Supporting Portuguese residential child care staff: An exploratory study with the Incredible Years Basic Parent Programme*

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\textbf{Abstract}

Children in residential care have experienced high levels of social, emotional and behavioural difficulties and behaviour control by staff is an issue of concern. This study evaluated a parenting intervention, Incredible Years Basic Parent Programme (IY), delivered in Portuguese short-term residential child care centres. In a non-randomised control trial, two groups of staff carers (27 carers) received the IY programme. Two other groups of carers (20 carers) didn’t receive any form of intervention. Self-report measures were used to assess carers’ child rearing practices, sense of competency, and depression levels. Measures were administered at baseline, 6-month and at 12-month follow-up. The findings indicate that each child care centre is a specific dynamic system and that the interventions didn’t have the impact expected on some variables. Groups that didn’t receive any intervention had some improvements on some variables. The main positive finding was the improvement at 12 months of empathic attitudes in one of the intervention groups and improved perceptions of the children’s role in the other. In conclusion, the incorporation of a training programme such as the IY in child care placements can be a valuable intervention and at least part of the answer in enhancing worker development.

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\textsuperscript{+}Versión en castellano disponible en [Spanish version available: at]: www.elsevier.es/psi

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\textbf{RESUMEN}

Los niños en acogimiento residencial han experimentado grandes dificultades sociales, emocionales y comportamentales a la vez que es fuente de preocupación el control conductual por parte del personal. Este estudio evalúa una intervención paterna, el Incredible Years Basic Parent Programme (IY), desarrollado en centros portugueses de acogimiento residencial de corta duración. En un ensayo no aleatorio de control recibieron el programa IY dos grupos de cuidadores (27). Otros dos grupos (20 cuidadores) no recibieron ningún tipo de intervención. Se utilizaron medidas de autoinforme para evaluar la práctica educativa infantil por parte de los cuidadores, su sentido de competencia y los niveles de depresión. Se administraron las medidas en la línea base y en el seguimiento a los 6 y 12 meses. Los resultados indican que cada centro de acogimiento infantil era un sistema dinámico específico y que las intervenciones no tenían la repercusión esperada en algunas variables. Los grupos que no recibieron ninguna intervención mejoraban en algunas variables. El hallazgo positivo más importante fue la mejora a los 12 meses de las actitudes empáticas en uno de los grupos de intervención y la percepción mejorada de los niños en el otro. La conclusión es que la incorporación de un programa de intervención como el IY en la localización del acogimiento infantil pueden constituir una intervención valiosa y al menos parte de la respuesta para la mejora de los trabajadores.

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According to the recent Portuguese report Annual Characterization of the Situation of Children and Young People in Residential Care (Institute of Social Security, ISS, 2012), that provides an overview of the situation of Portuguese children and young people in out-of-home care, the severity of the behaviour and emotional difficulties of children in residential placements is a growing problem, increasingly appearing at younger ages, and putting significant strains on the staff carers.

The residential care workers are the most influential part of the young person’s environment in residential care. In addition to overseeing daily routines and leisure activities, the care workers interact on an ongoing basis with the children and young people and have the opportunity to create positive experiences to help them to achieve developmental and therapeutic goals (Anglin, 2002). The quality of relationships and interactions between the care workers and the children determines whether the atmosphere is one of caring or one of stress, and is the key factor for the success of a residential placement (Holden, 2009).

According to the literature, several predominant theoretical orientations have grounded different group homes and residential care therapeutic models/programmes (James, 2011). These approaches include: social psychology (e.g., the Positive Peer Culture Model; Quigley, 2004); behavioural theory (e.g., the Teaching Family Model; Bernfeld, Blase, & Fixsen, 2006); trauma theory (e.g., Sanctuary Model; Bloom, 2005); environmental and community-based theories (e.g., Stop-Gap Model; McCurdy & McIntyre, 2004); the ecological competence approach (e.g., Re-ED Model; Hobbs, 1966); and the principle-based approach, i.e., developmentally-appropriate, family-informed, relationship-based, competence-centred, trauma-informed, ecologically-oriented (e.g., CARE Model; Holden, 2009).

Over the past decade, the research on parenting management training models has also flourished, and has highlighted the importance of this type of programme to assist the biological parents (e.g., Incredible Years Training Series; Webster-Stratton, 2004; Triple P; Sanders, 1999) but also other caregivers that fulfill the childrearing role (e.g., Multidimensional Treatment Foster Care – MTF; Fisher & Chamberlain, 2000; Keeping Foster Parents Trained and Supported – KEEP; Chamberlain, Price, Reid, & Landsverk, 2008). We have learned from the evaluation of early intervention programmes, that parent-focused programmes show evidence that both parents and children can benefit in terms of an increased sense of competence, enhanced parent-child-interactions, positive effects on parenting attitudes and reinforced developmental gains for the child (Eckenerode, Izzo, & Campa-Muller, 2003).

