The Engagement of Parents of Children With Cerebral Palsy in Intervention Session: Parent's **Perspective** 

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**ABSTRACT** 

**Introduction:** Parental engagement in intervention sessions is pivotal for the successful development

of children with cerebral palsy (CP). However, the multifaceted nature of this engagement,

encompassing affective, cognitive, and behavioural dimensions, remains underexplored from the

parents' perspective.

**Purpose:** This study aimed to understand the engagement of parents of children with cerebral palsy

(CP), in intervention session from perspectives of parents

Methodology: Utilizing a qualitative research design, semi-structured interviews were conducted with

7 parents of children with CP. The interviews were systematically transcribed and subjected to thematic

analysis, allowing for the identification of prevalent themes and patterns.

Result: The results indicate that parents show a strong emotional commitment, a deep cognitive

involvement in understanding intervention strategies, and active participation in sessions. They also

implement strategies at home. However, parents face challenges such as emotional stress, cognitive

overload, and practical difficulties in maintaining consistent involvement.

Conclusion: The study concludes that while parental engagement is multifaceted and beneficial, there

is a critical need for enhanced support mechanisms to address the emotional, cognitive, and behavioural

challenges faced by parents. These findings highlight the necessity for comprehensive intervention

programs that facilitate and sustain active parental involvement, thereby optimizing outcomes for

children with CP.

**Keywords:** parent engagement, cerebral palsy, involvement

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#### Introduction

Cerebral palsy (CP) is a neurological disorder that appears in early childhood and affects a person's ability to control their muscles. It is caused by damage or abnormalities in the developing brain, specifically in areas that control movement, balance, and posture (National Institute of Neurological Disorders and Stroke (NINDS), 2021). This condition can lead to difficulties with muscle coordination, motor skills, and may also be associated with other neurological and developmental issues. The term "cerebral" refers to the brain, and "palsy" refers to a lack of muscle control or coordination(National Institute of Neurological Disorders and Stroke (NINDS), 2021). Cerebral palsy is not a single disorder but rather a diverse range of conditions that can vary in severity and presentation. Some individuals with cerebral palsy may experience mild muscle weakness and coordination challenges, while others may have more significant impairments that affect their ability to walk, communicate, and perform daily tasks.

Cerebral palsy is typically diagnosed early in childhood, often within the first few years of life, as the motor and developmental challenges become apparent. It is a lifelong condition, but with appropriate therapies, interventions, and support, individuals with cerebral palsy can make significant progress and lead fulfilling lives. The causes of cerebral palsy can include factors such as brain damage during pregnancy, childbirth, or early infancy. These factors can be due to a variety of reasons, including infections, lack of oxygen, genetic factors, and brain abnormalities. It is important to note that cerebral palsy primarily affects movement and muscle control, and individuals with CP may have a wide range of abilities and challenges (Centers for Disease Control and Prevention (CDC), 2020). The condition is managed through a combination of therapies, medications, assistive devices, and supportive services to help individuals achieve their highest level of independence and quality of life.

Occupational therapy interventions for cerebral palsy (CP) are aimed at improving the individual's motor function, mobility, communication skills, and overall quality of life (Peters et al., 2019). These interventions are typically tailored to the specific needs and abilities of each person with CP. Common interventions used for individuals with cerebral palsy includes physical activities to improve their strength, flexibility, balance, and coordination. The designed exercises and activities were targeted to specific muscle groups and helped individuals learn to control their movements more effectively. Another intervention was helping individuals develop skills needed for daily activities, such as dressing, eating, and grooming. Occupational Therapist (OT) may also recommend adaptive equipment and techniques to enhance independence (Peters et al., 2019). Other than that, OT would recommend orthotic devices, such as braces or splints, which can help improve posture and function. Assistive devices like walkers, wheelchairs, or communication devices can also enhance mobility and communication. OT also provides early intervention services provide a range of therapies and supports to enhance development and address challenges from an early age. In addition, OT also provides support for psychological and parent training to support their child's development and manage their needs at home can be invaluable and coping with a lifelong condition.

The role of OT in intervention setting aims to create an inclusive and supportive environment that allows them to access education, participate in activities, and develop their skills to the best of their abilities. OT supports children with cerebral palsy in intervention by preparing an Individualized Education Plan (IEP), a legal document that outlines the child's unique needs, goals, and the special education and related services they will receive (American Occupational Therapy Association (AOTA), 2024). It is developed collaboratively by a team that includes teachers, therapists, parents, and the children (when appropriate). Furthermore, OT also provide accessibility and inclusion to ensure that the intervention environment is physically accessible with ramps, elevators, wide doorways, and other accommodations that enable students with mobility challenges to move around independently. Other than that, provide access to assistive devices and technology such as communication devices, computer

software, or adaptive tools that help students with cerebral palsy participate in classroom activities and complete assignments(American Occupational Therapy Association (AOTA), 2024).

