



2022

## A Home-Based Program To Support Parents/Caregivers Of Children With Complex Developmental Needs In Their Home Environment

Audrey Lind Soulek

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A HOME-BASED PROGRAM TO SUPPORT PARENTS/CAREGIVERS OF CHILDREN  
WITH COMPLEX DEVELOPMENTAL NEEDS IN THEIR HOME ENVIRONMENT

By

Audrey Lind Soulek  
Occupational Therapy Doctorate, University of North Dakota, 2022

A Scholarly Project  
Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Occupational Therapy Doctorate

Grand Forks, North Dakota

May  
2022

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## APPROVAL

This scholarly project, submitted by Audrey Lind Soulek, in partial fulfillment of the requirement for the Degree of Occupational Therapy Doctorate from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.

Breann C. Lamborn  
Breann Lamborn Ed.D., M.P.A.  
April 13, 2022  
Date

## PERMISSION

Title: A Home-Based Program to Support Parents/Caregivers of Children with Complex Developmental Needs in Their Home Environment

Department: Occupational Therapy

Degree: Occupational Therapy Doctorate

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*Audrey L. Soulek*

4/13/2022

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## **ACKNOWLEDGEMENTS**

I would like to express my deepest gratitude to my faculty advisor, Breann Lamborn for her guidance, expertise, and unconditional support throughout the development and the creation of this scholarly project. I would also like to thank my classmates from the University of North Dakota Occupational Therapy Class of 2022 and the faculty for their support and commitment throughout a challenging couple of years as we navigated a pandemic and began the first year of the Doctor of Occupational Therapy Program at UND. Lastly, I would like to thank my family and friends for their endless support and encouragement throughout the development of this project and during the time I have spent at the University of North Dakota Occupational Therapy Program.

## ABSTRACT

Early intervention (EI) services play a significant role to support children with developmental disabilities and delays reach important milestones as they grow and develop. A child that qualifies for early intervention services is often seen by a provider once a week, which makes it necessary to provide parents/caregivers with home activities and educational material that will both enhance their knowledge and confidence, as well as promote continual learning opportunities for their child in the home environment. Occupational therapists (OTs) working in the EI setting evaluate a child's performance completing occupations and provide interventions that promote development and skill building in the child's most natural environment (Clark & Kingsley, 2020). While OTs and other early intervention providers possess the appropriate knowledge and skills to address the developmental needs of each child, the provider's expertise and skill set are further strengthened through consistent parent/caregiver involvement (Gmmash, Effgen, Skubik-Peplaski, & Lane, 2021). It is therefore within OT's scope of practice to provide parents/caregivers with home activities and educational resources so that they are equipped to support their child's therapeutic goals outside of the formal early intervention setting. An evidence-based therapy manual was created that includes both therapeutic resources and educational material for EI providers to utilize with the families they work with to promote parent/caregiver involvement in the home environment. An extensive literature review, the development of a theory driven literature matrix and clinical observations were completed to inform the development of this manual. As OTs and other early intervention providers utilize the resources provided in this manual, it's anticipated that the self-efficacy of parents/caregivers will be enhanced, their adherence to home activities will increase and the rapport between early intervention providers and parents/caregivers will be strengthened.



## **Chapter I**

### **Introduction**

There are a multitude of short-term and long-term benefits that result from early intervention services, including increases in academic achievement, cognition, behavioral and emotional development, as well as a reduction in delinquency and crime (Karoly, Kilburn & Cannon, 2005). The ages that a child receives early intervention (EI) services, birth to three years of age, are formative to their development and EI services received during these ages have major impacts on a child's ability to be successful in school, the workplace and in their communities (Center on the Developing Child, 2007). The primary intents of EI services are to help infants and toddlers with developmental disabilities and delays learn the necessary skills and catch up in their development, as well as enhance the abilities of their parents/caregivers so that they are better able to help their child learn and develop (Myers & Cason, 2020). A child that qualifies for early intervention services is often seen by multiple providers from the interdisciplinary team once a week and it is necessary to provide parents/caregivers with home activities to promote continual therapeutic learning opportunities for the child in the home environment.

Parent/caregiver implemented home activities provide opportunities for the child to engage in enriching experiences that support their therapeutic goals and help them practice important developmental skills (Gmmash et al., 2021). Additionally, parents/caregivers agree that home activities provided by their child's therapist are "appropriate for the home environment" (Gmmash et al., 202, p. 7). This further supports the need for EI providers to give parents/caregivers therapeutic resources and material that are conducive to the family's values, habits, routines, and current abilities so that they can support their child in the early intervention process as much as possible. When parents/caregivers are given the appropriate resources and

educational material, their self-efficacy, competency, and adherence to home activities increases which has a positive impact on their child's development.