Several authors have closely linked parent and residential child care staff functions, suggesting the plausibility that parenting intervention programmes can potentially enhance staff carers’ competences (Anglin, 2002; Bastiaansen et al., 2012; Moses, 2000; Petrie, Boddy, Cameron, Wgfall, & Simon, 2006; Shealy, 1995). The struggle to achieve a higher degree of skill, quality and a therapeutic milieu in residential child care is a reality in other contexts (Anglin, 2002) as well as in Portugal (Rodrigues, Barbosa-Ducharme & Del Valle, 2013), where both teams that usually exist in the centres: professional (i.e., psychologist, educators, social workers) and para-professional (i.e., direct carers), have little or no specialized training in residential child care issues to successfully fulfill their functions, especially the therapeutic ones (Gomes, 2010; Martins, 2004; Santos, Calheiros, Ramos, & Gamito, 2011).

In the Portuguese context, the growing interest in family intervention has allowed the Webster-Stratton’s evidenced-based Incredible Years parent training series (grounded in cognitive social learning, modelling, self-efficacy, attachment and child development theories) to start to be disseminated in Portugal through the provision of training, consultation, and support since 2003 (see Webster-Stratton, Gaspar, & Seabra-Santos, 2012, for review). Selected outcomes found in independent replications of the IY parent programme in Portugal (Azevedo, Seabra-Santos, Gaspar, & Homem, 2013a; Azevedo, Seabra-Santos, Gaspar, & Homem, 2013b; Cabral et al., 2009/2010; Homem, Gaspar, Seabra-Santos, & Azevedo, submitted for publication; Seabra-Santos, Gaspar, Azevedo, Homem, & Leitão, 2012; Webster-Stratton et al., 2012) include: reduction in children’s antisocial and hyperactive behaviour; conduct problems; parental stress and depression; and improvements in parenting competencies, compared to control parents. A change was also observed in parent-mediated change in child problem behaviours; and parents reported high satisfaction with the programme. These studies are consistent and follow the same trend as the international studies with the IY interventions (Gardner, Burton, & Klimes, 2006; Hutchings et al., 2007; Jones, Daley, Hutchings, Bywater, & Eames, 2007; Larson et al., 2008; Posthumus, Raaijmakers, Maassen, Engeland, & Matthys, 2011). The study being reported on in this article is the first to explore the adequacy of the Incredible Years Basic Parent programme as a potentially useful response to the needs of professionals in residential child care centres, addressing their parental functions, and their therapeutic engagement in the life of the young residents.

The specific questions that provided the impetus for this study were: “Are there any changes in the ‘parenting’ competence of the staff carers after the intervention with the Incredible Years Basic Parent programme?” and “Are there any changes in staff carers’ mood or attitudes?”.

**Method**

**The Intervention: Incredible Years (IY) Basic Parent Programme**

Participants in the intervention group received 13 weeks (2-hour sessions) of training with the IY Basic Parent Programme (Webster-Stratton, 2000). The training involved facilitator-led group discussion, videotape modelling and rehearsal of intervention strategies. The programme was delivered in a group format with up to 12-15 staff carers, from the same residential centre, and two facilitators, on the day and time best suited for the group. The Programme focuses on strengthening ‘parenting’ skills, with the intention of preventing, reducing and/or treating conduct problems among children aged 3-8 years whilst increasing their social competence. The first sessions emphasize the importance of play and special time activities, as a key ingredient to establish a more positive adult-child relationship and set the foundation for later success with the discipline components of the programme. It moves on to cover coaching children in academics, persistence, emotional regulation, and social skills. Sessions follow on effective praise and the use of rewards and incentives focusing on behaviour that adults wish to establish. The second half of the programme focuses on strategies to reduce unwanted behaviour including limit-setting, giving clear instructions and following through, ignoring, redirecting and distracting, time-out, and consequences for problem behaviour. Detailed programme manuals for the group facilitators and for the participants were used that specified the meeting topics and contained accompanying materials to be covered in each session. The programme is well established and has been extensively researched (Gardner et al., 2006; Hutchings et al., 2007).

**Delivery with fidelity.** The facilitators were IY trained and also had previously delivered the programme to parent groups. Group facilitators received regular supervision by an IY certified leader and peer-coach to ensure the programme was delivered as it was designed to be, and received feedback on videotapes of their sessions at supervision meetings.

**Study Design and Procedure**

This was a longitudinal (12 months) exploratory study employing a non-controlled non-randomised sample of staff carers, with two
conditions: intervention (IG = intervention groups) and non-intervention (CG = comparison groups). In each condition, two residential centres (groups) were involved. Data was collected at three points in time: M1 - before delivering the intervention programme to the group; M2 - after the implementation of the programme (6 months after M1); and M3 - 6 months after implementation of intervention measures (6 months after M2, 12 months after M1). The evaluation of 6 months (M2) occurred two months after all the sessions of the programme were delivered (see Table 1). In this paper the results achieved at M1, M2, and M3 will be presented.

