Author Queries & Comments:

AQ1: ORCID details have been taken from information supplied with your manuscript submission. Please correct if this is inaccurate.
Response: Resolved

AQ2: Please provide a short biography of the authors.
Response: Dr. Marta Gràcia is Associate Professor at the Department of Cognition, Development and Educational Psychology and Researcher of the Institute of Research in Education (IRE-UB), University of Barcelona, Spain. Her research interests include quality of family life for people with intellectual disabilities, early intervention, teaching and learning of L1, naturalistic intervention and conversational methodology. ORCID: 0000-0003-1280-4578
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AQ3: Please provide the department name for affiliations b–c.
Response: a Department of Cognition, Development and Educational Psychology of Education, University of Barcelona, Spain. b Department of Developmental and Educational Psychology, Autonomous University of Madrid, Spain. c Department of Developmental and Educational Psychology, Ramon Llull University, Spain. d Institute of Neurosciences (NeuroUB), University of Barcelona, Spain

AQ4: Funding details have been taken from information supplied with your manuscript submission. Please correct if this is inaccurate.
Response: Resolved

AQ5: Please check that the heading levels have been correctly formatted throughout.
Response: The sentence ‘Professional’ perceptions of the transition process from center-based to family-centered practices in EI’ must be a heading (subsection of the section of Results), there was an error in the main document. It’s not a quote. Is the second heading (subsection) of the Results section. The first subsection of Results section is ‘Changes in professional knowledge and practice and family satisfaction with FCP’

AQ6: The reference “Pereira & Oliveira, 2011” is cited in the text but is not listed in the references list. Please either delete the in-text citation or provide full reference details following journal style.
Response: Resolved

AQ7: The spelling of “Escorcia, García Sánchez, Orcajada, & Sánchez, 2016” has been changed “Escorcia Mora, García Sánchez, Orcajada Sánchez, & Sánchez López, 2016” to match the entry in the references list. Please provide revisions if this
is incorrect.
Response: This is correct

**AQ8:** Please clarify whether this is Author et al., 2013a or 2013b.
Response: [Escala de Calidad de Vida Familiar, CdVF-E] (Giné, Vilaseca, Gràcia, Mora, Orcasitas, Simón,... & Simó-Pinatella, 2013) [E. de Necesidades Familiares, ENF] (Gràcia, Chiu, & Vilaseca, 2013)

**AQ9:** The reference “McWilliam, 2009” is cited in the text but is not listed in the references list. Please either delete the in-text citation or provide full reference details following journal style.
Response: Resolved in the text

**AQ10:** A closing quotation mark seems to be missing following “very much. In this respect, the analysis “. Please indicate where it should be placed.
Response: Resolved in the text

**AQ11:** The reference “Pereira & Serrano, 2014” is cited in the text but is not listed in the references list. Please either delete the in-text citation or provide full reference details following journal style.

**AQ12:** The reference “Salisbury et al., 2010” is cited in the text but is not listed in the references list. Please either delete the in-text citation or provide full reference details following journal style.

**AQ13:** The reference “Jayaraman et al., 2015” is cited in the text but is not listed in the references list. Please either delete the in-text citation or provide full reference details following journal style.

**AQ14:** The disclosure statement has been inserted. Please correct if this is inaccurate.
Response: Resolved

**AQ15:** The CrossRef database (www.crossref.org/) has been used to validate the references. Mismatches between the original manuscript and CrossRef are tracked in red font. Please provide a revision if the change is incorrect. Do not comment on correct changes
Response: Resolved

**AQ16:** The reference "Author, 2013a" is listed in the references list but is not cited in the text. Please either cite the reference or remove it from the references list.

**AQ17:** The reference "Author, 2013b" is listed in the references list but is not cited in the text. Please either cite the reference or remove it from the references list.
Response: Please, replace "Author, 2013b" by "Gràcia, Chiu, & Vilaseca, 2013”

**AQ18:** The reference "Bowlby, 1993" is listed in the references list but is not cited in the text. Please either cite the reference or remove it from the references list.
Response: Resolved

**AQ19:** The reference "Hanft et al., 2004" is listed in the references list but is not cited in the text. Please either cite the reference or remove it from the references list.
Response: Resolved

**AQ20:** The reference "King and Chiarello, 2014" is listed in the references list but is not cited in the text. Please either cite the reference or remove it from the references list.
Response: Resolved

**AQ21:** The reference "MacKean et al., 2005" is listed in the references list but is not cited in the text. Please either cite the reference or remove it from the references list.
The transition process from center-based programmes to family-centered practices in Spain: a multiple case study