### **Purpose Statement of Project**

The purpose of this project is to provide a user-friendly option for parents/caregivers to access evidence-based therapeutic resources and educational material in their home environment. The resources provided in the product will help to increase the self-efficacy of parents/caregivers who are caring for a child receiving early intervention services. The project will provide a way for early intervention providers to support the performance capacity and volition of parents/caregivers, by providing appropriate home activities that are centered around their current habits, routines, and current abilities. Creating therapeutic resources centered around the family's current needs and wants will help to increase their adherence to home programming recommended by their child's early intervention provider. In addition to supporting the parents/caregivers, the resources developed in the project will provide developmentally appropriate resources based on the child's current age or developmental needs. As parents/caregivers are provided with the appropriate resources, they will be able to collaborate with their child's early intervention provider in a way that is more meaningful and valuable for them during weekly therapeutic sessions. Overall, the resources provided in this product will help to promote increased parent/caregiver involvement and engagement with their child's early intervention therapy process, directly impacting their child's developmental progress and occupational performance.

### **Project Objectives**

*Objective #1:* Evidence-based literature was synthesized to inform therapeutic resources and educational material given to parents/caregivers as demonstrated by the development of the

material.

*Description:* Providing resources and educational material that are grounded in evidence-based research will help promote parent/caregiver competency by presenting information to enhance parent/caregiver knowledge. Evidence-based literature will ensure that best practice methods are incorporated into therapeutic resources and educational material provided to parents/caregivers.

*Objective #2:* The product provides a user-friendly option for parents/caregivers to access evidence-based therapeutic resources and educational material in their home environment, as demonstrated by increased adherence to home activities.

*Description:* By providing resources that are user-friendly, it's anticipated that there will be increased adherence to home activities. As parents/caregivers feel more competent in their abilities to carry out home activities with their child, they will be more likely to adhere to home activities suggested by their child's early intervention provider. Increased adherence to home activities will be made evident in increased developmental skills and engagement in occupational performance by the child.

*Objective #3:* Evidence-based therapeutic resources and educational material will enhance and promote collaboration and communication between parents/caregivers and their child's early intervention provider as demonstrated by increased engagement during weekly therapeutic sessions.

*Description:* Collaboration and communication between parents/caregivers and early intervention providers is necessary in order to ensure that home activities are fitting for the parents/caregivers and the child. Providing therapeutic resources and educational material to parents/caregivers will give them the opportunity to communicate successes, challenges, and any concerns with the implementation of home activities to their child's early intervention provider.

It will also allow for more direct and specific feedback to be communicated between parents/caregivers and EI providers.

### **Theoretical Framework Used to Guide Project**

The model of human occupation (MOHO) is the theoretical framework that informs the development of this project. The primary concepts of MOHO that informs the development of the project includes *habituation*, *performance capacity* and the *volition* of parents/caregivers. *Habituation* includes the patterns and routines that are a part of a person's life, and performance capacity is the combination of the physical and mental abilities of a person as well as their lived experiences that impact a person's performance (O'Brien, 2017). *Volition* is the individual's motivations and their desires to engage in certain tasks (O'Brien, 2017). *Habituation* will be supported by the product through the development of home activities that are flexible and interchangeable, to allow the implementation of home activities to be conducive to the habits and routines of parents/caregivers. The *performance capacity* of parents/caregivers will be addressed through the product by providing both educational resources that are user-friendly and home activity ideas that help to increase parent/caregiver knowledge about the importance and benefits of implementing home activities with their child. The *volition* of parents/caregivers will be supported by providing activities that are both conducive to the habits and routines of families and allow parents/caregivers to use material found in their home environment to implement home activities. As parents/caregivers utilize the therapeutic resources and educational material presented in this product, they will feel empowered and more equipped in their abilities to implement therapeutic home activities with their child. Additionally, their child's skill development related to their occupational performance goals will increase as a result of increased parent/caregiver adherence to home activities.

## **Significance of Product to Chosen Area of Practice**

This product will increase carry-over of therapeutic interventions in the home environment by utilizing evidence-based therapeutic resources and material that are user-friendly for parents/caregivers to utilize in their home. Providing parents/caregivers with the necessary resources will provide children with the opportunity to engage in enriching therapeutic experiences in their home environment. Increasing the learning opportunities in the child's home environment will help promote a more synchronous process between the child's formal therapy sessions and their home environment. With continual exposure to therapeutic activities, the child will have an increased ability to master important developmental skills. Mastering these skills will ultimately result in the child becoming more independent in their ability to engage in activities of daily living (ADLs), develop fine/gross motor skills and improve their socialization abilities. Additionally, this product will give early intervention providers new tools to promote collaboration with parents/caregivers and to provide parents/caregivers with the appropriate resources so that they can better support their child's development and growth.

