Ph.D. Dissertation of Child Development and Family Studies

Dynamic Changes of Play in Autistic Children and Their Fathers Through Play-Based Developmental Intervention

놀이 기반 발달적 중재를 통한 자폐 아동과 아버지 놀이의 역동적 변화

August 2023

DEPARTMENT OF CHILD DEVELOPMENT AND FAMILY STUDIES
COLLEGE OF HUMAN ECOLOGY
SEOUL NATIOANL UNIVERSITY

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Dynamic Changes of Play in Autistic Children and Their Fathers Through Play-Based Developmental Intervention

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이 논문을 아동가족학박사 학위논문으로 제출함
2023년 5월

서울대학교 대학원
아동가족학과
강 향 미

강향미의 박사 학위논문을 인준함
2023년 7월

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Abstract

Autistic children often engage in repetitive or solitary play, which can hinder their social interactions and impede their social and communication development. Recognizing the unique characteristics of their play and promoting the transition to interactive play becomes crucial for indicating their social communication progress. Therefore, this case study aims to explore the changes in play among autistic children and their developmental significance, with a specific focus on the active involvement of fathers in facilitating playful interactions through physical play. This research embraced the DIRFloortime approach, founded on the significance of play and relationships within the developmental framework. The researcher provided tailored coaching to fathers, emphasizing the importance of understanding and respecting the unique characteristics of autistic children during play. By addressing a set of research questions, this study seeks to comprehend the developmental implications of play, examine the experiences of fathers engaging in physical play with their children, and assess the significance and impact of tailored coaching.

The research questions for the study are as follows.

1. How does the children's play change, and what is the implication of the change?
2. What are the fathers' experiences engaging in play with their children, and how does this interaction impact the father-child dyad?
3. What is the significance of providing tailored coaching for fathers, and how does it affect their families?

The research included children aged three to seven and their fathers, who actively participated in interactive play sessions. The researcher's weekly coaching supported these sessions, which occurred daily for one hour. The researcher provided guidance and instruction to the fathers, helping them effectively engage in play

with their children.

This research revealed three major findings.

Firstly, with the support of their fathers' physical play, the children in the study transitioned from solitary or repetitive play to engaging in reciprocal and interactive play. These changes in their play indicated significant advancements in their social and communication development. Consequently, the children displayed increased levels of engagement, took more initiative during interactions, and demonstrated improved accuracy in language use. Additionally, they actively participated in symbolic play. Such participation indicated a reduction in their rigid behavior and anxiety levels. Moreover, fun and interactive playtimes considerably reduced the children's repetitive behaviors. The current study found that fathers who understood their autistic children's sensory needs and adapted their play interactions were able to promote significant developmental progress in their children's social and communication

Secondly, fathers engaging in play with their autistic children reported experiencing joy, pride and strengthened bonds. They observed positive changes in their children's emotions, engagement levels, and communication abilities. However, fathers also encountered feelings of anxiety, frustration, and concerns regarding their children's development. Through experiencing these various emotions, fathers have become more sensitive and responsive parents by self-reflection and active engagement. They have discovered a deep connection with their children. Fathers adapted their play styles to match their children's interests and sensory preferences. They learned to create a more enjoyable and engaging play environment by modifying their approaches and focusing on emotional connection. Each father faced unique challenges and made adjustments accordingly. This emphasized the importance of fathers' active involvement and adaptability in fostering positive relationships through play.

Thirdly, tailored coaching played a crucial role in supporting the fathers. The coaching was implemented by taking into account fathers' preference for engaging in physical play with their children.

The incorporation of physical play was aimed to address the fathers' initial concerns, stemming from a lack of familiarity with effective ways to participate in play with their children. Commencing with physical play, which aligned with fathers' interests from the start, fostered their active engagement and involvement. Home visits by the researcher provided personalized observations and recommendations. This allowed for the identification of individual challenges and opportunities to involve other family members. Online coaching offered a convenient platform for discussions that accommodated fathers' preferences and schedules.

The tailored coaching provided to fathers resulted in their active participation, fostering stronger bonds and a deeper understanding of their children and other family members. This involvement extended beyond the fathers themselves, encompassing the entire family unit in activities such as parental education. Furthermore, it created a supportive social environment to enhance the child's practice of social skills.

Autism spectrum disorder has a profound and long-lasting effect on an individual's overall functioning. The intervention process is demanding, requiring substantial time, sacrifice from family members, and financial investment. In light of these challenges, the role of fathers becomes increasingly vital. This research underscores the vital role of fathers who have often been overlooked in ASD interventions. With coaching specifically tailored to the unique needs of both fathers and their children, they were able to enhance their play and interactional capacity. This improvement significantly impacted the children's development while also creating a positive experience for the fathers. The study sheds light on the importance of intervention facilitated by fathers. With the father at its center, such an approach fostered family-wide participation towards a common goal, thereby showcasing a family-centered model in Autism Spectrum Disorder (ASD) intervention.

Keyword : autistic children's play, father's physical play, DIRFloortime, tailored coaching, family-centered model
Student Number : 2018-35544

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Ⅰ. INTRODUCTION

1. Background of the Study

Autism Spectrum Disorder (ASD) is a lifelong neurodevelopmental condition that affects individuals' ability to communicate and engage with others. People with autism often have inflexible routines, repetitive behaviors, and limited interests (American Psychiatric Association, 2013). Autistic children face difficulties in expressing their needs, forming relationships, and engaging in various aspects of development. These challenges stem from their limitations in social and communication abilities, impacting areas such as joint attention, imitation, expressing their needs, forming relationships, and engagement (Mundy et al., 1990; Greenspan & Wieder, 2006; Sherrat, 2002).

Autistic children often prefer solitary or repetitive play due to their social and communication challenges. However, transitioning these types of play into participating in interactive play is of utmost importance. This transition plays a significant role in fostering their social and communication development. Interactive play serves as a foundational step for subsequent developmental milestones, and it is achieved and enhanced through the demonstration of joint attention capabilities, initiative-taking in interactions, active engagement, and the establishment of strong relationships with parents or caregivers from early life (Jordan, 2003). This foundational basis enables children to progress to higher levels of play, such as symbolic play, by advancing their abstract thinking abilities through continuous reciprocal communication with their caregivers (Jordan, 2003; Greenspan & Wider, 2006).

It is crucial to acknowledge that autistic children may experience unique genetic, prenatal, or postnatal factors that influence their engagement with the environment. These factors often require support in integrating their sensory and motor systems (Greenspan & Wieder, 2006). Along with their difficulties in understanding social

cues and others' intentions, autistic children may exhibit distinct qualities to shared attention. This can be attributed to challenges such as difficulty in controlling eye movements (①gaze dyspraxia) or having a heightened focus (Gernsbacher et al., 2008). To facilitate changes in their play and promote their overall development, caregivers should develop adaptive strategies to actively participate in their children's play. Recognizing these unique challenges, a developmental approach that emphasizes the individual differences and relationship with caregivers is widely implemented in the field (Greenspan & Wieder, 1998, 2006; Pajareya et al., 2019; Solomon et al., 2007, 2014; Wieder, 2017).

Previous studies focusing on the social and communication development of autistic children have overlooked the changes occurring within their play itself (Wieder, 2017). While the ultimate developmental outcomes are important, it is equally crucial to understand the evolving nature of their play, recognizing it as a typical aspect of development akin to that observed in typically developing children. Considering the fundamental role of play in children's development, it remains essential to show how their solitary play can be transformed into mutual interactive play. In addition, the majority of prior studies have overlooked the individual differences within ASD and have instead employed a uniform approach, disregarding the significant heterogeneity that exists within the ASD population (Cullinane, 2016).

Autism Spectrum Disorder (ASD) places significant demands on families, irrespective of the severity of the condition. Due to the lifelong nature of autism, families face considerable challenges as they strive to meet their children's needs while maintaining a healthy functioning family unit (Gabovitch & Curtin, 2009). The prevailing focus in the field is on equipping families with the necessary skills and knowledge to navigate these challenges and support their autistic

① Within the literature on eye-motor control, gaze dyspraxia refers to a set of difficulties related to gaze behavior, such as the inability to follow someone's pointing direction, failure to look where someone requests, and difficulty in turning towards the source of a sound (Gernsbacher et al., 2008).

children within their natural environment, as the concept of seeking a "cure" is not applicable. This emphasis on family-centered care in the disability field has led to increased recognition of the vital role parents play in the care and well-being of their autistic children (Gabovitch & Curtin, 2009).

Parent-mediated interventions, regardless of the chosen theoretical approach, are commonly recommended to address the challenges experienced by autistic children and are typically implemented within the home setting (Meadan et al., 2009; National Research Council, 2001). However, existing research has predominantly focused on the experiences and impact of mothers, often neglecting the crucial role that fathers play in their children's development (Lamb, 2010; StGeorge & Freeman, 2017). Placing excessive focus on mothers resulted in heightened distress and burden for them while diminishing intervention effectiveness (Osborne et al., 2008). Additionally, it is crucial to recognize that mothers and fathers have distinct styles of play and interaction; fathers also make significant contributions to their children's overall development, including social skills (Lamb & Tamis-LeMonda, 2004; Paquette, 2004). Neglecting the research findings highlighting the benefits of involving fathers in child development overlooks valuable insights (Lamb & Tamis-LeMonda, 2004).

Fathers often engage in playful interactions with their children more often than mothers and become the main preferred playmates of their children (Lamb, 1997; Lamb, 2010; StGeorge & Freeman, 2017). Fathers' natural play style involves physical play, which is characterized by high levels of energy, positive emotions, and physical contact. Fathers often develop attachments with their children through physical play, while mothers form attachments through soothing and nurturing interactions (Paquette, 2004). The benefits of physical play are well-researched in the child development field, revealing numerous benefits such as enhanced language development, emotional development, and increased initiation from children (Bremer & Lloyd, 2021; Dye, 1981; Lee et al., 2021). Specifically, fathers' rough-and-tumble play can encourage

children to respond with more excitement and pleasure (Paquette & Dumont, 2013). Such findings are particularly valuable considering the challenges autistic children often face in initiating with others. Given the higher prevalence of autism diagnosis in males, with males being four times more likely to be diagnosed than females (Centers for Disease Control and Prevention, 2016), and the observed heightened motor activity in younger boys compared to girls (May et al., 2016), the role of fathers is crucial for fostering the development of boys with autism. As a result, fathers' engagement in physical play can have a significant impact on supporting the social and communication abilities of autistic children.