Preliminary contacts with the residential centres were done by e-mail and telephone, followed by face-to-face meetings with the centre’s director, psychologist and group home staff. A brief time frame and the activities of the research process were presented to the group staff. From the beginning, all the care settings responded positively and gave written consent to take part in the study. The intervention was run in two group centres (IG1 and IG2) between baseline (M1) and post-assessment (M2). The two comparisons centre groups (CG1 and CG2) were offered a short version of the IY programme only after the post-assessment (M2) in recognition of their interest in IY and for ethical fairness reasons, but this intervention was not assessed at M3.

Inclusion criteria for the study relating to the children were: a) the age range, between 3 to 8 years old and b) the children having no diagnosed developmental disorder.

Participants

At baseline, 47 staff carers were involved in the study; there weren’t any formal entry criteria and their participation was on a voluntary basis. The intervention was applied to 15 carers in the IG1 and 12 in the IG2; the comparison sample comprised 11 staff members in CG1 and 9 in the CG2. At follow-up assessment (M3), three carers were lost in IG1 and one in IG2, due to reasons related with job change.

Descriptive analysis concerning the mean age of the staff carers in the four groups, the average time of a member working in the centres, the education level of the staff participants, and the specific training for the performance of job tasks are presented in Table 2. Groups statistically differ on the length of time at work and in training received for the performance job tasks variables: at baseline IG2 and CG1 had staff with the longest working time in the care centres; the CG1 and IG1 groups had received less training than the other centres. Overall, most of the staff carers don’t have any kind of basic training or graduate training in child and youth care work.

Twenty-five children included at baseline participated in the study: IG1 (n = 6), IG2 (n = 6), CG1 (n = 4), and CG2 (n = 9) (see also Table 2). The main reasons for them to enter in alternative care were: neglect (52%), followed by abuse (28%) and exposure to parents’ deviant behaviours (28%); abandonment (12%); lack of parenting skills (12%); parents’ drug addiction (12%); parents’ alcoholism (8%); low social economic conditions (8%); exposure of the child to domestic violence (4%); and family dysfunction (4%). Twelve children were admitted into these short-term care centres for more than one reason.

Table 1

<table>
<thead>
<tr>
<th>Residential Child Care Centres</th>
<th>M1: Assessment prior to the intervention</th>
<th>Intervention</th>
<th>M2: Assessment 6 months after M1</th>
<th>M3: Assessment 12 months after M1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention Group 1 (IG1)</td>
<td>April 2010</td>
<td>May/July 2010</td>
<td>October 2010</td>
<td>April 2011</td>
</tr>
<tr>
<td>Non-Intervention Group 1 (CG1)</td>
<td>October/December 2010</td>
<td>April/May 2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Intervention Group 2 (CG2)</td>
<td>November/December 2011</td>
<td>April/May 2012</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2

<table>
<thead>
<tr>
<th>Variables</th>
<th>Intervention</th>
<th>Non-Intervention</th>
<th>Test* (χ²)</th>
<th>Sig (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff carers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (M ± SD)</td>
<td>IG1 (n = 15)</td>
<td>IG2 (n = 12)</td>
<td>CG1 (n = 11)</td>
<td>CG2 (n = 9)</td>
</tr>
<tr>
<td>35.73 ± 9.57</td>
<td>38.83 ± 10.52</td>
<td>42.00 ± 8.58</td>
<td>37.11 ± 9.52</td>
<td>3.34</td>
</tr>
<tr>
<td>Time of work (M ± SD)</td>
<td>7.08 ± 3.40</td>
<td>9.27 ± 6.70</td>
<td>2.78 ± 0.67</td>
<td>15.81</td>
</tr>
<tr>
<td>Education level (%)</td>
<td>9.48</td>
<td>.149</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary school</td>
<td>5 (27.8%)</td>
<td>3 (16.7%)</td>
<td>8 (44.4%)</td>
<td>2 (11.1%)</td>
</tr>
<tr>
<td>High school</td>
<td>5 (27.8%)</td>
<td>7 (38.9%)</td>
<td>2 (11.1%)</td>
<td>4 (22.2%)</td>
</tr>
<tr>
<td>University degree</td>
<td>5 (45.5%)</td>
<td>2 (18.2%)</td>
<td>1 (9.1%)</td>
<td>3 (27.3%)</td>
</tr>
<tr>
<td>Training (%)</td>
<td>17.36</td>
<td>.008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>8 (40.0%)</td>
<td>3 (15.0%)</td>
<td>9 (45.0%)</td>
<td>-</td>
</tr>
<tr>
<td>Previous not graduate training (e.g. information sessions, workshops, brief courses)</td>
<td>5 (23.8%)</td>
<td>7 (33.3%)</td>
<td>1 (4.8%)</td>
<td>8 (38.1%)</td>
</tr>
<tr>
<td>Previous graduate training</td>
<td>2 (33.3%)</td>
<td>2 (33.3%)</td>
<td>1 (16.7%)</td>
<td>1 (16.7%)</td>
</tr>
<tr>
<td>Resident children</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age range 3-8 (M ± SD)</td>
<td>4.83 ± 1.17</td>
<td>5.00 ± 2.28</td>
<td>4.00 ± 1.16</td>
<td>5.55 ± 1.42</td>
</tr>
<tr>
<td>Gender (%)</td>
<td>1.85</td>
<td>.604</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3 (18.8%)</td>
<td>5 (31.2%)</td>
<td>2 (12.5%)</td>
<td>6 (37.5%)</td>
</tr>
<tr>
<td>Female</td>
<td>3 (33.3%)</td>
<td>2 (22.2%)</td>
<td>3 (33.3%)</td>
<td></td>
</tr>
</tbody>
</table>