## **Chapter II**

### **Literature Review**

According to the U.S. Department of Education, "7.5 million infants, toddlers, children and youth with disabilities were eligible for early intervention (EI) services during the 2018-2019 school year" (U.S. Department of Education, n.d., para. 1). EI plays a significant role in helping children with developmental disabilities and delays reach important milestones in their formative years. These services are supported by The Individuals with Disabilities Act (IDEA), a law that requires both free and appropriate education in the child's least restrictive environment and ensures that children with disabilities receive special education and related services to meet

their specific needs (Myers & Cason, 2020). Children from birth up to three years of age are eligible to receive services under part C of IDEA. A child qualifies for these services if they have a disability that impacts their physical, cognitive, communication, social or emotional and adaptive development (Center for Parent Information and Resources [CPIR], 2021). Recent research supports the concept that parents/caregivers have a strong impact on their child's development because they spend the most amount of time with their child (Gmmash et al., 2021). Occupational therapists (OTs) have a unique opportunity to collaborate with parents/caregivers to help them support their child's development and engage in desired occupations in the home environment.

### **The Role of Occupational Therapy**

Both IDEA and EI emphasize the importance of providing services to children in their most natural environment and creating a collaborative process with families. OTs complement the family-centered nature of EI and IDEA statutes by utilizing a holistic approach to care through relationship building, facilitating successful environments, and making tasks meaningful and purposeful to the client and their families (D'Arrigo, Copley, Poulsen, & Ziviani, 2020). OTs can serve as collaborative team members, educators/trainers, consultants, advocates, leaders, and researchers as members of the EI interdisciplinary team (AOTA, 2014). In the EI setting, OTs evaluate a child's performance completing occupations and provide interventions that promote development and skill building in the child's most natural environment (AOTA, 2014). They also collaborate with parents/caregivers to help them identify their priorities/concerns and provide interventions that are individualized to both the child's and family's needs (AOTA, 2014). OTs are also skilled at implementing environmental modifications to help people engage with their surroundings in the most optimal way. The OT

profession's scope of practice is unique and skilled to provide effective and appropriate resources and material for parents/caregivers to use with their child in the home environment.

### **Home Activities**

Throughout the literature review the term *home activity or activities* will be used. Home activities are created by both EI providers and parents/caregivers and designed to support a child's development when the therapist is not present (Gmmash, 2021). Home activities are an essential component for children with delayed development disabilities, and the delivery of these interventions by parents/caregivers in between therapy sessions is critical "to intensify the children's exposure to repeated learning opportunities in their natural environment" (Gmmash et al., 2021, p. 2). The study by Richardson et al. (2020) reiterated the importance of providing home activities after discovering that children had increased social-emotional capabilities and increased cognitive abilities when they received more than two hours of EI services per month, in comparison to their peers who received less than two hours of EI services a month. The literature review will examine the different contextual factors that impact the implementation of home activities, strategies to enhance parent/caregiver engagement, and different methods to make home activities more effective in the home environment.

### **Coaching Relationship**

The EI setting is unique in comparison to the traditional medical model because it involves highly relational strategies, including parent/caregiver education and coaching (McManus et al., 2019). Parents/caregivers and providers must have strong working relationships with one another, to collaborate and provide the most effective interventions for the child. Parents/caregivers spoke to the impact of strong relationships between parents/caregivers and EI providers, by stating that they felt supported, empowered and more confident when they were

able to collaborate with their child's EI provider (Decker, Meldrum, Vaterlaus, & Foster, 2021).

Coaching is one strategy often used in EI services to promote strong relationships between parents/caregivers and their child's EI providers. Coaching is a highly relational and collaborative approach that utilizes parent-mediated intervention to help teach parents/caregivers specific skill sets and strategies to implement home activities (Avendano & Cho, 2020).

### **Coaching Practices**

In contrast to a traditional rehabilitation approach that tends to focus on the clients' deficits, coaching helps individuals employ their strengths in combination with their aspirations and expertise, to problem-solve through challenges they are facing (King, Schwellnus, Servais, & Baldwin, 2018). Often, coaching will involve parents/caregivers discussing their concerns with their child's early intervention provider, followed by the early intervention provider observing how the parent/caregiver is currently trying to address that concern in the home environment. The EI provider will utilize their clinical reasoning, while also considering the needs and desires of the family to provide the parent/caregiver with feedback and strategies that are fitting for their current needs and abilities to help them become more successful in implementing home activities with their child. The five basic coaching practices include: joint planning, observation, practice, reflection, and feedback (Gmmash et al., 2021). Joint planning is the first step in the coaching process, and this is a time for the parents/caregivers and EI provider to collaborate on the parents/caregivers' priorities and concerns, develop intervention sessions, review the implementation of different interventions, and design a treatment plan that is suited to the family's needs and priorities (Gmmash et al., 2021). The second step of coaching involves two different types of observation: the parent/caregiver watches the therapist demonstrate how to perform a certain activity and then the therapist observes the parent/caregiver complete the



activity with their child. The third step provides parents/caregivers with the opportunity to practice implementing specific strategies from the coaching session and they are encouraged to practice them in between therapy sessions (Gmmash et al., 2021). Fourth, the provider will then walk the parent/caregiver through a reflective process by asking them questions to promote problem-solving and to help the parent/caregiver evaluate their learning (Gmmash et al., 2021). The last step of the coaching process usually involves two parts in which the EI provider gives direct feedback to the parent/caregiver about their performance practicing the specific therapeutic strategies with their child. The EI provider will then share information with the parent/caregiver that will help to enhance the parent/caregiver's knowledge, self-esteem, and ability to carry out interventions (Gmmash et al., 2021). Coaching practices promote a collaborative process between early intervention providers and parents/caregivers, and they help to support parent/caregiver self-efficacy and competency to carry out interventions with their child.