Although fathers play a crucial role in the development of their children, they often face difficulties when engaging in play with them. These challenges highlight the potential need for training and coaching to enhance their skills and enable them to actively participate in their children's play activities. Insufficient skill and knowledge may hinder fathers from fully engaging and interacting with their children during playtime (Lamb & Tamis-LeMonda, 2004). However, many interventions have failed to adequately address the unique needs of fathers, emphasizing the necessity for more tailored training and father-friendly interventions to actively involve and support fathers in order to ensure the success of the intervention (Flippin & Crais,2011; Cabrera & Tamis-LeMonda, 2013).

To advance our understanding of promoting social and communicative growth in autistic children, despite their challenges in communication and interaction, it is essential to examine the development of play in these children and the impact of fathers. Furthermore, exploring the significance and impact of tailored coaching during this developmental process can offer valuable insights into how fathers can effectively support their children and the positive outcomes it can generate. By gaining insights into these aspects, we can enrich our understanding of how to support the social and communicative growth of autistic children.

2. Research Questions

This study aims to make a meaningful contribution to the field of autism research and clinical practice by utilizing father-mediated intervention that incorporates physical play to address challenges faced by autistic children. Through examining play development in autistic children and the impact of playful interaction between fathers and children, with a specific focus on the significance of tailored coaching, this research seeks to provide valuable insights into enhancing social and communication capabilities in autistic children. The study emphasizes the crucial role of play, fathers' involvement, and the significance of tailored coaching provided by the professional within the intervention process. The primary objective of this study is to conduct a qualitative investigation that delves deeper into each individual case, addressing three key research questions.

1. How does the children's play change, and what is the implication of the change?
2. What are the fathers' experiences engaging in play with their children, and how does this interaction impact the father-child dyad?
3. What is the significance of providing tailored coaching for fathers, and how does it affect their families?

Ⅱ. REVIEW OF LITERATURE

This literature review is organized into five distinct sections. The first section provides an overview of Autism Spectrum Disorder (ASD) and highlights the challenges faced by individuals in their social and communication capabilities. The second section emphasizes the importance of play development in autistic children and explores its role in enhancing their social and communication skills. The third section delves into existing interventions specifically designed to enhance the social and communication development of children with autism. The fourth section explores the play-based developmental approach called Developmental, Individual differences, and Relationship-based Floortime (DIRFloortime). The last section focuses on the significant role of fathers in parent-mediated interventions, specifically highlighting their involvement in physical play with their children and the importance of tailored coaching provided by the professional.

1. Autism Spectrum Disorder (ASD)

Autistic children experience challenges in their social and communication development which makes them difficult to engage with people including their parents. Autistic individuals face these social and communication challenges in various ways. Typically, these difficulties emerge before the age of three and can persist throughout one's lifetime (APA, 2013). The severity of ASD varies between individuals, and the term "spectrum" is used to describe the range of effects that the condition can have (APA, 2013). In addition, it is important to note that ASD is diagnosed more frequently in boys than girls, with approximately four times as many boys receiving a diagnosis (CDC, 2007).

The term "social and communication" pertains to the capacity to interact in social situations and effectively convey messages by

interpreting the context and intentions of others (Kim, 2011). These challenges primarily arise from an infant's struggle in cultivating certain areas such as social imitation, use of gestures, social referencing, and joint attention. These pre-linguistic competencies and interaction abilities lay the groundwork for abstract mental representation—a realm where autistic children often encounter difficulties (Bradshaw et al., 2021). Therefore, young children's social and communicative challenges are confirmed when they have difficulty in joint attention and symbolic play (Mundy et al., 1990; Greenspan & Wieder, 2006). Especially, joint attention serves as a precursor to higher levels of development such as symbolic play development, theory of mind, language development, and social skill development (Charman et al., 2003; Greenspan & Wieder, 2006; Tomasello & Rakoczy, 2003). Increasing joint attention at younger ages generates more prosocial behavior and greater engagement with peers in subsequent years of development (as cited in Chang, 2012). According to Greenspan and Wieder (2006), the poor development of joint attention and symbolic play has been the core reason for children's inability to develop language and social skills.

Many autistic individuals may also have heightened or reduced responses to certain sensory stimuli, including sounds, touch, smells, and sights in that they have an unusual interest in or adverse responses to certain stimuli (APA, 2013). Autistic children have atypical sensory profiles, where over 90 percent of autistic individuals have unusual ways of sensing, perceiving, and responding to sensory stimuli in the environment (Dellapiazza et al., 2018). Such sensory reactivity and a range of cognitive challenges can affect the ability to learn through observation, imitation, joint engagement, symbolic play, and emotional expression which can affect their social and emotional capabilities (Soucy, 1997).

Gender differences in sensory processing and responding have been reported that females show more sensory symptoms than males: difficulties in tactile stimuli processing and responding in females than in males are reported (Osório et al., 2021). More repetitive motor movements, inattention, and communication

challenges were observed in autistic males than in females, and autistic younger boys compared to younger girls had more elevated levels of hyperactivity-impulsivity (May et al., 2016). These individual differences challenge the child's formation and maintenance of relationships while also affecting the development of a sense of self, sense of reality, and symbolization (Greenspan &Wieder, 2006).

If children with ASD continue to have mutual interactional deficits in paying attention to and interacting with each other (Maestro et al., 2002), object-related neurological networks are formed, but neurological networks focused on social situations or attentional system does not develop (Rogers et al., 2019). These factors significantly contribute to their social and communication development.

2. The Importance of Play in Autistic Children

Play is a vital component of children's development, influencing various aspects of their growth, including social, emotional, physical, language, and cognitive skills (Vandenberg et al., 2021). Characterized by personal direction, choice, and freedom, children's play emphasizes the process rather than the outcome (Kernan, 2007). It holds both intrinsic values, such as enjoyment and entertainment, and instrumental values, such as learning and development (Goodley & Runswick-Cole, 2010; Stagnitti, 2004; Whitebread et al., 2012). Engaging in interactive play is vital for children to practice and acquire essential social skills. Through shared attention and developing relationships, interactive play, especially when combined with a social context, provides valuable opportunities for social development. It facilitates the growth of their intentionality, inter-relatedness, complex social problem-solving abilities, emotional development, and symbolic play (Jordan,2003).

Autistic children may exhibit different types and qualities of play compared to typically developing children. They frequently engage in

repetitive, ritualized, and solitary play activities, which may not necessarily foster social interaction (Ellingsen et al., 2017). This tendency towards solitary and ritualized play often extends into a preference for explorative types of play, characterized by a pattern of behavior that is both prolonged and repetitive (Charman & Baron-Cohen, 1997; Mastrangelo, 2009; Wieder, 2017; Wulff, 1985). Difficulties in motor planning, imitation, and language problems can result in challenges to the social, emotional, cognitive, and behavioral domains, which in turn can compromise the children's play (Mastrangelo, 2009).

Autistic children face challenges in joint attention, which can make mutual interactive play difficult. Joint attention, in particular, play a vital role in social and communication development, as they contribute to social development, language development, and theory of mind (Charman et al., 2003; Greenspan & Wieder, 2006; Tomasello & Rakoczy, 2003). Joint attention involves the motivation to share intentions, interests, and goals with another person (Tomasello et al., 2005). It represents an ability to perceive individuals as intentional agents through shared intentionality (Tomasello & Rakoczy, 2003). Autistic children who lack joint attention often face ongoing challenges when interacting with others, hindering the development of social-oriented and attentional neural networks (Maestro et al., 2002; Rogers et al., 2019).

However, autistic children often demonstrate unique approaches to engaging with their surroundings. These differences can be traced back to genetic, prenatal, or postnatal factors that influence their sensory input response, movement organization, and understanding of their surroundings. Therefore, they may need assistance integrating their sensory and motor systems, with affect (emotions) providing a critical pathway for these connections (Greenspan & Wieder, 2006; Greenspan et al., 1998). Moreover, autistic children may display atypical responses to joint attention, even when they are capable of attending to and understanding social stimuli and the intentionality of others. Such discrepancy can be due to their atypical persistence in focus or gaze dyspraxia. As a result, caregivers

should endeavor to find ways to join their children in these activities (Gernsbacher et al., 2008).

Autistic children can engage in symbolic play when it is elicited or highly structured, but the spontaneous social aspect of symbolic play is still impaired (Jordan, 2003). They also lack symbolic play skills, so they display less elaborate play and less sophisticated levels of symbolic play than typically developing children and children with other developmental delays (Hobson et al., 2013; Riguet et al., 1982). Symbolic play is significant for the development of language and social skills in autistic children (Greenspan & Wieder, 2006; Waddington et al., 2021). Although they can learn symbolic play when explicitly taught, they often struggle to apply these learned skills to different contexts, demonstrating a challenge in generalization (Hobson et al., 2007; Wong et al., 2015).

Several factors may contribute to challenges in the development of symbolic play in autistic children. Difficulties with executive functioning, including planning and organization, can be one of these factors (Williams et al., 2008). Autistic children's communication and language difficulties can also hinder the development of symbolic play (Mundy et al., 2015). In addition, comorbid conditions such as ADHD may impact the development of symbolic play (Landa, 2012).

According to the Weak Central Coherence Theory, individuals with autism tend to focus on small, local details rather than seeing the bigger picture. This can make it difficult for autistic children to understand how different items are related and to use them symbolically. Essentially, this theory suggests that autistic children have difficulty integrating information from different sources to create a coherent whole, which may limit their capacity for imaginative play (Happé, 2005). Leslie (1987) suggested that the challenges experienced by autistic children in engaging in symbolic play can be attributed to an impairment in meta-representation. Pretend play requires the ability to recognize that others have subjective experiences, thoughts, and perspectives and the capacity to hold two representations of primary and newly-assigned virtual identities simultaneously. This ability involves Theory of Mind (ToM),

which is the ability to understand the mental states of others and predict their behaviors based on this understanding.

