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Effectiveness of the program Super Skills For Life in reducing symptoms of anxiety and depression in young Spanish children

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Abstract

Background: Super Skills for Life (SSL) is a transdiagnostic prevention program designed for children with anxiety and depressive symptoms based on cognitive-behavioral therapy. This study is a trial of the efficacy of the SSL program to reduce anxiety and depression symptoms in a representative sample of Spanish children aged 6 to 8. **Method:** This cluster randomized controlled trial involved 123 Spanish-speaking children recruited from 10 schools. Schools were the unit of randomization, and were randomly assigned to one of two experimental conditions: intervention group (SSL) and waiting list control (WLC) group. Assessments were conducted before and after the 8-week intervention. **Results:** Generalized estimating equations showed that, compared with WLC, the intervention significantly reduced emotional symptoms of anxiety and depression. Significant improvements were also found in specific symptoms of anxiety disorders, and in the interference of anxiety in the child´s life. **Conclusions:** The findings of this study provide initial support for the immediate effects of SSL, suggesting that it is a valuable resource for the early reduction of anxiety and depressive symptoms in young Spanish-speaking children.

Keywords: Anxiety, depression, children, Super Skills for Life, transdiagnostic program.

Resumen

Eficacia del programa Super Skills For Life para reducir síntomas de ansiedad y depresión en niños pequeños españoles. **Antecedentes:** Super Skills for Life (SSL) es un programa de prevención transdiagnóstico diseñado para niños con síntomas de ansiedad y depresión basado en la terapia cognitivo-conductual. Se presenta un ensayo sobre la eficacia del programa SSL en la reducción de los síntomas de ansiedad y depresión en una muestra representativa de niños españoles de 6 a 8 años de edad. **Método:** este ensayo controlado aleatorio grupal incluyó a 123 niños hispanohablantes reclutados en 10 colegios. Los colegios fueron la unidad de aleatorización, siendo asignados aleatoriamente a una de dos condiciones experimentales: grupo de intervención (SSL) y grupo control (GC). Las evaluaciones se realizaron antes y después de la intervención de 8 semanas. **Resultados:** las ecuaciones de estimación generalizadas mostraron que, en comparación con el GC, la intervención redujo significativamente los síntomas emocionales de ansiedad y depresión. También se encontraron mejorías significativas en síntomas de trastornos de ansiedad específicos y en la interferencia de la ansiedad en la vida del niño. **Conclusiones:** los resultados de este estudio proporcionan apoyo inicial a los efectos inmediatos de SSL, sugiriendo que es un recurso valioso para la reducción temprana de los síntomas de ansiedad y depresión en niños pequeños hispanohablantes.

Palabras clave: ansiedad, depresión, niños, Super Skills for Life, programa transdiagnóstico.

Anxiety disorders are among the most frequent mental disorders and those with the earliest onset among children and tend to co-occur with depression, both disorders are associated with severe psychosocial impairment (Beesdo, Knappe, & Pine, 2009; Merikangas et al., 2010; Polanczyk, Salum, Sugaya, Caye, & Rohde, 2015). International literature reported high rates of comorbidity between childhood anxiety and depression disorders, ranging between 10-50% (see Garber & Weersing, 2010). In Spanish children, the estimated levels of comorbidity of anxiety and depressive symptoms (20-80%) and disorders (12-17%) are also considerable (Canals, Voltas, Hernández-Martínez, Cosi, & Arija, 2019; Romero et al., 2010). Anxiety and depression disorders also appear to interact negatively, as the presence of one may increase the symptomatology of the other (Garber & Weersing, 2010). Thus, the comorbidity of both conditions is associated with more severe symptoms, poorer treatment response, and increased risk of other problems (e.g., physical problems, suicide attempts) compared to having either an anxiety or a depressive disorder (Melton, Croarkin, Strawn, & McClintock, 2016). Additionally, symptoms of these internalizing problems appear to be present and stable in children aged 2–11 years, with symptoms increasing in late childhood if not treated (Sterba, Prinstein, & Cox, 2007). In this regard, the need for more research on prevention and early intervention programs for young children's anxiety and depression problems has been highlighted (e.g., Bayer & Beatson, 2013).