### **Different Methods of Coaching Parents/Caregivers**

While there is a predetermined structure to the coaching process, early interventionists can utilize coaching with parents/caregivers in several ways. A non-traditional model of coaching called "Solution-Focused Coaching (SFC)", helped the parent/caregiver develop meaningful goals based on their values, aspirations, and willingness to change (King et al., 2018, p. 17). This approach was found to increase the self-determination and self-confidence of the parent/caregiver because it allowed them to think through processes that worked well, areas of growth, and strategies that would be helpful to them as they move forward in the therapy process (King et al., 2018). Another article discussed the use of the "Facilitating Attuned Interactions (FAN)" approach to help build rapport between the parent/caregiver and therapist (Cosgrove et

al., 2019, p. 246). Five core strategies were utilized in this approach including: “mindful self-regulation, empathetic inquiry, collaborative exploration, capacity building and integration” (Cosgrove et al., 2019, p. 246). After using this approach, providers reported that they felt that they were able to be more empathetic and collaborative with parents/caregivers, as well as much more effective and satisfied with the work they had with families (Cosgrove et al., 2019). Similar to the reflective practices mentioned in the previous studies, “Focused Playtime Intervention (FPI)” utilized shared toy play between children and parents/caregivers in conjunction with coaching strategies such as guided practice and feedback to promote parents/caregivers’ abilities to reflect on their child’s behaviors and evaluate their own interactions with their child (Siller et al., 2018, p. 287). The basic tenets of EI and coaching complement one another well because they are both highly relational and they promote the use of effective strategies for EI providers to build relationships with families.

### **Purposeful Teaching to Engage Parents/Caregivers**

Providers can use purposeful teaching strategies to demonstrate and clearly explain to parents/caregivers how and when to use different therapeutic strategies with their child (Sawyer & Campbell, 2017). While some parents/caregivers may learn from incidental learning opportunities, this is not optimal, and providers must be intentional to incorporate purposeful teaching into their therapy sessions with parents/caregivers (Sawyer & Campbell, 2017).

Purposeful teaching promotes strong working relationships between providers and parents/caregivers and empowers parents/caregivers to help their children reach important developmental milestones (Sawyer & Campbell, 2017). Using purposeful teaching, parents/caregivers can practice using specific intervention strategies, ask questions, and receive feedback about their strategy use from the provider (Sawyer & Campbell, 2017).

Parents/caregivers may have a general lack of understanding of the important role they play in the EI process; this is sometimes made evident by a lack of engagement from families during therapy sessions and providers having difficulty encouraging them to step outside of their comfort zones (Douglas, Meadan, & Kammes, 2020). Four articles further examined different strategies to promote active participation and engagement from parents/caregivers during therapy sessions to address the lack of engagement. Sawyer and Campbell (2017) found that parents/caregivers were more engaged in the therapy session when they were provided with opportunities to directly interact with their child and less engaged when the provider was working directly with the child and didn't communicate to the parent/caregiver what they were doing. Valentini, de Almeida, and Smith (2020) spoke to the impact that purposeful teaching can have, when used in conjunction with direct parent/caregiver and child interactions. Children in the intervention group received goal-directed cognitive-motor interventions corresponding with the appropriate developmental milestones through a once-a-week home therapy session with a provider and then through a home activity protocol carried out by the parent/caregiver (Valentini et al., 2020). It's important to note that during the home therapy sessions with the provider, the parent/caregiver was provided with a demonstration on how to carry out the home activity protocol with their child (Valentini et al., 2020). The children that participated in the intervention group showed significant improvements in their motor development abilities, compared to the children in the control group that solely participated in the home activity protocol (Valentini et al., 2020). Another study examined the use of a multidisciplinary parent training program called "Promoting Holistic Development of Young Kids (Poly Kids)" to explore its impact on parent/caregiver participation (Leung et al., 2020, p. 560). Parents/caregivers attended 16 two-hour weekly group sessions, which consisted of education on behavior, gross motor skills, fine

motor skills and language (Leung et al., 2020). Furthermore, the professional coached the parents/caregivers through selected activities and provided them with daily homework assignments for parents to practice and master the skills they were taught (Leung et al., 2020). At the conclusion of the study, the intervention group reported lower child behavior problems, higher task motivation, higher total number of words, and significantly lower parenting stress (Leung et al., 2020). These studies demonstrated that when parents/caregivers have an opportunity to directly interact with their child and were provided intensive training in conjunction with purposeful teaching strategies, they had the capability to substantially further their child's development (Valentini et al., 2020).