In the executive function deficit theory, researchers challenged Leslie's meta-representational impairment of symbolic play in autistic children, arguing that autistic children are not deficient in the competence of symbolic play but deficient in the performance of symbolic play (Jarrold et al.,1993, 1994). According to Jarrold et al., autistic children have competence in pretending but have a deficit in translating them into general production and difficulty suppressing how their ideas can be interpreted in real life (1993, 1994).

Greenspan & Wieder (2006) asserted that for children to reach the developmental level of symbolic play, they must have ideas to represent, and the child must "want" to share these ideas and accompanying information. This level comes after the child meaningfully engages with parents and is able to conduct intentional complex social communication. With continuing two-way communication and intentional complex social communication, children are then able to reach abstract levels of emotional ideas, which are then represented as symbolic play. As children develop this mentalization ability, their play naturally becomes more complex, imaginative, and symbolic, signifying an advanced level of abstract thought. These evolved play patterns allow children to infuse creativity and complexity into their activities, using symbols to represent real-life elements not immediately present in their surroundings (Mastrangelo, 2009; Wieder, 2017). Symbols initially represent personal experiences but gradually encompass a wider range of emotions and drives. Importantly, the ability to engage in symbolic play is closely tied to emotional and behavioral regulation, as well as managing anxiety associated with a broader emotional range (Stanley & Konstantareas, 2007; Wieder, 2017). The challenge in mentalization might also link to difficulties with understanding, empathy, and theory of mind.

Neurobiologically, for autistic children, the difficulties with sensory processing and motor system hinder joint engagement with their parents, which affects social functioning and causes a delay in the

later development of mental representation (Greenspan & Wieder, 2006; Greenspan et al., 1998). Therefore, nurturing interactive play is essential for the holistic development of autistic children. According to Wieder (2017), the foundations of symbolic play lie in a child's ability for joint engagement, relational skills, pre-verbal communication, and social problem-solving. Struggling in interaction can reduce their level of social engagement, potentially resulting in adverse effects on their language development and environmental exploration (Min, 2014). Hence, fostering these skills can facilitate symbolic play development, consequently supporting emotional and behavioral regulation in children.

In supporting the play development of autistic children, a key objective is to facilitate a shift from solitary play towards mutual interactive play with increasing engagement. Achieving this transition necessitates adapting traditional interaction techniques to better suit their distinct neurological profiles (Gernsbacher et al., 2008; Greenspan & Wieder, 2006; Greenspan et al., 1998). This tailored approach can foster positive and reciprocal exchanges, which play a vital role in enhancing autistic children's play development.

3. Interventions for Autistic Children

Various approaches based on behavioral, developmental, and blended theoretical orientations have been employed to support the social and communication development of autistic children, each offering its unique strengths and potential benefits (Thompson, 2013). One crucial aspect of social communication development in young autistic children is the acquisition of skills related to engaging and communicating with others. Of particular importance is the recognition that early signs of autism can often manifest as deficits in joint attention and symbolic play, typically noticeable by the age of two (Yang & Shin, 2011). Understanding this correlation has led to the devising of targeted strategies to support joint attention and symbolic play in autistic individuals.

In addition, interventions for social and communication development in autistic children also aim to improve other social skills, such as turn-taking, waiting, imitation, and appropriate language and behavior (Dawson et al., 2010; Ingersoll & Dvortcsak, 2010).

Behavioral Approach

Behavioral interventions have been actively conducted utilizing quantitative research to increase these skills by prompting, directing, and correcting (Kasari et al., 2006; Taylor & Hoch, 2008). A popular model is Applied Behavioral Analysis therapy (ABA), and there are several variations based on the principles of the ABA approach, such as Discrete Trial Intervention, Pivotal Response Therapy, Incidental Teaching, Verbal Behavior, and Pyramid Picture Exchange Communication (Thompson, 2013). Behavioral interventions have been widely used to target cognitive capabilities, language, imitation, social skills, and other specific goals in autistic children (Dawson & Burner, 2011). The behavioral approach typically involves teaching, modeling, and reinforcing targeted behaviors through a series of steps (Kasari et al., 2006; Taylor & Hoch, 2008).

Early Intensive Behavioral Intervention (EIBI) is widely recognized as an evidence-based model for young children with autism spectrum disorder (ASD). This intervention has demonstrated effectiveness in improving various areas such as language skills, imitation abilities and addressing problematic behaviors commonly associated with ASD (Klintwall, & Eikeseth, 2014; Reichow, 2012). EIBI employs various techniques, such as antecedent stimuli, a target response, consequences (reinforcement), prompt, and task analysis (Klintwall & Eikeseth, 2014). They have demonstrated effectiveness in improving targeted skills when implemented intensively, often requiring 20-40 hours of weekly intervention. Numerous studies have utilized EIBI, proving its effectiveness (Klintwall & Eikeseth, 2014; Reichow et al., 2014).

For autistic children's social and communication development, joint

attention skills are often the targeted goal for behavioral intervention. The intervention may focus on teaching pointing, looking, and talking about objects with physical touch as prompts. The goal is to teach joint attention as distinct skills that can later be generalized to enhance overall social and communication abilities in autistic children (Martins & Harris, 2006; Stahmer,1995; Taylor& Hoch, 2008). While behavioral interventions have shown positive outcomes, they have also received criticism. Some argue that teaching pointing or following gaze may not fully support the atypical ways autistic children look and share attention (Gernsbacher et al., 2008). Additionally, behavioral approaches for symbolic play development have been criticized for their directness and lack of age-appropriate tailoring (Hillman, 2018; Mastrangelo, 2009). There have been observations that children may become more ritualistic and repetitive and exhibit stereotyped behaviors in their play due to these approaches (Carr,1983; Solomon et al., 2007).

Overall, behavioral interventions remain popular and are considered evidence-based in ASD intervention (Reichow et al., 2014). However, there remain challenges that behavioral intervention has a limitation of generalization of the skills children learned or children's strengths or individual differences are not valued (Cullinane, 2016).

Blended Approach

Some interventions have combined behavioral and developmental approaches by incorporating the child's natural environment or unstructured play in the classroom alongside structured play and behavioral-based techniques, such as modeling, verbal guidance, and prompting. This integrated approach aims to enhance social and communication development in children (Ingersoll & Dvortcsak, 2010; Jang, 2004; Schertz & Odom, 2007).

The Denver Early Start Model combines developmental intervention with behavior-analytic teaching methods and has demonstrated effectiveness in promoting language, engagement, and

learning in young children (Dawson et al., 2010). This intervention involves 20 hours per week of therapist-led sessions and parent training. However, the model's behavioral approach specifically targets skills like joint attention as an isolated skill. Consequently, criticism has arisen suggesting that joint attention may be more effectively enhanced as a collateral outcome within a play rather than through direct targeting (Warreyn et al., 2014).

Another blended approach was conducted by Kasari et al. (2006). They first developed the program called JASPER (joint attention, symbolic play, engagement, and regulation) as an early intervention combining two approaches called NDBIs. NDBIs (naturalistic, developmental, and behavioral interventions) became popular, especially for joint attention and symbolic play improvement in autistic children in early intervention (Waddington et al., 2021). This approach can be carried out by parents, educators, and clinicians relatively within a short period of time that is, 30-60 minutes per week for 3 months of training. It can be delivered in a child's natural setting, incorporated into the child's daily schedule, and emphasizes teaching joint attention, play skills, requesting skills, imitation, and modeling (Kasari et al., 2010). Despite its efficacy in improving some joint attention and play skills in children with autism, most research was conducted by the same research team, which requires more independent replications (Waddington et al., 2021). Wieder (2017) claims that its "interventions have not been on a symbolic play or emotional themes as intended targets, but on skills often taught in behavioral modes; nor has the development of relationship capacities that support symbolic function, a core deficit of autism, been part of those interventions" (p. 274). It is also unclear which children can benefit the most under JASPER treatment (Waddington et al., 2021) as it is not based on each child's individual differences and developmental patterns. Moreover, parent-delivered JASPER did not specify if the parent is mother or father, which, again, may require a more specified, targeted approach to have a better outcome, especially because autism is a spectrum in which an individualized approach may be more beneficial for a child and family (Waddington

et al., 2021).

Recently, more technology-based interventions are on the rise—for example, initiating social joint attention using a video self-modeling method (Buggey et al., 2011) and video modeling for increasing pretend play (Boudreau & D'Entremont, 2010). These interventions reported some success but, once again, require a more individualized approach. In addition, the studies also suggest that autistic individuals may face challenges with generalization and exhibit an increased reliance on technology, which can lead to a reduction in social interactions (Sagayaraj et al., 2020; Shukla-Mehta et al., 2010; Waddington et al., 2021).

4. Play-Based Developmental Framework: D. I. R

The developmental approach is based on the premise that the impairment of social communication in autistic children can be achieved while promoting development by building strong interpersonal relationships through children's natural play (NRC, 2001). The intervention process is based on typical developmental progression using developmentally appropriate materials and activities, utilizing child-initiated teaching episodes (Houghton et al., 2013). One popular developmental approach to ASD is Developmental, Individual Difference, and Relationship-based (DIR) Floortime (Greenspan & Wieder,1998; Greenspan & Wieder, 2006). It is based on children's developmental progressions tailoring interactions to the child's unique biological differences to "building spontaneous relationships and connecting the child's natural interests and emotions as part of this interaction" (Greenspan & Wieder, 2006, p.9).

1) Developmental Capacities

Greenspan and Wieder (1998, 2016) claimed in their DIRFloortime, developmental (D) consideration stems from the notion that success in one stage of development contributes positively to later stages;

conversely, failure in one stage of development hinders development in later stages. Thus, it may be necessary to return to the previous stage of development and re-work early problems. Greenspan et al. described it as a “developmental approach in which the child takes back to the very first milestone he may have missed and begins the developmental progress anew” (1998, p.121).

