovery (100% remission); and (b) Improvement/remission between 75% and 99%. To verify possible differences depending on the therapist's level of competence, we applied the Chi-square test to each contingency table. The assessment of the equivalence of the groups at pretest did not show any statistically significant differences between experimental conditions.

Data analyses

To verify the equivalence of the groups at pretest, we analyzed the quantitative variables (one-factor analyses of variance –ANOVAs) and the categorical variables (Chi-square tests).

Therapists' knowledge of the Program was controlled by means of two interviews conducted independently by two observers-interviewers, who followed a structured interview previously prepared by two psychologists with broad experience in applying the IAFS Program. The items dealt with the most relevant aspects of the content, structure, and development of the Program.

To verify whether the effects of the intervention were influenced by the therapist's competence, we conducted a statistical analysis of the dependent variables and their clinical significance using two-factor partially repeated measures ANOVAs (between-group: Level of Expertise; within-group: Pretest, Posttest, and Follow-up). To estimate the proportion of the variance explained by each source of variation, we calculated the eta square (η^2) index.

Results

The groups were equivalent at pretest (see Tables 2 and 3).

The inter-observer agreement was .92 for the therapists' knowledge of the Program.

The results of the therapists' adherence to the Program showed (a) a mean non-compliance of 3% among therapists and 1% among co-therapists; and (b) an inter-observer agreement of .95 for

therapists and .97 for co-therapists, both calculated based on the following algorithm: number of agreements/number of agreements + number of disagreements.

Results regarding the means (*M*) and standard deviations (*SD*) are shown in Table 4.

To analyze the effect of the therapist's competence in the interaction with the time of assessment, we conducted a mixed ANOVA, the results of which are shown in Table 5.

As shown in the pretest-posttest comparison, all the variables showed statistically significant differences, and all the effect sizes were above .10 except for the therapist's competence [F(group)] in the number of social situations feared and/or avoided (NSSFA). In addition, the eta-square value of the Program [F(time)] was always greater than that of the therapist's competence and sometimes tripled it (Pauses) or was even five times greater (NSSFA). Furthermore, the effect of the interaction reached eta-square values that were lower than those of the Program but were considerably higher than those of the therapist's competence in all cases.

At follow-up, comparisons showed statistically significant differences in all the measures of the Program, although the associated effect size ranged from an irrelevant $\eta^2 = .06$ in the SAS-A Total to 51% of the variance explained in the SAS-A Teachers. The therapist's competence also showed statistically significant differences in six of the nine dependent variables, with eta-square values ranging from an irrelevant 3.9% in the SAS-A Total to 26.1% in DEC. Yet, the effect sizes generated by the Program were always higher than those produced by the therapist's competence. The interaction effect between the Program and the therapists also showed statistically significant differences in five of the nine dependent variables, with irrelevant effect sizes in six of them; in the remaining three variables, the largest effect size was 23.3% (SAS-A Teachers).

Clinical significance was determined by the number of participants who reported a decrease in the number of social situations feared and/or avoided compared to pretest (see Table 6). We distinguished two categories: Recovery (ceasing to meet the criteria for diagnosis) and Improvement (remission between 75% and 99%).

The study of recovery showed no statistically significant differences between the three groups at posttest, although the

Table 2
Equivalence of the groups at pretest. Analyses of variance categorical variables (Chi-square tests)

| Variables | χ^2 (df = 2) | P |
|--|-------------------|-----|
| Sex | 1.001 | .61 |
| School year | 2.944 | .57 |
| Panic disorder | 0.311 | .86 |
| Agoraphobia | 0.428 | .81 |
| Avoidant personality disorder | 3.573 | .17 |
| Selective mutism | 0.097 | .95 |
| Generalized anxiety disorder | 0.473 | .79 |
| Specific phobias | 0.535 | .76 |
| Major depressive disorder | 0.874 | .65 |
| Persistent depressive disorder (Dysthymia) | 1.843 | .40 |
| Alcohol-related disorders | 0.810 | .67 |
| Cannabis-related disorders | 0.874 | .65 |

Table 3
Equivalence of the groups at pretest. One-factor ANOVA

| Variables | F(2) | p |
|------------------------------|-------|-----|
| Years | 0.104 | .75 |
| Expectations about treatment | 1.141 | .32 |
| NSSFA | 0.919 | .40 |
| DEC | 0.419 | .66 |
| PAUSES | 2.348 | .12 |
| SAS-A Total | 0.020 | .98 |
| SAS-A Parents | 2.765 | .20 |
| SAS-A Teachers | 0.540 | .59 |
| PRCS | 0.190 | .83 |
| SASI | 0.370 | .69 |
| IE | 0.230 | .80 |

Note: NSSFA = Number of social situations feared and/or avoided; DEC = Duration of Eye Contact; PAUSES = Number of pauses greater than 2 seconds during the verbal interaction; SAS-A = Social Anxiety Scale for Adolescents; PRCS = Personal Report of Confidence as a Speaker; SASI = Society and Adolescent Self-Image; IE = Inadaptation Scale

percentage of recovery among participants was much greater in the EG than in the IG. In the follow-up measures, such differences became significant at six months and consolidated at 12 months, when the number of participants who ceased to meet the criteria for diagnosis was twice as large in the EG as in the IG.

