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Does father's presence make a difference in parenting training?

The case of the Incredible Years

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Declaration of Conflicting Interests

The authors declare that they have no conflict of interests with respect to the present paper research.

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Abstract

Background: Fathers have received little attention in research about parent training and there is lack of evidence regarding the importance of their inclusion.

Objective: This study examines the impact of fathers' involvement in the Incredible Years Program (IY) on mother and child outcomes. *Method:* Fifty-five families (with preschool children) participated in the study: 24 mothers with partners (MWP) and 31 mothers alone (MA). Data on child's and mothers variables were collected before the intervention and at a 12 month follow-up. *Results:* Both groups showed improvements in all the assessed variables. Significant differences in the amount of change between the groups were found for mothers' perception of the children behavior problems in the PACS interview, which is higher for the MA condition. High levels of mothers' acceptance and satisfaction with the intervention were found in both groups. *Conclusions:* Findings suggest that the program is equally effective when mothers attend the group alone or with their partner.

Key-Words: Behavior problems; fathers' involvement; Incredible Years Parent Training; maternal outcomes; preschoolers

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Introduction

Oppositional/Defiant Disorder is characterized by a recurrent pattern of negativistic, defiant, disobedient and hostile behavior toward authoritarian figures (DSM IV TR) and, along with Attention Deficit/Hyperactivity Disorder (AD/HD), is one of the major problems confronting the child mental health services.

Based on the premise that young children exhibiting oppositional and defiant behaviors can overcome them in the context of a positive family context, which can serve as a positive model and allow parents to use less coercive and more positive parenting strategies (Campbell, Shaw & Gilliom, 2000), a range of interventions have been developed, in particular, behavior-based parenting skills interventions which have been adopted to improve the quality of parenting and thus the outcomes for the child (Webster-Stratton, Reid, & Hammond, 2004). These interventions have strong empirical support and research has shown that they diminish harsh and inconsistent parenting, increasing positive parenting (Hutchings et al., 2007; McMahon, 2006) and help reduce and prevent children's behavioral problems. Moreover, research has also shown that other variables implicated in the development of child behavior problems, such as maternal depression (Hutchings, Lane & Kelly, 2004) and couples' conflicts/difficulties (Katz & Gottman, 1994), can also be improved with parent training programs. In fact, a number of studies report gains in maternal depressive symptoms and improvements in marital conflict after parent training (Hutchings et al., 2007), mainly as a result of training in problem solving and communication skills (Webster-Stratton & Hammond, 1999).

Despite the evidence for the effectiveness of parent training with mothers, the importance of fathers' inclusion in these programs has received little attention. Although the time that fathers spend taking care of their children has risen significantly in the last

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decades (Coyl-Shepherd & Newland, 2013) and their importance in child development has been well documented in different studies (for a review see Lamb, 2010) most research in this area has been conducted on mothers. Moreover, research on father-related outcomes for parenting training presents mixed results: some studies (e.g, Webster-Stratton, 1985) suggest that the father's involvement in parent training may lead to more durable effects, while others suggest that the father's involvement in behavioral parenting programs along with mothers did not result in significant improvements in fathers' or children's outcomes when compared to mothers who attended training alone (Firestone, Kelley, & Kike, 1980). Therefore, it is important to understand the benefits derived from the inclusion of the father in parental training in order to help practitioners determine what efforts they should make in order to achieve that goal.

The Incredible Years Parent Training (Webster-Stratton, 2011), an evidence-based behavioral PT (<http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=311>) and 'promising' program according to Blueprints criteria (<http://www.blueprintsprograms.com/factSheet.php?pid=7719a1c782a1ba91c031a682a0a2f8658209adbf>) for children between 3 and 8 years old with behavioral problems, was selected for this study. The IY group intervention is based on social learning and operant condition theories (Webster-Stratton, 2001) and focuses on developing positive parent-child interactions and supportive parenting approaches, and on promoting children's social-emotional regulation skills through parenting.

The IY has been already translated and implemented in Portugal (see Webster-Stratton et al., 2012, for a review), and evaluated in a community sample of socio-economically disadvantaged families and in a sample with children with ADHD behaviors, with results

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showing significant changes in positive parenting practices and in mothers' and teachers' reports of children's AD/HD behaviors (e.g., Authors, 2013; Cabral et al., 2009/2010).

This paper reports on a specific subsample of preschool-age children with oppositional behaviors from a main RCT, the first to be conducted in Portugal using an evidence-based program. Based on the assumption that the inclusion of fathers in treatment will improve treatment outcome (Bagner & Eyberg, 2003), the main purpose of this study is to examine the effects of fathers' involvement on the long-term outcomes of the IY. Specifically, this paper aims to explore differences in 12-month change between two groups of Portuguese mothers of preschoolers: mothers who attended the IY group with their partners and mothers who attended the IY group alone. Long-term change in this study analysis was defined as the difference in children and mothers' outcome measures from pre- to 12-month follow-up assessments. Further exploratory analyses were conducted to investigate group differences regarding the IY overall program satisfaction.