As a developmental approach to autism, this approach focuses on the child’s improvement based on Greenspan & Wieder’s (1997, 1998, 2006) six developmental capacities of FEDCs. Functional Emotional Developmental Capacities (FEDCs), as defined by Greenspan, encompass six developmental stages: self-regulation, engagement, two-way intentional communication, purposeful communication and shared problem-solving, using symbols and emotional ideas, and logical thinking and building bridges of ideas (International Council on Development and Learning, n.d.). According to Greenspan, typically developing children reach these capacities by the age of four or five, but children with developmental challenges may take longer to master them.

In the first stage of FEDCs, self-regulation involves processing sensory information from the environment and one's own body. This stage includes shared attention to learning and interacting socially, which begins around zero to three months of age and helps children distinguish between pleasant and unpleasant experiences. Through early sensory processing and shared experiences, children develop emotional understanding. The second stage of FEDCs is engagement and relationships, which emerges between two and five months of age. Children start recognizing patterns in their world and giving meaning to various forms of communication and symbolic representation as they engage in emotional interactions. The third stage of FEDCs is two-way purposeful, emotional interaction, where children interpret emotions as "signals" for communication. Starting around six months of age, caregivers and babies engage in intentional communication, forming a back-and-forth flow of emotions known as the "circles of communication." Children's understanding of causal and logical patterns expands during this

stage. The fourth stage of FEDCs is social problem-solving and forming a sense of self, occurring between nine and 18 months of age. Two-way communication helps children solve social problems to achieve their goals. Emotional maturity and the ability to regulate mood and behavior contribute to recognizing and adjusting emotional cues. Children develop a sense of self and others, leading to early empathic reasoning. In the fifth stage of FEDCs, which begins around one and a half years of age, children make symbols, use words, and develop ideas. Through joint engagement and complex emotional signaling, they learn to pair mental constructs with linguistic and gestural symbols, enhancing their understanding of communication. The sixth and final stage of FEDCs, occurring around the age of two and a half, involves emotional thinking, logic, and a sense of reality. Children start connecting symbols and ideas logically, linking internal and external concepts, and developing a sense of events across time. This stage corresponds to the expansion of logical thinking and the emergence of higher cognitive abilities. By understanding these stages, we can gain insights into the developmental trajectory of children's emotional and cognitive capacities as they progress through these foundational capacities.

Greenspan (2001) emphasized the role of affect in the core deficit in autism and in the development of intelligence and social skills.

The Role of Affect

Evidence suggests that daily interactive engagement between young children diagnosed with ASD and their parents can significantly enhance the child's ability to develop reciprocity skills, which may prove beneficial in their future social interactions with others (Greenspan et al., 1998). By responding to the child's initiation and non-verbal communication, the parents can support the development of their social interaction and communication (Greenspan & Wieder, 2006). The role of affect is particularly important in parents' interaction with their children.

Affect is comparable to emotions and feelings; feelings are

subjective and unique, influenced by society, family, and personal idiosyncrasies, and emotions are biological and universal (Fonagy et al., 2018). Affect is expressed through facial expressions and compels us to behave (Fonagy et al., 2018).

Wieder (2017) defined affect as expressed through facial expressions, tone of voice, eye contact, posture, movement, intensity, and timing, which can convey both good and negative meanings and feelings in various ways. Itskovich (2019) depicted, "Affect is defined as a temporary expression of an emotional tone or a subjective and direct experience of emotions linked to ideas or mental representations of objects…Affective expression gives an accurate estimate of shades and range of internal state (emotion). Thus, parents' elevated affect becomes a compensatory factor that can activate insufficient function of mirror-neuron in a child and stimulate neuro-correction" (p.7). Affect also can be a key to motivating children to try new activities as it functions as a drive to children's motor planning (Greenspan, 2006). When an infant has pleasurable experiences and learns to regulate their emotional experiences, it helps develop motor control. As a result, the infant is more likely to respond by reaching toward the enjoyable touch and moving away from the unpleasant touch (Greenspan, 2001).

Several theories suggest that the sequences of perceptual, motor, and affective experiences that occur during interactions between parents and infants form the basis for the development of symbols (Fein, 1981; Nelson, 1985). Greenspan (2001) also claimed a connection exists between sensory, affect, and motor systems. Affective information will have a higher chance of being processed, enabling children to engage in motor-driven tasks. Without affective quality in interaction, autistic children will display aimless behavior (Greenspan, 2001). According to Wieder (2017), affect-rich interaction can increase joint engagement in children with autism, motivating them to connect their affect to motor planning/sequence. This, in turn, can eventually enable them to form an abstract representation that can be expressed in their play.

2) Individual Differences: Tailored Approach

The DIRFloortime approach recognizes the significance of individual differences among autistic individuals, encompassing sensory preferences, functional levels, language abilities, and cognitive capacities, which can vary even within the same severity level (Waddington et al., 2021). For example, a child who under-reacts to sensations in the environment may find it challenging to process sensory input, which can impede their ability to coordinate motor movements such as pointing, turning, or looking. On the other hand, a child who overreacts to sensory input may also struggle to connect sensory input to organized motor actions. A normal human voice may be overwhelming and trigger a panic response. A child with motor planning difficulties may also face challenges in connecting their sensory responses to organized actions. Therefore, they may struggle with engagement unless the environment and caregivers are supportive of their sensory profile. Those different experiences in the sensory and motor systems, including touch, smell, taste, movement, sound, visual stimuli, and processing of visual-spatial, cognitive emotional, auditory, and spatial processing, motor planning capacity in autistic children are referred to individual differences (Greenspan et al., 1998; Greenspan & Wieder, 2006). These individual differences can present specific challenges in establishing and maintaining relationships, developing self-awareness, comprehending reality, and using symbols. Hence, it is crucial to consider each child's unique biology when working with them (Gruenberg, 2016).

Autistic children exhibit diverse ways of interacting with their environment and others (Gernsbacher et al., 2008). By tailoring interventions to address these individual differences, the promotion of social and communication skills in these children can be significantly enhanced. These “individual differences” take into account several factors, such as the child's mental health, history of trauma, medical background, and family circumstances. It highlights the significance of implementing tailored strategies that cater to the

distinctive characteristics of each person involved, including family members and therapists participating in the intervention. The recognition of these individual differences is essential, as interactive play and the development of relationships play a pivotal role in attaining positive outcomes throughout the intervention process.

3) Relationship-Based: Affective Relationship

In DIRFloortime, the affective relationship (R) is the cornerstone for the development of self-regulation, a sense of self, and a foundation for meaningful communication (Greenspan & Wieder, 2006). Greenspan (2001) argued for pleasurable interactions that generate attachment, and this argument diverges from the behavioristic notion that physical needs and satisfaction form attachment. In addition, there is a natural predisposition to share attention more with people who are physically and emotionally close (Siposova & Carpenter, 2019). Thus, as children play with adults who are physically close to them, their natural tendency to have those adults in their minds and share attention with them increases, strengthening their relationship and promote reciprocal engagement and play development.

In attachment theory, affects are considered crucial as they form the basis of the affective bond between caregivers and infants during their early experiences (Bowlby, 1969). When parents provide healthy and attuned interactions, infants are more likely to grow up as healthy and secure adults. Bowlby (1969) posits that strong bonds between parents and children play a significant role in shaping child development. Children's ability to mentalize has roots in this attachment theory, where an early interpersonal relationship with a caregiver shapes the development of the child's self-organization, particularly through emotional experience (Fonagy et al., 2018). Through this emotional experience with caregivers in early life, children begin to form abstract concepts, like belief (Fonagy & Target, 2002).

Viola Brody, in her developmental play therapy (1997), utilized

touching, rocking, singing, and physical holding emphasizing the nurturing relationship in her treatment based on the attachment theory. In this kind of affective relationship, oxytocin also plays a crucial role in promoting positive social bonding and increasing motivation to engage in social interaction by reducing social stress reactivity (Heinrichs et al., 2013). Oxytocin administration improved the understanding of emotional speech and decreased repetitive behaviors in autistic individuals (Bartz & Hollander, 2006).

Many other studies have demonstrated that emotionally sensitive caring of parents is associated with stronger cognitive, language, and social development. According to the study by Harding-Esch et al. (2003), a caregiver's affective quality in play with a child plays an important role in the child's cognitive development. This study lends support to the notion that affect has a strong impact on children's emotional development in future research. Sherratt (2002) claimed in her study that the affective engagement of play may have contributed to children's play abilities extending beyond the early stages of intervention. Rutherford et al. (2007) also confirmed that affect must be shared and reflected easily or voluntarily in order for children with autism to be motivated or positively reinforced to participate in pretend play with others.

Greenspan (2001) claims that if an affective reciprocal interaction does not occur, this lack distinctly hinders joint engagement development, which causes symbolic play deficits in autistic children. For autistic children to achieve a higher developmental capacity, it is imperative that they engage in meaningful, affective, and reciprocal interactions with their parents. His argument echoes Rutherford et al. (2007)'s study to test several theories on the nature of pretend play. These theories encompass joint engagement, the executive functioning theory of pretend play, the social learning or imitation theory of pretend play, and general cognitive development to understand what ability measures predict pretend play in typically developing and autistic children. They discovered that only joint engagement predicted strong and unique spontaneous pretend play. While infants acquire joint engagement skills, parents can facilitate

their reciprocal interaction with symbols through affect-laden and intention-filled interaction (Adamson & Bakeman, 1991; Peter-Hobson et al., 2004).

Furthermore, Paquette's Activation Relationship Theory (2004) works in conjunction with the concept of affective relationship by highlighting how fathers' physical play enhances positive emotional bonding with their children, thereby strengthening their affective relationship. By engaging in physical play, fathers not only provide stimulation and activation for their children's development but also foster a deeper emotional attachment. As a result, fathers' involvement in physical play can effectively enhance the affective relationship they share with their children.

In conclusion, the play development in autistic children, which is crucial for their social and communication growth, can be significantly facilitated by encouraging fathers to engage in more emotionally rich and responsive interactions with their children. According to Greenspan et al. (1998), these nurturing interactions, characterized by sensitivity and attunement to the child's needs, promote the expansion of "Circles of Communication." This concept refers to the establishment of meaningful, two-way, reciprocal communication between the child and the father, which is vital for the overall development of autistic children.

