



Program assessment of “Learning to Live Together at Home”: A pilot study for parents of Early Childhood Education

**M. Carmen Pichardo Martínez¹, Alicia Benavides Nieto¹,
Miriam Romero López¹ & Trinidad García-Berbén¹**

¹ Department of Developmental & Educational Psychology,
University of Granada

Spain

Correspondence: M. Carmen Pichardo Martínez. Facultad de Ciencias de la Educación. Campus Universitario de Cartuja s/n, 18071. Granada (Spain). E-mail: pichardo@ugr.es

© Universidad de Almería and Ilustre Colegio Oficial de la Psicología de Andalucía Oriental (Spain)

Abstract

Introduction. In recent decades, several studies provide scientific evidence of the benefits of preventive family intervention in early childhood. However, in the Spanish context there is a shortage of proven effective interventions designed for this population. After carrying out a pilot intervention with the universal family program *Aprender a Convivir en Casa* [Learning to Live Together at Home - LLT], with a Spanish population, the objective of this study was to ascertain its effectiveness in developing social competency and in reducing behavioral problems in preschoolers.

Method. The sample was composed of 18 parents with children in early childhood education, from ages 3 to 5 years ($M_{age} = 4.48$ years, $SD_{age} = 0.50$), from a school in Granada (Spain). Nine parents belonged to the experimental group and nine to the control group. Sample selection was incidental nonprobabilistic. Children were assigned to the experimental group if their parents had attended more than 80% of the program sessions.

Results. The results indicate main effects of the time variable (pre-test and post-test) as well as interaction effects of the variables time x group (control and experimental) in the variables of social cooperation, social interaction and total social competency, with the experimental group obtaining higher scores in the post-test phase. Regarding behavioral problems, the results show main and interaction effects in attention problems and in externalizing behavioral problems. In the remaining variables analyzed, no main effects or interaction effects were found.

Discussion and conclusions. Intervention with families is an important protective factor in the prevention of behavioral problems. The results observed after the LLT pilot implementation were promising for the promotion of social competency and the reduction of certain behavioral problems in children from the participating families. However, there are some study limitations that must be taken into consideration.

Keywords: family intervention programs, universal intervention, validation, social competency, behavioral problems, preschool education, kindergarten.

Resumen

Introducción. Varios estudios en las últimas décadas proporcionan evidencia científica sobre los beneficios de la intervención preventiva familiar en la etapa infantil. Sin embargo, en el contexto español se observa una escasez de intervenciones dirigidas a esta población que hayan mostrado su eficacia. Llevada a cabo la intervención piloto del programa de entrenamiento familiar universal *Aprender a Convivir en Casa* (ACC) en población española, el objetivo de este estudio fue conocer su eficacia en el desarrollo de la competencia social y la reducción de problemas de conducta en preescolares.

Método. La muestra estuvo compuesta por 18 madres y padres con hijos en Educación Infantil de 3 a 5 años ($M_{edad} = 4.48$ años, $DT_{edad} = 0.50$) de un centro de Granada (España), de los cuales 9 pertenecen al grupo experimental y 9 al grupo control. La selección de la muestra fue no probabilística incidental. Los niños y niñas del grupo experimental fueron asignados a dicho grupo si las madres/padres habían asistido a más del 80% de las sesiones del programa.

Resultados. Los resultados muestran tanto efectos principales de la variable tiempo (pre-test y pos-test) como efectos de interacción entre las variables tiempo x grupo (control y experimental) en las variables cooperación social, interacción social y competencia social total, obteniendo el grupo experimental puntuaciones más elevadas en la fase pos-test. Con respecto a los problemas de conducta, los resultados muestran efectos principales y de interacción en problemas de atención y externalización de problemas. En el resto de variables analizadas no se obtienen efectos principales o de interacción.

Discusión y conclusiones. La intervención con familias es un importante factor de protección ante la prevención de problemas de conducta. Los resultados observados tras la implementación piloto del programa ACC son prometedores en el fomento de la competencia social y la reducción de algunos problemas de comportamiento en los hijos de las familias participantes. No obstante, existen algunas limitaciones del estudio que deben ser tenidas en cuenta.

Palabras Clave: programas de intervención familiar, intervención universal, validación, competencia social, problemas de conducta, Educación Infantil

Introduction

Because of their great diversity, families constitute a key factor in physical, cognitive, affective and social development in childhood. Due to its importance and complexity, the family context has been studied since the past century from different scientific approaches (Bandura, 1977; Bartau, 1999; Belsky, 1981), seeking to understand and explain the interactions that take place in this system. Because present-day society is experiencing changes in the way we live together and relate to one another, families are undergoing diverse transformations. Demands of the work environment, communication via electronic devices, and excessive stimulation are some of the causes. This reality can be observed in the family setting in long work days, in having fewer children, in family structures (single-parent, blended- and step-families), in having the first child later in life (Martínez, Álvarez, & Fernández, 2015) and in an overload of daily tasks. This situation often turns childraising into a rather complicated effort. Rarely, however, do families receive help for carrying out this childraising effort, they use trial and error strategies with their children, or they repeat the same steps that their own parents followed, expecting to have the same results. This situation can become frustrating and can trigger stressful family situations; it is important to equip families with skills and strategies that help them cope more effectively with parenting, reducing their stress and improving their security and self-efficacy, as well as fostering adequate development in their children.