OT in intervention setting also established collaboration and communication with teachers, therapists, parents, and other intervention staff to ensure that everyone is aware of the children's needs, progress, and challenges. Environmental support inside and outside classroom such as implement strategies such as flexible seating arrangements, extended time for task, and visual aids to accommodate the children's learning style and needs(CDC, 2020). OT also provides social skills training to help students with cerebral palsy develop social interactions and relationships with peers and Implement strategies to manage behaviour and address any challenges that may arise, using positive reinforcement and clear expectations(CDC, 2020). Awareness, training, and family involvement were also provided by conduct training sessions for intervention staff and students to increase awareness and understanding of cerebral palsy, its impact, and how to interact respectfully and inclusively, and engage parents and caregivers in the student's education, regularly communicating about progress, challenges, and strategies.

Despite all intervention provided, engagement should be given special consideration in paediatric intervention because it will shape how the parent, child and therapist experience the intervention. The demand of supporting parents through an engagement toward children with CP is important to enable each other to become involved, committed, and empowered collaborator in the intervention. Parent participation plays an important role in children's development and participation in intervention setting. Understanding the perspectives of parents when designing interventions for children with CP is essential for several important reasons because parents are the main person in each child's life. Parents have a unique and holistic understanding of their child's needs, strengths, challenges, and preferences. Incorporating their insights helps create a comprehensive and personalized intervention plan that addresses all aspects of the child's well-being.

Besides, involving parents in the intervention process aligns with the concept of family-centred care. Recognizing parents as active partners fosters collaboration and empowers them to play a central role in their child's development. Parents are with their children consistently, providing insights into their child's behaviours, responses, and progress over time. This longitudinal perspective is valuable for making informed adjustments to the intervention plan. Thus, parent participation and involvement in children's intervention are crucial to improve child abilities and independence. Incorporating parents' perspectives into intervention planning demonstrates respect for their expertise and strengthens the partnership between parents, professionals, and caregivers. It promotes a collaborative, family-centred approach that is vital for optimizing the outcomes and quality of life for children with cerebral palsy.

### **Problem Statement**

Parents of children with cerebral palsy (CP) often have a range of perceptions and emotions related to their child's condition. It is important to note that each parent's experience is unique, and their perceptions can evolve over time as they learn more about CP and navigate the challenges and joys that come with raising a child with special needs. Parent and children with CP enter the intervention or treatment program with expectation about the help they would receive, in addition to how the therapist will interact with them and the regimes that they should followed, and the outcomes that they will achieve. By then, OT need to play the best role so that both parent and children with CP able to view the intervention as valuable, confident to engage in and there is greater like hood they will continue to the intervention or treatment planned. However, the needs of understanding the perspectives of parents in interventions for children with CP was rarely discussed. This may relate and effect parent's engagement with their children in early intervention.

Besides that, there are lack of study that identified the study and measure on engagement of parent of children with CP in early intervention. The participation and involvement of parents in the care, intervention, and development of children with cerebral palsy (CP) can have a profound and positive impact on the child's abilities and overall development. Parents should extend therapeutic activities and exercises into the home environment, turning everyday routines into learning opportunities. This reinforces the child's skills and promotes continuous development. Thus, involving parents in intervention empowers them to actively contribute to their child's development, boosting their confidence in supporting their child's progress.

## **Research Objectives**

- 1) To explore parent's perspective on engagement in intervention session
- 2) To identify the challenges faced by parent of children with CP to engage in intervention session.
- 3) To identify the suggestion explained by parent of children with CP to improve the engagement with children with CP.

## **Research Questions**

- 1) What is the parent's perspective on engagement in intervention session?
- 2) Are there any challenges faced by parent of children with CP to engage in intervention session?
- 3) Are there any suggestions by parent of children with CP to improve the engagement with children with CP?

## Literature Review

Engagement is important and required to the effective achievement of therapy to gain positive client outcome and it was crucial to sustain collaborative interactions, enable child and parent ownership in the therapy process and family-centred care in area of paediatric rehabilitation. This chapter presented the review of literature on the engagement on therapeutic interventions, the multifaceted engagement and factor that influence engagement. Literature search regarding engagement were retrieved from databases of Web of Sciences, Scopus, Science Direct and Google Scholar.