Methods

Study Participants and Procedures

Fifty-five families participated in this study, drawn from an existing longitudinal main randomized control trial which tested the effectiveness of the IY in Portuguese preschoolers at risk for disruptive behaviors (Authors et al., 2012). Of the 197 families who met SDQ criteria, i.e. scoring equal or above the Portuguese borderline cut-off levels (Abreu-Lima et al. 2010) on the Conduct (≥ 5) or the Hyperactivity Scale (≥ 7) of the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 2001), 49 declined to participate in the project and eight met exclusion criteria: (1) children with a diagnosis of neurological or developmental disorder (e.g., autism) or severe developmental delay; (2) children undergoing pharmacological or psychotherapeutic treatment.

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For the purpose of the present study (Oppositional behaviors sample trial), families were admitted if mothers scored their children at or above the Portuguese cutoff points on the Anti-social/Aggressive (≥ 14) or on the Oppositional/Explosive (≥ 19) externalizing problem behavior subscales of PKBS-2 (Preschool and Kindergarten Behavior Scales – Second Edition; Merrell, 2002; Portuguese version by Major, 2011) and were willing to attend the IY groups. One-hundred and one previously randomly allocated children met the PKBS-2 criteria and took part in the Oppositional behaviors sample trial (55 mothers in an IY intervention group – IG; and 46 mothers in a waiting list control group – CG). Of those, only mothers from the IG are analyzed in this paper (24 mothers who attended the group with their partner and 31 mothers who attended the group alone) (Figure 1).

Children and mothers' socio-demographic characteristics in this subsample did not significantly differ between conditions at baseline, as reported in Table 1, except as regards mothers' socioeconomic status: more mothers who attended the group alone were from a lower socioeconomic status (48.4%), while mothers who attended with their partners were mostly from a medium or high socioeconomic status (41.7%). Also, with regard to mothers' perception of the father's involvement in their child's education (which is assessed in the socio-demographic questionnaire, completed by every mother before the baseline assessment), significant differences were found between the two groups: more mothers who attended the group with their partners reported a higher involvement of fathers (79.2%) than mothers who attended the group alone (40.7%).

Most of the mothers were married or living as married (85.4%), with a mean age of 35.25 years ($SD = 5.26$). In the MA group, 6.8% of mothers were single, while in the MWP group, there were no single mothers. More than half of the mothers (60%) had a high level of education (university degree). Seventy-three percent of the children were male, with a mean age of 55.25

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months ($SD = 10.91$). More than half of the children were clinically referred (54.5%) and the majority of the families (89.1%) lived in an urban area.

Procedures

Information about the IY intervention was disseminated in pre-schools, first-care, pediatric and mental health centers in Coimbra and Porto during the screening phase from January 2009 to September 2011. Children were either referred by health professionals or were self-referred by their parents, who had learned about the intervention from different sources (e.g., pre-school, blog, newspaper advertising, and other parents). Before the baseline assessment, written informed consent was obtained from the participating families, and the main trial was approved by the Research Ethics Committee of the hospital involved and by the National Commission of Data Protection. After the baseline assessment, children who met the inclusion criteria for the main trial were stratified by age and sex, and randomly allocated to an intervention (IG) or waiting-list control group (CG). The IY program was delivered during 14 weekly 120-min sessions in a university community department or in a mental health hospital. All the fathers attended the IY sessions with their wives or partners. Assessment was repeated six (post-intervention) and twelve months after baseline (follow-up), although only changes from baseline to follow-up will be analyzed in this paper. For ethical reasons, the control group families were offered the IY parent training as soon as the second evaluation (post-intervention) was completed.

Measures

Given the aims of the present study and the characteristics of the subsample, a set of specific measures were selected from the main trial assessment protocol. These are described below. All the measures completed by parents and teachers were available in Portuguese (see Authors, 2013 for description of the entire protocol and for previous studies with the selected measures with Portuguese samples).

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Parent Reports of Children Behavior (Screening Measures)

The Preschool and Kindergarten Behavior Scales – Second Edition [PKBS-2 Merrell, 2002; Portuguese version by Major, 2011] is an 80-item behavior-rating scale designed to measure social skills and problem behaviors of children aged 3 to 6. For the purpose of the present paper, we considered the Social Skills scale total (AS) and the Oppositional/Explosive (OE) and Antisocial/Aggressive (AA) externalizing problem behavior subscales. In the ODD main sample ($N = 101$) the alpha coefficients were .88, .85 and .60 for each of these scale/subscales, respectively.

Mothers' Interview on Children's Behavior

The Parental Account of Childhood Symptoms (PACS; Taylor, Schachar, Thorley, & Wiselberg, 1986) is a semi-structured clinical interview which evaluates the core symptoms of AD/HD and Conduct Problems over the previous six months across a wide range of situations. In this study the PACS modified version for preschool years was used (Sonuga-Barke, Lamparelli, Stevenson, Thompson, & Henry, 1994).