ABSTRACT
One of the most important challenges that early intervention (EI) has faced in recent years is the transition process from child-based practices to family-centered programmes. This study's main objectives were: (a) To understand the changes identified by the staff in their professional knowledge and practices with families during the transition from a center-based programmes to family-centered practices; (b) To explore the parents' satisfaction with the family-centered practices; (c) To know how professionals perceive the transition from center-based to family-centered practices in EI. Participants were 11 families of children with intellectual disability and 11 professionals from six early intervention centres in Spain. Results showed that professionals valued family-centered services because it allowed them to gather relevant information about the families' strengths and resources. Families perceived their participation as a real empowerment for all family members and positive for their children. Implications for professional practice in EI are discussed.

KEYWORDS
Early intervention; family-centered practices; professional's perception; family's satisfaction

FUNDING
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Introduction
From an ecological approach, early intervention (EI) has to be global and systemic; it must include all the interactions that involve not only the child but also their family and the community (Bronfenbrenner, 1979). EI programmes must enrich the environment in which the child develops and also enhance the quality of interactions with the people surrounding them (Dunst & Espe-Shenwint, 2016; Dunst & Trivette, 2009; Guralnick, 2000, 2005).

One of the most widely used approaches in EI today is the family-centered practices (FCP) approach, in which the main objective
is the empowerment of families (Dunst, 2002). Shortly, FCP is a systematic way of creating a partnership with families which (a) treats them with dignity and respect, (b) honours their values and choices, and (c) provides support that strengthens and enhances their functioning as a family (Dunst, Trivette, & Hamby, 2007). FCP has three key elements: (1) an emphasis on strengths, not deficits; (2) the promotion of family choice and control over desired resources; and (3) the development of a collaborative relationship between parents and professionals. The evidence shows that when families become involved in the attention to their children with support needs, significant progress is noted in all the family members (Magalhães & Pereira, 2017; Marshall, Coulter, Gorski, & Ewing, 2016; Pereira & Oliveira, 2017); the involvement of the family makes all the members feel secure and able to work from their own strengths, enhancing their feeling of control over the environment. It allows them to manage life with their child effectively and to make decisions on their own, thus raising the quality of life of the whole family system (Lee, Poston, & Poston, 2007; McWilliam, 2016; Turnbull, 2003).

In FCP the role of EI professionals has turned into a model of coaching with parents which incorporates a wide variety of adult learning strategies for promoting parents' abilities to support child learning and development within contexts of everyday activities and settings (Kemp & Turnbull, 2014). The approach requires professionals to develop strategies to get to know the characteristics of each family and to help parents achieve the outcomes they desire for their child and the family as a whole (Bailey, Raspa, & Fox, 2012; Dunst & Espe-Sherwindt, 2016; Trivette, Dunst, & Hamby, 2010).

**Professional development in family-centered practices**

Adopting this EI approach may create some difficulties to professionals and families alike. In many cases, professionals have to give up (either immediately or gradually) a set of deeply-rooted practices and replace them with others that are so far unfamiliar. For families, this means adopting an active role when making decisions and perceiving the professionals as partners, and so it represents a challenge for them as well (Tumbull, Turnbull, Erwin, Soodak, & Shogren, 2010). This change also affects the organization of professionals at the EI centre and their role; the approach requires a primary service provider for each family and involves the use of procedures that professionals are not familiar with and need to test (Pereira & Oliveira, 2014).

Previous research has shown the difficulties that professionals face when changing their practices from a child-centered model to FCP (Friedman, Woods, & Salisbury, 2012). Limited levels of collaborative work or coaching between parents and professionals have been adopted and represent a challenge for EI providers. Kemp and Turnbull (2014) observed that from 2011 to 2014 research on coaching with parents in EI sought to understand how coaching is implemented in the field and to identify barriers to its use. For other authors, the implementation of FCP has been a challenge because of different factors such as leadership, training, attitudes, and the lack of resources (Bailey et al., 2012; Gooding et al., 2011; Kuo et al., 2012; Perrin, Bloom, & Gortmoker, 2007).