Note. *Kruskal-Wallis Test, †Chi-Square Test, ‡p < .05.
Measures

**Adult- Adolescent Parenting Inventory - AAPI-2** (Bavolek & Keene, 2001; Portuguese version by Lopes & Brandão, 2005). The AAPI-2 is a 40-item self-report inventory designed to assess the parenting and child rearing attitudes of adolescent and adult populations. Other potential uses of this survey are to design specific parenting interventions and to screen foster parent applicants and childcare staff (Conners, Whiteside-Mansell, Deere, Ledet, & Edwards, 2006). It has two forms: Form A and Form B. The Portuguese version was translated and adapted by Lopes and Brandão (2005). In this study, Form A was administered prior to the programme's start and Form B was administered after the intervention (M2) and at follow-up (M3). Each inventory has 40 different items presented in a 5-point Likert scale from “Strongly Agree” to “Strongly Disagree”. For this research, the term “parents” in the questionnaire was replaced by the term “carers”.

The instrument is composed of five subscales: (a) Inappropriate Expectations of Children (assessing the extent to which parents/caregivers had a realistic perception of development, capabilities and limitations of children); (b) Parental Lack of Empathy Toward Children’s Needs (assessing the extent to which parents are aware of the needs, feelings, and state of the child in order to adapt their attitudes and behaviours); (c) Strong Belief in the Use of Corporal Punishment (assessing the extent to which parents value corporal punishment as a way to discipline and educate their children); (d) Parent-Child Role Reversal (assessing the extent to which parents’ perceptions reflect situations of role reversal, especially when considering that children should be sensitive and responsible for the welfare of the parents); and (e) Oppressing Children’s Power and Independence (assessing the extent to which parents tend to overwhelm the growing needs for autonomy, independence and power that characterize the process of normal development of children).

The result of each subscale is obtained by summing the numerical values of their items. Raw scores for each subscale are converted into standard scores by consulting the table's standardization of AAPI-2, for the U.S. population. However, since the instrument is not yet standardized to the Portuguese population, we used only the raw scores. Higher mean scores for the AAPI-2 subscales are indicative of less negative outcomes (i.e., more appropriate attitudes and behaviours). The internal consistency reported by the developers for all subscales met or exceed .80, reaching the highest values for the Lack of Empathy and Value of Corporal Punishment subscales and the lowest value for Oppressing Children’s Power and Independence (Bavolek & Keene, 2001). In a recent study that aimed to evaluate the reliability and validity of the AAPI-2 scale, alpha values ranged from .79 to .50 providing limited support to the factor structure suggested by the developers (Conners et al., 2006). In a study conducted in Portugal, only the Lack of Empathy subscale, the Value Corporal Punishment and the Role Reversal subscales, respectively in AAPI-2 Form A and Form B, presented acceptable values (Abreu-Lima et. al, 2010) .71 and .77 for Lack of Empathy, .63 and .74 for Corporal Punishment, and .63 and .60 for Role Reversal.

**Parenting Sense of Competence - PSOC** (Johnston & Mash, 1989; Portuguese version by Seabra-Santos & Pimentel, 2007). PSOC is a 17-item self-report questionnaire that assesses parents’ sense of competence on two subscales related to Satisfaction (e.g., “Even though being a carer could be rewarding, I am frustrated now, while I’m caring for children at his/her present age”) and Efficacy (e.g., “The problems of taking care of children are easy to solve once I know how our actions affect the children, an understanding I have acquired”). As the measure was designed to use with parents, we needed to adapt some words so that it could be answered by staff carers. Items are rated on a six-point Likert scale ranging from strongly agree (1) to strongly disagree (6), with a maximum possible score of 96. Some items are reversed. Higher scores relate to greater satisfaction and parental/carer self-efficacy. Acceptable levels of internal consistency (range .75 to .88) have been reported for the PSOC in a number of studies including Johnston and Mash (1989), Ohan, Leung, and Johnston (2000), and Lovejoy, Verda, and Hays (1997). In Portugal, PSOC has been used in some exploratory studies with community samples (Antunes, 2010; Martins, 2010) and clinical samples (Pimentel, 2007). In these studies the Cronbach values ranged from ranged from .73 and .78.