In this subsample, we looked at the conduct problems subscale. The alpha coefficient for this scale was .71. Inter-rater reliability between two raters (who independently rated 20% of all interviews) was good, with intra-class correlations of .87.

Ratings of Mother-Child Interaction Behaviors: Observation

The Dyadic Parent-Child Interaction Coding System (DPICS; Robinson & Eyberg, 1981) is an observational measure used to assess the quality of parent-child interaction through parent and child behavior categories. Based on previous Portuguese and international research (M. Gaspar & M. Alarcão, personal communication, February 4, 2010; Hutchings et al. 2007), we analyzed five different composites in this subsample: two for the target child: (1) Child Deviance and Non-

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Compliance; and (2) Pro-Social Behaviors; and three for the mother: (1) Positive Parenting; (2) Critical Statements; and (3) Coaching.

Behaviors were coded by trained and supervised independent observers, blind to family group status. In order to assess inter-rater reliability, approximately 20% of all recorded DPICS were coded by another rater, and an overall mean of 76% interrater agreement was achieved. In the ODD main sample ($N = 101$) intra-class correlations for the variables analyzed were: .92 for child deviance; .50 for child pro-social behavior; .97 for positive parenting; .73 for coaching; and .91 for critical parenting.

Mothers Self-Reported Competence, Parenting Practices, Depressive Symptoms and Couples Intimacy

The Parenting Sense of Competence Scale [PSOC, Johnston & Mash, 1989; Portuguese version by Seabra-Santos & Pimentel, 2007] is a seventeen-item scale assessing the parents' perceptions of their own competence as parents in two dimensions: Satisfaction and Efficacy. In the ODD sample internal consistency was .77 for Total Score, .75 for Satisfaction subscale and .80 for Efficacy subscale.

The Parenting Scale [Arnold, O'Leary, Wolff & Acker, 1993; Portuguese version by Gaspar, 2007] is a thirty-item inventory measuring dysfunctional discipline practices. The scale targets specific aspects of parental discipline practices and contains three subscales: Laxness, Overreactivity and Verbosity, with alpha coefficients in the ODD sample of .75, .65 and .51, respectively.

The *Beck Depression Inventory* [BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; Portuguese version by Vaz-Serra & Abreu, 1973] is a 21 item self-report inventory measuring the severity of symptoms associated with depression. In the ODD sample internal consistency for this inventory was .89.

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The *Personal Assessment of Intimacy in Relationships* [PAIR, Schaefer & Olson, 1981; Portuguese version by Moreira, Amaral, & Canavarro, 2009] assesses the degree of intimacy in a dyadic relationship with a 36-item 5-point scale. The Portuguese version has three factors: Self-Validation (which corresponds to Engagement in the original version), Communication, and Openness to Exterior (which corresponds to Shared Friendships in the original version). Cronbach alpha coefficients in the ODD main sample were .88, .86 and .79 respectively.

Mother's Self-Reported Program Satisfaction: Consumer Satisfaction

It's a fifty-three item questionnaire (Webster-Stratton, 2001) used to measure parental satisfaction at the end of the program. Parents are asked to rate the program regarding overall satisfaction, the usefulness of the parenting techniques, difficulties in implementing them and the group leaders' skills. Parents are also asked to comment on their feelings concerning the group and to indicate which aspects of the sessions were the most helpful and which they most liked/disliked. Specifically in this paper we analyzed parent satisfaction with the IY program concerning: improvement in child's problems; approach used to address change they most liked/disliked; impact on personal and family problems; confidence in managing current or future child behavior problems. The parents' need for additional support and the recommendation of the program to other parents were also included in the analysis.

Parent Program Intervention: The Incredible Years Basic Parent Training

A 14-week intervention program was delivered weekly to groups of 9 to 12 parents in two-hour sessions that took place at a university community service facility (nine groups) or in a central hospital (two groups). Two additional booster sessions were included at three and nine months after the intervention in order to review the program principles and parenting tools for specific child behaviors, discuss new problems and prevent relapses, and reinforce parents' efforts and support networks (Webster-Stratton, 2011). The groups were run by six trained group leaders (with

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two assigned to each group) with backgrounds in child mental health psychology or psychiatry and teaching. In order to encourage parents' attendance, supervised childcare was offered to children, as well as a light snack for parents and children. Partners were strongly encouraged to participate in the groups, and extra time make-up time was offered at the beginning of each session whenever parents missed one group session.