The transition process from a child-centered model to FCP means that professionals need to change their mind and their practices. In FCP, it is crucial to get to know the interaction of the child with their context (namely, the family routines) as well as their strengths, concerns, priorities, and supports. In the routines-based intervention model proposed by McWilliam (2010), the family context is assessed mainly by using the Ecomap and the Routines-Based Interview (RBI). In both tools, the family has a fundamental role. As stated in the literature (McWilliam, 2010, 2016), professionals need training in order to understand and internalize this approach and to be able to use these tools correctly and also to see how they can help them to get to know the families more closely and to work on real needs and priorities at a later date. The development of the Individualized Family Service Plan (IFSP) (Boavida, Aguiar, & McWilliam, 2014; Bruder, 2000; McWilliam, 2010; Pereira & Oliveira, 2017) also represents a significant challenge for professionals, although there are several support materials.

Traditionally EI in Spain has adopted a center-based approach, in most cases using standardized measures to work with the child rather than criterion-referred measures which support development intervention (Giné, García-Dié, Gràcia, & Vilaseca, 2005; Giné, Gràcia, Vilaseca, & García-Dié, 2006; Vilaseca, Gràcia, Beltran, Dalmau, Alomar, Adam-Alcocer, & Simó-Pinatella, 2017; Vilaseca, Galván-Bovaira, González-del-Yerro, Baqué, Oliveira, Simó-Pinatella, Giné, García-Dié, Gràcia, & Vilaseca, 2018). Families are asked to provide information to the professionals to enable them to assess the child and to plan the intervention. So, EI programmes in Spain need to shift away from center-based programmes toward family-centered practices in order to encourage families to adopt more active attitudes, to feel empowered, and to help their children during home-activities (García-Sánchez et al., 2014). Professionals need to begin to adopt the FCP model and to use procedures and tools such as RBI, ecomaps and IFSPs. EI professionals need to see the family as a partner and the home as the place where the child interacts with their parents, sisters and brothers during daily routines. In recent years, some EI professionals and families in Spain have received information and training about family-centered practices and have shown interest in increasing their involvement. The initial reactions and evaluations of these training workshops showed interest but also some resistance and skepticism from participants about the feasibility of applying FCP with the families in their programmes (Escorcia Mora, García Sánchez, Orcajada Sánchez, & Sánchez López, 2016).

In this context, the aim of this study is to explore how the participants make the transition from center-based programmes to
family-centered service provision. For this purpose, we have used a mixed-design and have raised the following research questions:

1. Do professionals identify changes in their professional knowledge and practices with families during the transition process from a center-based to family-centered practices in EI?
2. Do parents showed satisfaction with the FCP implemented?
3. How do professionals perceive the process of the transition from center-based to family-centered practices in EI?

Materials and method

A participatory action-research approach (Elliott, 1997) was used. Researchers worked together with professionals to plan, carry out, and follow up family interventions.

Setting and participants

Two groups of participants were recruited: families and professionals. The families had children with Intellectual Disability (ID) attending six EI centres in Spain. Inclusion criteria were as follows: (1) families with a child with ID aged between 1 and 4 years; (2) families were users of EI centres that have been participating in other previous projects with our research team; and (3) participation on a volunteer basis.

Once 35 families were identified, the Family Quality of Life Scale (Escala de Calidad de Vida Familiar, CdVF-E) (Giné, Vilaseca, Gracia, Mora, Orcasitas, Simón, Torrecillas et al., 2013) was administered to determine their quality of life, and the Family Needs Assessment (Escala de Necesidades Familiares, ENF) (Gracia, Chiu, & Vilaseca, Author et al., 2013) to identify their main needs. From the scores obtained using these two instruments, the 11 families with the lowest scores were selected to participate in the study. Table 1 shows the number of families attended at each EI centre, the ages of the children and their scores on the CdVF-E and ENF scales.

<table>
<thead>
<tr>
<th>Characteristics of the 11 families users of the different Early Intervention Center.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CdVF-E</strong></td>
</tr>
<tr>
<td><strong>F1</strong></td>
</tr>
<tr>
<td>Child age</td>
</tr>
<tr>
<td>CdVF-E*</td>
</tr>
<tr>
<td>ENF**</td>
</tr>
</tbody>
</table>

Note: EIC = Early Intervention Center; F = families.

*Percentile.

**Raw score.

Data about CdVF-E and ENF are not available in all cases.

Children’s ages at the beginning of data collection ranged from 13 months to four years. Scores for the CdVF-E scale showed some relative variability (SD = 21.8). Most families scored below the 40th percentile, indicating very low FQoL. Their scores on the ENF indicated high needs in general, although there was considerable variability (SD = 17.99). In all cases the household members were the children’s parents and siblings.

In addition to the families, 11 EI professionals participated in this study. Each family was matched with one professional. All professionals had over three years of experience in EI centres. Other staff members were involved (though less directly) such as EI centre coordinators, social workers, and speech therapists employed by the centre. These staff members attended some training meetings in order to familiarize themselves with the FCP approach.

