Group coaching intervention with parents of children with autism spectrum disorder in Brazil - pilot study

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DOI: 10.21913/TAHS.v3i2.1625

Abstract

Introduction: Caring for children diagnosed with autism spectrum disorder (ASD) entails changes in family dynamics. Families and their children with ASD can be empowered to achieve occupational performance goals through parental coaching interventions. There is, however, limited national evidence on coaching interventions designed to support this population. Aim: This pilot study examines the effects of a coaching intervention program on the occupational performance of Brazilian children with ASD and their families. Methods: A case series experimental design was used to conduct group coaching sessions with 16 caregivers over ten weekly sessions. The intervention was designed following the principles of Occupational Performance Coaching (OPC) and was conducted in a group setting to address the economic constraints of the Brazilian health system. The assessment tools adopted were the Canadian Occupational Performance Measure (COPM) and the Developmental History Questionnaire, developed by the authors. During group coaching intervention sessions, occupational performance in the home environment and the efficacy of strategies developed in collaboration with caregivers were observed and discussed. Ultimately, the COPM goals were reassessed by the participants. Results: The average difference for COPM performance and satisfaction scores indicated significant changes, demonstrating that the group coaching intervention improved the participants' occupational performance. Caregivers reported a broader understanding of ASD and its implications for their children's daily lives. In addition, they had enhanced problem-solving skills and reported increased sense of self-efficacy and competence.

Application and Conclusion: This pilot study has contributed to the literature on using group coaching interventions to increase the occupational performance of participating children and their families. Our findings indicate that the use of OPC principles is promising in Brazil. These initial findings can encourage further research in this
emerging intervention approach and support family-centred interventions in paediatric occupational therapy in Brazil.

**Keywords:** coaching, family-centred approach, autism spectrum disorder, occupational therapy.

**Introduction**

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder initially studied in the early 1900s. The denomination and characterization of ASD has since been the focus of periodic research and reviews (Brasil, 2021; Kanner, 1943). Children with ASD exhibit greater or lesser intensity of (a) persistent delays in communication and social interaction; (b) restricted and repetitive patterns of behaviour, interests, or activities, including repetitive and stereotyped movements in the use of objects or speech; insistence on the same things; verbal and non-verbal ritualistic patterns of performing; hyper or hypo reaction to sensory stimuli in the environment; (c) symptoms present in the early stages of development; (d) symptoms that cause clinically significant impairment in social, occupational or other relevant areas; and (e) symptoms that are not better explained by either cognitive impairment or global developmental delay (APA, 2014). The severity levels of the disorder vary from 1 to 3 (mild to severe), considering that social communication and restrictive behaviours are individually assessed (APA, 2014).

The prevalence of ASD diagnoses around the globe equates to 1 in 160 people (WHO, 2021). In Brazil, approximately 2 million people are on the spectrum, with a higher prevalence in boys. The number of children diagnosed with ASD has been increasing, which can be attributed to several factors, such as the change in the concept of the disorder and its diagnostic criteria, the increase in related health services, the change in the age of diagnosis, and increased awareness about ASD (Fombonne, 2009).
Increasing rates of autism in children and adults worldwide have implications for public health systems at the local and community level, leading to a call for action on several fronts. (Crafa & Warfa, 2015).

The care of children with ASD can have several implications for family dynamics, such as lower occupational performance of children and carers (Estanieski & Guarany, 2015; Shu, 2009). A family may also need to restructure and reorganize their daily routines in order to accommodate the additional needs of their child. (Dardas & Ahmad, 2013; Shu, 2009). Restructuring can negatively affect personal, family, and professional lives, resulting in lowered daily living satisfaction of diagnosed children and their family members (Dardas & Ahmad, 2013; Estanieski & Guarany, 2015).

Favero-Nunes and Santos (2010) investigated the path taken by Brazilian mothers of children with autism in seeking diagnosis and treatment. The authors reported that “the maternal trajectory in the search to understand the problem of the child constituted a pilgrimage movement through clinics, hospitals, and health professionals” (Favero-Nunes & Santos, 2010, p. 218). Multiple barriers have been reported by mothers, such as a lack of understanding of ASD, limited availability, and access to accurate information about the child's condition, as well as underdiagnosis. Managing the child's difficulties and dealing with personal emotional overload were also relevant, as the child's experience of ASD symptoms impacts the entire family. In their study, the authors highlight the scarcity of scientific literature containing proposals for therapeutic interventions to assist families facing these challenges, especially in Brazil (Favero-Nunes & Santos, 2010).