Another aspect of current concern is childhood behavioral problems. In 2015, 6% of U.S. parents with children between the ages of 4 and 17 reported that their children showed serious behavioral or emotional difficulties or difficulties with concentration or in relating to other people (*Federal Interagency Forum on Child and Family Statistics*, 2017). In Europe, according to data provided by the National Institute for Health and Care Excellence (NICE, 2014), behavioral disorders and antisocial behavior are the most commonly identified mental and behavioral issues in children. Meanwhile, Spain's National Institute of Statistics (INE, 2017) recorded behavioral disorders in 20-35% of children between the ages of 0-9 years. Behavioral problems can escalate to more serious adjustment difficulties through a ripple effect extending from early childhood throughout adolescence, into drug use, sexual promiscuity or serious behavioral issues (Dishion, Forgatch, Chamberlain, & Pelham, 2016).

Furthermore, in a study by Gallagher (2008), international prevalence of child-parent violence is estimated between 10 and 18 percent. More specifically, in the Spanish context, Rechea, Fernández, and Cuervo (2008) obtained figures of 3.1% in physical violence and 12.9% in psychological violence of children toward their parents. Likewise, Calvete and Orue (2016) obtained similar results in a study indicating that 8.7% of Spanish adolescents have made repeated use of psychological violence against their parents.

In this context of transformation in the family system and of concern over childhood behavioral problems, there are different protective factors that can act as compensatory strengths for adaptation problems, such as social competency (Brennan, Shaw, Dishion, & Wilson, 2015) and adequate family management (Dishion, et al., 2016). Socioemotional competency is a demonstrated protective factor that moderates the relationship between individual risk factors and optimal development (Domitrovich, Durlak, Staley, & Weissberg, 2017). The family can promote experiences that help in the acquisition of positive social and emotional skills that are crucial for the development of adequate mental health (D'Arcy & Meng, 2014). Although Dishion and Patterson (1992) found a relationship between coercive family interactions and childhood behavioral problems, there can be noticeable improvement in family well-being by changing these family relationships (Chang, Shelleby, Shaw, Dishion, & Wilson, 2017; Proctor & Brestan-Knight, 2016).

In the field of family intervention, a great deal of research offers evidence of the importance of family preventive training through different meta-analyses of their effectiveness (Lozano-Rodríguez & Valero-Aguayo, 2017; Piquero, et al., 2016). Programs like the *Triple P-Positive Parenting Program* (Sanders & Markie-Dadds, 1996), *The Incredible Years parenting programs* (IYPP, Webster-Stratton, 1984), and the *Family Check-Up* (FCU, Dishion, Kavanagh, & Kiesner, 1999) are some examples of effective interventions that offer universal prevention for families in international contexts. These programs have obtained promising results through correlations and longitudinal studies, where experimental and control groups are compared. For example, the Triple P program shows significant improvements in childraising, parental self-esteem and a reduction in stress factors related to childraising, as well as lower rates of disruptive behaviors in the child, with pre-post effect sizes between .54 and .89 (Sanders, Kirby, Tellegen, & Day, 2014). The IYPP program, for its part, demonstrates effectiveness in dozens of randomized controlled trials, with Cohen's *d* between .51 and .81 in reducing behavioral problems in children, in interaction with parents and peers, and in in-

creased social competency and rule compliance (Webster-Stratton, Rinaldi, & Reid, 2011). Likewise, the FCU program obtained effect sizes with Cohen's d between 0.83 and 0.42 in reducing behavioral problems, according to parents and teachers (Shaw, Dishion, Supplee, Gardner, & Arnds, 2006).

In the Spanish context, although efforts are being made in working with families, systematic interventions deal with selective or specifically-indicated prevention. For this reason, recognizing the need for universal family prevention from early childhood, the program *Aprender a Convivir en Casa* [Learning to Live Together at Home (LLT)] was created. This program is designed for families with children in Early Childhood Education; its goal is to prevent the appearance of behavioral problems, juvenile delinquency and bullying, as well as to promote optimal childhood social competency and adequate family functioning and well-being.

Objectives and hypotheses

The main objective of this study was to ascertain the effectiveness of the LLT pilot program (Learning to Live Together at Home) for developing social competency and reducing behavioral problems. In this context, and based on prior empirical evidence, the children whose parents participated in the LLT pilot program (experimental group) were expected to significantly improve their social competency and significantly reduce their behavioral problems. Likewise, the children whose parents did not participate in the LLT pilot program (control group) were not expected to show significant differences between the pre-test and post-test phase in social competency or behavioral problems.