The main aim of the IY parenting program is to promote parents' emotional communication and positive parent-child interaction skills, as well as discipline consistency and the use of adequate punishments (Letarte, Normandeau, & Allard, 2010; Marcynyszyn, Maher, & Corwin, 2011). The program's objectives also include helping parents develop confidence, be less self-critical and learn to care for themselves, as well as teaching coping and self-control skills, such as anger and depression management and effective communication skills (Webster-Stratton & Reid, 2010). To ensure a good level of integrity, all intervention sessions were videotaped, and sessions were discussed at a periodical meeting with all the team and in weekly group leaders' meetings. The IY manual was used and both parental evaluations and group leaders' checklists were completed at the end of each session.

Data Analysis

Analyses were carried out with SPSS 20.0 and results were considered to be statistically significant at an alpha level of $p < .05$ up to $.10$, thus including trends toward significance. Only the results for the assessment of completers were analysed (Mothers with Partner or MWP = 22; and Mothers Alone or MA = 23), since previous analyses with this sample have shown similar results for both per protocol and intention-to-treat approaches.

Baseline sociodemographic and clinical differences were examined using the Mann-Whitney U test for continuous variables and Chi-square tests for categorical variables. Non-parametric statistics were primarily used in these analyses due to the small sample size of each group. Non-

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parametric tests were performed for exploring differences in change from baseline to follow-up (12-month assessment) between defined groups (MWP and MA) in selected child and mothers' outcome variables.

Also, analyses of correlations between fathers' attendance rate and the pre to post-treatment difference scores on the different child and mothers' analyzed variables were done using Spearman coefficients, in order to explore the possible relationship between fathers' involvement in the group (measured by their attendance rate) and their outcomes.

Results

Mothers' Participation and Attrition

The mothers' group attendance was high with an average of 11 and 10 sessions (out of 14) attended in the MWP group and MA respectively. Eighty-seven percent of mothers in the MWP subgroup and 80.6% of mothers in the MA subgroup attended nine or more sessions. No significant differences were found between the two groups as regards group attendance.

Attrition rate concerning assessment completion were generally low: out of the 55 mothers assessed at baseline, 45 (81.8 %) completed the twelve-month follow-up. Although attrition rate was higher for the MA subgroup (74.2% completers) than for the MWP subgroup (91.7% completers), no statistically significant differences were found between the two groups regarding this variable.

Post-treatment Therapy and Medication

Of the forty-five (81.8%) intervention children assessed at the 12-month follow-up, four (7.2%) had meanwhile been referred for additional treatment (outpatient clinics and/or pharmacological intervention). Out of these four children, three were in the MWP subgroup, while one was in the MA subgroup. No statistically significant differences emerged between the two groups as regards children referred for additional treatment or pharmacological intervention ($U = 337.5; p = .19$).

Impact of Father's Attendance Rate on Treatment Outcomes

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For the 23 fathers in the MWP subgroup who completed treatment, correlations between attendance rate and the pre to post-treatment difference scores on the different child and mother's analyzed variables were calculated. Attendance rate was not significantly correlated with any of these variables. Moreover, there was little variability among fathers' attendance, with an average of 11 sessions (out of 14) attended and 78.3% of fathers attending eight or more group sessions.

Group comparisons at baseline

According to mothers reports, 79.2% of children in the MWP group (mean scores = 18.18; $SD=7.40$) and 61.3% of children in the MA group (mean scores = 15.79; $SD=5.72$) were at moderate or high risk level on the Anti-Social/Aggressive PKBS subscale. In the Oppositional/Aggressive PKBS subscale, these percentages were 79.2% children in the MWP group (mean scores = 22.40; $SD=2.92$) and 77.4% children in the MA group (mean scores = 21.83; $SD=2.16$). Seventy-two percent of children in the MWP group and 58.3% of children in the MA group were at moderate or high risk levels on both PKBS behavior problems subscales. Analyses revealed no significant differences between the MWP and MA subgroups as to their perceptions of child behavior problems, either in the parent-rated measures or PACS interview.

Significant differences between the two groups were found for mothers' depressive symptoms ($U = 130.00$; $p = .00$), with the MA subgroup reporting being more depressed at baseline (mean scores = 12.04; $SD=8.73$; above the Portuguese borderline cut-off level ≥ 10 , Vaz Serra & Pio Abreu, 1973) and for mothers' observed coaching ($U = 90.00$; $p = .00$), with MWP subgroup having higher scores than MA subgroup (MWP: $M = 31.10$, $SD=16.82$; MA: $M = 18.26$, $SD=10.98$).

Treatment outcomes: Comparisons between groups regarding long-term intervention improvement

These findings are summarized in Table 2, regarding comparisons between groups in long-term improvement from baseline to follow-up. Firstly, the children and mothers in both groups changed from baseline to 12-month follow-up in the expected positive direction in all of the analysed outcome

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measures except one (Coaching, in MWP subgroup) (see Table 2 notes). Secondly, between-group comparisons revealed that they changed differently in one of the 22 outcome measures analyzed: when compared with the MWP subgroup, the MA subgroup improved significantly more, regarding perceptions of child behavior problems (PACS-CP: $U = 207.50, p = .04$). Further analysis comparing groups at follow-up showed no significant differences between groups.