Families-centred services (FCS) have increasingly been adopted by occupational therapists as an effective and recommended approach to improving the occupational performance of children and families (Hanna & Rodger, 2002; Novak et al., 2019). Based on a strength-based approach, FCS recognises the uniqueness of each family
system, as well as the expertise of caregivers in order to provide services in accordance with the family's needs and priorities (CanChild, 2014). Coaching approaches have been employed by early intervention practitioners to facilitate collaboration between parents and therapists and foster supportive, encouraging relationships with caregivers that aim to increase their competence and confidence in choosing, planning, and implementing activities (Rush and Shelden, 2011). Several approaches are available to occupational therapists, such as the Contextual Intervention (Dunn, et al., 2012), Partnering for Change (Missiuna et al., 2012) and Occupational Performance Coaching (OPC) (Graham et al., 2009).

Researchers in Australia and New Zealand developed the OPC (Graham, Rodger, & Ziviani, 2009) as a type of capacity-building coaching intervention centred on family, occupation, and performance that incorporates cognitive, behavioural, and collaborative problem-solving techniques. The proposal is to enhance occupational performance of families in areas identified as targets, as well as to assist them with managing future occupational performance challenges (Graham, Rodger & Ziviani, 2009; Kessler & Graham, 2015; Missiuna et al., 2012).

In contrast to bottom-up approaches, OPC takes a top-down perspective, emphasizing occupational roles and competencies rather than addressing individual performance components. The occupational therapist in this context serves as a mediator to collaboratively achieve goals with their clients, adopting a coaching approach (Graham & Rodger, 2010; Graham, Rodger & Ziviani, 2009). The intervention is based on the premise that a better balance between person, occupation, and environment leads to the development of a successful practice and a more effective transfer of skills (Graham & Rodger, 2010). In addition, it acknowledges that primary caregivers can exert considerable influence on the contexts experienced by their children, and thus, their performance; contexts such as home and community are
therefore the focus of intervention (Graham & Rodger, 2010). The use of three domains defines OPC: emotional support (listening and engaging); exchange of information (shared learning); and structured process (goal establishment and collaborative performance analysis) (Graham & Rodger, 2010; Graham, Rodger & Ziviani, 2009).

The use of OPC has been consolidated internationally with increasing publications of occupational therapy field studies analysing its effectiveness in different populations. For example, recent research studies have been conducted with children with several diagnoses including ASD (Bernie et al., 2021); Developmental Coordination Disorder (DCD) (Kennedy-Behr et al., 2013); and Cerebral Palsy (CP) (Kahjoogh et al., 2019). Despite the promising results at the international level, the OPC has not yet been cross-culturally translated or validated to the Brazilian population. Currently, only a few studies were found on the use of coaching interventions with the Brazilian paediatric population, including one specific to families of children with Developmental Coordination Disorder (DCD) (Araújo, 2021) and another dedicated to families of children with ASD (Malucelli et al. 2021).

Research evidence on group based OPC interventions is slowly emerging, showing that this type of program can provide support to families of children with a range of diagnoses (Angelin & Rajendran, 2012; Kahjoog et al. 2019). Group-based interventions are widely recognized as a valuable approach to delivering services to participants in order to increase their awareness of diagnoses, adapt to life changes, enhance problem-solving skills, and expand social networks (Ezhumalai et al. 2018). The provision of group services to parents of children with ASD has been shown to reduce stress, foster peer support, and promote health literacy and understanding of feasible strategies to assist their children (Farmer & Reupert, 2013; Gee & Peterson, 2016). Group coaching interventions can address the economic constraints of the Brazilian national health system by allowing families to receive professional support.
designed to promote the development of their children through a family-centred approach (Malucelli et al., 2021).