## **Engagement in Therapeutic Intervention; Why Do We Want It?**

Engagement is referred to the level of interpersonal involvement shown by a person in social situations (Simmons-Mackie & Kovarsky, 2009). Engagement is considered as the social exchanges in communication including verbal or non-verbal gesture or signal, and the participation involvement. The conceptualized of engagement may be varied from engagement of persons with a disability in community to the level of engagement in a particular conversation. In health care literature, the term engagement is used more commonly than involvement, even though the term involvement is always defined as engagement (Imms, 2017). Engagement is important and required to the effective achievement of therapy to gain positive client outcomes. Besides that, engagement is crucial to sustain collaborative interactions, enable child and parent ownership of the therapy process and realize family-centred care in area of paediatric rehabilitation. Engagement requires the involvement and interaction of the child and family or caregiver. To sum, the important aspects of engagement are the involvement of therapist-parent-children to promote the effectiveness of interventions.

The role of service provider would affect the engagement by how the provider showed attitude toward parent and children, be an active listener, understand parent's perspective, making

therapy and intervention meaningful and informative, empathy, trust, and ability to create a successful of engagement. This conditions for engagement were listed generally in the study of Bright et al. (2015) and explained clearly in the study of D'Arrigo et al. (2017) based on ACB aspects. From this, the need of practitioner understands the engagement was very crucial and needed. Through viewing and experiences, the engagement model and framework were not common and less exposure to occupational therapist. There was reported a study by Smart et al. (2017) on qualitative studies of ACB aspects of engagement on youth with physical disabilities. However, there is no study related engagement among parent of children with CP to measure how the parent and children engage during intervention session. Although, it is widely assumed that engagement is necessary for the best outcome between therapist-parent-children but there is surprising that lack of research on how engagement brings works to the therapy process. This is important and crucial for the therapist to value the importance of engagement in each of entry client into therapy process toward the progress of parent and children.

Apart from that, the parent involvement either father or mother was the most important attention to best treat their children with CP. Their role as mediator in intervention cannot be denied in terms of the support and advocate capacities in the intervention programs affords, there is a clear case for including families with children who have disabilities as early as possible. Most children with CP will need first and early intervention services, followed by vocational and adult support programs. Therefore, the earlier caregivers become aware of their children's requirements, the services they get, and the working of the service systems, the more equipped they will be to make choices that will promote each child's optimal development. The role of parent would affect the engagement by how the parent being open to communicate, on track of session appointment, showed respect and commitment, put an effort and willingness to the task, aware and perceived the usefulness of intervention and belief toward collaborative process and progress. This conditions for parent engagement were listed generally in the study of Bright et al. (2015) and explained accordingly into three aspects of ACB engagement by D'Arrigo et al. (2017).

In the recent years, there is an increased focus in parent-mediated interventions for children with CP. Therefore, parents are the best source of input as they know their child much more than service providers. The use of correct strategies will give meaningful outcome and engaging child to perform more activities that simultaneously lead to developing skills. It leads to expanding interaction with people surrounding the child. By actively coaching parents, this will also reduce the treatment gap while sustaining the intensiveness of early intervention programme. Novak & Honan (2019) in the systematic review study of the effectiveness of paediatric occupational therapy for children with disabilities stated that parent coaching and parent education was 1 out of 40 intervention was considered as strong recommendation intervention and prioritize than another. The review stressed out that the interventions had high-quality evidence based with more advantages on it compared to others. Thus, facilitating engagement with evidence-based strategies of intervention were needed to consider and should be acknowledge in this paediatric area.

### **Factors that Influence Engagement**

Parental participation in therapy enhances the skill of generalizability and increases the quantity of intervention the child receives. When parents are involved in treatment, outcomes for both children and parents show a variety of advantages. Continuous teaching to parent of children with CP with skills that was learned from therapy session to the home setting will enhances parent-child relationships and increases the amount of intervention receives (Girolametto & Tannock, 1994).

However, several factors can influence the level of parental engagement in therapy. Parental stress associated with raising a child with CP is a significant factor that can affect their ability to participate in therapy consistently (Davis et al., 2010; Pelchat et al., 2009). High levels of stress can reduce a parent's capacity to engage effectively in interventions and may also affect their overall well-being. Marital satisfaction, socioeconomic status, gender, and the parent's level of education also play a role in influencing their engagement(Davis et al., 2010; Pelchat et al., 2009). For example, parents with higher levels of education may feel more confident in applying therapeutic strategies at home,

while those with lower socioeconomic status might face barriers such as time constraints or lack of resources that can limit their involvement.