Measures

The following quantitative and qualitative measures were used:

1. The FINESSE II (McWilliam, 2010) was developed to detect what extent programmes implemented recommended practices in EI in natural environments. The experimental adaptation, FINESSE II (McWilliam, 2011) is essentially the same instrument but translated into Spanish and Catalan. The study participants at each centre were asked to
answer the FINESSE II (McWilliam, 2011) before and at the end of the training.

2. Evaluating the implementation of family-centered practice (Ahn et al., 2011). This is part of an instrument which asks professionals to evaluate the extent to which their professional practice is consistent with the principles of the family-centered model. The professional at each centre was asked to answer this instrument.

3. Parent Satisfaction with the Home Visitor and Home Visit: A survey for parents. An instrument developed by Roggman, Cook, and Jump Norman (2008) was used to determine the satisfaction of families in a home–based programme. Each of the 11 families was asked to answer the survey before and at the end of the training.

4. A focus group (FG) was carried out in order to ascertain professionals’ perceptions regarding the transition process from a center-based to family-centered programme in EI. The design and development of the FG followed the proposal by Liamputtong (2011) and is similar to previous studies in early intervention (Stahmer, Collings, & Palinkas, 2005). It was structured in five themes based on the following questions posed to the professionals: (a) as professionals, what do you see as the most positive aspects of the transition process? (b) What have you learned from your participation? (c) What do you think about participating in this research project and getting to know this new approach, meant for the families? (d) What was the most difficult thing for you? (e) What aspects of this approach do you have doubts about, or which ones do you consider to be less important? The FG was conducted in a university lecture-room with the 11 professionals and three of the researchers directly involved in the intervention.

Procedure

We used an exploratory case study design (Merrian, 2009; Yin, 2008) that included three phases.

Pre-training, training and follow-up procedures used to support the professionals

Pre-training

All the professionals at the six EI centres participated in two 2-hour seminars to introduce them to FCP and to inform them of the objectives and the characteristics of the study.

Training

The professionals participated in an 8-hour intensive training led by an FCP expert, who presented and discussed the most relevant characteristics of the FCP approach.

Follow-up

After the 2-hour pre-training and the 8-hour training, the follow-up training to support the professionals in the transition process consisted of six 2-hour seminars held at the EI centre in which the researcher explained in detail some of the principal procedures of the FCP. The meetings were held over a 10–12-month period. The meetings were scheduled in agreement between the professional and the researcher, depending on the work the professional was currently undertaking with the family. The researcher shared their knowledge of each of the procedures with the practitioner and discussed them together in order to increase the professional’s confidence in using them with the family. Three of the sessions were theoretical and three were practical. These three practical sessions comprised role-play using the instruments, analysis and discussion of video recordings and activities to ensure that the professional had understood the use of the instruments. Parallel to the sessions, each professional applied these procedures with the family they were working with the supervision and follow-up of the researchers.

At the first meeting, the researcher and the practitioner shared information regarding the aims and procedures of the Routines-Based Interview (RBI, McWilliam, 1992, 2010).

The researcher also explained that for a semi-structured RBI to be considered faithful to the model the interview had to comprise the following eight stages: (1) main concerns; (2) go through the day; (3) star concerns; (4) satisfaction ratings; (5) worry and change questions; (6) recap; (7) family chooses outcomes; (8) priority order. The protocol for the RBI (McWilliam, 2019) is a tool to guide the interviewer through the process and to document what is said.

After the two introductory sessions of the RBI to the professionals, they met again to discuss the characteristics and the use of Ecomap. The links to those supports depict the level of support the drawer perceives (Cox, Kelner, & Hogan, 2003; McWilliam, 2010). It was also stressed that the purpose of an Ecomap, besides informing families of the support networks at their disposal, is to give them the chance to talk about these support networks during a meeting to describe the programme, asking for their consent to assessment, carrying out the screening, and informing them of their rights.

The third important procedure included in the training was the Individualized Family Service Plan (IFSP). The researcher shared the following information about the IFSP with the practitioner:
The goals of the Routines-Based Model (RBM, McWilliam, 2016) are derived from functional, routines-based needs. They are then written to be measurable using logical criteria, which means that they may involve generalization across routines, the duration of the desired behaviour (i.e. engagement), the frequency with which the behaviour should be displayed in a week, and the number of weeks in which it should be seen at that rate. The most important criterion to guarantee that the goals are functional is that the behaviours are necessary; that is to say, without them the child is not able to function in daily routines. The content of the IFSP, based on the priorities of the family, was agreed upon by the family and the professional.