The opposite trend of significance was found in the analysis of improvement because of the large number of participants who recovered from the disorder in the EG and who did not in the IG, showing statistical significance at posttest and follow-up.

Table 4
Means and standard deviations of the anxiety measures, situational tests, and correlates

| | | WLC (n = 35) | EG (n = 38) | IG (n = 37) |
|--------------|-------------|--------------|----------------|---------------|
| | | M (SD) | M (SD) | M (SD) |
| SAS-A | | | | |
| Total | Pretest | 64.54 (5.04) | 64.26 (5.85) | 64.70 (5.80) |
| | Posttest | 68.29 (5.36) | 41.63 (7.53) | 44.54 (8.13) |
| | Follow-up 1 | | 38.47 (8.05) | 41.35 (9.26) |
| | Follow-up 2 | | 36.53 (8.22) | 40.38 (9.97) |
| Parents | Pretest | 65.31 (9.11) | 70.68 (8.57) | 64.38 (8.56) |
| | Posttest | 66.37 (8.74) | 51.63 (8.27) | 47.95 (10.93) |
| | Follow-up 1 | | 38.73 (9.39) | 45.32 (13.21) |
| | Follow-up 2 | | 32.47 (8.47) | 41.32 (13.02) |
| Teachers | Pretest | 65.51 (8.90) | 65.68 (9.24) | 62.57 (8.76) |
| | Posttest | 66.43 (8.07) | 49.32 (8.12) | 48.51 (8.65) |
| | Follow-up 1 | | 36.47 (6.49) | 42.86 (9.42) |
| | Follow-up 2 | | 30.21 (7.13) | 41.00 (9.89) |
| NSSFA | Pretest | 5.49 (2.08) | 6.16 (2.23) | 6.43 (1.98) |
| | Posttest | 5.49 (2.13) | 2.29 (2.34) | 2.11 (2.22) |
| | Follow-up 1 | | 0.74 (1.54) | 1.89 (2.16) |
| | Follow-up 2 | | 0.63 (1.15) | 1.59 (2.02) |
| PRCS | Pretest | 73.89 (8.92) | 75.58 (2.92) | 75.62 (3.81) |
| | Posttest | 72.26 (9.43) | 92.53(12.22) | 92.86 (5.48) |
| | Follow-up 1 | | 111.58 (5.45) | 105.95 (4.81) |
| | Follow-up 2 | | 116.11 (8.63) | 108.81 (5.57) |
| SASI | Pretest | 24.49 (2.87) | 25.05 (2.89) | 24.43 (1.86) |
| | Posttest | 23.37 (3.20) | 30.11 (2.84) | 27.68 (2.86) |
| | Follow-up 1 | | 30.16 (1.44) | 28.38 (1.65) |
| | Follow-up 2 | | 30.84 (1.52) | 29.70 (.84) |
| EI | Pretest | 19.94 (3.05) | 19.84 (3.17) | 20.41 (2.42) |
| | Posttest | 20.57 (2.94) | 13.53 (2.90) | 14.65 (2.21) |
| | Follow-up 1 | | 13.79 (3.02) | 14.00 (2.06) |
| | Follow-up 2 | | 11.58 (3.37) | 13.57 (2.35) |
| DEC | Pretest | 52.31 (7.58) | 52.42 (6.63) | 45.46 (9.11) |
| | Posttest | 52.08 (7.98) | 87.74 (25.97) | 60.51 (15.04) |
| | Follow-up 1 | | 91.89 (26.08) | 72.27 (19.08) |
| | Follow-up 2 | | 111.58 (19.92) | 80.48 (26.44) |
| PAUSES | Pretest | 7.23 (2.30) | 7.84 (2.06) | 7.43 (2.35) |
| | Posttest | 7.63 (2.97) | 3.89 (2.23) | 4.11 (1.48) |
| | Follow-up 1 | | 3.26 (2.27) | 3.03 (2.35) |
| | Follow-up 2 | | 1.58 (1.44) | 2.24 (1.46) |

Note: WLCG = Waiting list control group; EG = Expert group; IG = Inexperienced group; SAS-A = Social Anxiety Scale for Adolescents. Total Score; NSSFA = Number of social situations feared and/or avoided; PRCS = Personal Report of Confidence as a Speaker; SASI = Society and Adolescent Self-Image; IE = Inadaptation Scale; DEC = Duration of Eye Contact; PAUSES = Number of pauses greater than 2 seconds during the verbal interaction