**Beck Depression Inventory - BDI** (Beck, Ward, Mendelson, Mock & Erbaugh, 1961; Portuguese version by Serra & Abreu, 1973). The BDI is a self-report inventory with 21 items that assess the presence of depressive symptoms in adolescents and adults. The subjects indicate the intensity of depressive symptoms on a scale of 0 (no symptoms, e.g., “Do not feel sad”) to 3 (severe symptoms, e.g., “I’m so sad that I cannot stand”), according to how they felt during the last week to yield a total score as the sum of all items (score ranging from 0 to 63). In addition to this overall score, the scoring of the instrument also allows the intensity of depressive symptomatology is categorized as follows: 1) without depressive symptoms: 0-13; 2) light depressive symptoms: 14-19; 3) moderate depressive symptoms: 20-28; and 4) severe depressive symptoms: overall score exceeding 29. According to the developers the scale possesses high levels of internal consistency (.88) (Beck & Steer, 1984). The Portuguese existing standards refer to the 1961 BDI version, measured by Serra and Abreu (1973). In a Portuguese study (Abreu-Lima et. al, 2010), with a sample of 214 participants high values of internal consistency were presented (.91).

<table>
<thead>
<tr>
<th>Measure</th>
<th>Goal</th>
<th>Moment(s) of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult-Adolescent Parenting Inventory-2 (AAPI-2; Bavolek &amp; Keene, 2001)</td>
<td>Evaluates childrearing practices</td>
<td>AAPI-2 Form A (M1) AAPI-2 Form B (M2 and M3)</td>
</tr>
<tr>
<td>Parenting Sense of Competence Scale (PSOC; Johnston &amp; Mash, 1989)</td>
<td>Assess the parental competence of the caregivers</td>
<td>M1, M2, M3</td>
</tr>
<tr>
<td>Beck Depression Inventory (BDI; Beck et al., 1961)</td>
<td>Depressive symptoms</td>
<td>M1, M2, M3</td>
</tr>
</tbody>
</table>

**Statistical Analysis**

For the statistical analysis we used the IBM SPSS programme (version 20.0 for Windows). Due to the small sample size of each group, non-parametric tests were used. For testing for differences between groups at pre-test (assessing equivalence across groups), Kruskal-Wallis and Chi-Square tests were used for continuous and categorical variables, respectively. Wilcoxon Test and the Friedman Test were used to test for differences between pre and post-test and pre, post and follow-up assessment points, respectively (within factor comparisons) (Pestana & Gageiro, 2008). All differences are reported in the results section.

**Results**

**Outcomes**

**Group comparisons at baseline.** Assessing equivalence between the four groups, Kruskal-Wallis tests revealed significant differences in the self-report measures at baseline (Table 4); therefore, we
decided to analyse the four groups separately. In the AAPI-2 subscales the following statistically significant differences were found: in the Inappropriate Expectations subscale, CG1 presented the highest appropriate expectations towards the development of the children and IG1 the lowest; in the Lack of Empathy subscale, IG2 reported the high understanding of the developmental children needs and IG1 the lowest; in the Corporal Punishment subscale, the IG2 is the group who believes less in the use of corporal punishment; in the Role Reversal subscale, CG1 presented a higher comprehension of children's needs; in the Oppressing Child's independence subscale, IG2 is the group who believes more in the empowerment of the children. Concerning the PSOC scale, differences were found in Efficacy subscale: IG2 presented the highest level of self-report parental efficacy, and IG1 the lowest.

Groups pre and post comparisons at 6 months. These findings are summarized in Table 5, where means and standard deviations for the four groups in pre and post assessment, and results of the Wilcoxon Test are reported. Only statistically significant differences (p < .05) will now be presented.

Adult-Adolescent Parenting Inventory-2 (AAPI-2). Regarding the Inappropriate Expectations subscale scores from M1 to M2, only in CG1 a significant decrease was noted, which indicates a negative change in the realistic expectations of the carers related to the abilities and limitations of the children. In the Lack of Empathy subscale, a significant positive improvement was found in the staff carers' empathy towards the children in IG1. CG2 also reported a significant positive increase from M1 to M2. These results suggest that in IG1 and CG2 there was an increase in carers' self-awareness of children’s needs and feelings, which increases the probability of giving proper responses.

Considering the Physical Punishment subscale in IG1 and CG1, significant increases were found, indicating that in both groups the belief in the efficacy of the form of punishment decreased, which could mean less use of this strategy. Moreover, in the Role Reversal subscale there was a significant decrease from M1 to M2 in CG1, suggesting a less comprehensive response towards the children's needs. Finally, in the Oppressing independence and Power subscale there was a significant decrease from M1 to M2 in IG1, which suggests a bigger emphasis in oppressing children's growing needs for autonomy and independence.