Floortime

DIR is the framework, and Floortime is a play-based technique to practice DIR theory through play and to support children in mastering their developmental capacities (Greenspan & Wieder, 1998, Hess, 2013). Floortime allows children to lead, engage with their interests, participate in their world, and invite them into a shared world to move them up to their developmental capacities (Hess, 2013). Compared to behavioral or structured interventions, which can be too rigid and focused on adult-driven skill-building, Floortime is a child-centered approach. It involves following the child's lead and interests during play and finding ways to turn their actions into interactive

experiences using affective interactions through voice, facial expressions, words, and gestures. The use of exaggerated emotions can help move the child up the symbolic capacity ladder, allowing them to engage in more complex forms of play (Mastrangelo, 2009).

Wieder & Greenspan (2003) claimed that "interactive play uniquely addresses the core deficits of relating and communicating as no other approach can" and "long sequences of back and forth co-regulated affect cues can help the child focus, initiate and elaborate ideas" (p.426). Autistic children require assistance in developing their ability to engage, and that affective gesturing is necessary to help expand the child's range of emotions and themes (Cullinane, 2016; Greenspan & Wieder, 1997). Wieder & Greenspan (2003) asserted that Floortime is not just merely following the child, commenting on what the child does—rather, it is an active process of interacting to promote the child's capacity. Moreover, DIRFloortime can accommodate all levels of difficulty because it can be adjusted according to every child's development level, whereas other treatment approaches are limited to certain levels and conditions (Cullinane, 2016).

Studies Utilizing DIRFloortime

Play and Language for Autistic Youngsters (PLAY) Project Home Consultation model is based on DIRFloortime and usually is combined with community services to improve child development, autism symptomatology, and parent-child relationship (Solomon et al., 2007; Solomon et al., 2014). As a developmental approach to autism, this approach focuses on the child's improvement based on Greenspan & Wieder (1997, 1998, 2006)'s six developmental capacities of FEDCs (Functional Emotional Developmental Capacities). It is a parent-mediated approach utilizing play as a primary intervention and showed increased mutual interaction and decreased parental stress (Solomon et al., 2007; Solomon et al., 2014). It measures the extent to which the child responds to the parent's overtures or initiates interaction with the parents. Their measure of mutual interaction can

identify the child's capacity to engage and interact with intentionality. Greenspan & Wider (2006) explained that as infants "want to look, or listen, to pay attention to the outside world, they can share attention and to learn and interact socially, they need to be able to focus, be calm, and actively take in information from their experiences with others from what they see, hear, smell, touch, and taste; and from the way they move." (p 43). Their approach to improvement of joint attention is not a skill set but rather focuses on shared intentionality through joint engagement between two persons. Many studies have demonstrated the efficacy of this approach (Pajareya & Nopmaneejumruslers, 2011; Pajareya et al., 2019).

Furthermore, several studies conducted under therapists- led using the DIRFloortime approach have also demonstrated positive outcomes (Greenspan & Wieder, 1997, Mahoney & Perales, 2003; Mok & Chung, 2014; Solomon et al., 2007; Pajareya & Nopmaneejumruslers, 2011). These studies provide further evidence of the effectiveness of interventions based on the DIRFloortime approach in supporting the social and communication development of autistic children. However, the approach has been receiving some criticism for limited studies aimed at specific targeted goals such as joint attention and developing symbolic play, although the methodological core of the developmental approach is the development of joint attention and social interaction (Kasari et al., 2001; Siller & Sigman, 2002).

5. The Significance of Fathers

1) The Need for Father-Mediated Intervention

Family-centered care (FCC) has emerged as a widely recognized and recommended approach in the field of disabilities, acknowledging the lifelong nature of disabilities and the ongoing support they require (Gabovitch & Curtin, 2009). This approach recognizes the families' significant responsibilities and challenges, aiming to

alleviate their stress and enable them to function cohesively as a family unit. FCC encompasses important elements such as shared decision-making, empowering families, and providing them with the necessary knowledge and skills to effectively care for a family member with a disability. Greenspan and Wieder (2006) emphasized the primary role of parents in their "family first" initiatives to facilitate their children's learning, relationships, and communication. By providing support and guidance, parents are encouraged to implement developmental skills at home with the assistance of professionals. This collaborative approach allows autistic children to benefit from consistent and meaningful learning interactions throughout their waking hours, highlighting the significant role that families play in their progress.

The majority of families consist of two-parent households, and children spend most of their time with their parents. Parent-mediated intervention, where parents are trained or coached as an interventionist, became a recommended approach to autistic children (Movahedazarhouligh, 2021). In other words, parent-mediated intervention can be summarized as the involvement of parents in treatment, training or coaching parents as a co-therapist, or teaching parents strategies so that they can learn and implement the necessary skills to help their children at home throughout the day to manage behavior or to promote communication skills (Meadan et al., 2009; NRC, 2001). Parent-mediated interventions for ASD are typically conducted within the child's natural environment, which is often their home. This approach is based on research demonstrating the benefits of teaching children in their natural environments and providing therapy in their homes (Dunlap et al., 2006). Parent-mediated intervention can be carried out differently depending on its theoretical orientation. For example, parents in a parent-mediated intervention based on the behavioral approach will support targeted behavioral goals at home utilizing many behavioral-based skills.

Most of all, parents' maintenance of skills can decrease the long-term cost of the child's therapy, as children with ASD require years of therapy to achieve desirable outcomes (Elder et al., 2003). Thus,

with this parental involvement, the goals of treatment can be achieved faster, resulting in a long-term reduction of the cost that can span decades (Beaudoin et al., 2014; Solomon et al., 2014). This is particularly important because families often face formidable battles in financial challenges associated with a variety of special tests, assessments, and treatments for ASD (Elder et al., 2003).

Parents of autistic children in Korea have also faced numerous financial challenges from pursuing years of therapy. According to research, the medical care and economic burden cost of ASD in Korea has increased significantly from $2,700,596 in 2008 to $9,645,503 in 2015 (Hong et al., 2015). However, this estimate does not account for the additional financial burden of treatments such as Applied Behavior Analysis (ABA) and early intervention, which are currently not covered by insurance (Hong et al., 2020). As a result, the actual economic burden of ASD is likely to be even higher than reported. This places individuals in a situation where cost becomes a significant factor when choosing a treatment approach (Kim et al., 2011). In reality, it is often impractical to afford the recommended weekly treatment hours of 15 to 25, or sometimes even 40, as suggested by different approaches for optimal treatment efficacy (Dewaay, 2011; Klintwall & Eikeseth, 2014).

Parent-mediated intervention is a highly promising approach because it helps parents to develop their skills and reduces their stress levels (Estes et al., 2014; Gengoux et al., 2019; Rogers et al., 2019). Additionally, it has been found to increase partner satisfaction and family cohesion while leading to improvements in the core characteristics of autism spectrum disorder (Laugeson et al., 2009; Makrygianni & Reed, 2010). Furthermore, this approach has been shown to promote the generalization of skills learned by children, enabling them to apply these skills in different situations, maintain them over time, and develop self-efficacy (Rogers et al., 2012; Schreibman & Koegel, 1996).

Unfortunately, there is a significant lack of interventions targeted toward fathers, as most interventions have been conducted with mothers only (Lamb, 2010). Even though both parents should play a

critical role in the development of social and communication in autistic children, the majority of interventions were conducted with mothers only or had limited inclusion of fathers (Flippin & Crais, 2011; Lamb, 2010; Meadan et al., 2013). Overlooking the potential influence of fathers and simply applying interventions designed for mothers to fathers may be less effective and acceptable, as it fails to take into account the unique characteristics and experiences of fathers (Braunstein et al., 2013). Interventions that exclude fathers and focus on mothers may pose potential difficulties for fathers to become an interventionist or participate (Vacca, 2013).

Numerous studies have revealed the need to focus explicitly on fathers of autistic children and developmental disabilities. For one, Meadan et al. (2013) called for more studies of paternal involvement after the review of the parent-implemented programs for autistic children ages zero to six from 1997 to 2007. According to their review, among 110 parent participants, 52 parents were mothers, and only 28 were fathers—the rest were simply designated as "parents." In another study conducted by Flippin and Crais (2011), a systematic literature review of parent involvement with their autistic children found that among 25 reviewed studies, only three included fathers. Braunstein et al. (2013)'s systematic reviews on the inclusion of fathers in autistic children research highlighted that among 404 articles, only 13.6% of studies overtly included fathers; a much smaller 1.5% of research studies conducted included only fathers. These data points indicate that fathers are sorely under-represented in empirical studies of autistic children irrespective of child age, years of publication for journals, and type of journals.

Many studies have given attempts to explain the reasons for excluding fathers. Williams (2008) explained that mothers tend to be readily available to care for their child and are still identified as the primary caregivers; fathers of children with ASD may be disinterested in participating and may not be invited to participate (Fabino, 2007), or less available and harder to reach (Phares et al., 2005). Additionally, as another factor in the early intervention field of ASD, the majority of early intervention therapists happen to be

women who may feel uncomfortable working with fathers. This discomfort is another possible explanation for these men's exclusion, as these therapists might not dedicate sufficient time and effort to invite fathers to participate in treatment approaches, especially if these fathers need to be convinced of their value to the intervention (Dion & Strong, 2004). These factors result in most ASD research centered around the one-sided parental experiences of mothers only (Cheuk & Lashewicz, 2016).

As many studies have demonstrated the positive impacts of including fathers in assessment, treatment, and child development, a parent-mediated program for autistic children should actively include fathers due to the potential for the equally powerful role they, play in a child's life. Moreover, mothers already expressed high levels of stress taking a main role in caring for their children every day, and it is known that parenting stress reduces intervention effectiveness (Osborne et al., 2008). Thus, it is assumed that merely involving fathers in the intervention may not be sufficient, as mothers may still bear the primary responsibility for the intervention, which can increase their workload and stress levels. Hence, there is an immediate need for father-mediated interventions, which can provide significant value to parent-mediated intervention for autistic children.