Table 5
Mixed ANOVA of the anxiety measures and their correlates

| | | Pretest-posttest | | Follow-up 1 – Follow-up 2 | | |
|----------------|------------------------------|----------------------|-----|---------------------------|------|------|
| | | F | η² | F | p | η² |
| SAS-A Total | F (time) [†] | F (1, 107) = 495.204 | .82 | F (1, 73) = 4.882 | .03 | .06 |
| | F (interaction) [†] | F (2, 107) = 202.373 | .79 | F (1, 73) = 0.543 | .46 | .01 |
| | F (group) | F (2, 107) = 60.994 | .53 | F (1, 73) = 2.989 | .09 | .04 |
| Parents | F (time) [†] | F (1, 107) = 139.729 | .66 | F (1, 72) = 54.512 | .001 | .39 |
| | F (interaction) [†] | F (2, 107) = 41.819 | .53 | F (1, 72) = 6.000 | .02 | .03 |
| | F (group) | F (2, 107) = 12.948 | .17 | F (1, 72) = 13.445 | .001 | .12 |
| Teachers | F (time) [†] | F (1, 107) = 152.517 | .59 | F (1, 73) = 91.488 | .001 | .51 |
| | F (interaction) [†] | F (2, 107) = 45.323 | .46 | F (1, 73) = 1.601 | .21 | .23 |
| | F (group) | F (2, 107) = 19.229 | .26 | F (1, 73) = 13.066 | .001 | .22 |
| NSSFA | F (time) [†] | F (1, 107) = 153.697 | .59 | F (1, 73) = 8.121 | .01 | .10 |
| | F (interaction) [†] | F (2, 107) = 37.865 | .41 | F (1, 73) = 1.848 | .19 | .02 |
| | F (group) | F (2, 107) = 5.422 | .09 | F (1, 73) = 7.024 | .01 | .09 |
| PRCS | F (time) [†] | F (1, 107) = 214.499 | .67 | F (1, 73) = 47.204 | .001 | .39 |
| | F (interaction) [†] | F (2, 107) = 69.319 | .56 | F (1, 73) = 2.385 | .13 | .03 |
| | F (group) | F (2, 107) = 31.480 | .37 | F (1, 73) = 22.813 | .001 | .24 |
| SASI | F (time) [†] | F (1, 107) = 127.354 | .54 | F (1, 73) = 58.534 | .001 | .44 |
| | F (interaction) [†] | F (2, 107) = 73.488 | .58 | F (1, 73) = 5.945 | .02 | .07 |
| | F (group) | F (2, 107) = 18.711 | .26 | F (1, 73) = 24.354 | .001 | .25 |
| IE | F (time) [†] | F (1, 107) = 289.367 | .73 | F (1, 73) = 43.571 | .001 | .37 |
| | F (interaction) [†] | F (2, 107) = 96.565 | .64 | F (1, 73) = 19.721 | .001 | .21 |
| | F (group) | F (2, 107) = 19.409 | .27 | F (1, 73) = 3.299 | .07 | .04 |
| DEC | F (time) [†] | F (1, 107) = 76.079 | .49 | F (1, 73) = 54.854 | .001 | .43 |
| | F (interaction) [†] | F (2, 107) = 40.080 | .42 | F (1, 73) = 9.267 | .001 | .11 |
| | F (group) | F (2, 107) = 30.173 | .37 | F (1, 73) = 25.749 | .001 | .26 |
| PAUSES | F (time) [†] | F (1, 107) = 172.100 | .62 | F (1, 73) = 42.861 | .001 | .37 |
| | F (interaction) [†] | F (2, 107) = 7.199 | .52 | F (1, 73) = 5.705 | .02 | .07 |
| | F (group) | F (2, 107) = 99.192 | .12 | F (1, 73) = 0.383 | .54 | .001 |

Note: [†]The Greenhouse-Geisser correction was not applied as the assumption of sphericity was met. *All Fs were statistically significant at p = .001
F = F Snedecor; SAS-A = Social Anxiety Scale for Adolescents. Total Score; NSSFA = Number of social situations feared and/or avoided; PRCS = Personal Report of Confidence as a Speaker; SASI = Society and Adolescent Self-Image; IE = Inadaptation Scale; DEC = Duration of Eye Contact; PAUSES = Number of pauses greater than 2 seconds during the verbal interaction