Consumer Satisfaction

The mothers responded very positively to the program and after the 14-session program, 47.8% of those in the MWP subgroup considered that there had been a slight improvement and 43.5% saw a great improvement in their child's major problem(s). Also, 29.2% of mothers in the MA group considered that there had been a slight improvement and 58.3% a great improvement in their child's major problem(s).

Additionally, mothers in MWP group felt "confident" or "very confident" in managing current or future behavior problems at home (86.9% and 91.3%, respectively), by using the IY on their own. Mothers in MA group also felt "confident" or "very confident" in managing current or future problems (87.5% and 79.2%, respectively).

All mothers in the MWP group felt that the IY approach, used to change child's behavior problems, was "appropriate" (30.6%) or "very appropriate" (69.6%). Mothers in the MA group also felt that the IY approach, used to change child's behavior problems, was "appropriate" (29.2%) or "very appropriate" (66.7%). Eighty-six percent of mothers in MWP group and 75% of mothers in MA group reported that they did not need further parenting support.

Finally, all of mothers in both groups would "recommend" or "strongly recommend" the program to a friend or relative.

No statistically significant differences were found between the two groups with regards to any of these consumer satisfaction variables analysed.

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Discussion

This paper has analysed change differences after a 12-month period between two groups of Portuguese mothers of preschoolers with oppositional behaviors: mothers who attended an IY group with their partners and mothers who attended an IY group alone.

Overall, similar improvements (from baseline to 12-month follow-up) were found for both groups, indicating the benefits of the IY program regardless of the presence or absence of the father in the group. Unexpectedly, and contrary to other studies (e.g., Webster-Stratton, 2006) mothers who attended the group alone reported in interviews a greater improvement in their children's behavior problems than mothers who attended the group with their partners.

Regarding child and mother outcomes, our expectation that the inclusion of fathers in treatment would improve treatment outcomes after a 12-month period was not supported by the findings. In fact, there was an improvement for mothers in both groups from baseline to 12-month follow-up regarding their perception of their children's behavior (both reported and observed), their parenting practices, perceived self-competence, depressive symptoms and perceived couples' intimacy.

There are several possible explanations for these results. Firstly, the specific reason for father non-participation may be important in understanding how nonparticipation affects treatment outcome. For example, we might speculate that fathers who are not available to participate in a parent group, for professional reasons, but are motivated to participate in their children's treatment, may support mothers' parenting efforts and contribute more to the use of consistent strategies with children, therefore making them more effective. Another explanation for the lack of significant differences between the two groups might be the fact that more mothers in the MA subgroup than in the MWP subgroup were single or divorced. Single mothers are usually the only adult in the home applying the strategies learned in the IY group

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and this could have resulted in children experiencing greater consistency in behavior management. Thirdly, the perceptions of mothers in the MA subgroup may have been exaggerated as a result of the support they received from the group and from group leaders (Bagner & Eyberg, 2010). Moreover, the fact that the IY program encourages parents to keep in contact after the end of the group and also promotes two booster sessions after treatment, might help all the mothers, not only those who attend the group with their partners, to maintain treatment gains. Finally, going beyond the limited size of our sample, we might speculate that the PAIR questionnaire might not have been the most sensitive tool to assess couples' satisfaction with the relationship. Indeed, some studies have found that among maritally-distressed couples, a simple parenting intervention was not as effective as an intervention that included training in couple-communication (Dadds et al, 1987), while others found more positive outcomes (in parents' behavior, the couple's relationship, and in children's behavior) when couple issues, rather than parenting-issues, had been the starting-point for the intervention (Cowan & Cowan, 2008).

In relation to our secondary aim, results from this study show that mothers in both groups were extremely committed to the program, as evidenced by a high attendance rate and reported satisfaction with the impact of the program in their children. Additionally, most of the mothers claimed to have enough confidence to manage their children's behavior problems in the present and future, and felt no need for further parenting support. All said they would recommend the IY to other parents.

Despite the absence of expected differences between subgroups, this study has several strengths. First, it is a secondary analysis of a larger study that fulfilled the methodological requirements needed to evaluate the efficacy of the IY program in a sample of Portuguese preschoolers with Oppositional behaviors (see Authors et al. 2013a for study details); secondly, a

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widely researched intervention program was used, which has demonstrated good levels of acceptability in Portuguese samples (Webster-Stratton et al. 2012b). It was also a well-designed study with several different positive methodological elements: it is part of a RCT with comparable samples in the two conditions; it uses multi-methods (including self-reported measures, a clinical interview and laboratory mother-child interaction observation); and the attrition rate was low. All these positive aspects assure the study's validity. Finally, and contrary to other studies (e.g., Budd & O'Brien, 1982), we have found a high degree of involvement of fathers in the IY sessions (as well as mothers). This involvement (along with the fathers' high levels of satisfaction with the program) might be the result of our team efforts to encourage fathers to attend and become involved in group sessions by providing babysitting while parents were in the groups, conducting groups at more convenient times for fathers (e.g. after work hours) and working with fathers and mothers during the sessions not as a couple but as two different people with specific goals.