Method

Participants

Participating in the study were 18 mothers and fathers with children in early childhood education, from ages 3 to 5 years ($M_{age} = 4.48$ years, $SD_{age} = 0.50$); nine parents belonged to the experimental group and nine to the control group. The groups were matched according to the children's age and sex. The families in the experimental group received the program *Learning to Live Together at Home*; the children, however, received no direct intervention,

other than the activities that the parents were assigned to do with them as part of the intervention program. All the children were enrolled in preschool (ages 3-5) in a semi-public school in the city of Granada (Spain). This school is located within a normalized social context with a medium socioeconomic level. Incidental, non-probabilistic sampling was used in selecting the school (chosen for its willingness to participate in the program *Learning to Live Together at Home*) and for determining assignment to the experimental or control groups. Children were assigned to the experimental group if their parents had attended more than 80% of the program sessions. The boys and girls in the control group were selected randomly from among all the children in the 3- to 5- year-old groups whose families had not participated in the LLT program, but matched according to the age and sex of the children in the experimental group.

Instruments

For assessing the children’s social competency, we used the *Preschool and Kindergarten Behavior Scale-2* (PKBS-2) by Merrell (2002), adapted to Spanish by Fernández, et al. (2010). The scale contains 74 items with four alternative responses (never, almost never, sometimes, often) that are assigned by parents and teachers to rate the children’s behavior. The general scale is divided into two more specific scales that assess social skills and behavioral problems. For this study, we used only the social skills scale, which describes positive or adaptive behaviors that allow optimal personal and social development, through the following subscales: Social cooperation (e.g. “respects the rules”), Social interaction (e.g. “asks an adult for help when needed”) and Social independence (e.g. “tries to do the task before asking for help”). Internal consistency (Cronbach alpha) for this study sample was .84 for social cooperation, .92 for social interaction, .89 for social independence and .90 for total social competence (obtained from the sum of the three previous subscales).

Assessment of behavioral problems in Early Childhood Education was carried out using the *Caregiver-Teacher Report Form* (C-TRF) by Achenbach and Rescorla (2000). This instrument uses 100 items to assess behavioral problems presented by a child in Early Childhood Education. The responses range from 0 (not true) to 2 (often, quite a bit). It is divided into different subscales: Emotional Reactivity (e.g. “sudden changes in mood or feelings”), Anxiety-depression (e.g. “too dependent or attached to adults”), Somatic complaints (e.g. “stomach ache or cramps - with no medical reason”), Shyness (“avoids looking people in the eye”), Attention problems (e.g. “goes quickly from one activity to another”), Aggressive/disruptive behavior (e.g. “makes fun of others or bothers other people a lot”) and Other

problems. The variables may in turn be grouped into two more general scales: Internalizing problems (32 items, including Emotional Reactivity, Anxiety-depression, Somatic complaints and Shyness) and Externalizing problems (34 items, including Attention problems and Aggressive/disruptive behavior). The internal consistency coefficients for each factor were as follows: Emotional Reactivity .70; Anxiety-depression .71; Somatic complaints .49; Shyness .83; Attention problems .82, Aggressive behavior .94, internalizing problems .83 and externalizing problems .91. The factor “Other problems” (34 items) was not used for the present study.

Pilot program *Learning to Live Together at Home*. This family training program consists of 10 sessions, containing 3 content units, for equipping the participating parents with parenting strategies that will build a family climate of trust, safety, cohesion and participation. The content units are as follows: I) Getting to know our children; II) Encouraging certain behaviors; and III) Maintaining good behavior and solving conflicts. Some of the topic areas included in the three units relate to characteristics of child development, assertive communication, parenting styles and their consequences, functional analysis of behavior, conflict resolution, relaxation techniques and self-control. These content areas are addressed over ten 90-minute sessions, using a group methodology that encourages debate and directed discussion, small-group work, role-play and joint reflection. After completing each session, the mothers and fathers must carry out a number of tasks at home, some of which they must do alone and some in interaction with their children, in order to put into practice the strategies learned and generalize them to real contexts. These experiences are reported at the beginning of the following session, becoming a source for learning and discussion for the whole group of participating parents.

Procedure

In order to carry out the present study, we first requested the necessary permissions from the Granada Educational Authority and from the participating school. Once obtained, informed consent was requested from the families with children in preschool (ages 3-5). Next, after obtaining the pertinent permissions and consent, the program was made available to all the fathers and mothers who had given consent, and was launched with 20 participating parents. Before beginning the first session, the children’s teachers conducted a pre-intervention assessment of social competency and behavioral problems with all the boys and girls in Early Childhood Education. Following this, one of the researchers implemented the LLT program,

holding 90-minute sessions at 15-day intervals, for a total of ten sessions running from January to May, in one of the school’s meeting rooms. After program implementation was complete, the teachers conducted a post-assessment of all the boys and girls, measuring the same variables that had been assessed in the pre-intervention phase. In order to be counted in the experimental group, the fathers and mothers had to have participated in at least 80% of the program sessions, leaving only 9 participants of the original 20. From among all the boys and girls whose parents did not participate, 9 boys and girls were randomly selected to be assigned to the control group, controlling for variables of age and sex. The fathers and mothers in the control group did not receive any type of intervention.

Data analyses

Based on the research objectives, the methodology used was quasi-experimental, with two groups (experimental-control) and two assessment times (pre-post).