Aim

To address the Brazilian literature and practice gap, the present study aims to investigate whether a coaching intervention program, carried out with groups of parents and carers of children with ASD in Brazil, enhances the occupational performance of children and their families. The results will be based on the families’ measure of the change in occupational performance of those involved and their satisfaction with this performance.

Study Significance

The present pilot study may help increase the repertoire of family-centred interventions in occupational therapy to support the capacity building of parents and carers of children with ASD in Brazil. The findings of this study may directly benefit practitioners and clients by reporting the application of an internationally recognised family-centred intervention with a small sample of the Brazilian population.

Methods

This pilot study was undertaken as part of an honours occupational therapy degree. This is a pre-post case series, consisting of baseline assessment and pre-intervention, intervention, and post-intervention phases, to investigate the effects of group coaching (independent variable) on occupational performance (dependent variable). Case series involve an in-depth description of some individual's condition or response to treatment and proves to be a valuable source of information for evidence-based practice because it shares important aspects of healthcare professionals' experiences with different clients (Portney, 2015).

In order to contextualize this study, it is pertinent to note that the honours project was created in 2017 and the groups were conducted between March 2018 and
July 2019. The need for a translated, cross-culturally adapted OPC manual that has been validated for the Brazilian population was identified; however, at the time of the project and publication of this study, this had not yet been developed. Rather, this group intervention was designed following the principles described by Graham and Rodger (2010).

**Participants**

The research inclusion criteria included primary caregivers of children diagnosed with autism spectrum disorder (ASD) who were on the waiting list, with a chronological age of 4 years or older. It was a requirement that participating families sign the informed consent form and accept to participate in the research without payment. Initially, 16 parents were included in the study. Eleven families completed the study and five ceased participating for unknown reasons. Table 1 describes the characteristics of the participants.

** Instruments **

*Canadian Occupational Performance Measure (COPM) (LAW, et al., 2000)*

- Semi-structured interviews were used to define intervention goals. The COPM enables the family to score the importance of each selected goal, the child's current performance and the families’ satisfaction, with scores ranging from 1 to 10. The present study used the pre- and post-intervention COPM scores as an outcome measure to assess the intervention effects.
**Table 1: Family characteristics**

<table>
<thead>
<tr>
<th>Child*</th>
<th>Participating Caregiver 1</th>
<th>Age 1</th>
<th>Participating Caregiver 2</th>
<th>Age 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child One</td>
<td>Mother</td>
<td>33</td>
<td>Father</td>
<td>40</td>
</tr>
<tr>
<td>Child Two</td>
<td>Mother</td>
<td>38</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Child Three</td>
<td>Mother</td>
<td>29</td>
<td>Father</td>
<td>38</td>
</tr>
<tr>
<td>Child Four</td>
<td>Mother</td>
<td>38</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Child Five</td>
<td>Mother</td>
<td>42</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Child Six</td>
<td>Mother</td>
<td>33</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Child Seven</td>
<td>Mother</td>
<td>41</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Child Eight</td>
<td>Mother</td>
<td>41</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Child Nine</td>
<td>Mother</td>
<td>36</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Child Ten</td>
<td>Mother</td>
<td>39</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Child Eleven</td>
<td>Mother</td>
<td>37</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

*Developmental history questionnaire* – This questionnaire was created by the authors to collect the children’s pre-, peri- and post-natal history, details of clinical history with external health professionals, school information and personal details of families.

*Procedures*

The families placed on the waitlist were surveyed to identify whether they met the inclusion criteria. The pre-selected families were then extended an invitation via a telephone call to participate in the study by the research team, composed of two fourth-year occupational therapy students in their final year of study, and their supervisor (coordinator occupational therapist). After each participant accepted and signed the Free
and Informed Consent Form, they were formally included in the research project. The study was approved by the UFMG Ethics Committee.

**Group coaching interventions**

The research team conducted the group coaching intervention program following the OPC principles proposed by Graham & Rodger (2010). The program, inclusive of pre- and post-intervention assessment, was implemented over ten weeks, with 90-minute sessions held every week. First, a group intervention planning session was conducted with the parents to introduce the group intervention plan and to collect baseline information. At the second session, the COPM and the Developmental History Questionnaire were discussed individually with each parent. Each family identified five priority goals for their child and for themselves to target during the intervention. The third session was an individual free play session with each child, used to gain a better insight into their personalities and needs, for the purpose of enhancing the strategies discussed in subsequent sessions.