2) Father Involvement

Research has demonstrated that fathers play a critical role in their young children's communication and socioemotional development (Pancsofar & Vernon-Feagans, 2006; Towe-Goodman et al., 2014). A systematic review of father and child play interaction and its impact on child development revealed that fathers' play contributes to their child's emotional, behavioral, and cognitive development, as well as higher levels of achievement (Robinson et al., 2021). Fathers tend to spend relatively more time engaged in playful interactions compared to other areas of caregiving (Lamb, 2010; Fletcher et al., 2013). Similarly, Kazura's (2000) study showed that fathers scored lower than mothers in time spent on daily child-rearing activities but

scored higher in play. Konstantareas & Homatidis (1992) indicated that fathers of children with developmental disabilities spent less time parenting compared to fathers of typically developing children. However, other studies portrayed a more complex aspect of this disparity as they reported fathers' longing to be more involved in their children's lives and to form meaningful relationships with them (Hadadian & Merbler, 1995a; Meadan et al., 2013).

Furthermore, research has shown that fathers' impact on a child's language development, including children with ASD, is supported by multiple studies. Fathers can provide a linguistically challenging communicative environment, and father-child daily interaction provides opportunities to develop a child's self-regulation, further bolstering the child's development (Lamb & Tamis-LeMonda, 2004; Paquette, 2004). A father's unique contribution to their young children's communication and socioemotional development can be demonstrated by their input at 24 months, which predicts language development at three years old (Pancsofar & Vernon-Feagans, 2006; Towe-Goodman et al., 2014). Additionally, paternal language styles tend to employ higher-level vocabulary, more complex sentence structures and include varied, abstract, and WH questions, further contributing to children's language development (Pancsofar & Vernon-Feagans, 2006; Walker & Armstrong, 1995). Flippin & Crais (2011) argue that a paternal role's directive and practical communicative style can support the language development of children with ASD, particularly in their ability to relate to others.

Moreover, fathers' involvement has a positive impact on the lives of their autistic children, promoting higher self-esteem, emotional well-being, and improved educational and economic attainment (Deutsch et al., 2001; Flouri & Buchanan, 2004). A qualitative study by Potter (2016) demonstrated that fathers value their nurturing roles in their relationships with their children and show strong emotional bonds with them. The study found that fathers focus on the child's personal strengths, and the majority of father-child relationships were overall very positive. Fathers involved themselves more in the child's play and discipline, with the effects of this

involvement primarily associated with positive cognitive development, social and emotional development, and higher academic achievement (Robinson et al., 2021). Shannon et al. (2002) proved that responsive fathers can bring about better developmental outcomes for children with ASD by helping improve the child's emotional regulation, as well as cognitive and language development.

Studies have highlighted the impact of fathers' involvement in the family, linking it to improved family cohesion, greater marital satisfaction, and better child-related outcomes in treatment (Feldman, 2000; Shannon et al., 2002; Pancsofar & Vernon-Feagans, 2006).

Studies focusing on early ASD intervention have shown that a father's impact on a child's treatment outcome is vast. Involving fathers can promote safety, attunement, sensitivity, inter-subjectivity, and security in the child's development (Lamb, 1980). Fathers can be trained to be equally effective as mothers, which can be applied as an added benefit to parent-implemented programs, providing exclusive benefits to children with ASD (Rankin et al., 2019). By involving fathers in therapy and sharing parental responsibilities, father-mediated interventions have a positive impact on family dynamics. These interventions reduce stress for both spouses, enhance communication within the family, and improve overall family functioning. Fathers also gain a better understanding of their children's unique needs, challenges, and strengths through these interventions, enabling them to provide more effective support (Shannon et al., 2002). Importantly, the benefits of father-mediated interventions extend beyond the duration of the intervention itself. When fathers actively engage in their child's development, they are more likely to continue supporting their child's progress and maintaining positive interactions over the long term, leading to sustained benefits for the child's well-being. Studies exploring the impact and experience of fathers directly involved in interventions reported higher self-confidence, overall competence, and marital satisfaction compared to fathers who did not participate (Vacca, 2013).

Overall, the research underscores the crucial role of fathers in

their children's communication, socioemotional development, and treatment outcomes, particularly for children with ASD. By involving fathers in therapy, providing support for their nurturing roles, and recognizing the unique contributions they bring to the parent-child relationship, interventions can optimize family dynamics, improve child-related outcomes, and foster positive developmental trajectories for children with ASD.

3) Father's Physical Play

Fathers tend to engage in playful interactions with their children more often than mothers and become the main preferred playmates of their children (Lamb, 1997; Lamb, 2010; Fletcher et al., 2013). Fathers also tend to engage in more vigorous and physical play with their children, such as throwing and catching, wrestling, tickling, and hugging (MacDonald, 1987; MacDonald & Parke, 1986; StGeorge & Freeman, 2017; Yogman, 1981). In general, when fathers and children engage in physical play, it tends to be energetic, involves sudden bursts of energy, and entails a lot of body contact, such as catching, dancing, and swinging (Grossmann et al., 2002; Hazen et al., 2010; StGeorge & Freeman, 2017). The physical play that fathers engage in with their children is often characterized as stimulating, energetic, and exciting for the child (Freedson & Evenson, 1991; Ramchandani et al., 2013). Such play can elicit feelings of surprise or fright in the child (Grossmann et al., 2002).

In contrast, mothers tend to engage in calmer play activities with their children focusing on pretend play and language (Meuwissen & Carlson, 2015; Tamis-LeMonda, 2004). When playing with their children at home, fathers mainly engage in physical play, while mothers are primarily involved in caring activities (Bronstein, 1984; Fliek et al., 2015). In fact, fathers' physical play with their children accounts for 70% of their playtime, while only 4% of mothers' playtime involves physical play (Yogman, 1981). It seems that despite the fact that both parents play physically with their children, fathers do it more frequently and in a different way (Ramchandani et

al., 2013; Freedson & Evenson, 1991). Fathers' inclination to engage in more physical play with their children can be attributed to differences in parenting styles and underscores the distinctive contribution that fathers make to their children's development. Leveraging their natural playfulness through physical play holds great potential in nurturing positive relationships between fathers and their autistic children.

Paquette (2004) introduced a new attachment theory called the Activation Relationship Theory, which supports the importance of fathers engaging in physical play with their young children. According to this theory, fathers enhance their attachment to their children through physical play, which fulfills the child's need for activation and stimulation. This type of play allows children to take risks, actively explore their environment, and strengthens their attachment to their fathers. On the other hand, mothers' attachment tends to satisfy the child's need for comfort and soothing.

Studies have indicated a strong association between physical play and language development in autistic children, highlighting the essential role of the ② vestibular system's sensory integrative function in communication development (Dye, 1981; Ray et al., 1988). Therefore, fathers engaging in physical play activities that involve the vestibular systems, such as spinning, crawling, jumping, swinging, rolling, dancing, cartwheels, and somersaults, can significantly enhance language development. Notably, interventions targeting movement skills in young children have shown positive outcomes not only in adaptive behavior but also in addressing emotional and behavioral problems while improving social skills (Bremer & Lloyd, 2021; Jung, 2020). Fahy et al. (2021)'s study demonstrated that autistic children showed spontaneous, imaginative play ideas while involved in physical play outdoors, such as running, swinging, jumping, and climbing. Other movements, such as dance and movement therapy for autism, revealed positive results in the areas

② Vestibula system is responsible for sensing the motion of the head in space and providing us with our sense of self-motion and orientation. This system is crucial for maintaining stable gaze, as well as controlling balance and posture (Cullen, 2012).

of imitation and emotional and social development (Takahashi et al., 2019). Children developed more emotional skills and improved social competence when they engaged in copious amounts of physical play with their fathers (Bremer & Lloyd, 2021; Jung, 2020; Lee et al., 2021).

The importance of fathers' physical play, especially rough and tumble play, is well documented (StGeorge et al., 2017). The rough and tumble play is the most common play fathers engage in with their young children at home (Yogman,1981). Usually, boys are more likely to engage in this type of play, and rough and tumble physical play is initiated irrespective of the father's household income or job status, but younger fathers tend to play more (StGeorge et al., 2017). Research has shown that excitement and heightened emotions that result from rough-and-tumble play have been linked to positive outcomes that allow children to develop attachments and deeper relationships with their fathers (Grossman et al. 2008). This activity also provides a structure, and at the same time, creates an encouraging environment in which children can learn to interpret emotional cues, allowing them to adapt, challenge, explore, try new things, and overcome their own challenges (Paquette, 2004; StGeorge et al., 2017). When fathers create heightened stimuli and engage in pleasurable relationships, children usually respond with more excitement and pleasure (Grossman et al. 2008).

A study by Ross and Taylor (1989) has shown that children experience greater intensity of pleasure when they engage in rough-and-tumble play with their fathers. It is also said that this type of play helps children become more socially competent in their abilities to navigate complex social situations (Pellegrini & Smith, 1998). A study by StGeorge et al. (2017) demonstrated that self-regulation was enhanced when a child received more time of engagement and a higher quality of rough and tumble play with their father, as well as when the child displayed positive emotions. Through rough and tumble play, fathers can help sons learn to form attachments and, importantly, help regulate their aggressive feelings and challenging behaviors. When fathers engage in physical play, including rough-

and-tumble activities, with their children, they promote more joint engagement from their children. Such increased engagement is likely to foster the development of symbolic play and language skills in autistic children.

Autism has been found to have a higher prevalence in boys (CDC, 2016), and research suggests that fathers are more likely to engage in physical play with their sons (Yogman,1981). Consequently, fathers' physical play may play a significant role in social and communication development, especially in their sons.

4) Coaching Fathers in Play

Fatherhood presents unique challenges, as research suggests that fathers often lack experience and feel unprepared for their role (Lamb, 1980). However, fathers express a strong desire to increase their involvement in their children's lives and develop meaningful relationships with them (Hadadian & Merbler, 1995a; Meadan et al., 2013). Consequently, providing support for fathers can be highly beneficial. Despite this, studies have observed higher dropout rates and limited involvement among fathers who participate in parent training groups (Budd & O'Brien, 1982). To promote fathers' engagement, it is advisable to offer training programs exclusively tailored for fathers, addressing their specific needs and focusing on coaching specific skills rather than simply encouraging general play (Helfenbaum-Kun & Ortiz, 2007).