At Time 1, normality was verified by Kolmogorov-Smirnov scores and was confirmed in the different variables analyzed, such that parametric tests were used. Mixed repeated-measures ANOVAs were carried out for the two assessment times (pre-post assessment) and for the two groups under analysis (control and experimental) for each of the variables of social competence and behavioral problems. Additionally, a *t* test for related samples was conducted in order to verify whether there were differences between pre-test and post-test measures of the study variables, in both the control group and the experimental group. For the between-group comparison, more adequate tests were used, according to variance homogeneity.

Effect size was estimated using the eta-squared test and Cohen’s *d* statistic, the latter being used extensively in the field of education (McMillan & Foley, 2011). For interpretation purposes, Cohen (1988) established large effects ($d \geq .80$), moderate effects ($.50 \leq d \leq .79$) and small effects ($.20 \leq d \leq .49$).

The different analyses were carried out using the Statistical Package for the Social Sciences (SPSS), version 20.0 for Macintosh.

Results

Social competency

Regarding social competency, the data analyses show main effects of the time variable (pre-test and post-test) in the variables of social cooperation ($F_{(16)}=7.19, p=.016$), social interaction ($F_{(16)}=11.58, p=.004$) and total social competency ($F_{(16)}= 11.33, p=.004$), where higher scores were obtained in the post-test phase. Likewise, there were group-by-time interaction effects (experimental vs. control, pre vs. post), see Figures 1, 2 and 4, for the variables of social cooperation ($F_{(16)}=5.15, p=.037$), social interaction ($F_{(16)}=6.22, p=.024$) and total social competence ($F_{(16)}=4.69, p=.046$). In other words, the subjects of the two conditions did not behave similarly at the two assessment times. The subjects of the experimental group obtained significantly higher scores in the post-test phase than the subjects in the control group, in social cooperation, social interaction and total social competency. Effect sizes were $d=1.21$ in social cooperation, $d=2.03$ in social interaction and $d=1.56$ in total social competency.

Intra-group comparisons between the pre-test and post-test phases indicate that the subjects of the experimental group obtained significantly higher scores in social cooperation ($t_{(8)}=2.60, p=.032$), social interaction ($t_{(8)}=3.25, p=.012$) and total social competency ($t_{(8)}=3.18, p=.013$) in the post-test phase than in the pre-test phase. By contrast, the subjects of the control group obtained similar scores in both phases, in social cooperation ($t_{(8)}=0.69, p=.512$), social interaction ($t_{(8)}=1.08, p=.312$) and total social competency ($t_{(8)}=1.21, p=.258$).

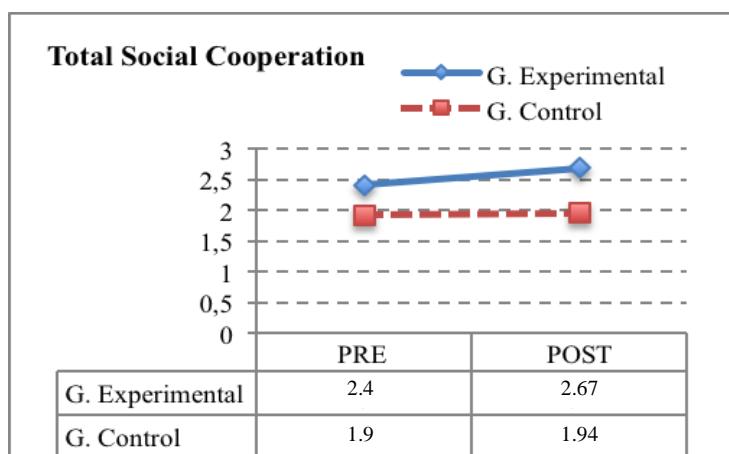


Figure 1. Total Social Cooperation. Mean scores from the control and experimental groups in the pre-test and post-test phases.

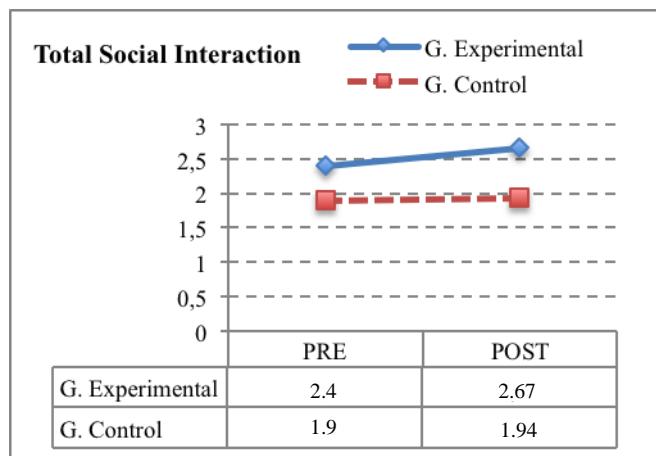


Figure 2. Total Social Interaction. Mean scores from the control and experimental groups, in the pre-test and post-test phases.