The purpose of ensuing group coaching intervention sessions was to identify strategies and action plans for achieving target goals. To guide these sessions, the authors developed a script based on concepts of collaborative performance analysis (CPA; otherwise known as collaborative occupation analysis) (Graham & Rodger, 2010). The script was used as a guide to help families observe their child's performance in the targeted activities, identify factors that might act as barriers or facilitators, and propose potential strategies for solving those problems. In this study, this guiding document was named ‘the CPA script’.

Over six group coaching intervention sessions, the participating caregivers discussed their goals in accordance with the CPA script, under the guidance of the researchers. Over the following week, they attempted to apply the strategies collaboratively developed at the group session in their home environment. Strategies
could be modified if necessary to optimise individual occupational performance. To promote skill transference and generalise learning across contexts, the research team encouraged the caregivers to independently reflect on the efficacy of each strategy according to their own capacity, family routine and child's skills. At the final session, the goals developed using the COPM were reassessed.

Table 2 summarises the steps involved in data collection.

<table>
<thead>
<tr>
<th>Table 2: Stages of Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st session</td>
</tr>
<tr>
<td>2nd session</td>
</tr>
<tr>
<td>3rd session</td>
</tr>
<tr>
<td>4th session</td>
</tr>
<tr>
<td>5th session</td>
</tr>
<tr>
<td>6th session</td>
</tr>
<tr>
<td>7th session</td>
</tr>
<tr>
<td>8th session</td>
</tr>
<tr>
<td>9th day session</td>
</tr>
<tr>
<td>10th session</td>
</tr>
</tbody>
</table>

Data analysis

In the methodology of case-series study, data analysis is conducted by describing and discussing the methods used to interpret and generate conclusions about the changes in the participants' performance. The data was transferred into tables and graphics, using a quantitative approach, to examine the extent of changes observed in each child and assess the consistency of intervention effects. Furthermore, to complete the individual analysis typical of this type of study, a comparison was made pre- and post-intervention using the Statistical Package for the Social Sciences - SPSS for Windows - (Version 19.0).
Community involvement

The eleven families who completed the intervention program provided feedback on the group coaching methodology and the impact of this at the conclusion of this study. This feedback will be reported in a subsequent article.

Results

The average age of the participating mothers was 37 (± 4.00) years old, and fathers were 41.5 (± 4.41) years old, with an increased prevalence of mothers participating (both married and single). It was observed that 100% of the children were male, with an average age of 5.7 (± 0.91) years. Of the 11 children who completed the study, ten children had initially presented with challenging behaviours at home, in the school environment, or both.

All children were already accessing services with at least one external health professional, namely occupational therapists, psychologists, psycho-pedagogists and speech therapists. There was no change in the children’s appointment routines throughout the intervention, meaning that the professionals who had accompanied the children before recruitment to the research, continued to offer their services. Likewise, children were not referred to other external professionals for the study duration to eliminate further therapeutic bias.

The Developmental History Questionnaire revealed that the developmental stage at which families suspected delays or differences varied. The earliest perception of such differences occurred when the baby was six months old (did not turn around when called), and the latest was at 36 months (did not respond to sounds and did not like to be dressed). The average age at which families perceived behaviours characteristic of ASD in their children was 15.6 (± 8.13) months of age.

In the second intervention session, families collectively established 55 goals addressing the occupational performance issues of participating children. At the end of
the goal-setting process, 28 unique goals were prioritized using the COPM. These were divided into the following categories: Activities of Daily Living (ADL), Play, and Education. Table 3 shows the goals by categories.