In this context and considering the supported efficacy of cognitive-behavioral therapy (CBT) in treating childhood

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anxiety and depression (Hollon, Stewart, & Strunk, 2006), there has been an increasing interest in the development of CBT-based transdiagnostic treatments addressing common factors of these comorbid disorders by applying a unified intervention protocol (Clark & Taylor, 2009), and results have been promising regarding their effectiveness (Bettis, Forehand, Sterba, Preacher, & Compas, 2016; Craske, 2012; García-Escalera, Chorot, Valiente, Reales, & Sandín, 2016). A transdiagnostic perspective focuses on the common mechanisms or processes underlying a range of specific disorders that can be contributing to their development or maintenance. Therefore, compared to specific-disorder CBT-based treatments, those relying on a transdiagnostic CBT-based approach to anxiety and depressive disorders are designed to target their commonalities (e.g., negative affectivity, negative thoughts, interpretative and attentional biases, avoidance) through a single protocol, thus allowing the treatment of participants with anxiety and/or depression in the same intervention (Craske, 2012; García-Escalera et al., 2016). This has been found to be an efficient approach, with flexibility to incorporate effective disorder-specific interventions, and easy to implement (Clark & Taylor, 2009; Craske, 2012). Therefore, the diagnostic commonalities of anxiety and depression and their shared risk factors could justify a transdiagnostic approach to prevention, which may increase the efficiency of current disorder-specific preventive interventions (Dozois, Seeds, & Collins, 2009). However, transdiagnostic prevention protocols targeting children with symptoms of anxiety and depression are still scarce, and few are available to date (e.g., García-Escalera et al., 2016; Martinsen, Kendall, Stark, & Neumer, 2016).

A recent and promising CBT-based transdiagnostic protocol is the *Super Skills for Life* (SSL) program (Essau & Ollendick, 2013), developed for children with anxiety and depressive symptoms. This targeted prevention program integrates social skills training, behavioral activation, and video-feedback with cognitive preparation as part of the intervention for the first time (Essau et al., 2014). Thus, based on its authors, the main core principles of the program involve targeting common risk factors of comorbid disorders following a transdiagnostic approach, developing children's skills to deal with anxiety situations based on the principles of CBT, and improving their mood and self-esteem following the principles of behavioral activation. The program also aims to enhance the social competence of children through the learning of social skills, and their self-perception by using video-feedback with cognitive preparation. The original study by Essau et al. (2014) provided preliminary support for the SSL applied in a school setting, demonstrating positive effects with Anglo-Saxon children aged 8-10 years with significant anxiety problems, as well as a positive impact on other symptoms such as peer problems, conduct problems, and hyperactivity. Since the original study did not use a control condition, further research is needed to determine the effectiveness of SSL to reduce the targeted emotional problems in children. However, it appears to be a short and cost-effective program.

The present study aimed to examine for the first time the immediate effectiveness of the Spanish-adapted version of the SSL in reducing anxiety and depressive symptoms in European Spanish-speaking children, aged 6-8 years, selected based on high scores on a measure of emotional symptoms (i.e., anxiety and depression), compared with a waiting list control (WLC) group. The secondary aim of this study was to evaluate whether the SSL may have immediate positive effects on secondary outcome measures such as interference of anxiety with children's and parents' life, hyperactivity, prosocial behavior, and conduct and peer problems.

Based on previous experience with SSL (Essau et al., 2014), it was hypothesized that in the short-term, there would probably be effects on anxious symptoms, but not in the scores of other secondary outcomes measured, as the original study reported either no effects (e.g., anxiety-related interference, prosocial behavior) or that effects only occurred at follow-up (e.g., hyperactivity, peer and conduct problems). Concerning symptoms of depression, this outcome was not assessed in the original SSL study. However, immediate effects were hypothesized in depression symptoms due to the effectiveness shown by the transdiagnostic CBT protocols in the pre-post reduction of anxiety and depressive symptoms, and the commonalities and co-occurrence between the two conditions (e.g., Canals et al., 2019; García-Escalera et al., 2016; Melton et al., 2016).