According to McWilliam (2010) the family outcomes will be written on the same page that child outcomes because all outcomes are family outcomes. The second reason for considering the same importance to family outcomes as to child outcomes is that, historically, professionals seem to have paid much more attention to child outcomes. Reinstating family outcomes may help to change professionals' values and priorities.

To assess the degree of functionality of the outcomes reported in the IFSP we used the Goal Functionality Scale III (McWilliam, 2010), which analyses every outcome on the basis of eight criteria that may be given four different scores, from ‘not at all’ to ‘very much’. In this respect, the analysis of the 11 IFSPs at the end of the process showed that the mean score for the eight items assessing the instruments used (McWilliam, 2010) was 2 out of 4.

**Assessment of the families**

With regard to the assessment of the families, once the professionals had selected the 35 families according to the established recruitment criteria, they asked them to complete two instruments, the CdVF-E and the ENF. They also tried to collect information on family structure, age of family members, type of school, the diagnosis of the child receiving the Early Intervention, and the experience of the family and the child from the moment they were first attended. Professionals and families were asked to sign an informed-consent document prior to participating.

**Data analysis**

The responses of the families and the professionals to the measurement instruments were analyzed. In the case of the professionals, we analyzed the FINESSE II (McWilliam, 2011) and the instrument for Evaluating the implementation of Family Centered Practice (Ahn et al., 2011). In the case of families, we analyzed their answers on the Parent Satisfaction with the Home Visitor and Home Visit: A survey for parents. Parent satisfaction with home visits for parents (Roggman et al., 2008). Some of the scores obtained were transformed into proportions; in other cases, direct scores are presented. The Wilcoxon signed-rank test was conducted with pre- and post- scores for each instrument in order to see whether there were differences between initial and final scores. All the quantitative analyses were conducted with the statistical software SPSS version 24.0.

Conventional qualitative analysis was used to describe how EI centered professionals in Spain collaborate with families of children with IDD (Hsieh & Shannon, 2005). In accordance with those authors, the codes were determined after multiple readings of the transcription of the FG and were then sorted into categories based on how the codes were related and linked to each other.

The quotations from the FG were grouped according to the questions asked to the participants. Later, they were imported to the ATLAS.ti (Miles & Huberman, 1994) and the quotations that were similar in content were combined and coded. The codes were inductively ordered in categories and later some subcategories were identified (see Table 2). Four of the authors completed this procedure, supported by the other two authors. Subsequently, all the authors discussed the categories until consensus was reached.

| Table 2. Coding categories and subcategories of professional perspectives about their perception of the transition from centered-based to family-centered service provision. |
|---|---|
| Main category | Subcategory |

The quotes from the FG were grouped according to the questions asked to the participants. Later, they were imported to the ATLAS.ti (Miles & Huberman, 1994) and the quotations that were similar in content were combined and coded. The codes were inductively ordered in categories and later some subcategories were identified (see Table 2). Four of the authors completed this procedure, supported by the other two authors. Subsequently, all the authors discussed the categories until consensus was reached.
The results obtained from the analysis of the FINESSE II (McWilliam, 2011) and the focus group allowed us to triangulate the information relating to the professionals’ perception of the changes at the beginning of the transition from a center-based to a family-centered programme in Early Intervention (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005).

**Results**

**Changes in professional knowledge and practice and family satisfaction with FCP**

Our first research aim was to identify the changes occurring at the beginning of a transition process from center-based to family-centered practices in Early Intervention. The results in Table 3 show significant differences between the scores on most FINESSE II items (McWilliam, 2011) for the 11 professionals before and after implementing the intervention and also on the total score.

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>p</strong></td>
<td>.32</td>
<td>.56</td>
<td>.16</td>
<td>.10</td>
<td>.04</td>
<td>.03</td>
<td>.06</td>
<td>.22</td>
<td>.04</td>
<td>.05</td>
<td>.10</td>
</tr>
<tr>
<td><strong>r</strong></td>
<td>.35</td>
<td>−.20</td>
<td>−.50</td>
<td>−.67</td>
<td>−.60</td>
<td>−.64</td>
<td>−.65</td>
<td>−.35</td>
<td>−.60</td>
<td>−.58</td>
<td>−.52</td>
</tr>
<tr>
<td><strong>Total raw score Before</strong></td>
<td>18</td>
<td>17</td>
<td>19</td>
<td>5</td>
<td>31</td>
<td>21</td>
<td>9</td>
<td>23</td>
<td>22</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td><strong>Total raw score After</strong></td>
<td>15</td>
<td>18</td>
<td>21</td>
<td>14</td>
<td>38</td>
<td>38</td>
<td>24</td>
<td>31</td>
<td>29</td>
<td>31</td>
<td>24</td>
</tr>
</tbody>
</table>

Table 3. Results of FINESSE II (McWilliam, 2011) before and after implementing the intervention.
The results are similar for the instrument used for professionals to assess to what extent their professional practice is consistent with FCP principles. Again, some items presented higher scores at the end of the assessment than at the beginning (see Table 4).