Regarding carers’ perceptions of their attitudes and practices, significant changes were found in both the intervention and comparison groups, with IG1 and CG2 reporting higher positive increase from baseline to 6 months in the empathy toward children's needs, suggesting an increase in the awareness of the carers of children's needs and feelings which increases the probability of giving proper responses. The belief in alternative forms of discipline (i.e., not using physical punishment) also increased significantly in IG1 and CG1. However, an increase in oppressing children’s growing needs for autonomy and independence was found in IG1 and CG2, with negative reduction from M1 to M2. CG1 showed a significant decrease in inappropriate expectations (which means a decrease in the unrealistic expectations of the carers related to the abilities and limitations of the children) and role reversal (suggesting a less comprehensive response towards the children's needs).

Parenting Sense of Competence (PSOC). Only one group, a non-intervention one (CG2), showed a significant decrease between pre and post-test in the PSOC total scale, indicating a reduction in the feelings of satisfaction and efficacy in their parenting competence. In the Efficacy subscale an intervention group (IG1) showed a significant increase and the other (IG2) a slight decrease, indicating contradictory results of the intervention. No significant change was found to the results on the satisfaction subscale.

Beck Depression Inventory (BDI). Regarding the depressive symptoms, a significant decrease was found in IG2 and CG1.

Groups pre, post, and follow-up comparisons at 12 months. Now we focus our analysis on the intervention's results at the 12 months assessment.

Table 6 shows means, standard deviations, and the results of the Friedman Test used to analyse the differences in outcomes for the intervention groups over time. Again, only statistically significant differences (p < .05) will be presented.

Across the three assessment moments, some differences were reported in IG1 and IG2 on the AAPI-2 measure. IG1 reported changes in the Lack of Empathy subscale revealing a steady increase over time, suggesting that staff carers who completed the programme were significantly more likely to respond empathetically to the children following the programme than at the programme's start. IG1 showed a decrease in oppressing children's independence from baseline to 6 months and an increase at the 12-month follow-up, suggesting from M2 to M3 an increase in the encouragement of the staff carers for the children to cooperate and solve problems. IG2 revealed a slight increase in role reversal, which suggests an increase in the comprehension of the children’s role.

Table 4
Summary of self-report measures at baseline

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th>Non-Intervention</th>
<th>Test( (\chi^2) )</th>
<th>Sig* (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IG1 (n = 15)</td>
<td>IG2 (n = 12)</td>
<td>CG1 (n = 11)</td>
<td>CG2 (n = 9)</td>
<td></td>
</tr>
<tr>
<td>AAPI-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inappropriate expectations</td>
<td>21.07 ± 3.53</td>
<td>23.25 ± 3.44</td>
<td>27.45 ± 3.08</td>
<td>22.22 ± 4.12</td>
</tr>
<tr>
<td>Lack of empathy</td>
<td>29.80 ± 3.57</td>
<td>36.92 ± 2.71</td>
<td>36.64 ± 4.11</td>
<td>31.00 ± 2.83</td>
</tr>
<tr>
<td>Belief in corporal punishment</td>
<td>37.80 ± 4.62</td>
<td>40.58 ± 3.85</td>
<td>37.55 ± 3.33</td>
<td>34.33 ± 4.61</td>
</tr>
<tr>
<td>Role reversal</td>
<td>24.33 ± 4.37</td>
<td>28.00 ± 4.39</td>
<td>30.00 ± 1.95</td>
<td>27.11 ± 3.76</td>
</tr>
<tr>
<td>Oppressing children's independence</td>
<td>13.26 ± 2.02</td>
<td>15.42 ± 1.98</td>
<td>15.00 ± 2.49</td>
<td>13.78 ± 1.92</td>
</tr>
<tr>
<td>PSOC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>34.40 ± 6.60</td>
<td>39.83 ± 7.95</td>
<td>39.55 ± 3.70</td>
<td>38.67 ± 8.31</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>19.47 ± 4.21</td>
<td>19.92 ± 3.34</td>
<td>20.64 ± 4.08</td>
<td>20.78 ± 4.27</td>
</tr>
<tr>
<td>Efficacy</td>
<td>14.93 ± 3.22</td>
<td>19.92 ± 5.14</td>
<td>18.91 ± 3.51</td>
<td>17.89 ± 6.31</td>
</tr>
<tr>
<td>BDI Total</td>
<td>4.07 ± 4.67</td>
<td>3.92 ± 3.53</td>
<td>1.36 ± 1.57</td>
<td>4.78 ± 5.31</td>
</tr>
</tbody>
</table>

Note. *Kruskal-Wallis Test, *p < .05.
Table 5: Groups Pre and Post Comparisons at 6 months