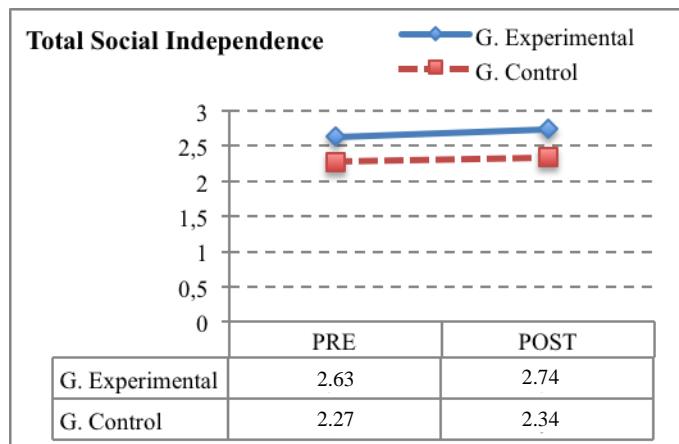


Figure 3. Total Social Independence. Mean scores from the control and experimental groups, in the pre-test and post-test phases.

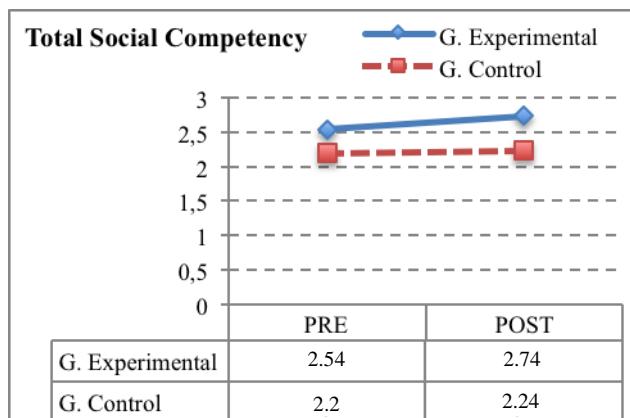


Figure 4. Total Social Competency. Mean scores from the control and experimental groups, in the pre-test and post-test phases.

There were no main effects ($F_{(16)}= 4.29, p=.055$) or interaction effects ($F_{(16)}=0.21, p=.651$) in the variable Social independence, nor were there any significant differences between the pre-test and post-test phases in the experimental and control groups (Figure 3).

Behavioral problems

Regarding behavioral problems, as seen in Table 2, the results show main and interaction effects in attention problems and in externalizing behavioral problems. In both variables, subjects from the experimental group showed a reduction in scores from the pre-test to the post-test phase (See Table 1). Moreover, subjects from the experimental group obtained lower scores in the post-test phase than did the control group subjects, in both variables. Effect sizes were 0.59 in attention problems and 0.57 in externalizing problems.

Table 1. Means and standard deviations of the behavioral problems variables

	Experimental		Control	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Emotional Reactivity	Pre	0.25	0.33	0.17
	Post	0.16	0.22	0.19
Anxiety-depression	Pre	0.43	0.46	0.37
	Post	0.33	0.46	0.33
Somatic complaints	Pre	0.17	0.27	0.13
	Post	0.14	0.25	0.13
Shyness	Pre	0.33	0.28	0.43
	Post	0.26	0.24	0.42
Attention problems	Pre	0.27	0.27	0.35
	Post	0.14	0.15	0.35
Aggressive behavior	Pre	0.24	0.37	0.17
	Post	0.08	0.14	0.16
Internalizing problems	Pre	0.30	0.30	0.28
	Post	0.22	0.24	0.27
Externalizing problems	Pre	0.26	0.27	0.26
	Post	0.10	0.12	0.25

When we observe the intra-group comparisons of pre- and post-assessments for each of the variables, the subjects of the experimental group significantly reduced their scores in attention problems ($t_{(8)}=2.82, p=.023$) and in externalizing problems ($t_{(8)}=2.58, p=.032$) in the post-assessment phase. By contrast, significant differences were not obtained for the remaining variables analyzed: Emotional Reactivity ($t_{(8)}=1.41, p=.195$), Anxiety-depression ($t_{(8)}=1.67, p=.133$), Somatic complaints ($t_{(8)}=1.00, p=.347$), Shyness ($t_{(8)}=0.91, p=.385$), Aggressive behavior ($t_{(8)}=1.94, p=.088$) and internalizing problems ($t_{(8)}=1.56, p=.158$). In the case of the control group, there were no significant differences between scores from the two assessment phases in any of the variables analyzed.

Table 2. Effect size, main effects and interaction effects between the variables Time (pre-post) and Condition (experimental-control)

	Time		Time * Condition		
	F	p	F	p	d
Emotional Reactivity	1.18	.294	2.31	.148	.15
Anxiety-depression	3.01	.102	0.48	.498	0
Somatic complaints	1.00	.332	1.00	.332	.05
Shyness	0.81	.382	0.45	.510	0
Attention problems	5.50	.032	5.50	.032	.59
Aggressive behavior	3.79	.069	3.39	.084	.38
Internalizing problems	2.44	.138	1.49	.240	.28
Externalizing problems	5.89	.027	5.55	.032	.57

Discussion and Conclusions

Having established the importance of intervening with families from early childhood, in order to prevent and reduce behavioral problems as well as to improve the family climate (Piquero, et al., 2016; Proctor & Brestan- Knight, 2016), the results of the present study on the effects of the pilot program *Learning to Live Together at Home* suggest improvement in social competency and a decrease in externalizing problems in preschool children whose mothers and fathers participated in the program.