Table 4. Results from evaluating the implementation of family-centered practice (Ahn et al., 2011).

<table>
<thead>
<tr>
<th>Item</th>
<th>p</th>
<th>r</th>
<th>Total raw score Before</th>
<th>Total raw score After</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Information gathering is usually participatory.</td>
<td>.32</td>
<td>.29</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>2. I offer and seek alternatives.</td>
<td>.41</td>
<td>-.22</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>3. Decision making is shared.</td>
<td>.16</td>
<td>.40</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>4. My relationship with families could be described as ‘teamwork’.</td>
<td>.02</td>
<td>-.66</td>
<td>13</td>
<td>23</td>
</tr>
<tr>
<td>5. I identify the family’s needs and work together to develop a service plan.</td>
<td>.06</td>
<td>-.55</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>6. I identify strengths and resources within the family.</td>
<td>.06</td>
<td>-.55</td>
<td>12</td>
<td>21</td>
</tr>
<tr>
<td>7. I identify the interventions which mobilize the family’s strengths and resources.</td>
<td>.03</td>
<td>-.61</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>8. I view the family as experts on their strengths and needs.</td>
<td>.04</td>
<td>-.60</td>
<td>14</td>
<td>22</td>
</tr>
<tr>
<td>9. I support the family in advocacy work.</td>
<td>.32</td>
<td>-.29</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>10. I assist families to state their perspectives to other members of the interdisciplinary team.</td>
<td>.26</td>
<td>-.33</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td>11. I refer to and trust other professionals in the areas of competency.</td>
<td>.05</td>
<td>-.58</td>
<td>19</td>
<td>23</td>
</tr>
<tr>
<td>12. I connect the family to other professionals and community resources.</td>
<td>.08</td>
<td>-.50</td>
<td>19</td>
<td>22</td>
</tr>
<tr>
<td>13. I listen to and ask about the family’s views.</td>
<td>.32</td>
<td>-.29</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>14. I involve the family’s extended network in planning when desired and appropriate.</td>
<td>.02</td>
<td>-.65</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>15. When working with a member of a different ethnic, religious, or cultural group from my own, I gather information to help me understand them better.</td>
<td>.10</td>
<td>-.47</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>&lt;.001</td>
<td>-.61</td>
<td>249</td>
<td>321</td>
</tr>
</tbody>
</table>
Results for the satisfaction of families with the practitioner using the Roggman et al. (2008) scale, were in general positive; the families gave positive assessments of the performance of the professionals working with them before the beginning of the intervention ($p = .02$), and its feeling had increased to some extent by the end of the intervention. The major changes after the training period noted by the families were: a greater adaptation to the family's needs (sum of raws pre = 34; sum of raws post = 39) and to the child's needs (pre = 30; post = 40) and a greater knowledge of the family's expectations (pre = 30; post = 34).

**Professional’ perceptions of the transition process from center-based to family-centered practices in EI**

Our second research question was about the professionals' perceptions of the transition process from center-based to family-centered practices in EI. During the FG the professionals stated that the transition from a center-based to a family-based approach fostered a positive relationship and interaction with the families (the family-professional partnership) that improved their understanding and appraisal of the situation and provided them with accurate knowledge of the families’ formal and informal support networks by obtaining relevant information on their strengths and resources. It also helped to develop greater sensitivity regarding the families' needs:

...then the relationship was completely different, wasn't it? As in our case, because we've been with this girl for three years now and I've just established the bond with her mum this year with this, I mean, yes, of course we talked, but everything was much more sort of distant and I started with this girl when she was one month old, you know, and it was never as it has been now, was it? And I also see that the mum is much happier, I see that, after talking about the little things, after referring to things, she can also make some reflections and realizes that, well, yes, her child is important, but she also feels important, doesn't she?

Moreover, the work with families was enriched as the decision-making process is shared with the families (shared decisions) and thus always promotes their participation:

...It also helps that the family understands M.'s behavior, strategies are discussed and what can help and what can facilitate it or hinder it, so as to think about alternatives together.