### **Parent/Caregiver Self-Efficacy**

The coaching strategies are all important factors to consider when interacting with parents/caregivers; however, it's also important to examine the impact of parent/caregiver self-efficacy. Self-efficacy is highly impacted by collaborative relationships between parents/caregivers and providers. King et al. (2018) found that parents/caregivers reported a sense of empowerment when they were able to collaborate with the provider and participate in a solutions-focused approach. This sense of empowerment was defined as the ability to manage life effectively, increased confidence, increased autonomy, and an ability to be more open-minded and re-shape expectations (King et al., 2018). Participants in this study also mentioned that they felt encouraged and optimistic when providers took the time to celebrate the accomplishment of goals (King et al., 2018). In a similar study that utilized a collaborative intervention approach, increased self-efficacy was demonstrated by parents/caregivers through participation in shared decision-making processes and active engagement during goal setting and planning (An et al., 2019). Parents/caregivers in the experimental group also reported that they

were more confident in carrying out home activities during daily routines and they felt that they worked together with the therapist to a greater extent than the parents/caregivers participating in the control group (An et al., 2019). Yang, Meadan and Ostrosky (2021) found increased parent/caregiver self-efficacy using a training and coaching program to teach parents about promoting motor interventions with their child. Parents/caregivers felt that they had more knowledge about motor development and were more competent in being able to carry out interventions with their child (Yang et al., 2021). In addition to building collaborative relationships, increasing skill sets and knowledge of parents/caregivers is equally important to enhance their self-efficacy. One way in which providers can enhance parent/caregiver knowledge is by explaining and discussing topics with them in a way in which they can understand (Edwards et al., 2020). This includes using jargon-free language, providing physical demonstrations when appropriate and providing educational material that are reader-friendly and easy to understand. McManus et al. (2019) discussed the importance of sharing both generalized and specific knowledge pertaining to the child to effectively increase parent/caregiver knowledge and skill sets. They found that providers were more likely to share child specific information related to the child's condition and less likely to share general information with parents/caregivers such as opportunities for families to connect in the community, support group contacts and financial and respite care services (McManus et al., 2019). This information is an important reminder for EI providers to be mindful of the types of information they include in conversations and in the resources they provide to families.

### **Barriers to Parent/Caregiver Adherence to Home Activities**

Employing hands-on training and providing purposeful teaching strategies are only effective if EI providers also consider the barriers and different contextual factors that impact

parents/caregivers and their families. Lack of adherence to interventions and difficulty carrying out activities in the home environment has been cited as common challenge faced by providers and parents/caregivers respectively (Gmmash et al., 2021; Valentini et al., 2020). Most parents/caregivers reported difficulty following through with home activities due to lack of energy to engage with the infant, other responsibilities, and an overall lack of time (Gmmash et al., 2021; Valentini et al., 2020). Several articles addressed these common difficulties by positing that home activities should be incorporated into a family's routine as much as possible. Home activities that are incorporated into the family's daily routines can promote increased adherence and make home activities more feasible and less burdensome for parents/caregivers to implement (Decker et al., 2021; Gmmash et al., 2021). In one study that specifically focused on adherence to home activities, a little more than 50% of parents/caregivers reported that home activities provided by their child's therapist were "appropriate for the home environment" (Gmmash et al., 2021, p. 7). This substantiates the need for EI providers to incorporate activities that are fitting for the family's home environment. Furthermore, parents/caregivers indicated that they were more likely to adhere to home activities if they could observe a therapist demonstrating how to complete an activity during the family's daily routines (Gmmash et al., 2021). Creating therapeutic interventions that coincide with the family's daily routines and values make the interventions more feasible to implement in the home environment because parents/caregivers can incorporate the interventions into a schedule that works best for them (Avendano & Cho, 2020). The use of outside toys and material brought in by the provider can also contribute to a lack of adherence to home activities. For most providers, it's common for them to bring their own material into the home, as opposed to using items that the family already has (Decker et al., 2021). While this has been common practice in many EI settings, this can evoke feelings of

discouragement amongst parents/caregivers because they feel that they can't properly meet the needs of their child without the specific material used by the EI provider (Decker et al., 2021). This same sentiment was echoed in another article that spoke to the feelings of anxiousness a parent/caregiver might experience when they feel that they don't have the appropriate toys or enough toys to help their child reach their goals (Williams & Ostrosky, 2020). As stated earlier, therapy sessions centered around family routines promote adherence to home activities. Providers that utilize material found in the family's natural environment, as opposed to toys and material brought into the family's home, can help to provide interventions that are more centered around the family's routines (Williams & Ostrosky, 2020). Parents/caregivers in another study further supported the use of home material in therapy sessions because it allowed them to use the toys with their child to implement interventions throughout their week (Edwards et al., 2020). The study completed by Valentini et al. (2020) revealed that home activities are less about the objects and material used and more about the interactions between the parent/caregiver and the child. When provided intensive training, parents/caregivers can deliver interventions with minimal resources that promote their child's development (Valentini et al., 2020). Overall, there can be a variety of reasons as to why parents/caregivers have difficulty adhering to home activities and it is important that providers are prepared to provide the necessary resources and training to help encourage adherence and make the implementation of home activities more manageable and realistic for families receiving EI services.