<table>
<thead>
<tr>
<th>Activities of Daily Living</th>
<th>Play</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toileting readiness</td>
<td>Functional play</td>
<td>Develop interest in handwriting</td>
</tr>
<tr>
<td>Decrease bottle use</td>
<td>Increase play repertoire</td>
<td>Adopt a functional pencil grasp</td>
</tr>
<tr>
<td>Diversify food</td>
<td>Symbolic play</td>
<td>Write name in print letters</td>
</tr>
<tr>
<td>Bring the spoon to the mouth</td>
<td>Pack away toys</td>
<td>Write name in cursive letters</td>
</tr>
<tr>
<td>Undress lower limbs</td>
<td>Play with peers</td>
<td>Extend engagement in school activities</td>
</tr>
<tr>
<td>Undress upper limbs</td>
<td>Turn-taking during games</td>
<td></td>
</tr>
<tr>
<td>Dress lower limbs</td>
<td>Accept loss in games</td>
<td></td>
</tr>
<tr>
<td>Dress upper limbs</td>
<td>Decrease video game time</td>
<td></td>
</tr>
<tr>
<td>Put on Velcro shoes</td>
<td>Reduce agitation in open environments</td>
<td></td>
</tr>
<tr>
<td>Tie shoelaces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bathe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brush teeth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wipe after using the toilet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tolerate hair cuts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After six group coaching intervention sessions addressing these goals, the families reassessed their performance and satisfaction using the COPM. Table 4 demonstrates the average differences in the final performance and satisfaction ratings of participants’ independently appointed goals.
Table 4: Change in performance and satisfaction regarding the listed goals

<table>
<thead>
<tr>
<th>Child*</th>
<th>Perf. 1</th>
<th>Sat. 1</th>
<th>Per. 2</th>
<th>Sat. 2</th>
<th>Dif. Per.</th>
<th>Dif. Sat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child One</td>
<td>1</td>
<td>1</td>
<td>3.8</td>
<td>4</td>
<td>2.8</td>
<td>3</td>
</tr>
<tr>
<td>Child Two</td>
<td>3.6</td>
<td>2.8</td>
<td>8</td>
<td>8.6</td>
<td>4.4</td>
<td>5.8</td>
</tr>
<tr>
<td>Child Three</td>
<td>3.6</td>
<td>3.4</td>
<td>7.2</td>
<td>7.4</td>
<td>3.6</td>
<td>4</td>
</tr>
<tr>
<td>Child Four</td>
<td>3.2</td>
<td>3</td>
<td>7</td>
<td>8.2</td>
<td>3.8</td>
<td>5.2</td>
</tr>
<tr>
<td>Child Five</td>
<td>2.6</td>
<td>2.6</td>
<td>3.2</td>
<td>3.8</td>
<td>0.6</td>
<td>1.2</td>
</tr>
<tr>
<td>Child Six</td>
<td>2.8</td>
<td>4.6</td>
<td>4.2</td>
<td>5.8</td>
<td>1.4</td>
<td>1.2</td>
</tr>
<tr>
<td>Child Seven</td>
<td>3.2</td>
<td>5</td>
<td>7</td>
<td>9.6</td>
<td>3.8</td>
<td>4.6</td>
</tr>
<tr>
<td>Child Eight</td>
<td>3.5</td>
<td>3.25</td>
<td>5.25</td>
<td>5.75</td>
<td>1.75</td>
<td>2.5</td>
</tr>
<tr>
<td>Child Nine</td>
<td>1</td>
<td>1</td>
<td>4.2</td>
<td>4.4</td>
<td>3.2</td>
<td>3.4</td>
</tr>
<tr>
<td>Child Ten</td>
<td>1.4</td>
<td>1</td>
<td>2.6</td>
<td>1.6</td>
<td>1.2</td>
<td>0.6</td>
</tr>
<tr>
<td>Child Eleven</td>
<td>3.6</td>
<td>4.6</td>
<td>6</td>
<td>5.6</td>
<td>2.4</td>
<td>1</td>
</tr>
</tbody>
</table>

Notes:
Per. = Average Performance; Sat. = Average Satisfaction; Diff. Per. = Difference in Average Performance; Diff. Sat. = Difference in Average Satisfaction

The combined performance and satisfaction results for all families showed an average difference of +2 points. This difference is calculated by subtracting the final rating score from the initial rating score. According to the COPM user manual (Law, et.al. 2000), a difference equal to or greater than 2.0 points indicates a clinically significant change in the assessment of occupational performance and satisfaction with that performance. This result is shown in Graph 1.
Following a group coaching intervention based on OPC principles, the participants of this study experienced a clinically significant increase in their performance and satisfaction with their identified goals. Similar results were found in a study in India (Angelin & Rajendran, 2012), in which mothers and their children with ASD successfully participated in a group based OPC intervention. Because the OPC is based on collaborative problem solving, the principles of this intervention can be valuable for building strategies targeting individual contexts and improving the occupational performance of participating families (Alcorn & Broome, 2014; Graham, Rodger & Ziviani, 2014).