## Methodology

## **Study Design**

Qualitative study aimed to obtain overall perspectives on participation and involvement in activities of children with CP throughout this study. The study is virtual one to one session (semi structured interview) through google meet (interview guide was developed based on research questions). The study location is PERMATA Kurnia Centre, GENIUS Division, Ministry of Education

## **Sampling And Method of Data Collection**

Data was collected by using purposive sampling, which participated in by parents of children with CP in PERMATA Kurnia Centre. The sample can be recruited through virtual session. The selected parents were from the pilot project program of CP class. The recruitment was started with individual consent approval and explanations were given for them to understand the ethical of study and the needs of this study. An open-ended questionnaire was given to volunteered parent. The parent of children with CP are enrolling for pilot CP project in PERMATA Kurnia were involved in this study.

#### **Research Instrument**

## **Section 1: Demographic Data**

The demographic data of parents and children with CP was taken into this study. Age and gender were selected for child information, while age, gender, level of education, financial status and number of children were taken for parent information. Other than that, information regarding enrolment date, attendance, and session were also considered for the demographic information.

## **Section 2: One to One Interview Questionnaires**

The qualitative questionnaire consists of 6 open ended questionnaires.

- 1) Explain your feeling after attending intervention session?
- 2) Are you convinced to continue the intervention at home that been taught by therapist?
- 3) What do you hope for your child outcome after one year attending session?
- 4) Is it the plan suggested was relevant to your family routine?
- 5) Is it the plan meet the child's goal and family needs? Is it any challenges you are facing during the intervention process?
- 6) Do you believe the intervention process was effective to child and your family?
- 7) Is it the intervention plan suit to your family's routine and lifestyle?
- 8) Do you able to carry out the intervention planned?
- 9) What are your comments or suggestions in improving your engagement with your children with CP?

# **Data Analysis**

Through interview with seven (7) parents involved, the responses to the intervention sessions are largely positive, emphasizing gratitude, hope, and the significance of small improvements. However, the emotional toll and fatigue experienced by some parents also indicate that these sessions can be challenging. Nonetheless, the overall sentiment reflects that the benefits of the intervention, both in terms of their child's progress and the skills they gain and outweigh the difficulties, making the sessions a meaningful and valued experience for most parents interviewed. Parents also explaining about their confidence in carrying out intervention at home, generally indicating positive attitude

towards continuing those activities at home. Furthermore, parents also concern of challenges they were facing such as child's mood swing and cooperation that is unstable, having trouble to execute the intervention process properly step by step, also the need to adapt the intervention to their home settings. These insights make parents realize of the value of the intervention but at the same time being realistic of the challenges and obstacles may need to encounter.

The parents also hoping for their children increased independence in attending school, able to get involved with school activities and improved social interaction. These reflect the importance of development of education and peer relationships. The most common hope that parents want for their child through the interview is for them to have a better level of self-independence and social interaction with people around them. The responses indicate parents hope for their child's progress in their child's journey. Therapist during intervention also mention suggestion that may relate to the family routine. Generally, those suggestions were relevant to family routine but implementation of the intervention is often dependent on several factors such as child's cooperation, financial status, the family dynamic of understanding and giving cooperation between them in doing interventions either comes from the siblings or the spouse. Parents are willing to engage in the activities, but they need to adapt them to their unique family dynamics. The responses also highlight the importance of simplicity, flexibility, and clear explanations from therapists to help parents feel more confident and involved. Is the plan meet child's goal dan family needs? Most of responses were positive, the intervention plans are generally suitable and aligned with the child's goals, families face significant challenges in implementing them due to time constraints, fatigue, financial difficulties, and family dynamics. Parents are motivated and committed to supporting their children, but external factors, such as the availability of resources, work schedules, and the involvement of other family members, often hinder consistent engagement with the intervention plan.

Parents believe in the effectiveness of the intervention process for both their children and their families. While some express a more reserved optimism, acknowledging that progress may be slow or dependent on consistency, the overall sentiment is positive. The parents recognize that the intervention process is a valuable tool in helping their children, even if the results are gradual and require sustained effort. The responses also highlight the importance of managing expectations and reinforcing the message that progress, though potentially slow, is achievable through consistent and patient effort.