### **Intrinsic Factors Impacting Child Engagement**

D'Arrigo et al. (2020) spoke to the relationship between the child's internal motivation and their level of engagement in the OT setting. The article proposed that the engaged child was motivated, enthusiastic, and determined to reach their goals when they felt safe, experienced

success completing tasks, and understood the meaning of the task (D'Arrigo et al., 2020). Additionally, providing the child with a sense of autonomy and incorporating activities that match the child's interests and personality played a significant role in their ability to engage in therapeutic sessions (D'Arrigo et al., 2020). Kaelin, Bosak, Villegas, Imms, and Khetani (2021) found that it was common for parents/caregivers to find activities that pertain to their child's interest. In fact, 17.8% of parents/caregivers in this study used their child's preferences to help their child participate in the home and community, with the most common strategy identified as "using fun games or items that the child likes" (Kaelin et al., 2021, p. 5). Additionally, Kaelin et al. (2021) discovered that the child's sense of self was the most common intrinsic factor targeted by parents/caregivers. To support their child's sense of self, they included their children in occupations in the home that made the child feel helpful (Kaelin et al., 2021). By participating in these activities, the child felt more comfortable, confident, and independent (Kaelin et al., 2021). Wang et al., (2021) examined the child's perceived persistence, which was defined as their ability to intentionally seek out interactions with adults and peers. Perceived persistence was a strong indicator that they would be able to overcome communication and environmental challenges and participate more consistently in different types of activities (Wang et al., 2021). In addition, the child's task persistence, which was defined as the child's ability to continue working on or attending to a specific task, was indicative of increased participation in activities that help target skill development (Wang et al., 2021).

### **Extrinsic Factors Impacting Child Engagement**

Four studies examined extrinsic factors impacting child engagement and found that the ways in which parents/caregivers interact with their child impacts the child's ability to engage in therapeutic sessions. A randomized-control trial conducted by Siller et al. (2018) examined the



use of parent/caregiver coaching, and its ability to help parents/caregivers reflect on how their child's internal thoughts, feelings and motives impacted their child's external experiences such as how they perceived the environment around them (Siller et al., 2018). To obtain data from this study parents/caregivers were shown video footage of their interactions with their child during three different activities which included free play without toys, playing with a standard set of toys and then cleaning up a play area. After reviewing video footage of the different interactions with their child the parents/caregivers in the experimental group showed increased capacity to reflect and assess their individual abilities, as measured by their ability to discuss the child's experiences and behaviors in a more "rich, nuanced and accepting way" (Siller et al., 2018, p. 301). Similarly, in a qualitative study parents/caregivers reported an enhanced awareness of their child's strengths and greater understanding of their child's behavior after participating in a solution focused coaching approach (King et al., 2018). Therapists using this approach "employ an explicit and positive process of inquiry that builds upon client strengths, with clients doing the work of considering what is working well, what they wish to focus on, and what would be helpful in moving forward" (King et al., 2018, p. 17). In addition to parents/caregivers being able to reflect on both their child's abilities and perceptions as well as their own abilities, one study examined the impact of the mother's teaching behaviors on child engagement. These teaching behaviors were interpreted as mothers having a good understanding of their child's current abilities and providing the appropriate educational material to their child (Wang et al., 2021). The child's ability to engage in skill development activities was attributed to their mother's teaching behaviors (Wang et al., 2021). Furthermore, the modifications that parents/caregivers make to their child's environment also impact a child's engagement. One study demonstrated that 40% of parents/caregivers modified the home environment to help their child engage in

valued occupations in the home environment (Kaelin et al., 2021). Examples of modifications to the home included involving siblings or other caregivers, arranging furniture, creating a predictable environment by talking about the physical changes with the child, demonstrating how to complete an activity such as brushing their teeth and physically changing the location the child was in. These findings reiterate the importance of implementing therapeutic interventions that support the varying intrinsic and extrinsic factors that impact both the child and parent/caregiver in the therapeutic process.

### **Conclusion.**

The research suggested a variety of factors that must be considered as EI providers interact with parents/caregivers and prepare them for home programming with their child. The implementation of home activities is critical for children receiving EI services, as it promotes consistent and variable practice that is needed to improve developmental skills (Douglas et al., 2020; Gmmash et al., 2021). Emphasis was placed on the importance of building rapport with parents/caregivers to improve their self-efficacy, competency, and adherence to implementing home activities. The literature provided a variety of strategies and tools that EI providers can incorporate into therapy sessions to both promote the development of children and enhance collaboration with their parents/caregivers. Strategies that proved to be effective included: parent/caregiver coaching, direct purposeful teaching, demonstration of interventions, practicing interventions and utilizing material in the family's natural environment. Further research is needed to investigate the significance of specific coaching practices on parent/caregiver adherence and competence. Overall, it can be concluded that EI providers and parent/caregiver relationships are essential to ensuring a collaborative and client-centered process. OTs have the unique ability to bridge this gap and ensure that parents/caregivers are given the necessary tools

and resources so they can be equipped to help support their child reach important developmental milestones and therapeutic goals.