Additionally, the professionals highlighted that the process of changing to a new approach equipped them with resources and procedures that facilitate their performance (useful procedures). In this respect, they thought that it was positive to have an action protocol incorporating detailed procedures (Ecomap, RBI, IFSP), which also allowed them to identify goals and priorities and to follow up with interventions:

...It is very positive to have the IFSP, to assess the changes despite the new preparation of goals... as it helped to assess what was achieved more clearly.

With regard to the families, the information collected in the FG confirmed that their participation in the transition to the new approach was positive. First, once the initial resistance was overcome, the families found it convenient to have the professional visit them at home rather than going to the center (home visits):

...This is what they liked the most and [the families thought], “this way we don’t have the problem of transport, of time...Because she came home, at first it was all very clean, stressful...” It was like, “she (the professional) is coming and we’ve got to clean and tidy up”, but later you come in and it’s like you have to help (cleaning) ... this idea of home visits was...even for those families with more resistance, it was the best. They would say “why don’t you start here, and I can go and do something else”...but at home. I mean, there was resistance, but the home thing was wonderful.

The families understood that this is a continuous process of achievement and setting new goals aligned their initial level of development (empowerment for the whole family):

...I think you missed a lot of information and now that you have it, and always for the benefit of the child (…) there is an improvement both in the family and with the child, isn’t there? Families that used to be more anxious now feel more listened to...um...more welcome and this has also affected the child.

Furthermore, the greater involvement of all the family (involvement of all members), makes them aware of their formal (and particularly informal) support resources, which are so important for the functioning of any family system. The families valued the procedures (useful procedures) that help them think, such as the RBI and Ecomap.
The data analyzed highlight the fact that both professionals and families need time to achieve a good understanding of the new approach and of some of the procedures related to the FCP (for example, IFSP), and to get used to their new roles in the process. Some professionals felt insecure and had difficulties performing the new role; families also needed time to understand what was expected from them, even though they felt they were treated as though they had a higher level of competence than before and this made them feel more empowered.

The results of the focus group also showed difficulties of a personal kind related to the procedures and the centre itself. The professionals talked about the uncertainty caused by the transition process (insecurity), particularly working in the family context (natural context) and by having to put aside their role as an expert and take on the role of guide or coach for the family (professional role):

...We were initially anxious, in the first home visits. We had already done home visits before. You would go with your case, you would adapt it more or less (...) and then well maybe instead of taking a toy out of your case, well you would look around to see what was there, but you had your plan, so to speak (...) this change like 'I’m not really sure what I’ll do today’... well, it made me feel very anxious at first, the feeling of...of lacking command, of feeling like I’m not sure whether I’m doing the right thing (...) at first we even did a lot of role playing on how to conduct the interview, but then in the home visits, it was like...

...I was lacking supervision or some way of recording my experiences and then sharing them.

...Focus groups with colleagues, that is, at least particularly when the change is starting, once a week, have helped me to sit and speak up, and humbly say: I’ve no idea, that is, I’ve been seeing this family for a month and I’ve no idea about how to ask them, I don’t know...

They also mentioned the need for more training (training needs) to help them adapt to the new approach and to feel more confident about their work with families at home:

...Focus groups with colleagues, that is, at least particularly when the change is starting, once a week, have helped me to sit and speak up, and humbly say: I’ve no idea, that is, I’ve been seeing this family for a month and I’ve no idea about how to ask them, I don’t know...

In relation to the procedures, certain aspects stand out with regard to training in the new methods training (training needs). Most statements focused on the development of the IFSP and particularly on writing functional goals:

...It is not always easy to write functional goals or sometimes it is difficult to obtain all the information needed from them [the families] to delimit a functional goal.

Some challenges could be considered as organizational or more specifically related to the service's functioning. In particular, issues such as the lack of resources (poor resources) or lack of time (time consumption) were mentioned.

...We need more time flexibility to go to their homes uh...and how can this be done, how, right? The coordinators or even the managers should give us the flexibility we need to be more in line with this model.

Finally, professionals' statements revealed their belief that families had difficulties adapting to their new role (resistance to change):

...There was a great deal of resistance... to the model, a lot, there were moments when they experienced great anxiety, well...fear, anxiety...