Table 6
Results of the clinical efficacy of treatment compared to the evolution of NSSFA

| | Recovery 100% (n) | Improvement 75%-99.99% (n) |
|--------------------|--------------------------|-------------------------------|
| Post-treatment | | |
| WLCG | 0.00% (0) | 0.00% (0) |
| EG | 52.63% (20) | 15.78% (6) |
| IG | 29.72% (11) | 45.94% (17) |
| | χ²(2) = 4.627, p = .10 | χ²(2) = 23.880, p = .00 |
| 6-month follow-up | | |
| EG | 73.68% (28) | 10.52% (4) |
| IG | 45.94% (17) | 37.83% (14) |
| | χ²(1) = 6.010, p = .01 | χ²(1) = 7.666, p = .001 |
| 12-month follow-up | | |
| EG | 89.47% (34) | 10.53% (4) |
| IG | 45.94% (17) | 35.13% (13) |
| | χ²(1) = 16.323, p = .001 | χ²(1) = 3.709, p = .05 |

Note: WLCG = Waiting list control group; EG = Expert group; IG = Inexperienced group; NSSFA = Number of social situations feared and/or avoided

We must note that none of the participants reported receiving additional psychopharmacological or psychological treatment during the follow-up phase; this information was requested at each of the follow-up evaluations.

Discussion

Regarding our first objective, our results show that the effect sizes associated with the treatment Program were always higher or much higher than those of the therapist's competence in the pretest-posttest comparison (see Table 5). However, there is some evidence for the effect that can be attributed to the therapist's competence in the results of psychological treatments. In what way, the effect sizes associated with the therapist's competence also showed practical and clinical relevance given that, in all cases except for NSSFA, the eta-square was always higher than the required minimum ($\eta^2 > 0.10$). The comparison between follow-up measures also showed that the Program explained greater variance than the therapist's competence. In the pretest-posttest comparison, the Program explained more than 50% of the variance in 8 of the 9 measures, more than 60% in 5 of them, 82.2% in SAS-A Total, and 73.3% in the EI.

The relevance of the effect of the IAFS Program was also revealed by the fact that, at posttest, almost 30% of the participants treated by inexperienced therapists ceased to meet the criteria for the diagnosis of SP. This relevance was also found in the pretest-posttest comparisons regarding the self-report measures completed by participants and the social validity reported by parents and teachers, as well as in the two variables measured in the situational tests. The same applies to the magnitude of the effect size of the variables related to SASI and EI: in both, the variance explained by the Program doubled that explained by the therapist's competence. In the PRCS, the eta-square value of the Program almost doubled that of the therapist's competence as well.

In the follow-up comparisons, the variance explained by the Program in the measures of social validity (SAS-A Parents and Teachers) also doubled that of the therapist's competence. In the EI measures and Pauses, the eta-square value of the Program tripled that of the therapist's competence. In the rest of the measures, as mentioned, all the effect sizes associated with the Program were greater than those associated with the therapist's competence.

Regarding our second objective (to discuss the results in light of those reported by other researchers), our results are in line with the findings of Alarcón-Soriano (2014), Boswell et al. (2013), O' Malley et al. (1983), Kuyken & Tsivrikos (2009), Simons et al. (2010) or Wiborg, Knoop, Wensing, and Bleijenberg (2012) and differ from those reported by Gibbons et al. (2010), Shaw et al. (1999), Svartberg and Stiles (1992) or Webb et al. (2010). It should be highlighted that, in the present research, the effect attributable to the therapist's competence in the results was in the low part of the range reported by Crits-Cristoph and Mintz (1991). Nevertheless, the relevance of level of the therapist's competence should not be neglected. The results obtained by participants in the EG almost doubled those reached by the IG at posttest and the EG participants continued to improve over time much more than the IG participants (see Table 6). In fact, whereas IG participants only improved between posttest and the first follow-up (from 29.72% to 45.94% at 12 months), those in the EG continued to do so between the second and third follow-ups and eventually, they achieved 89.47% recovery from social phobia. These data are consistent with the results obtained repeatedly after application of cognitive-behavioral treatments (see, for example, Beidel, Turner, & Young, 2006; or Mörtberg, Clark, & Bejerot, 2011).

Based on all the above, it can be concluded that the present study provides quantitative data that suggest that the IAFS Program was responsible for most, but not all, of the change measured in participants the change; the effect of the therapists' competence, when controlling for knowledge of the treatment applied and adherence to it, also contributed to the change and concurs with what has been reported by Anderson, Ogles, Patterson, Lambert, and Vemeersch (2009) or Powell, Hunter, Beasley, and Vernberg (2010).

However, future studies should explore the relevance of the relationships shown by our investigation in the effect of the therapists' competence as it was operationalized, but taking these relationships with caution because of the limitations of our study. Such limitations are related to the external and internal validity of our research. Its external validity is limited by the characteristics of the sample, particularly its age range, the fact that it was a student sample, and its geographical origin. Its internal validity is limited because we did not control for escape responses of a cognitive nature that may have been occurring and by the voluntary nature of participants.

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