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th>Non-Intervention</th>
<th>Pre (M ± SD)</th>
<th>Post (M ± SD)</th>
<th>Pre (M ± SD)</th>
<th>Post (M ± SD)</th>
<th>Z</th>
<th>Sig*</th>
<th>Pre (M ± SD)</th>
<th>Post (M ± SD)</th>
<th>Z</th>
<th>Sig*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IG1 (n = 15)</td>
<td>IG2 (n = 11)</td>
<td>CG2 (n = 9)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>AAPI-2: Lack of empathy</td>
<td>37.80 ± 3.64</td>
<td>37.37 ± 3.74</td>
<td>37.80 ± 3.64</td>
<td>37.28 ± 3.2</td>
<td>-0.64</td>
<td>.523</td>
<td>37.80 ± 3.64</td>
<td>37.37 ± 3.74</td>
<td>37.80 ± 3.64</td>
<td>37.28 ± 3.2</td>
<td>-0.64</td>
<td>.523</td>
</tr>
<tr>
<td>AAPI-2: Role reversal</td>
<td>12.27 ± 2.22</td>
<td>11.42 ± 2.11</td>
<td>12.27 ± 2.22</td>
<td>11.42 ± 2.11</td>
<td>-0.80</td>
<td>.421</td>
<td>12.27 ± 2.22</td>
<td>11.42 ± 2.11</td>
<td>12.27 ± 2.22</td>
<td>11.42 ± 2.11</td>
<td>-0.80</td>
<td>.421</td>
</tr>
<tr>
<td>AAPI-2: Oppressing children's independence</td>
<td>34.40 ± 3.30</td>
<td>35.40 ± 3.54</td>
<td>34.40 ± 3.30</td>
<td>35.40 ± 3.54</td>
<td>-0.80</td>
<td>.421</td>
<td>34.40 ± 3.30</td>
<td>35.40 ± 3.54</td>
<td>34.40 ± 3.30</td>
<td>35.40 ± 3.54</td>
<td>-0.80</td>
<td>.421</td>
</tr>
<tr>
<td>PSOC: Total</td>
<td>34.40 ± 3.60</td>
<td>35.40 ± 3.60</td>
<td>34.40 ± 3.60</td>
<td>35.40 ± 3.60</td>
<td>-0.80</td>
<td>.421</td>
<td>34.40 ± 3.60</td>
<td>35.40 ± 3.60</td>
<td>34.40 ± 3.60</td>
<td>35.40 ± 3.60</td>
<td>-0.80</td>
<td>.421</td>
</tr>
<tr>
<td>BDI Total</td>
<td>4.07 ± 4.67</td>
<td>3.73 ± 3.24</td>
<td>4.07 ± 4.67</td>
<td>3.73 ± 3.24</td>
<td>-0.80</td>
<td>.421</td>
<td>4.07 ± 4.67</td>
<td>3.73 ± 3.24</td>
<td>4.07 ± 4.67</td>
<td>3.73 ± 3.24</td>
<td>-0.80</td>
<td>.421</td>
</tr>
</tbody>
</table>

Note. Wilcoxon Test, *p < .05.

Discussion

This study aimed to contribute to the understanding of the adequacy of an intervention programme, such as the Incredible Years Basic Parent, in Portuguese residential childcare, considering the apparent need for staff training. Specifically, we sought to determine if there were any changes in the “parenting” practices and competence, assessed with two self-report scales, AAPI-2 and PSOC, of the staff carers after delivering the Incredible Years Basic Parent programme, and any changes in staff carers’ attitudes and symptoms associated with depression, assessed by BDI.

All of the residential settings presented in this study were intended to safeguard the physical and psychological integrity of children without parental care. Their goal is to welcome children from across the country, although they give preference to those in their district, and provide care in order to protect the children’s legal, social, psychological, clinical, and educational rights. They are temporary settings that seek to help the residents achieve permanency in their lives (e.g., return to birth family, adoption or integration into permanent institutions) within 6 months. It was also found that all institutions had professionals from the areas of education, social work, and psychology, although these were not always in full-time service.

Our findings suggest that in the short and longer-term there was an improvement of empathic attitudes towards the resident children’s needs and feelings in one of the groups (IG1) that received the intervention (AAPI-2, Lack of Empathy subscale). Children who are exposed to empathic attitudes by their carers are more likely to be listened to, comforted, and supported when they feel inadequate, a cornerstone for their own empathic development (Eisenberg et al., 2005). The high scores in the Corporal Punishment subscale (indicating a decrease in the belief in this strategy) at 6 months post-assessment, in the same group, may suggest the staff carers were able to use alternative methods of discipline following the programme. In CG1 the improvements may be due to the fact they wish to convey a more positive self-image of themselves to the research team or it may simply be due to the change of other variables (e.g., children’s behaviour). In that intervention group there was also a decrease in the Oppressing Children’s Independence subscale scores from M1 to M2 (suggesting that in residential child care centres there is a tendency to place a strong emphasis on obedience), and an increase in M3 (perhaps indicating that staff carers are also able to empower the children and encourage them to solve problems and to cooperate).