**Discussion and conclusions**

The main objective of this study was to explore the perceptions of professionals in the process of moving from center-based programmes to family-centered service provision. Sawyer and Campbell (2012) and other researchers (King et al., 2009; Magalhães & Pereira, 2017; Pereira & Oliveira, 2017) showed the importance of the professional-family relationship, the role of everyone, and the importance of their participation in evaluation and intervention. In the current study, the professionals emphasize that the model, supported by the specific procedures, provided them with a deeper and more useful knowledge for working with families. Most of the mentioned issues are aligned with what the literature review on EI coaching considered to be important elements (Bruder & Dunst, 2005; Kemp & Turnbull, 2014; Rush & Shelden, 2011). An aspect that stands out from these results is the relationship established between the professional and the family which, in accordance with the collaboration model proposed by Turnbull et al. (2010), is much closer than in other approaches and has an impact on the family's well-being. These results corroborate those of other studies which have shown that a key element in the success of EI interventions is the relationship established between the professionals and the children, the parents and the professionals and other staff members (Dunst & Espe-Sherwindt, 2016; Lee et al., 2007; Rush & Shelden, 2011). In this respect, numerous studies have pointed to the need
for supports to reinforce the relationships between adults (professionals-family, professionals-professionals), which are complex and often lack any clear models of functioning.

Nevertheless, our data also indicate the presence of some challenges in our context. According to the results obtained in previous studies by Pereira and colleagues (Pereira & Oliveira, 2017; Pereira & Serrano, 2014[AQ11]), the professionals claim for more training in order to feel confident and also that they needed models of how to interact with families or how to adjust to their individual needs; these results are similar to those obtained by Salisbury et al. (2010), [AQ12] in particular those related to home visits in complex urban environments. As observed by some authors (Jayaraman et al., 2015[AQ13]), the period of one-day training for professionals is over: longer training periods with follow-up are needed. Coaching in the EI area has established itself as one of the models for ensuring that health professionals, families and EI centres coordinators can help each other to give support to the children's needs. In some countries this collaboration process between professionals is established by law (Council for Exceptional Children, 2014; Division for Early Childhood, 2014), but there is not enough information about the specific behaviours that would constitute 'coaching'. Coaching in EI programmes has been described as the reflection of adult learning principles that represents a set of theories, methods, characteristics, and conditions that help improve adult learning (Fettig, Barton, Carter, & Eisenhower, 2016; Friedman et al., 2012). On the basis of findings from a meta-analysis of adult learning methods and strategies, Dunst et al. (2007) indicated that adults learn best when (a) there is active learner participation, (b) their learning has an immediate context in which the content can be applied, (c) multiple opportunities are provided to practice their new skills, and (d) evaluation strategies are used that encourage the learners to reflect and assess whether and how their new knowledge and practices are used. Some of the elements described by the authors may not have received enough consideration in the training for professionals in this research or in the joint work carried out with the professionals and the families, such as the active participation of learners or the presence of multiple opportunities to practice new strategies.

Our results highlight certain aspects of professional development that may need improvement in future training in order to continue the transition process that we have begun. Dunst, Bruder, and Hambly (2015) suggest that, for training to be effective, it has to include the following: trainer introduction; demonstration and explanation of the benefits of mastering content knowledge or practice; and active and authentic teacher learning experiences. The presence of ‘critical friends’ or external professionals that facilitate reflection and motivate change is recommended. Moreover, focus groups with professionals from the same centre have proved to be helpful. In this respect, the whole service should be involved, not just the professionals who have participated directly (Author et al., 2017; Escoria Mora et al., 2016). It is essential that professionals should have the opportunity to reflect on their learning experiences and should receive coach or mentor support and feedback during the in-service training. Finally, extended follow-up support should be included to reinforce in-service learning and in-service training and follow-up supports of enough duration and intensity to achieve discernible effects on the professionals, families and children (Magalhães & Pereira, 2017). The process requires follow-up beyond the time spent working with professionals.

Another important challenge for professionals and some of the families is the use of procedures that are among the best-known FCP proposals, such as IFSPs. Our results show some difficulties that professionals face when developing IFSPs as proposed by McWilliam (2010). In other words, continuous, intense work is required in addition to the help strategies among adults already mentioned. Although the RBI is considered an effective method for building up a positive relationship with the family (McWilliam, 2010), developing an IFSP that includes functional goals entails a training process in which, for instance, the professionals read documents that clearly explain the steps required to build a functional goal. Even though examples of participation-based, functional goals and family-level goals do exist, professionals claim for more examples.

Although professionals reported positive aspects of the training carried out in this study, they insist they needed more time to think and plan with regard the different activities included into the transition process.

Disclosure statement

No potential conflict of interest was reported by the authors[AQ14].

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References