Limitations

There were some limitations to the study. First, some cases were lost at 12-month follow-up, and a few other families sought additional help for their children after the IY intervention. Secondly, the small sample size limits the interpretation and generalizability of these results and reduces the power of the analysis to detect small effects (for this reason, marginally significant effects have also been reported). Moreover, the generalization of findings must be carefully interpreted, due to: a potential sample selection bias, since not all mothers might have been willing to participate in this study because of its length; and, also the fact that mothers in our sample are much better-educated than Portuguese mothers in general (this issue must be systematically addressed and evaluated in future studies).

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Additionally, due to the lack of reliable Portuguese instruments for this age group, measures were selected based on other similar studies (e.g., Hutchings et al. 2007; Webster-Stratton et al., 2012) and on previous data from Portuguese samples from exploratory studies (see Authors, 2013b for revision of studies). Nevertheless, the psychometric properties of some of the measures are motives for concern (e.g., PACS and PS) and must be addressed in future studies. Finally, like other studies (e.g., Webster-Stratton, 1985), this one did not take into consideration the possible indirect involvement in the intervention (through the information provided by the mothers) of fathers who did not attend the groups. In fact, in the IY program a strong emphasis is put on the generalization of learning to the missing parent by encouraging the parent who attends the program to share the strategies learned with partners, and through written handouts that are taken home in the end of each session. However, involvement in treatment could reflect differences in fathers' emotional involvement with the child and therefore affect treatment outcome.

Future Directions and Clinical Implications

In conclusion, our findings suggest the need for further study into the father's role in parenting groups and the need to confirm these results in future studies in Portugal involving larger samples. Efforts should also be made to evaluate this program with parents of Portuguese preschoolers with oppositional behaviors in different contexts (e.g., mental health context) and from different populations (e.g., socio-economically disadvantaged families) in order to examine the replicability of the intervention effects found. Furthermore, studying the mediators and moderators of change in a larger sample will shed light on the active ingredients in change and for whom the intervention is more effective (e.g., Gardner, Hutchings, Bywater, & Whitaker, 2010).

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There are some clinical implications of these study's findings. Firstly, in parenting groups where both parents are present, it may be important to focus more strongly on the importance of consistency between parents during treatment, in order to improve treatment outcomes. Secondly, the maintenance of positive changes by mothers who attended the group alone highlight the importance of booster sessions and further support between parents, as main components of the intervention used in this study.

Although the (limited) evidence in literature suggests that engaging with both parents is more effective than engaging with just one, particularly where the relationship between them is not close or supportive (Burgess, 2009), our results have shown that working with only one parent (father or mother) can also lead to positive changes. Nevertheless, given the long-term positive effects for children of having both parents involved in their treatment reported in other studies (McBride & Rane, 2001; Webster-Stratton, 1985), the benefits of consistent parenting practices between parents and the positive involvement of fathers in the IY groups, as well as their high levels of satisfaction with the program, efforts should be made by practitioners and policy makers to involve fathers in parenting interventions, normalizing their involvement. Additionally, more research with fathers in BPT is needed, so that meaningful conclusions can be drawn about the impact of fathers in parent training.