Method

Participants

A cluster randomized controlled trial design was used in this study, with schools being the unit of randomization, assigned to either the SSL or WLC experimental conditions. The present cluster randomized controlled trial was conducted in 2017. The study involved an incidental sample of 123 Spanish-speaking children ranging in age from 6 to 8 years (*M* age = 6.89 years, *SD* = .79; 44.7% female) and their parents. Children were enrolled in first (44.7%), second (34.1%), and third year (21.2%) of primary school at 10 schools, and were selected based on the responses of their parents to a battery of questionnaires, who voluntarily agreed to participate in the study. Participants came from families with a medium-high socio-economic level, and 98.4% were born in Spain. Out of the 12 schools invited to participate, a total of 10 were enrolled in the study, all of them from urban areas of the province of Alicante, in the southeast of Spain. Primary schools were selected based on their potential to represent the socio-economic structure of the Spanish population, with the participation of public, private, and state-assisted private schools. The schools were randomly assigned to one of the two experimental conditions: SSL (n = 5) or non-intervention WLC (n = 5). A total of 67 children (*M* age = 6.88 years, *SD* = 0.80; 50.7% female) were in the SSL group, and 56 (*M* age = 6.88 years, *SD* = 0.78; 37.5% female) in the WLC group. Table 1 shows the baseline sociodemographic characteristics of the participating children and their parents by intervention condition.

The inclusion criteria were that participants a) were between 6 and 8 years of age and Spanish-speaking, b) presented emotional symptoms based on scores equal to or greater than 4 on the emotional symptoms subscale of the Strengths and Difficulties Questionnaire-Parent version (SDQ-P; Goodman, 2001) categorized as borderline or abnormal, respectively, c) did not receive psychological or psychiatric treatment; and d) did not present developmental problems or severe learning difficulties.

Instruments

Due to self-reports tend to show good properties as of 8-9 years of age (e.g., Rapee, 2018) and the linguistic and cognitive

development level of young children may affect their accuracy, the evaluation in this study relied on parent reports, who are reliable and frequent informants of child mental health symptoms (Melton et al., 2016). Thus, parent-report measures with adequate psychometric properties were selected, including the parent version of some scales used in the original SSL study (e.g., SDQ-P) (Essau et al., 2014).

Mood and Feelings Questionnaire-Parent version (MFQ-P). The MFQ-P (Angold et al., 1995) is a unidimensional 34-item screening tool for depression in children and young people. For each item, parents rate their children's feelings and actions over the previous 2 weeks on a 3-point Likert scale: 0 (*not true*), 1 (*somewhat true*), and 2 (*true*). The MFQ-P total score is obtained by summing the scores of all items (score range: 0-68). Higher scores indicate more severe symptoms of depression. The scale yielded good criterion validity, high internal consistency (α = .96), and test-retest reliability (Daviss et al., 2006). Cronbach's α was .90 in this study.

Spence Children's Anxiety Scale-Parent version (SCAS-P). The SCAS-P (Nauta et al., 2004) is a 38-item parent-report questionnaire assessing the severity with which symptoms of several anxiety disorders are present in children aged 6–18 years. It comprises six subscales (panic attack and agoraphobia, separation anxiety, physical injury fears, social anxiety, obsessive compulsive disorder, and generalized anxiety disorder), and an overall measure of anxiety can be obtained by summing all the item scores (score range: 0-114). Parents respond to items using a 4-point rating scale, ranging from 0 (*never*) to 3 (*always*). Higher scores indicate more severe symptoms. The Spanish version of the SCAS-P showed good convergent and divergent validity, a high internal consistency coefficient (.91), and adequate test-retest reliability (Orgilés, Rodríguez-Menchón, Fernández-Martínez, Morales, & Espada, 2019). In the current study, the ordinal alpha for total score was .79, ranging from .65 (obsessive compulsive) to .82 (physical injury fears and generalized anxiety disorder) for the subscales.

Table 1
Sociodemographic characteristics of baseline participating children and their parents by intervention condition