While most research has primarily focused on training and coaching mothers, limited studies have explored similar interventions for fathers. In a notable study by Elder et al. (2011), fathers received training in specific skills based on social reciprocity theory. The training aimed to support fathers in promoting social reciprocity in their autistic children. Social reciprocity includes actions such as imitating the child with animated affect, following the child's lead, and commenting on the child's actions. Results indicated that fathers successfully acquired these skills and experienced positive outcomes, which, in turn, had a beneficial impact on their children's

development. Moreover, fathers shared their newly acquired skills with mothers, resulting in positive outcomes for the children as well. This study highlights the potential of training fathers and demonstrates that such interventions can effectively promote social interaction among children.

Qualitative research conducted by the same team revealed that fathers who participated in a home training program reported experiencing strengthened relationships with their children and a sense of hope for their children's future (Donaldson et al., 2011). These results indicate that the training positively impacted the emotional bond between fathers and their children, fostering optimism regarding their children's developmental prospects.

In the realm of parent training, approaches that specifically focus on enhancing parent-child interaction patterns using techniques such as modeling, in vivo practice, and immediate feedback have shown superior results compared to didactic methods (Eyberg & Matarazzo, 1980). Although there is a limited body of research focusing on coaching fathers, available studies suggest that fathers engage more effectively when the coaching is tailored specifically to their needs, taking into account the ways in which they differ from mothers. Furthermore, approaches involving direct modeling and immediate feedback are more advantageous for fathers than didactic methods, particularly when engaging in play with their children. Moreover, it is widely recognized that fathers who actively spend time with their children have the potential to strengthen their emotional bond. By actively participating in their children's lives, fathers can enhance the connection they share with their children on an emotional level.

In conclusion, when fathers receive personalized and targeted professional coaching that highlights the significance of engaging in play, developing specific play skills, and dedicating quality time to their children, it can lead to promising outcomes for both the children and the fathers themselves.

Ⅲ. METHODOLOGY

1. Research Design

A case study is considered to be very effective in generating an improved understanding of the subject's experience and behavior in more detail, with in-depth understanding, and reveals changes in each case subject in greater depth (Kielhofner, 2006). Despite the predominance of behaviorally-focused or mixed behavioral and developmental strategies in interventions facilitated, developmental approaches that emphasize the significance of play and fostering relationships have been comparatively less explored in academic research. Previous studies in this field have primarily focused on the broader implications of play and have relied on quantitative research methods. However, they have not specifically investigated whether play in autistic children can change and the importance of these changes in their development (Wieder, 2017).

This study aims to bridge this research gap by examining the individual changes in play exhibited by autistic children and highlighting the significance of their play development for their social and communication abilities.

Fathers-related studies are mostly conducted quantitatively and it lacks fathers' individual experiences (Yoon, 2014). This research utilized the father's physical play in facilitating play development in autistic children, which was rarely the focus of research in the field of ASD; thus, examining it through qualitative methods can be extremely valuable in generating more future father-mediated intervention research.

A case study gives insights by characterizing and explaining the situation with limited examples; however, a multi-case study produces more reliable results than a single case study (Merriam, 1998; Yin, 2013). Therefore, a multi-case study was chosen for this research due to the wide range of individual differences in ASD,

making it important to examine each case in order to achieve the study's objectives (Creswell, 2012). This multi-case study offers an in-depth and distinctive depiction of each case within its natural context by leveraging the child's natural play activities. The study hopes that through their fathers' facilitation, the children's play changes and advances, subsequently enhancing their own social and communication capabilities (Marshall & Rossman, 1999).

2. Participants

Four Autistic Children and their Fathers

The study involved four children and their fathers. The participating children in this study ranged in age from three to seven and had not yet started formal elementary school. They had received a diagnosis of autism prior to the initiation of the intervention. Additionally, children who showed preferences in movement activities encompassing interests in jumping, spinning, bouncing, crashing, and running around were included in the study. This requirement was necessary as the study entailed significant physical touch and movement from the fathers during play, and knowing what type of play or interaction is beneficial to which children can be important in autism intervention (Waddington et al., 2021). [③]Childhood Autism Rating Scales (CARS) was utilized to determine the level of severity. Children who are mild to moderate participated because they have fewer cognitive, language, and behavioral challenges like aggression compared to severe impairment of ASD (Gotham et al., 2009). Fathers who wanted to join the research sent their children's CARS test results to the researcher. The researcher

[③] The CARS evaluation tool includes 14 domains that assess behaviors commonly associated with autism, as well as a 15th domain for rating general impressions of autism. Each domain is scored on a scale of one to four, where higher scores indicate a greater level of impairment. The total score can range from 15 to 60, with scores below 30 indicating non-autistic behavior, scores between 30 and 36.5 indicating mild to moderate autism, and scores from 37 to 60 indicating severe autism (Chlebowski et al., 2010).

interviewed fathers and mothers for an in-depth understanding of their children's development, learning about each child's developmental history, sensory preference, difficulties in joint engagement, and level of play and goals for parents.

The study recruited fathers willing to commit to playing with their children for one hour each day and allowed for visits from the researcher to their homes. Additionally, fathers who initially expressed that their natural play involved physical activities and expressed difficulty interacting with their child but were willing to learn were selected. These fathers consented to be videotaped playing with their child every week and agreed to participate in online coaching sessions or interviews as necessary. Furthermore, fathers who were geographically accessible to the researcher were chosen. A small number of fathers were selected to represent the depth of individual cases (Creswell, 2012).

Fathers who were psychologically unstable, recently traumatized, or physically unhealthy were excluded, as research showed the parental mental state significantly influences their interaction with their children (Tehee et al., 2009; Lieberman-Betz et al., 2014).

Four male children named Kumin, Nawon, Minki, and Bodam, along with their respective fathers, were invited to this study. The following characteristics pertain to the children and their fathers who participated in this study.

Table 1. Characteristics of Participating Children and Fathers

Child	Age, Gender, & CARS score	Current Interventions	Preferred Play Types & Play Level	Korean Child Development Inventory (K-CDI)	Fathers' age, current job	Natural Play Type
Kumin	64 months and only child Male 32	Speech therapy, ABA therapy, Intelligence/Cognitive therapy, Special Physical Education therapy	Jumping, Media watching and Re-enactment 3-5 times back and forth when it is his interest, Play does not last long (3-5 minutes long at most)	Delayed in every development	Mr. K 38 Full time	Play- ground, Kids' café, Physical play, Join B's scripted play
Nawon	58 months and only child Male 30.5	Speech therapy, ABA therapy, Sensory Integration therapy	Any type of physical activity-bike riding, scooter riding Hard to have a joint play	Delayed in every developmental domain except gross motor development	Mr. N 38 Full time	Outside play, Rarely plays at home
Minki	40 months, has a sister a year younger Male 30.5	ABA therapy, Group ABA therapy, Sensory Integration therapy	Playing with train, Physical play (horseback riding, wheelbarrow walking) Low level of symbolic play (can make a train out of anything, pretend a tissue is mom's make up), no interest playing with others and limited interest	Delayed in social and emotional development	Mr. M 37 Full time	Physical play at home, Reading, Playing the piano, Outside play-bike riding
Bodam	60 months and only child Male 35	Not in any intervention	Computer, Lego, Puzzles, Hide and seek with father, Ghost play, Piggy back on father Simple pretend play-ghost play, taco wrap play, no interest in playing with others or with different play ideas, Same patterns of play	Delayed in gross motor development	Mr. B 40 Temporary out of job	Play- ground, Kids café, Physical play or Join his son's play

Researcher

I, the researcher in this study, am a doctoral student at Seoul National University Department of Child Development and family studies. I hold the certificate of an advanced level of DIRFloortime intervention from the Interdisciplinary Council on Developmental and Learning Disorder (ICDL). I am a registered play therapist from the USA, a Licensed Professional Clinical Counselor (LPCC, CA, USA), and a National Certified Counselor (NCC, USA). Additionally, I had accumulated experience in providing treatment to autistic children, home visit coaching, and working with fathers. My extensive background as a preschool teacher, supervisor, parent educator, and child therapist equipped me to undertake this study. Providing weekly coaching to fathers on play with their sons was a crucial part of my work, and I drew on my expertise in working effectively with parents and on the content of the approach. To enhance my ability to support fathers, I also consulted with other professionals throughout the process.

3. Procedure

This study utilized purposive sampling to recruit research participants through social media parent groups catering to autistic children. The selection criteria included children diagnosed with ASD with a CARS range of mild to moderate, fathers who could play with their children for one hour daily for 12 weeks, a mutual interest in physical play and a desire to increase interaction, and a willingness to open their homes for home visit coaching. In addition, the fathers had to be geographically accessible to the researcher. Around 20 families contacted the researcher expressing their interest within three days of the announcement being posted.

The screening process was divided into three stages, the first of which was to select possible participants based on the selection criteria. The second stage was to confirm their eligibility by

submitting the child's diagnosis from a major hospital and a short 5-minute play clip.

Four children and fathers were ultimately selected for the study. The fathers signed the informed consent and completed various documents, including information on the child's current developmental level, developmental history, sensory profile, interactive play level (with a specific focus on the quality of joint engagement), and level of symbolic play in a natural environment. The fathers' individual differences, play preferences, and type of play at home were also documented. Parental Stress Index (PSI) was conducted for both parents. Additionally, the researcher interviewed the fathers to better understand the father-child dynamic. Following the interview, each father submitted a 15-minute video of natural play with their child to serve as a baseline.

Four fathers and their children completed the 12-week coaching phase. The study explored autistic children's play development through father-mediated intervention to enhance their social and communication capabilities. The research received ethical approval from the university's research ethics committee, and prior written consent was obtained from the participants (IRB No. 2207/004-003).

1) Intervention Procedure

The father-mediated intervention began with a two-hour individual pre-education session on the DIRFloortime model for the fathers. The session aimed to provide the fathers with a clear understanding of DIRFloortime, the significance of play focusing on mutual interactive and symbolic play in child development, and how they could facilitate these aspects with their children.