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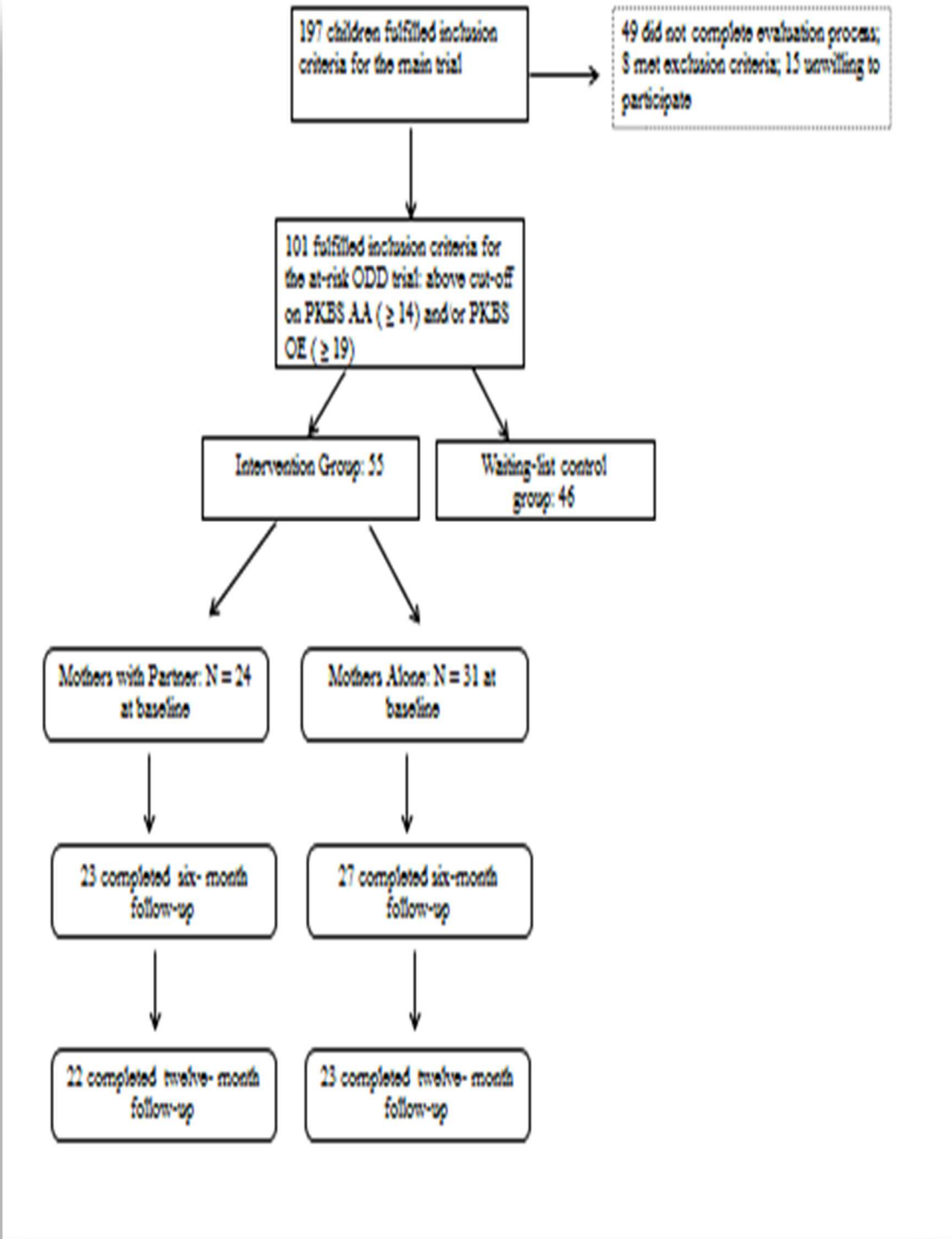


Fig. 1 Flowchart of participants

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Table 1. Sample characteristics at baseline for mothers who attended the group alone and mothers who attended the group with a partner

Variable	Group		Test	Sig
	With partner (n = 24)	Alone (n = 31)		
Mother			(U/ χ^2)	(p)
Age (years): Mean \pm SD	35.71 \pm 4.97	34.86 \pm 5.54	304.5	.43
Years of Education: Mean \pm SD	15.12 \pm 3.41	13.29 \pm 4.35	271	.07
Marital Status: (%) Married/Living as Married	95.8	76.6	3.76	.15
Separated/Divorced	4.2	16.6		
Single	—	6.8		
Family SES*: (%) Low	16.7	48.4		
Medium	41.7	22.6	6.15	.04
High	41.7	29		
Geographical zone: (%) Urban	87.5	90.3	.11	.73
Child				
Age (months): Mean\pmSD	54.58 \pm 10.86	55.77 \pm 11.09	345	.64
Sex (male): (%)	83.3	64.5	2.41	.12
Referral: (%) Clinically referred	66.6	45.2	2.52	.11
Community referred	33.4	54.9		
Father's involvement: (%) None or Low	—	29.6		
in child's education	Medium	20.8	29.6	10.68
	High	79.2	40.7	.01

Notes: SD=Standard deviation; SES=Socioeconomic Status; SES was defined using a standardized classification developed for the Portuguese population considering three categories (Almeida, 1988): low (e.g., unskilled workers; industry, transport, agriculture workers); medium

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(e.g., intermediate technicians; administrative); and high (e.g., owners and entrepreneurs, managers, scientific and intellectual professionals). Based on this classification, the family's SES was defined taking on the basis of the highest professional category and educational level of both parents.

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Table 2. Change in outcome measures from baseline to follow-up in the mothers with partner and mothers alone subgroups: Means, standard deviations and p values for children outcomes.