Characteristics	SSL group (n = 67)	Control group (n = 56)	Total (N = 123)	p value
Children				
Female, *N* (%)	34 (50.7)	21 (37.5)	55 (44.7)	.14
Mean age (*SD*), years	6.88 (.80)	6.88 (.78)	6.89 (.79)	.80
6 years	25 (37.3)	21 (37.5)	46 (37.4)	
7 years	23 (34.3)	21 (37.5)	44 (35.8)	.89
8 years	19 (28.4)	14 (25)	33 (26.8)	
School grade				
1	27 (40.3)	28 (50)	55 (44.7)	
2	25 (37.3)	17 (30.4)	42 (34.1)	.55
3	15 (22.4)	11 (19.6)	26 (21.2)	
Nationality				
Spanish	65 (97)	56 (100)	121 (98.4)	.19
Other	2 (3)	0 (0)	2 (1.6)	
Mean number (*SD*) of siblings	1 (.81)	.91 (.61)	.96 (.72)	.50
Parents				
Female, *N* (%)	54 (80.6)	43 (76.8)	97 (78.9)	.60
Family situation				
Married	57 (85.1)	49 (87.5)	106 (86.2)	
Separated or divorced	9 (13.4)	7 (12.5)	16 (13)	.64
Single	1 (1.5)	0 (0)	1 (0.8)	
Education				
Primary education	16 (23.9)	7 (12.5)	23 (18.7)	
Secondary education	12 (17.9)	26 (46.4)	38 (30.9)	.003
Higher education	39 (58.2)	23 (41.1)	62 (50.4)	

Note: SSL = Super Skills for Life

Child Anxiety Life Interference Scale-Parent report (CALIS-P). The CALIS-P (Lyneham et al., 2013) is a 16-item scale assessing interference and impact associated with child anxiety on the life of children and their parents in several domains from the parents' point of view. Items are divided into three subscales: child at home, child outside home, and parent life. The CALIS-P total score is obtained by summing all item scores (range: 0-64). Items are rated on a 5-point Likert scale from 0 (*not at all*) to 4 (*a great deal*). The original version of the scale by Lyneham et al. (2013) showed good validity and test-retest reliability, and high internal consistency for mother (α = .90) and father reports (α = .88). In the current study, Cronbach's α was .91 for total score and ranging from .75 (child at home) to .87 (parent life) for the subscales.

Strengths and Difficulties Questionnaire-Parent version (SDQ-P). The SDQ-P (Goodman, 2001) is a 25-item questionnaire assessing emotional and behavioral difficulties and positive behaviors in children aged 3-16 years, and includes the five following subscales: emotional symptoms (i.e., anxiety and depressive symptoms), conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior. Items are rated from 0 (*not true*) to 2 (*certainly true*), with total scores in each subscale ranging from 0 to 10. The total difficulties score (range: 0-40) is obtained by summing all subscales scores excluding the prosocial behavior subscale. Higher scores indicate more difficulties; the prosocial subscale is interpreted inversely. Psychometric properties and internal consistency (Cronbach's alpha was .76 for the total score) of the Spanish SDQ-P were good (Rodríguez-Hernández et al., 2012). In the current study, the ordinal alpha for the total score was .74, ranging from .77 (conduct problems) to .87 (peer problems) for the subscales, except for emotional symptoms (α = .54).

Procedure

The present study was approved by the Ethics Committee of (Miguel Hernández) University (Spain). The schools distributed a letter to parents with information about the study; parents (i.e., only mother or father) who were interested accessed an online form where they completed the first evaluation of the study, which in turn served as screening. Parents were previously informed of the objectives and procedure of the research, the confidentiality of their data, and that participation was voluntary. Children who met the inclusion criteria were selected and parents were informed via e-mail. Those parents whose children were assigned to the intervention condition attended a meeting where the SSL intervention was explained and parents provided their informed consent. For both experimental conditions, fathers or mothers who had completed the first assessment (pre-test) were asked

to complete the online form again (post-test) after 8 weeks (i.e., immediately after the eight-session SSL intervention).

The eight-session SSL program was implemented weekly, with one session per week, after school hours at participants' schools as an extracurricular activity, and was facilitated by seven psychologists with a Master's degree in Psychology, mostly in therapy with children and adolescents. The facilitators completed an intensive 1-day SSL training at the authors' institution, in which the objectives and contents of each session of SSL were thoroughly reviewed. In addition, weekly follow-up facilitator meetings were held to resolve questions, deliver materials, highlight important aspects of each session, and monitor the adequacy of implementation. The facilitators also registered relevant data in each session (e.g., attendance, content covered), which enabled verifying that the program was implemented as planned. The sessions were delivered to small groups of 4 to 6 children, with one facilitator per group. There was a total of 13 groups, an average of 2.6 groups per school participating in the intervention condition.