The children of parents who participated in the LTT pilot program, where different parenting skills were worked on during ten sessions, reflected better social skills than those whose parents did not participate. More specifically, they improved in skills related to cooperation and help in everyday activities, self-controlled behavior, rule following and ability to interact with others. As expected, there were higher scores in these skills in the children from families in the experimental group, with a high effect size in all social competence variables that were significant. By contrast, the program seemed to have less effect on the social independence of the participating children, that is, in their capacity for being autonomous from peers or adults. This may be understandable considering the children’s age. In early childhood, it is fundamental that the child accept the figure of parents and teachers, perceiving them as models (Bandura, 1989) without morally reappraising their action (Kholberg, 1981); it is thus more complicated to attain a high level of independence from their attachment figures. The results found in this study follow the line of other similar family intervention programs. Such is the case of *The Incredible Years* program, which has demonstrated its efficacy in improving social competency in the children of participating parents, whether applied in

risk contexts or in normalized contexts (Ferguson, Stanley, & Horwood, 2009; Webster-Stratton & Reid, 2010; Webster-Stratton, Reid, & Beauchaine, 2011).

Shifting our attention to behavioral problems, the results show that the boys and girls in the experimental group obtained lower scores in externalizing problems after their mothers and fathers participated in the LLT intervention program, concurring with the meta-analysis by Lozano-Rodríguez and Valero-Aguayo (2017) on the effectiveness of family intervention programs. Specifically, the boys and girls whose parents participated in the intervention program significantly reduced their attention problems. Different studies that have used a family intervention for reducing attention problems from an early age have proven to be effective. After Rimestad, Trillingsgaard, o'Toole, and Hougaard (2017) applied *The Incredible Years* intervention programs with parents and teachers (combined intervention), they found that both programs were effecting for reducing attention problems in a sample of 64 children with ADHD, between the ages of 3 and 8. The authors concluded that both programs were effective for reducing attention problems in these children, with no significant difference in results between the program which addressed only fathers and mothers, and the program that also combined intervention with the children in class. Likewise, Webster-Stratton, Reid, and Beauchaine (2011) found similar results in a sample of boys and girls with ADHD between the ages of 4 and 6, after applying the combined training program for parents and children at school. Both mothers and fathers reported beneficial program effects on externalization, hyperactivity, inattentive behaviors, regulation of emotions and social competency. At the school, the teachers reported significant improvement in externalization behaviors. The children's peers, for their part, indicated improved interaction with these classmates and in their social competency in general.

In the variables that make up internalizing behavioral problems, scores from the experimental group were found to decrease from the pre-assessment to the post-assessment, although intergroup differences were not significant. These results are similar to those found by Morawska, Tometzki, and Sander (2014) when evaluating program effectiveness of the *Triple P-Positive Parenting Program*, with parents of children whose mean age was 5 years. The parents were shown to significantly improve in parenting style and self-confidence. However, their children did not improve in emotional adjustment in comparison to the control group.

Finally, as expected, the children whose parents did not participate in the program (control group) did not show significant differences between the pre-assessment and post-assessment in social competency or in behavioral problems.

These data suggest that the LLT program may be effective for helping parents to foster social skills in their children, encourage autonomy, control their negative behavior and maintain or promote their children’s good behavior. These results reinforce the results of other researchers such as Brennan, et al. (2015) and Bornstein, Hahn, and Haynes (2010), where childhood social competency is shown to have a predictive role in the appearance of behavioral problems *a posteriori*. Social competency is understood as a protective factor that can be fostered in children from an early age as an effective way to encourage a positive developmental course, as compared to behavioral problems like aggressiveness or negativism (Betina, 2010).

Although the data gathered from this study is promising, certain limitations must be taken into account concerning the participation commitment that is required from families and participating schools. We observe in our sample size how the 20 potential participants who started the program ended up becoming a sample of nine. We suggest putting into effect a commitment and support plan for families and for participating schools in order to extend this type of intervention to more subjects.

It is interesting to note that, after program participation, no significant differences were found between the two groups in certain variables analyzed, such as aggressive conduct (even though scores from the control group children were higher than those of the experimental group in the constructs of externalizing and internalizing problems). These results make us cautious in establishing the effects of the LLT program on reducing behavioral problems in children, especially when there is no history of prior behavioral problems. It would be interesting to implement the LLT program with mothers and fathers of children who present behavioral problems in order to verify whether the program is effective for this type of risk population. Likewise, it would be interesting to use systematic observation in natural situations in order to observe these children’s evolution, and so avoid the use of third-party informants.

On the other hand, longitudinal studies such as those carried out by Chang, et al. (2017) would seem necessary in order to observe whether the LLT family intervention program can prevent future behavioral problems.