### **Chapter III**

#### **Methodology**

The product design includes an evidence-based therapeutic guide with resources and educational material that early intervention providers can reference when they need specific material to give to a parent/caregiver. The content will be presented in PDF format which will allow early intervention providers to disseminate the therapeutic resources and educational material in several ways, such as through email, printed handouts or using phone applications that the facility currently utilizes. The therapeutic resources and educational material are organized by topic/subject to ensure that the material can be easily referenced and accessible to early intervention providers. The theoretical framework, model of human occupation (MOHO), is introduced in the beginning of the guide and then incorporated throughout the guide to ensure the material is grounded in theory and is consistent with the scope of occupational therapy.

To begin the development of this project an initial meeting was held with a child development center in the spring of 2021, to meet with the OT site advisor and the therapy director. During this meeting, a conversation was initiated to discuss the current needs of the facility. Through collaboration and meeting with staff members it was decided that program development was the most fitting for the current needs of the facility. Another meeting was held with facility staff members in the fall of 2021 to discuss more specific details related to the experiential placement and project and to discuss potential program development ideas. A literature review and needs assessment was completed between May and December of 2021, which also included identification of the theoretical framework. The UND School of Medicine

and Health Sciences (SMHS) website was used to access the CINAHL research database. The terms searched were (“early intervention” OR “child development”) AND (parent OR caregiver OR family) AND (coach, OR education OR resource OR guide OR packet) AND (“occupational therapy” OR “occupational therapist”). The Wyoming Department of Education website was searched to find resources related to early education guidelines in the state of Wyoming. The Centers for Disease Control and Prevention website was searched using the terms “developmental milestones” AND “early intervention”. The American Journal of Occupational Therapy (AJOT) website was searched using the terms “early intervention” AND “parents/caregivers.” Search terms that were excluded from the selected resources included “adolescents”, “teenagers” and “geriatrics.” The sources that were gathered during this literature review were published between the years of 2017 and 2021 to ensure that the most recent evidence was utilized to inform product development. The literature review, in addition to the needs communicated by facility staff members, were utilized to create the needs assessment for the scholarly project.

The topic proposal for the scholarly project was approved by the School of Graduate Studies at the University of North Dakota in November of 2021 and the Memorandum of Understanding (MOU) for the Doctoral Experiential Placement (DEP) was approved in November of 2021 by the OTD student, DEP site advisor and the DEP coordinator. The experiential placement began on January 3rd, 2022 and lasted the duration of 14 weeks.

Ethical considerations during the development of this scholarly project included searching for literature that provided different perspectives including using governmental databases, state specific websites, formal research databases and AOTA. Both the evidence-based literature and the needs of the facility were considered to ensure that the product

developed represented the facility's values and was grounded in evidence-based literature. Conversation related to client specific conditions and contexts at the facility were kept confidential by the OTD student. The OTD student also included evidence-based literature that represented diverse samples and contexts such as ethnicity, gender, developmental disabilities, medical conditions, intervention strategies and geographical locations.

## **Chapter IV**

### **Product**

The product created includes an evidence-based therapy guide that includes both therapeutic resources and educational material for EI providers to utilize with the families they work with to promote parent/caregiver involvement in the home environment. The material was created with the intention of increasing parent/caregiver adherence to home activities, enhancing parent/caregiver self-efficacy, increasing parent/caregiver confidence, and providing therapeutic home activities that are conducive to the family's values, routines, and roles. To view the full product please contact the author of the product: Audrey Soulek, [audreynystrom1@gmail.com](mailto:audreynystrom1@gmail.com)

## **Chapter V**

### **Summary**

The purpose of this scholarly project was to provide occupational therapists and other providers working in the early intervention setting with an evidenced-based therapy guide containing both therapeutic resources and educational material to promote parent/caregiver involvement in the home environment. An extensive literature review was conducted to determine how parents/caregivers of children receiving early intervention services can best be supported so that they are able to help their child work on their therapeutic goals. The areas of concern that were brought forth in the literature review included lack of parent/caregiver

adherence to home activities, decreased self-efficacy by parents/caregivers, a lack of time by parents/caregivers to implement therapeutic activities in the home, and long durations of time in between formal therapy sessions. After reviewing the literature, it was evident that time and competency are the biggest barriers to the implementation of home activities by parents/caregivers. Additionally, parents/caregivers need to feel supported and empowered throughout the early intervention process so that their adherence to therapeutic home activities with their child is enhanced. The model of human occupation (MOHO) was utilized to guide the development of this product due to its emphasis on volition, habituation, and the performance capacity of individuals (Kielhofner, 2008). These MOHO concepts support the areas of concern that were brought forth in the literature as mentioned earlier and were utilized throughout the product to create resources that both enhance the collaborative relationship between parents/caregivers and early intervention providers and capitalize on the motivation and habits of parents/caregivers.