Prior to conducting the current research, two bilingual psychologists at the authors' institution translated the original SSL program from English into European-Spanish. Subsequently, five psychologists participated in an expert focus group in order to ensure an adequate cultural adaptation of the program. Additionally, the program was pilot-tested with a focus group of six children aged 6-8 years old, participation was voluntary and parents gave their informed consent. As a result, the original content and components of the program were maintained, while slight modifications were made (e.g., names of characters, language expressions, examples, and pictures) in order to facilitate understanding and improve the adaptation to Spanish culture.

Intervention. The SSL program consists of eight weekly 45-minute sessions, which can be delivery in schools by experts. The sessions are designed for groups containing a maximum of 6 to 8 children. The intervention is provided through different activities such as simple explanations of key concepts, readings, games, role-playing, speech tasks, video-feedback with cognitive preparation, and small group or individual exercises. The main components of this program are relaxation strategies, self-monitoring, behavioral activation, cognitive reappraisal, emotional education, and training in social skills and problem solving. After each session, children are asked to do some homework to practice and reinforce what they learned in the session. A more detailed explanation of the program can be found in the original study (Essau et al., 2014).

Data analysis

The baseline equivalence between the experimental and control groups was determined using *t* Student (quantitative variables) or crosstabulation (qualitative variables). Cohen's (1988) effect size was estimated for statistically significant differences. Attrition was analyzed through logistic regression to identify the profile of participants lost to follow-up in this study (i.e., those whose parents did not complete the post-test assessment when required) from the SSL (n = 7) and WLC (n = 14) groups. Missing data at post-test in this study was due to loss to follow-up, but not to other factors (e.g., withdrawal). The effects of the SSL on the outcomes were evaluated using generalized estimating equations (GEE) adjusting for baseline measures of the outcome, variables that differed between conditions at baseline, age, gender, and clustering within school. Cluster-randomized control trials are commonly evaluated using GEE because it presents several advantages. GEE controls for correlations between responses when participants are clustered in centers, it increases the power of analyses in studies using small samples and a large number of repeated measures, it estimates changes over time in main outcomes, and it allows the use of incomplete data (e.g., follow-up assessments) without excluding the participants from the analyses (El Rafihi-Ferreira, Silvares, Asbahr, & Ollendick, 2018; Liang & Zeger, 1986).

The effectiveness of the program was tested by comparing both experimental conditions. Each variable was tested using independent analyses. Individuals were the unit of analysis, while centers were the unit of randomization. Only cases including pre- and post-test data were analyzed. Analyses were conducted using SPSS V25.

Results

Figure 1 illustrates the flow of participants during the trial. Regarding external validity, there were no differences in age (p = .42) or gender (p = .50) between participants who were lost to follow-up at post-test and those who provided the post-test evaluation data. Moreover, no differences were found in the main outcome variables, including scores on SCAS-P (p = .89), SDQ-P (p = .47), CALIS-P (p = .35), and MFQ-P (p = .68) between these groups. Regarding internal validity, statistically significant differences were found in the retention rate of children at post-test between the SSL and WLC conditions (p = .03). The retention rate was higher for the intervention group (89.6%) compared to the WLC group (75%), as shown in Figure 1. However, differences in the loss to follow-up rate between both conditions were not related to age, gender, or main outcome variables, including SCAS-P (p = .82), SDQ-P (p = .40), CALIS-P (p = .10), and MFQ-P (p = .42) scores.

On average, children's attendance to SSL sessions was high (M sessions attended = 7; SD = 1). Of the children who received the intervention, 82.1% (n = 55) attended 7 or 8 sessions (almost all or all sessions).

At baseline, the experimental and control groups were equivalent in terms of sociodemographic variables, except for parental level of study (X^2 = 11.92, p < .01). In the SSL group, there was a higher percentage of parents with higher education than in the WLC group (58.2% vs. 41.1%); whereas in the WLC group there was a higher percentage of parents with secondary education compared to the SSL group (46.4% vs. 17.9%) (Table 1). The two experimental conditions did not differ in the outcome variables in the pre-test, except for emotional symptoms (t = 2.52, p = .01, d = .51), anxiety interference at home (t = 2, p = .04; d = .40), and depressive symptomatology (t = 2.28, p = .02, d = .46). The children in the SSL group had higher scores on emotional symptoms (SDQ-P subscale), greater interference of anxiety at home (CALIS-P subscale), and greater depressive symptomatology (MFQ-P total score) than did those in the control group. Although the effect size of these differences was moderate (Cohen, 1988), the variables were controlled for in the efficacy analysis of the intervention. Regarding anxiety scores (SCAS-P total score), moderated-to-elevated mean scores were reached in both experimental conditions, although slightly higher in the SSL group (p = .20). Table 2 shows the means and standard deviations before and after the intervention by experimental condition.