Acknowledgments

Research carried out thanks to the Project entitled “The *Aprender a convivir en casa* Program [Learning to Live Together at Home] and its influence on improving social competency and reducing behavioral problems” (EDU2013-41054-P), sponsored by the Ministry of Economics and Competitiveness.

References

- Achenbach, T. M., & Rescorla, L. (2000). *Manual for the ASEBA preschool forms & profiles: an integrated system of multi-informant assessment*. Burlington, VT: ASEBA.
- Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1989). Social cognitive theory. In R. Vasta (ed.), *Annals of Child Development*. Greenwich, CT: JAI Press.
- Bartau, I. (1999). *Orientación familiar*. [Family guidance] Teaching project. Universidad del País Vasco: Facultad de Filosofía y Ciencias de la Educación.
- Belsky, J. (1981). Early human experience: A family perspective. *Developmental Psychology, 17*, 3-23. <https://doi.org/10.1037/0012-1649.17.1.3>.
- Betina, A. (2010). Las habilidades sociales como recursos para el desarrollo de fortalezas en la infancia. Psicodebate. [Social skills as resources for developing strengths in childhood. Psychology debate.] *Psicología, Cultura y Sociedad, 10*, 231-248. <https://doi.org/10.18682/pd.v10i0.398>.
- Bornstein, M.H., Hahn, C.S., & Haynes, O.M. (2010). Social competence, externalizing, and internalizing behavioral adjustment from early childhood through early adolescence: Developmental cascades. *Development and Psychopathology, 22*(4), 717-735. <https://doi.org/10.1017/S0954579410000416>.
- Brennan, L. M., Shaw, D. S., Dishion, T. J., & Wilson, M. N. (2015). The predictive utility of early childhood disruptive behaviors for school-age social functioning. *Journal of abnormal child psychology, 43*(6), 1187-1199. <https://doi.org/10.1007/s10802-014-9967-5>.

- Calvete, E., & Orue, I. (2016). Violencia filio-parental: frecuencia y razones para las agresiones contra padres y madres. [Parent-child violence: frequency and reasons for aggression against fathers and mothers.] *Psicología Conductual*, 24(3), 481-495.
- Chang, H., Shaw, D. S., Shelleby, E. C., Dishion, T. J., & Wilson, M. N. (2017). The Long-Term Effectiveness of the Family Check-up on Peer Preference: Parent-Child Interaction and Child Effortful Control as Sequential Mediators. *Journal of abnormal child psychology*, 45(4), 705-717. <https://doi.org/10.1007/s10802-016-0198-9>.
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences. Hillsdale. NJ: Lawrence Earlbaum Associates.
- D'Arcy, C., & Meng, X. (2014). Prevention of common mental disorders: conceptual framework and effective interventions. *Current opinion in psychiatry*, 27(4), 294-301. <https://doi.org/10.1097/YCO.0000000000000076>.
- Dishion, T. J., & Patterson, G. R. (1992). Age effects in parent training outcome. *Behavior Therapy*, 23(4), 719-729.
- Dishion, T.J., Forgatch, M., Chamberlain, P., & Pelham, W. E. (2016). The Oregon model of behavior family therapy: From intervention design to promoting large-scale system change. *Behavior therapy*, 47(6), 812-837. <https://doi.org/10.1016/j.beth.2016.02.002>.
- Dishion, T.J., Kavanagh, K., & Kiesner, J. (1999). Prevention of early adolescent substance use among high-risk youth: A multiple gating approach to parent intervention (208–228). In R.S. Ashery (Ed.), *Research meeting on drug abuse prevention through family interventions*. Washington, DC: Government Printing Office.
- Domitrovich, C. E., Durlak, J. A., Staley, K. C., & Weissberg, R. P. (2017). Social-Emotional Competence: An Essential Factor for Promoting Positive Adjustment and Reducing Risk in School Children. *Child Development*, 88(2), 408-416. <https://doi.org/10.1111/cdev.12739>.
- Federal Interagency Forum on Child and Family Statistics (2017). *America's Children: Key National Indicators of Well-Being*. Washington, DC: U.S. Government Printing Office.
- Ferguson, D., Stanley, L., Horwood, L.J. (2009). Preliminary Data on the Efficacy of the Incredible Years Basic Parent Programme in New Zealand. *Australian & New Zealand Journal of Psychiatry*, 43, 76-79.
- Fernández, M., Benítez, J. L., Pichardo, M., Fernández, E., Justicia, F., García, T., ... & Alba, G. (2010). Confirmatory Factor Analysis of the PKBS-2 subscales for assessing social