One of the main goals of the OPC is to improve the problem-solving skills of families in collaboration with therapists (Graham & Rodger, 2010). Over the six group intervention sessions, families began to reflect and apply their own strategies in their daily routines, with support from the researchers. For example, the mother of Child Six initially reported having limited skills and knowledge for managing the child’s meltdown episodes. However, following the group coaching sessions, she reported that she had successfully supported her son's self-regulation by taking him to a quiet space and hugging him firmly during a meltdown episode. After participating in a group
coaching intervention study (Malucelli et al., 2021), Brazilian mothers also improved their interactions with their children and gained skills to understand and manage their behaviour.

The mother of Child Four had listed ‘holding the pencil accurately’ as one of her son’s goals. After discussing strategies, the use of pencil grip tools was suggested. Towards the end of the intervention sessions, she shared information on the different types of pencil grip tools with the group. She had purchased various tools, produced her own and then reported which she believed to be most effective for her son. This example portrays the ability of this mother to reflect on her child’s difficulties and to proactively seek solutions for them. A similar phenomenon was also observed in an OPC study by Graham, Rodger and Ziviani (2014), where participating mothers were shown to better understand their child and themselves, as well as the way that their parental role can act as a facilitator of their child's performance. Through this learning process, these mothers were able to analyse their child's difficulties more effectively and consistently implement strategies in their individual contexts.

In the COPM post-intervention reassessment, the families' satisfaction towards their goals was evaluated as higher than occupational performance, even though there was an increase in both variables. The authors hypothesise that families’ access to information about ASD potentially promoted a greater understanding of their children's preferences, behaviour, and daily performance. The participating families might have adjusted their expectations for more reasonable outcomes according to their own and their child’s capacity.

Although the initial aim of this group coaching program was to improve the occupational performance of children and families, the goals identified in the COPM were specific to the participating children. Misquiatti et al. (2015) indicated that caring for children with ASD generates consequences and limitations in families' personal
lives. This impacts other lifestyle aspects; the care burden reduces the free time for family members, exacerbates ill-health, requires increased planning for changes, and limits flexibility in routine to respond to the child's needs. Therefore, even with the guidance of therapists for caregivers to choose goals for themselves, they could only identify specific performance demands related to their children.

Following the commencement of intervention sessions, some mothers in this study indicated that they had started to prioritise time for themselves. One mother reported that she started going to the gym daily, while another reported that she was now going to have coffee with a friend once a week. Similarly, one mother went travelling with her husband, leaving their son with his grandparents. It is noted that the group intervention still fulfilled the objective of improving the occupational performance of children and, in this case, the caregiver’s own participation in the community.

In this study, the group format facilitated the participants to acquire and share knowledge with other caregivers in similar life situations. Rasera and Rocha (2010) proposed that a group space is marked by exchanges, socialization, intimacy, sense of community, interaction, and co-responsibility. In their study, families developed a sense of ownership and competence towards the strategies they implemented. Participants also increased their awareness of other families’ situations, as they had the chance to comprehend the contexts of other carers and develop the ability to problem-solve together. A group intervention format was also employed in a case study and a randomized clinical trial using OPC with mothers of children with cerebral palsy, which utilised the COPM to analyse primary results (Kahjoog et al., 2017, 2019). There were significant differences in COPM ratings between the control and intervention groups, favouring the intervention group. These findings indicate that positive outcomes can be attained through the combination of group intervention and OPC.
Although the goals developed using the COPM were not specifically targeted at caregivers' individual needs, and no standardised evaluation method was used to measure this variable, an unintended outcome of this study was the improvement in caregiver performance and satisfaction toward their own role and care. Some caregivers reported increased confidence and autonomy after learning more ASD and a better understanding of managing their children's performance difficulties. For example, following the group coaching intervention sessions, Child Six's mother reported that she could advocate for him in a playground incident and felt more confident in his ability to play with peers. As OPC is a family-centred practice, the intervention considers the entire family's needs, which encourages caregivers to feel competent in their role (Graham, Rodger & Ziviani, 2013). Therefore, the coaching group intervention in this study is likely to be beneficial to parental efficacy and self-confidence.