However, when we look to the results found in the same scale in the other intervention group (IG2), the high scores at 12 months may indicate that the staff carers realize the distinction between carer and child, and that children are not expected to be “little adults”, indicating there maybe an understanding and acceptance of the children’s needs.

When the comparison groups are considered, we also found improvements at 6 months in the Lack of Empathy (CG2) and Corporal Punishment (CG1) subscales. Again, those improvements may be due to the fact they convey a more positive self-image of themselves to the research team, or it may simply be due to the change of other variables (e.g., children’s behaviour).

It must be emphasized that the interpretations made are based on AAPI-2 American direct results, as standardized results do not exist for the Portuguese population.

IG2 also showed a significant decrease in the perception of efficacy reported by the staff carers in the Efficacy subscale in the PSOC measure, suggesting a decrease in the way they perceived their efficacy.

Finally, IG2 revealed a significant decrease in the depressive symptoms from baseline to 6 months, and an increase from 6 months to the 12-month follow-up assessment.
In the scale of Parenting Sense of Competence (PSOC) there was an improvement in the Efficacy subscale in IG1 after attending the IY programme, which suggests that these staff carers felt more competent in handling children’s problems. Additionally, contrary to our predictions, no significant differences were found in the Satisfaction subscale and in PSOC total scale for the groups that received the programme. In fact, in IG2 there was a slight decrease in the sense of self-efficacy in the parenting role following the programme that remained steady until M3. The reason for this result remains unclear; one possible explanation is related to the smaller sample size that might have reduced the PSOC power to identify small effects. Furthermore, self-efficacy is a construct likely to vary in different contexts. Changes in the residential social environment due to the entrance and leaving of children can also delay the improvement in the perceived competence in the parenting role by the staff members. Children who are looked after often have large gaps in their family, educational and developmental histories. It can therefore be more difficult for staff carers to anticipate factors that may trigger negative behaviour and may make them feel less competent. This particular psychological dimension may change, and these aspects may not be immediately visible after an intervention (i.e., ‘sleepers effects’) (De Los Reyes & Kazdin, 2006).

Although widely used in research, the PSOC scale has been criticised for an unstable factor structure and lack of normative data (Gilmore & Cuskelly, 2008). In addition, PSOC data gathered in this study must also be carefully interpreted, due to the relative few studies in Portugal with this measure.

The Beck Depression Inventory (BDI) results showed low scores in the behavioural manifestations of depression for the four groups, which ranged within the normal patterns (scores below 5 points).

The findings of this exploratory study indicate that each short-term residential childcare centre is a specific dynamic system and that the interventions didn’t have the impact expected on some variables; as well, the groups that didn’t receive any intervention had some improvements on some variables. However, staff feedback revealed the important need for training, independent of any efficacy results, as the training is rated by workers as highly satisfactory (Silva, Gaspar, & Anglin, in press), suggesting that the Incredible Years programme can offer at least part of the answer in enhancing worker development. In fact, concerning professional training, 48.9% “agree moderately” and 48.9% “strongly agree” that they are prepared to perform their functions, but overall (95.8%) staff carers express that it’s very important to receive specific training (42.6% “agree moderately” and 53.2% “strongly agree”).

### Conclusions

This was a small-scale, non-randomised exploratory study to establish whether the IY programme could be acceptable, and beneficial, to staff carers. We have demonstrated some positive short-term and longer-term effects for the staff carers, but the findings need to be interpreted with caution. The support needs of the staff carers are ongoing and, in addition to the initial contact with the IY programme, they often need ongoing structured support (that could be offered by extending the programme or booster sessions) in terms of dealing with the challenges presented by the children and positive reinforcement from the managers to apply the principles learnt and change attitudes. Moreover, staff carers often spend considerable time engaging in social and emotional interactions with the children, which means that implementing the IY within the residential placements requires additional time and effort to consistently implement new skills, and that can be a struggle and a challenge, as instability is a common problem in such services.

Results suggest the need to create and validate measures more suitable and sensitive to do assessment in the Portuguese residential childcare context in future studies. For instance, future research could benefit if the instrument were designed to measure task-specific (“parenting”) efficacy and competency in a residential context, instead of measuring general parenting efficacy and competency.

Our findings underline the need for Portuguese children’s residential services and child welfare system to ensure that staff carers are given appropriate tools to address the emotional and behavioural needs and difficulties of their current and future looked-after children. The IY group ‘parent’ programme has valuable principles that could be adapted and included in staff carers’ initial training. This study was a first attempt to support staff carers in their role of managing challenging behaviour, accomplishing improvements in the staff carers’ empathic attitudes and behaviours, but clearly future longitudinal randomised controlled studies with larger samples are necessary to achieve more definitive results.

### Conflicts of Interest

The authors of this article declare no conflicts of interest.
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Acknowledgments

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