- skills and behavior in problems in Early Childhood Education. *Electronic Journal of Research in Educational Psychology*, 8(22), 1229-1252.
- Gallagher, E. (2008). *Children's violence to parents: a critical literature review*. Master thesis. Melbourne, Australia: Monash University. Retrieved from <http://web.aanet.com.au/eddiegallagher/Violence%20to%20Parents%20-%20Gallagher%202008.pdf>
- Instituto Nacional de Estadística (2017). Problemas o enfermedades crónicas o de larga evolución padecidas en los últimos 12 meses y diagnosticadas por un médico en población infantil según sexo y grupo de edad. Población de 0 a 14 años. Coeficiente de variación. [Long-lasting problems or chronic illnesses suffered in the past 12 months and diagnosed by a medical doctor in a childhood population, according to sex and age group. Population from ages 0-14. Variation coefficient.] Spain: INE. Retrieved from <http://www.ine.es/jaxi/Datos.htm?path=/t15/p419/a2011/p07/10/&file=07006.px>
- Kohlberg, L. (1981). *The philosophy of moral development, moral stages and the idea of justice*. San Francisco: Harper & Row Pubs.
- Lozano-Rodríguez, I., & Valero-Aguayo, L. (2017). Una revisión sistemática de la eficacia de los programas de entrenamiento a padres. [A systematic review of the efficacy of parental training programs] *Revista de Psicología Clínica con Niños y Adolescentes* 4(2), 85-91.
- Martínez, M. de C., Álvarez, B., & Fernández, A. P. (2015). *Orientación familiar: Contextos, evaluación e intervención*. [Family guidance: contexts, assessment and intervention] Madrid: Sanz y Torres.
- McMillan, J.H., y Foley, J. (2011). Reporting and discussing effect size: Still the road less traveled. *Practical Assessment, Research and Evaluation*, 16(14), 1–12.
- Merrell, K. W. (2002). *Preschool and Kindergarten Behavior Scales*. Proed: Texas.
- Morawska, A., Tometzki, H., & Sander, M.R. (2014). An Evaluation of the Efficacy of a Triple P-Positive Parenting Program Podcast Series. *Journal of Developmental & Behavior Pediatrics*, 35(2), 128-137. <https://doi.org/10.1097/DBP.0000000000000020>
- National Institute for Clinical Excellence. (2014). *Antisocial behaviour and conduct disorders in children and young people*. London: NICE.
- Piquero, A. R., Jennings, W. G., Diamond, B., Farrington, D. P., Tremblay, R. E., Welsh, B. C., & Gonzalez, J. M. R. (2016). A meta-analysis update on the effects of early family/parent training programs on antisocial behavior and delinquency. *Journal of Experimental Criminology*, 12(2), 229-248. <https://doi.org/10.1007/s11292-016-9256-0>.

- Proctor, K. B., & Brestan-Knight, E. (2016). Evaluating the use of assessment paradigms for preventive interventions: A review of the Triple P-Positive Parenting Program. *Children and Youth Services Review*, 62, 72-82. <https://doi.org/10.1016/j.childyouth.2016.01.018>.
- Rechea, C., Fernández, E. & Cuervo A. L. (2008). Menores agresores en el ámbito familiar. [Aggressive minors in the family context.] *Centro de Investigación en Criminología, Informe*, 15, 1-80.
- Rimestad, M.L., Trillingsgaard, T., O’Toole, M.S., & Hougaard, E. (2017). Combining Parent and Teacher Training for Early ADHD: A Randomized Study of Effectiveness. *Journal of Child and Family Studies*, 21. <https://doi.org/10.1007/s10826-017-0982-3>
- Sanders, M. R., Kirby, J. N., Tellegen, C. L., & Day, J. J. (2014). The Triple P-Positive Parenting Program: A systematic review and meta-analysis of a multi-level system of parenting support. *Clinical Psychology Review*, 34, 337–357. <https://doi.org/10.1016/j.cpr.2014.04.003>
- Sanders, M. R., & Markie-Dadds, C. (1996). Triple P: A multi-level family intervention program for children with disruptive behaviour disorders. In P. Cotton & H. Jackson (Eds.), *Early intervention and prevention in mental health* (pp. 59-85). Melbourne, Victoria: Australian Psychological Society.
- Shaw, D. S., Dishion, T. J., Supplee, L., Gardner, F., & Arnds, K. (2006). Randomized trial of a family-centered approach to the prevention of early conduct problems: 2-year effects of the family check-up in early childhood. *Journal of consulting and clinical psychology*, 74(1), 1-9. <https://doi.org/10.1037/0022-006X.74.1.1>.
- Webster-Stratton, C. (1984). *The Incredible Years parent training manual: BASIC program*. 1411 8th Avenue West, Seattle, WA 98119, USA: The Incredible Years Training Series.
- Webster-Stratton, C., Reid, J. M., & Beauchaine, T. (2011). Combining Parent and Child Training for Young Children with ADHD. *Journal of Clinical Child & Adolescent Psychology*, 40, 2, 191-203. <https://doi.org/10.1080/15374416.2011.546044>
- Webster-Stratton, C. & Reid, J.M. (2010). Adapting The Incredible Years, an evidence-based parenting programme, for families involved in the child welfare system. *Journal of Children's Services*, 5 (1), 25-42. <https://doi.org/10.5042/jcs.2010.0115>

Webster-Stratton, C., Rinaldi, J., & Reid, J. M. (2011). Long-term outcomes of Incredible Years Parenting Program: Predictors of adolescent adjustment. *Child and Adolescent Mental Health*, 16(1), 38-46. <https://doi.org/10.1111/j.1475-3588.2010.00576.x>.

Received: 03-Feb-2018

Accepted: 21-Sep-2018