**Limitations of the Study**

The selection of the pre-post experimental study design posed some methodological limitations to the findings. According to NHMRC (2009), this design is the lowest in the hierarchy of evidence and does not provide a strong methodology to eliminate the risk of bias. Therefore, its results are preliminary and provide justification for further investigation of this subject. Despite the clinically significant gains in the findings, the study sample size was insufficient to generalise the results to the Brazilian population of families with children with ASD. Nonetheless, this study has promoted the occupational performance and satisfaction of the participating children and their families in their daily lives.

Other limitations were related to the lack of standardised instruments used to measure specific variants, such as the families' problem-solving and generalisation skills. Additionally, there is a scarcity of tools to assess parental self-efficacy. If such tools were available in Portuguese, the study could have interpreted these variables with
precision and specificity. As a result, the report of unintentional findings in this study is not statistically proven and serves only to contextualise the study. Finally, at the time the group coaching intervention program was developed, the OPC manual had not yet been published, so the interventions mentioned throughout the study were based on the principles of OPC, however, the program was not fully applied.

**Practice Implications and Future Research**

The results derived from this intervention with Brazilian families indicate that participating families may be better able to manage future occupational performance problems independently, either for themselves or their children. The findings of this study may help increase the repertoire of family-centred interventions in occupational therapy to support the capacity building of parents and carers of children with ASD in Brazil. Further studies with larger sample groups and different Brazilian regions are crucial to comprehend with greater propriety if this is a beneficial intervention for the Brazilian socio-cultural reality. It is also recommended to conduct a validation and a cross-cultural adaptation to adjust the OPC structure and language towards a more culturally relevant and sensitive tool for the Brazilian population.

Another suggestion for future studies is to investigate parents' profiles at the beginning of the intervention to optimise and enrich discussions at the sessions. This may help researchers and practitioners understand possible barriers to parent engagement and seek solutions tailored to individual learning styles. Additionally, parents and caregivers may benefit from at least one goal being directed at them during the goal-setting process, to reflect the purpose of OPC in improving the occupational performance of caregivers and children.
Conclusion

In this study, it was demonstrated that a group coaching intervention with Brazilian families of children with ASD promoted (1) increased scores in families’ perceived performance and satisfaction towards their selected goals, with higher scores for satisfaction; (2) greater familial understanding of ASD and its implications in the daily lives of children; and (3) development of strategies related to problem-solving skills.

International evidence indicates that the use of OPC has been effective in achieving objectives related to occupational performance with different populations. This study pointed to similar results with a population of children with ASD and their families in Brazil. However, with a small sample group and using only OPC principles, larger studies with a stronger methodology should follow.

Key Messages of Article

- The use of group coaching intervention increased the performance and satisfaction of the participating families and children.
- In this study, the intervention promoted the involvement of primary caregivers in the occupational therapy process, supporting a family-centred approach.
- The adoption of the OPC principles helped participant families develop problem-solving skills, increase their satisfaction towards their child’s occupational performance, and promote families’ understanding of ASD and its impact on theirs and their child’s lives.
- This study is likely to encourage further research to refine and test the use of the group coaching intervention in different occupational therapy settings and different regions of Brazil.
Acknowledgements:
We thank all the families that participated in the study and Professor Dr Fiona Graham for her guidance and support.

Funding:
This research received no external funding.

Conflicts of Interest:
The authors declare that there is no conflict of interest.

Ethical Approval /Patient consent:
UFMG Ethics Committee, opinion number CAAE 20347319.4.0000.5149. All participants signed an informed consent form.

Author contributions:
All authors have contributed in different roles and capacities to warrant inclusion as an author of this paper.

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