The intervention plans are generally well-suited to the families' routines and lifestyles. Parents appreciate that the plans are practical, adaptable, and often require minimal equipment, making them easier to integrate into daily life. Although some families may need to adjust the timing of activities, primarily to weekends are the best choices, the flexibility of the plans allows them to manage despite busy schedules. Parents also realized the help from therapist in suggesting the designing intervention plans that are realistic, flexible, and aligned with family routines. By making the plans accessible and understandable, therapists are helping to ensure that parents remain engaged and are able to implement the activities consistently, even within the context of their busy lives. This supports the research focus on parent engagement and highlights the critical role that adaptability and practicality play in fostering sustained participation in intervention sessions.

Parents generally feel able to carry out the intervention plan, they face challenges with maintaining consistency due to various factors such as busy schedules, competing responsibilities, and daily life demands. Most parents are making efforts to incorporate the activities into their routine and adapt as needed, demonstrating their commitment to their child's therapeutic needs. The ability to implement the intervention plan successfully varies among families, influenced by their individual circumstances and the practical realities of daily life. Parents who actively communicate with therapists and adapt the intervention to fit their routines show higher levels of engagement and dedication.

The suggestions and comments from parents about improving their engagement with their children with cerebral palsy highlight several key areas for enhancement. First, support and guidance from therapist in making clearer instructions, regular feedback, and other comprehensive support from therapists. Simplification intervention activities that might aligned with family routine is one the suggestion from the parents. They also suggested of other family members involvement in training during the intervention process. Providing emotional support and motivational resources to sustain engagement with the intervention. Other than thatm improving access to necessarry resources especially in financial assistance. These insights reflect the need for a more tailored approach to intervention that considers the diverse needs of families and their daily challenges.

### **Discussion**

The thematic analysis of parents' perspectives on their engagement in their children's intervention sessions revealed three primary themes: affective engagement, cognitive engagement, and behavioural engagement. These themes provide a comprehensive understanding of how parents emotionally, cognitively, and actively participate in their child's intervention.

## **Affective Engagement**

Affective engagement refers to the emotional connection and commitment parents feel towards their child's intervention. The findings indicate that parents often experience a deep sense of responsibility and emotional investment in the intervention process. Many parents described feeling hopeful and motivated by the progress their children made, which reinforced their commitment to the intervention sessions. For example, one parent shared, "Seeing my child's small improvements brings so much joy and makes all the effort worthwhile." However, this emotional investment also comes with challenges. Some parents reported feelings of anxiety and frustration, especially when progress was slower than expected. These mixed emotions underscore the complex nature of affective engagement, highlighting the need for emotional support for parents throughout the intervention journey.

## **Cognitive Engagement**

Cognitive engagement involves parents' active thinking, understanding, and learning related to their child's intervention. The analysis revealed that parents highly value being informed and educated about the intervention goals, techniques, and expected outcomes. Parents expressed a desire for clear and continuous communication from service providers, which helped them to better comprehend and contribute to the therapy process. One parent noted, "When the therapist explains why we are doing certain exercises and how they help, I feel more confident and involved." However, some parents mentioned difficulties in understanding complex medical terminology and therapeutic concepts, which could hinder their cognitive engagement. Providing educational resources and simplifying explanations can enhance parents' cognitive engagement, enabling them to support their child's intervention more effectively.

## **Behavioural Engagement**

Behavioural engagement refers to the concrete actions and behaviours parents exhibit during and outside of intervention sessions. Parents reported various ways they actively participated in their child's intervention, such as practicing activities at home, attending all sessions regularly, and actively communicating with therapists about their child's progress. One parent highlighted, "We make it a point to practice the activities every day, and I always update the therapist on any changes I notice." This proactive behaviour indicates a high level of commitment and involvement. However, parents also faced

challenges in maintaining consistent behavioural engagement due to logistical issues, such as scheduling conflicts, work commitments, and the physical and emotional toll of the caregiving role. Addressing these barriers by offering flexible scheduling options and additional support services could help sustain parents' behavioural engagement over the long term.

# **Implications**

The insights gained from this study have significant implications for service providers and policymakers. First, recognizing the emotional challenges parents face and providing appropriate emotional support can enhance affective engagement. This might include offering counselling services or support groups for parents. Second, improving cognitive engagement requires transparent and effective communication strategies. Service providers should aim to educate parents using clear, jargon-free language and provide accessible resources to help them understand the therapy process. Finally, to support behavioural engagement, interventions should consider the practical barriers parents face. Flexible scheduling, telehealth options, and respite care services could alleviate some of the logistical burdens, making it easier for parents to remain actively involved in their child's therapy.