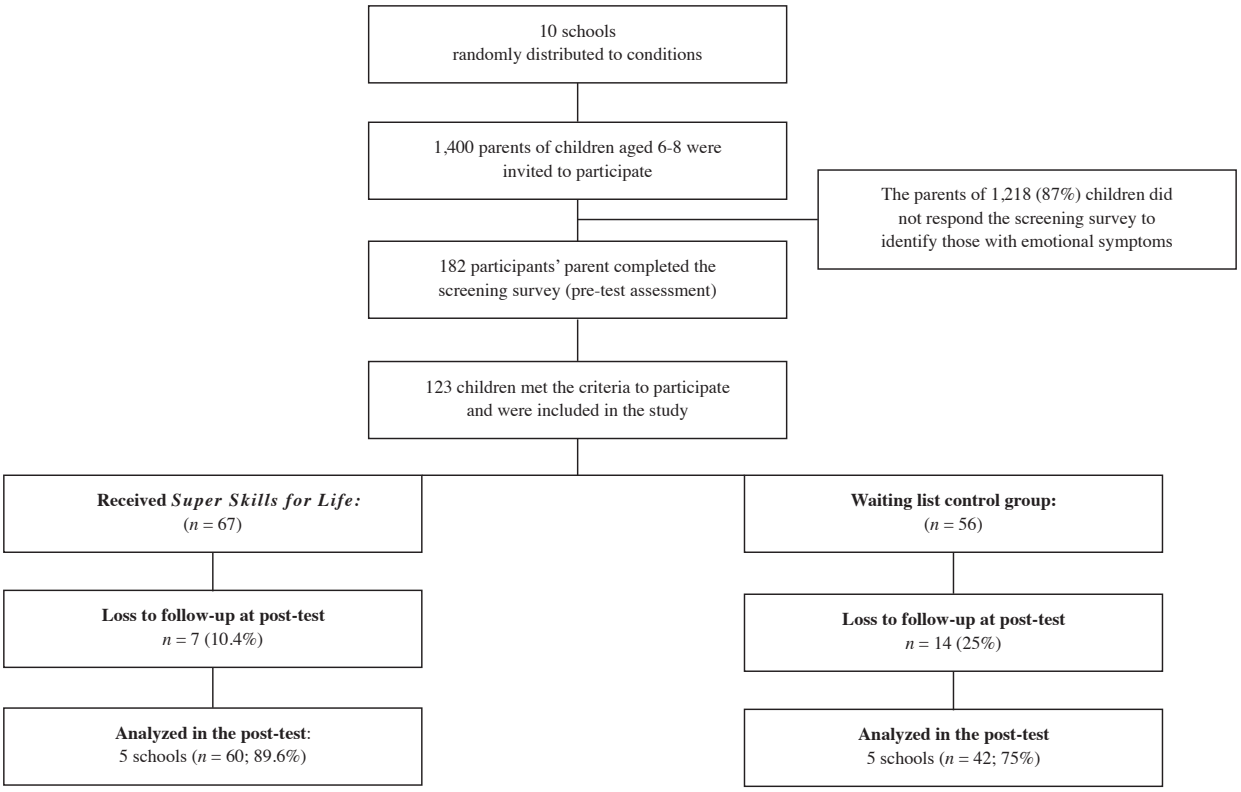

Figure 1. Progress of participating children throughout the trial

Table 2
Preintervention and Postintervention Means (SD) of the Outcomes

	SSL group		Control group	
	Pre	**Post**	**Pre**	**Post**
Anxiety (SCAS total score)	28.89 (12.96)	22.81 (13.84)	26.66 (10.38)	25.88 (12.56)
Panic/agoraphobia	1.77 (2.47)	1.41 (2.51)	1.66 (2.06)	2.07 (3.25)
Separation anxiety	7.04 (3.67)	5.28 (3.85)	6.90 (2.78)	6.02 (3.32)
Physical injury fears	4.77 (2.95)	3.70 (2.70)	4.23 (2.90)	4.64 (3.03)
Social anxiety	7.20 (3.56)	5.45 (3.25)	6.23 (3.15)	5.97 (3.22)
Obsessive compulsive	2.19 (2.45)	1.86 (2.51)	1.52 (1.51)	1.66 (1.80)
Generalized anxiety	5.89 (2.86)	5.10 (3.50)	6.09 (2.84)	5.50 (2.78)
Total difficulties (SDQ total score)	16.43 (6.58)	13.53 (6.45)	14.21 (5.85)	13.57 (7.43)
Emotional symptoms	5.31 (2.15)	3.85 (2.19)	4.33 (1.64)	4.17 (2.20)
Conduct problems	3.07 (2.11)	2.62 (1.86)	2.86 (1.71)	2.71 (2.04)
Hyperactivity/inattention	4.99 (2.74)	4.53 (2.66)	4.86 (2.63)	4.67 (3.05)
Peer problems	3.06 (2.53)	2.53 (2.25)	2.17 (2.45)	2.02 (2.32)
Prosocial behavior	7.12 (2.15)	7.47 (2.25)	7.67 (1.90)	7.57 (1.87)
Anxiety Life Interference (CALIS total score)	17.64 (12.70)	14.86 (13.31)	14.50 (9.54)	15.35 (11.42)
Outside home	5.31 (4.81)	4.31 (4.97)	4.40 (3.91)	4.57 (4.13)
At home	5.80 (3.71)	4.70 (3.55)	4.50 (2.52)	5.07 (3.31)
Parent life	6.52 (5.97)	5.85 (6.38)	5.59 (5.62)	5.71 (5.51)
Depression (MFQ total score)	13.44 (9.88)	7.43 (7.39)	9.42 (7.18)	9.45 (9.30)

Note: SSL = Super Skills for Life; CI = Confidence Interval. Higher scores denote greater symptomatology; except for Prosocial behavior

Effect of Intervention

Table 3 shows the post-intervention effects of the SSL program on the considered outcomes. After the intervention, children in the SSL group showed significantly higher reductions in scores on

Table 3
Generalized linear model-based estimates 95% Confidence Intervals (CI), and significance tests for intervention effect on the outcomes

	Estimates (95% CI)	**p value**
Anxiety (SCAS total score)	4.40 (.72, 8.08)	.01