### **Implications for Occupational Therapy Practice**

Occupational therapists possess the necessary skills and knowledge to be advocates for parents/caregivers in the early intervention setting. They are uniquely skilled at breaking down tasks and activities to adapt for different contexts, taking a more holistic approach to client care and making sure that therapeutic activities are meaningful and valuable to their clients. The product created compliments OT's scope of practice and other early intervention providers to give them different tools and resources to support the parents/caregivers they work with. More specifically, the material in the product promotes the use of client-centered practices and provide early interventionists with the ability to adapt therapeutic interventions according to a family's motivation, current competence, and habits and routines. Additionally, the content in this product

is guided by an occupational therapy model which further enhances OT's scope of practice in the early intervention setting.

### **Recommendations for Future Action**

This material has not yet been implemented; it is recommended to be utilized in an early intervention, pediatric outpatient, or home visit setting. There is potential for future students to use this product as an independent study for future scholarly projects. While the product was intended primarily for occupational therapy practitioners, the material could also be utilized by other disciplines such as physical therapists and speech language pathologists working in the early intervention setting as well. If the resources in this guide are utilized by early intervention providers or future students, it is recommended that a survey be created and utilized to measure the effectiveness of the material provided in this guide. There is also potential to download this material into an electronic format to provide another means of accessibility for the material in the guide to be disseminated. This guide was also created to be used at the discretion of the occupational therapist or early intervention provider and was not intended to replace material or resources that therapists are currently using in the early intervention setting. Lastly, the information in this guide was created so that early intervention providers could pick and choose which resources and material are pertinent to the clients they are working with. It is recommended that early intervention providers use the resources in this guide as they see fit and according to the wants and needs of both parents/caregivers and the child they are seeing for early intervention services.

### **Strengths and Limitations**

The evidence-base and the model used to inform this product are strength of the resources provided in this guide. Utilizing a model specific to occupational therapy will help OTs

incorporate theory driven practice into the EI setting. Additionally, it will help OTs advocate for the unique skill sets and knowledge that they bring to the interdisciplinary team in the EI setting. The guide was created with the intention of providing resources and material that can be used in conjunction with the current practices of EI providers, which will help enhance their current practices and strategies. The material in this product provides tools for early intervention providers to utilize so that they can recommend home activities that are fitting to the routines and values of parents/caregivers. Lastly, this guide can either be utilized as printed or electronic material, making it a cost-effective tool and resource for EI providers to implement with clients.

Since this guide has not yet been utilized by occupational therapists or other early intervention providers, the effectiveness and benefits of the resources and material are not fully known. Also, the specific ages targeted in the development of this product were birth to three years of age because these are the ages a child qualifies for early intervention services. The material in the guide may not be as applicable to practitioners working with children over the age of three; however, the resources specific to MOHO such as the guided questions can be utilized or adapted by any early intervention provider to meet the needs of the parents/caregivers and children they are working with. Additionally, the developmental milestones and activity ideas provided in this guide were created according to a child's typical developmental milestone that corresponds with their age. Children with developmental delays or more complex diagnoses may require modified or adapted activities to meet their specific needs. It's important to note that during the creation of this product the developmental milestones were updated by the Centers for Disease Control and Prevention (CDC), which created a discrepancy in previously published developmental milestones and the current updated milestones. To adjust for this change, the handouts and activities are reflective of both the previously published developmental milestones



and the new updated ones as published by the CDC. It is recommended that EI providers utilizing this guide, use their clinical reasoning to decide what developmental milestones they would like to share with parents/caregivers. There was a limited evidence-base regarding specific strategies to motivate and promote parent/caregiver adherence to home activities in the early intervention setting. The specific strategies and resources provided in the guide are not conducive to all parents/caregivers needs. To address this limitation, it's recommended that the product continue to be developed and improved to provide further evidence-based resources and material to support parents/caregivers in the early intervention setting.

## **Conclusion**

*An Occupational Therapy Practitioner's Guide to Support Parents/Caregivers of Children Receiving Early Intervention Services* is intended to be a resource for occupational therapists and other EI providers to promote parent/caregiver involvement in the home environment. There is a lack of literature regarding specific strategies and techniques that discuss the role of occupational therapy in addressing parent/caregiver self-efficacy, adherence to home activities, and rapport building between OT practitioners and parents/caregivers. *The Guide* provides resources and material to bridge this gap in literature and to equip occupational therapists and other early intervention providers to increase interventions that are centered around the values, motivation, and routines of parents/caregivers.

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