Variable <i>(Cut-Off)</i>	Mothers with Partner (n = 22)			Mothers Alone (n = 23)			<i>P</i> -value ^a
	Baseline (BL)	Follow-up (FU)	BL – FU	Baseline (BL)	Follow-up (FU)	BL – FU	
PKBS: SS (76)	69.54±8.91	81.00±8.35	-11.46±12.63	72.95±10.13	82.34±8.23	-9.39±7.71	.87
PKBS: O/E (19)	22.40±2.92	17.27±5.49	5.13±4.91	21.83±2.16	18.43±4.37	3.40±3.46	.19
PKBS: A/A (14)	18.18±7.40	13.27±8.88	4.91±7.71	15.79±5.72	13.30±5.90	2.49±4.91	.50
PACS- CP (17)	16.64±6.14	12.14±7.71	4.50±6.78	17.92±6.78	8.75±4.84	9.17±6.99	.04
PACS-Impact	2.64±.58	2.00±.87	.63±1.00	2.75±.73	1.75±.73	1.00±.97	.47
<i>DPICS</i>							
Child Deviancy	19.38±14.80	12.40±16.80	6.98±9.27	19.7±16.95	17.05±23.44	2.65±25.55	.16
Child Prosocial	8.05±6.89	9.58±6.63	-1.53±6.68	7.25±7.44	9.10±4.56	-1.85±8.2	.17

Notes: Results are expressed as mean ± standard deviation; *PKBS* Preschool and Kindergarten Behavior Scales; *O/E* Oppositional/Explosive; *A/A* Antisocial/Aggressive *SS* Social Skills; *PACS* Parental Account of Childhood Symptoms; *DPICS* Dyadic Parent-Child Interaction Coding System; All BL to FU within-groups comparisons using the Wilcoxon test were statistically significant (all *p* values between < .000 and .025) except for Child Prosocial (*p* = .10) in the Mothers with Partner subgroup and Child Deviancy (*p* = .40) and Child Prosocial (*p* = .27) in the Mothers Alone subgroup.

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Table 3. Change in outcome measures from baseline to follow-up in the mothers with partner and mothers alone subgroups: Means, standard deviations and p values for mother outcomes.

Variable	Mothers with Partner (n = 22)			Mothers Alone (n = 23)			P value ^a
	Baseline (BL)	Follow-up (FU)	BL – FU	Baseline (BL)	Follow-up (FU)	BL – FU	
PS Total	3.58±.3.68	2.95±.42	.63±.40	3.67±.71	3.09±.56	.58±.58	.12
Laxness	2.94±.56	2.45±.68	.49±.51	3.00±.95	2.43±.71	.57±.69	.72
Overreactivity	3.60±.40	3.15±.37	.45±.48	3.75±.80	3.29±.80	.46±.93	.33
Verbosity	4.23±.71	3.12±.79	1.11±.74	4.33±1.19	3.46±.92	.87±1.07	.14
PSOC: Total	57.61±7.21	60.54±7.99	-2.93±6.05	54.27±7.85	58.31±6.46	-4.04±7.82	.53
Efficacy	24.38±4.39	26.27±3.89	-1.89±2.85	24.31±3.88	26.22±3.06	-1.91±3.42	.52
Satisfaction	33.23±3.85	34.27±5.17	-1.04±4.17	29.95±6.47	32.09±4.86	-2.14±6.30	.43
BDI ^b	6.25±5.21	4.90±4.09	1.35±4.56	12.04±8.73	9.45±7.37	2.59±6.30	.63
PAIR: Total	93.14±17.88	102.33±18.52	-9.19±14.06	78.94±21.61	84.62±22.20	-5.68±14.99	.45
O/Ext	12.95±3.49	14.76±2.93	-1.81±2.75	10.52±4.11	11.43±3.61	-.91±2.28	.37
Self-Valid	37.00±8.26	40.14±8.70	-3.14±6.10	31.1±7.07	33.18±9.00	-2.07±7.00	.18
Comm.	27.14±4.96	29.76±4.79	-2.62±4.48	23.16±7.62	25.18±6.11	-2.02±5.3	.66

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DPICS

Positive Parenting	18.33±11.28	26.16±12.32	-7.83±16.49	18.35±14.25	29.36±14.1	-11.01±10.33	.32
Coaching ^b	31.10±16.82	28.50±16.27	2.60±14.76	18.26±10.98	19.89±12.32	-1.63±10.95	.49
Total Critical	18.68±13.99	9.50±8.14	9.18±12.70	20.80±10.58	12.10±8.25	7.98±12.06	.24

Notes: Results are expressed as mean ± standard deviation. *Arnold* Parenting Scale: *Lax* Laxness; *Over* Overreactivity; *Verb* Verbosity ; *PSOC* Parenting Sense of Competence Scale: *Satis* Satisfaction; *Effic* Efficacy; *PAIR* Personal Assessment of Intimacy in Relationships Scale: *O/Ext* Openness to Exterior; *S/Valid* Self Validation; *Comm* Communication; *DPICS* Dyadic Parent-Child Interaction Coding System; ^aMann-Whitney *U*-test; ^bSignificant baseline difference between groups on this measure; All BL to FU within-groups comparisons using the Wilcoxon test were statistically significant (all *p* values between < .000 and .025) except for BDI in the Mothers with Partner subgroup (*p* = .26); for all the *PAIR* results in the Mothers Alone subgroup (Total: *p* = .16; Self-Validation: *p* = .49; Communication: *p* = .24; and Openness to Exterior: *p* = .30) and for Coaching (*p* = .20) in both groups.