Panic/agoraphobia	.69 (-.19, 1.57)	.12
Separation anxiety	.78 (-.21, 1.77)	.12
Physical injury fears	1.16 (.36, 1.97)	.005
Social anxiety	1.08 (.10, 2.06)	.03
Obsessive compulsive	.15 (-.43, .73)	.61
Generalized anxiety	.24 (-.50, 1)	.51
Total difficulties (SDQ total score)	1.55 (-.73, 3.83)	.18
Emotional symptoms	.85 (.009, 1.69)	.04
Conduct problems	.22 (-.36, .80)	.45
Hyperactivity/inattention	.10 (-.51, .73)	.73
Peer problems	.05 (-.70, .81)	.88
Prosocial behavior	-.17 (-.92, .57)	.64
Anxiety Life Interference (CALIS total score)	2.48 (-1.30, 6.28)	.19
Outside home	.90 (-.60, 2.42)	.24
At home	1.14 (.24, 2.04)	.01
Parent interference	.30 (-1.49, 2.09)	.74
Depression (MFQ total score)	3.94 (1.42, 6.47)	.002

measures of anxiety ($p = .01$), physical injury fears ($p < .01$), social anxiety ($p < .05$), emotional symptoms ($p < .05$), interference of anxiety at home ($p = .01$), and depression ($p < .01$) than did children of WLC group. The GEE analyses also revealed a positive impact of the SSL intervention on measures of panic/agoraphobia and separation anxiety compared to WLC group, although the effect only approached significance ($p = .12$).

Discussion

Overall, the results indicated that the intervention had a significant immediate positive impact on 6 out of 18 analyzed symptoms. Regarding the aim objective of this study, compared to the WLC group, children who participated in the SSL program showed significant reductions in symptoms of depression, anxiety, social anxiety, physical injury fears, and emotional problems (i.e., both anxiety and depression). These results confirm the hypothesis that this program could be effective in the immediate reduction (i.e., in post-intervention assessment) of anxiety and depression symptoms. These outcomes are in line with international studies that evaluated the efficacy of preventive programs for childhood anxiety and depression (e.g., Bettis et al., 2016) and found immediate effects in younger children (e.g., Essau, Conradt, Sasagawa, & Ollendick, 2012).