## **Strengths and Limitations**

The study's strengths include the rich, detailed data obtained through in-depth interviews and the rigorous thematic analysis process, which provided a nuanced understanding of parents' engagement in therapy. However, there are limitations to consider. The sample size was relatively small and may not be representative of all parents of children with cerebral palsy. Additionally, the study relied on self-reported data, which may be subject to bias. Future research could explore parent engagement in a larger, more diverse sample and incorporate observational methods to complement self-reported data.

### Conclusion

This study sheds light on the multifaceted nature of parent engagement in paediatric rehabilitation, emphasizing the importance of affective, cognitive, and behavioural dimensions. By addressing the emotional, informational, and practical needs of parents, service providers can enhance engagement, ultimately contributing to more effective and supportive intervention experiences for both children and their families. Future research should continue to explore the different dimensions of parent engagement in paediatric rehabilitation. Longitudinal studies could provide insights into how parent engagement evolves over time and its impact on child outcomes. Additionally, examining the role of cultural, socioeconomic, and contextual factors in shaping parent engagement would offer a more comprehensive understanding of this complex phenomenon.

#### References

- American Occupational Therapy Association (AOTA). (2024). Occupational Therapy in School Settings: Promoting Access and Participation for Students with Disabilities. https://www.aota.org/practice/practice-settings/schools-early-intervention-community-education/schools
- Bright, F. A. S., Kayes, N. M., Worrall, L., & McPherson, K. M. (2015). A conceptual review of engagement in healthcare and rehabilitation. *Disability and Rehabilitation*, *37*(8), 643–654. https://doi.org/10.3109/09638288.2014.933899
- CDC. (2020). *Centers for Disease Control and Prevention (CDC)*. Cerebral Palsy Alliance. https://www.cdc.gov/cerebral-palsy/about/index.html
- D'Arrigo, R., Ziviani, J., Poulsen, A. A., Copley, J., & King, G. (2017). Child and parent engagement in therapy: What is the key? *Australian Occupational Therapy Journal*, 64(4), 340–343. https://doi.org/10.1111/1440-1630.12279
- Davis, E., Shelly, A., Waters, E., Boyd, R., Cook, K., & Davern, M. (2010). The impact of caring for a child with cerebral palsy: Quality of life for mothers and fathers. *Child: Care, Health and Development*, 36(1), 63–73. https://doi.org/10.1111/j.1365-2214.2009.00989.x
- Girolametto, L., & Tannock, R. (1994). Correlates of directiveness in the interactions of fathers and mothers of children with developmental delays. *Journal of Speech and Hearing Research*, *37*(5), 1178–1191. https://doi.org/10.1044/jshr.3705.1178
- Imms, C. (2017). Increasing children's engagement: The fPRC. CHILD Conference, Sweden, 1-6.
- NINDS. (2021). Cerebral Palsy: Hope Through Research. https://www.ninds.nih.gov/health-information/disorders/cerebral-palsy#
- Novak, I., & Honan, I. (2019). Effectiveness of paediatric occupational therapy for children with disabilities: A systematic review. *Australian Occupational Therapy Journal*, 66(3), 258–273. https://doi.org/10.1111/1440-1630.12573
- Pelchat, D., Levert, M. J., & Bourgeois-Guérin, V. (2009). How do mothers and fathers who have a child with a disability describe their adaptation/transformation process? *Journal of Child Health Care*, *13*(3), 239–259. https://doi.org/10.1177/1367493509336684
- Peters, C., Chang, A., Morales, A., Barnes, K., & Allegretti, A. (2019). An integrative review of assessments used in occupational therapy interventions for children with cerebral palsy. *Brazilian Journal of Occupational Therapy*, 27(1), 168–185. https://doi.org/10.4322/2526-8910.ctoAR1856
- Simmons-Mackie, N., & Kovarsky, D. (2009). Engagement in clinical interaction: An introduction. *Zeitschrift Fur Geburtshilfe Und Neonatologie*, 213(2), 5–10. https://doi.org/10.1055/s-0028-1104529
- Smart, E., Aulakh, A., McDougall, C., Rigby, P., & King, G. (2017). Optimizing engagement in goal pursuit with youth with physical disabilities attending life skills and transition programs: an exploratory study. *Disability and Rehabilitation*, 39(20), 2029–2038. https://doi.org/10.1080/09638288.2016.1215558