In addition, these findings are consistent with studies that support the efficacy of transdiagnostic interventions for anxiety and depression in children and adolescents (García-Escalera et al., 2016), and suggest the usefulness of a transdiagnostic approach for the prevention of anxiety and depression disorders (Dozois et al., 2009). It is also noteworthy that the program is effective in reducing specific symptoms such as physical injury fears, considering that specific phobias are one of the most frequent anxiety disorders in children and adolescents (Canals et al., 2019; Muris, 2017) and show the earliest onset (Beesdo et al., 2009), with some phobic fears (e.g., animals) appearing in an age range similar to that of our study participants (Rapee, 2018). Moreover, the positive impact of the SSL program on symptoms of social anxiety is consistent with those reported in the original study (Essau et al., 2014), which was particularly expected given that the SSL program has a strong component of social skills training and uses several strategies as part of the treatment that may contribute to this reduction (e.g., role-playings, speech tasks, video feedback with cognitive preparation).

Regarding the secondary objective, compared to the WLC condition, the intervention showed a significant reduction in symptoms related to the interference of anxiety with children's life at home, but not outside home. The reason for this result could be that assessments were carried out by parents. That is, children outside home spend much time in contexts where parents are not present, for example, at school; therefore, parents may not be able to observe or assess certain behavior changes properly (e.g., performance in the classroom); reports from teachers could provide more valuable information in this regard in future studies. Besides, the short 8-week period between pre- and post-test assessments could have been not long enough for parents' to perceive significant changes in the interference of their child's anxiety in different areas of their own life (e.g., work or relationships with family and friends); another explanation could be that certain parenting practices or strategies developed by parents to deal with children's anxiety (e.g., over-involvement or anxious behavior) (Beato, Pereira, & Barros, 2017) had not been yet modified over the 8 weeks, and in turn, this did not allow parents to perceive changes in their daily life.

We found no differences in other secondary measures as well. In the original study by Essau et al. (2014), improvements were found in some of these measures at 6-month follow-up compared to pre-test (i.e., conduct and peer problems, hyperactivity), as well as in other anxiety symptoms on which this study failed to find an immediate impact of the SSL program (e.g., generalized anxiety, separation anxiety). This suggests the need to track symptoms for a longer time, after which it is expected that more positive effects could be identified at follow-up, as found in similar studies (Essau et al., 2012).

Some study limitations should be considered when interpreting the results. First, the sample size in this study was small and geographically located in the Southeast of Spain. Future studies should try to replicate our results with more representative samples in order to be able generalize the findings. Second, only parent-report measures (from either mother or father) were utilized in assessments. This was due to the scarcity of measures available for younger children, a fact that other authors have highlighted, for example, with regard to anxiety measures (Rapee, 2018). Given the low-to-moderate agreement between parents and children when measuring internalizing problems, future studies should be performed following a multi-informant perspective, using measures from both parents and teachers, and appropriate self-report measures for early ages (e.g., Izquierdo-Sotorrío, Holgado-Tello, & Carrasco, 2016). Third, despite that the baseline differences between the two conditions were controlled in all analyses, the lack of balance in randomization for parental level of studies and baseline differences in the main outcomes may have influenced the results. Fourth, the control group did not receive an intervention equivalent to that implemented in the experimental group, which may have increased the effect size of the intervention according to the Hawthorne effect (McCarney et al., 2007). This study only provided results related to the immediate post-test effects of the SSL program. Future randomized controlled trials should involve follow-up assessments in order to examine the long-term effectiveness of the program. An additional line to be developed in the future would be to analyze the mediators and moderators of the effectiveness of the SSL program. Also, dismantling studies of SSL are needed in order to examine the efficacy of each component (e.g., social skills training) and whether the outcomes are equivalent to those yielded using the full program with young children.

In conclusion, despite the above-mentioned limitations, this study has some strengths that must be highlighted. First, this is the first study examining the SSL program with young Spanish-speaking children aged 6-8 years. The current research provides initial support for the immediate effectiveness of SSL in reducing internalizing symptoms of anxiety and depression, suggesting that it could be a valuable resource for researchers and clinicians. This study also extends the evidence supporting the efficacy of the SSL program by examining it for the first time with a control condition.

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