Following the pre-education session, an initial home visit was conducted for Nawon and Bodam's family, while Kumin and Minki's family could not have it due to schedule conflicts. During the initial home visit, the researcher interviewed the fathers to gather further information based on their completed documents. This visit provided an opportunity for the researcher to gain a deeper understanding of

the family's context, the child's developmental needs, and the potential opportunities and challenges in the home environment. This information was used to inform the subsequent coaching sessions and support the fathers in their efforts to facilitate interactive play in their children.

After the initial home visit, weekly coaching was provided to the fathers for 12 weeks, from September 15 to December 3, 2022. The duration of the intervention was determined based on previous studies (Elder et al., 2011; Gengoux et al., 2019; Jang, 2004; Kasari et al., 2006), and was designed to allow sufficient time for the fathers to learn and practice play skills that could be used to facilitate their children's interactive play over the long term. While the parent-mediated approach typically requires more than 15 hours per week (Pajareya & Nopmaneejumruslers, 2011; Pajareya et al., 2019; Solomon et al., 2007), this study aimed for a more realistic goal of 7 hours per week of father-mediated intervention, taking into consideration the fathers' work and life responsibilities to ensure feasibility and practicality.

The coaching sessions took place in the fathers' natural environment and were based on the play videos they had sent each week. The coaching aimed to support fathers in their efforts to facilitate interactive play development in their children. The coaching sessions were tailored to the child's individual differences, taking into consideration their sensory profile and interests.

2) Coaching Procedure

During each home visit, the researcher initiated the coaching session by reviewing the previous play video sent by the fathers and discussing any challenges or questions they may have had. Following the review of the previous play video, the researcher coached the fathers on new skills or concepts that they could apply in their daily play with their children. The coaching aimed to support the fathers in their efforts to facilitate interactive play from their children's solitary or repetitive play. The coaching sessions were based on the

DIRFloortime framework, and the researcher integrated creative play ideas that incorporated various forms of play, such as movement play, Korean traditional play, and rough and tumble play. Fathers and other family members had the opportunity to raise concerns and ask questions during each visit, which lasted for one hour. The researcher provided direct modeling of play or communicated with the fathers in the moment to guide their play.

After the home visit, fathers were encouraged to incorporate the new skills they learned into their daily play for one hour and send one video recording of their play sessions every week to the researcher for the remaining 12 weeks. Nawon and Minki's mothers recorded videos of their husbands playing with their sons and occasionally provided feedback to their spouses during the recording. Kumin and Bodam's fathers used their phones to record the play sessions and kept the phone in one location. The fathers then uploaded the recorded videos to their secure personal YouTube channel and shared the video link with the researcher to maintain privacy. If scheduling conflicts or illness arose, online coaching was conducted in place of home visits, with the same approach but without direct play modeling.

The coaching sessions were designed to enable fathers to learn and apply play skills that could be used to facilitate their children's play development from solitary play to interactive play over the long term. The following is a timeline of the coaching sessions conducted by the researcher for each family.

Table 2. Timeline of the Coaching

Coaching	Mr. K	Mr. N	Mr. M	Mr. B
Two- hour Pre-education	8/16	8/25	9/4	8/19
Initial Home Visit	x	9/03	x	9/03
1st coaching	9/01	9/17/22	9/16	9/15
2	9/22	9/24/22	9/23	9/24
3	9/29	10/01/22	9/30	9/31
4	10/08	10/08	10/07	10/08
5	**10/15**	10/18	10/17	10/15
6	10/22	10/22	**10/22**	10/22
7	10/27	10/29	10/29	10/29
8	11/05	11/05	11/04	**11/06**
9	11/10	11/11	11/12	**11/13**
10	**11/17**	11/19	11/18	**11/20**
11	11/24	11/26	11/26	**11/26**
12	12/3	12/3	**12/01**	**12/03**
Interview with mothers	**12/5**	**12/7**	**11/17**	**11/14** **12/15**
Extra interview with fathers	**12/4**	**12/25**	**12/19**	**12/15**

- On-line coaching or Interviews are indicated in bold.
- The first coaching session was longer than one hour for Kumin and Minki's family, as it supplemented the initial home visit.

4. Data Collection and Assessment

The researcher collected basic information about the participants through interviews and conducted additional assessments as part of the study. Childhood Autism Rating Scales (CARS) was used to determine the level of severity. To assess whether any of the participants were sensitive to movement or tactile sensory, the researcher used the K-SP2 (Korean Sensory Profile, Second Edition). Additionally, the researcher collected each child's developmental history, assessed their current developmental level using the Korean Child Development Inventory (K-CDI), and evaluated their level of interactive play and symbolic play through parental interviews and intake forms prior to the intervention.

To assess changes in interactional and social functioning through play, the study scored two 15-minute play videos for each dyad using the Functional Emotional Assessment Scale (FEAS). Specifically, the baseline and 11th play videos for Nawon, the 9th play video for Bodam, and the 12th video for Kumin and Minki were analyzed. In Nawon's last play video, his mother intervened too much, so it was excluded from the analysis. During Bodam's last play sessions, he primarily engaged in games with rules. As a result, the researchers selected a playing clip that showed his symbolic play for scoring purposes.

Fathers' play skill improvement was compared utilizing FEAS as well. Reflection on individual play with their child during the intervention period was studied to show detailed experience of fathers, play skills, and the impact on their relationship. The conversation or interviews that happened during the coaching or separate interviews with fathers and mothers were all examined to provide credibility for the study. Parental Stress Index (PSI) was also used to note changes in fathers' stress related to competency and attachment with their sons and the impact on mothers' stress.

The data and assessments collected for the study are listed below, and a detailed explanation of FEAS and PSI is provided thereafter.

Table 3. Data collection and Assessments

Basic data collection	Weekly coaching	Assessment used after coaching
- Childhood Autism Rating Scales (CARS) - Parental interviews on the level of Joint engagement and symbolic play in their natural setting, play types, and individual difference - Child's developmental history - Korean Child Development Inventory (K-CDI) - Child's Sensory Profile (K-SP2) - Parental Stress Index (PSI) - Functional Emotional Assessment Scales (FEAS) for 15 minutes of natural play (pre-coaching)	- Weekly coaching was based on the videos of play sessions from the previous week for each dyad (total 44 play videos)	- FEAS for 15 minutes of natural play - Father's journal - PSI

Functional Emotional Assessment Scale (FEAS) was used to observe and measure interactional and social functioning in young children, and their fathers. The tool consists of 34 items aligned with Greenspan's six developmental capacities, assessing parental behavioral changes in play and child social and functional development. These six developmental functional and emotional developmental capacities in FEAS are; 1) self-regulation and interest in the world, 2) forming relationship, attachment, and engagement, 3) two-way purposeful communication, 4) behavioral organization, problem-solving, and internalization, 5) representational capacity, and 6) representational differentiation. The higher scores reflect greater functional behaviors and more mature social developmental stages in a child. Autistic children exhibit delays in the acquisition of

social developmental skills like engagement, initiation, reciprocal interaction, problem-solving, and so forth. Therefore, it is common for the FEAS scores of autistic children to be below the scores of typically developing peers of equivalent age (Solomon et al., 2014).

Detailed FEAS is attached to an appendix. Items are rated 0 (not at all or very brief), 1 (present some of the time, observed several times), or 2 (consistently present, observed many times). This study employed the first four levels of the FEAS to measure joint engagement and mutual reciprocal interaction in both the children's and their fathers' interactive play. The fifth and sixth levels of FEAS were assessed to measure improvement in abstract representation and symbolic play and fathers' play level. Parent-child sensory play or free play with toys in the home was video-recorded for 15 minutes and scored by the reliable, professional trainer of FEAS from the Interdisciplinary Council on Developmental and Learning Disorder (ICDL) who was blind to the identification of the child and assessment time.

The Parenting Stress (PSI), a 120-item screening and diagnostic instrument, identifies areas of stress from the domains of child characteristics, parent characteristics, and situational/demographic life stress. This was used to measure the impact of the fathers' play at home on the father's competency area and attachment area with their sons and the mothers' overall stress level. Decreased PSI indicates less stress related to each item. The result of PSI is attached to an appendix.

5. Rigor of the Study

To ensure the study's rigor, a triangulation method was utilized, incorporating multiple perspectives to examine the evolution of play patterns in autistic children, the influence of fathers' play, and the significance of tailored coaching. This approach enhances the robustness of the study by considering various viewpoints and providing a comprehensive understanding of the research topic. This

involved gathering data from various sources, such as developmental history, videos of play sessions, journal entries from fathers, interviews, and assessment results. By incorporating multiple data points, the study aimed to enhance the overall rigor and validity of its findings (Meriam, 1998). In addition, a detailed description of the case and its findings, along with self-reflection on the research process, further bolstered the rigor of the study (Creswell, 2012). To maintain consistency and accuracy, the researcher enlisted the assistance of third-party translators, who are doctoral students in child development studies and proficient in both English and Korean. They were tasked with translating the scripts from the play footage into English. For the FEAS assessment, the researcher reached out to a certified FEAS assessment trainer from the ICDL. The assessor was provided with English transcripts and video clips of play sessions, with all identifying information about the children and the specific play times removed.

Ⅳ. FINDINGS

This chapter delves into the findings on a detailed level, examining the play development of each autistic child, the experiences of the participating fathers, the establishment of positive emotional relationships between fathers and children, and the tailored coaching provided to fathers.

1. Kumin and Mr. K

1) Kumin's Play: Learning to be an Interactive Player

Kumin is a five-and-a-half-year-old boy who was diagnosed with ASD when he was around four years old. Due to COVID-19 pandemic, Kumin's diagnosis and receipt of therapies were delayed. Kumin's CARS (Childhood Autism Rating Scale) score was 32 at that time, indicating mild to moderate autism-related symptoms. Based on his current developmental level, it is evident that he experiences delays in all developmental domains, including language development. His speech is limited to combining a maximum of three words, and he predominantly employs ④echolalia and ⑤scripted languages in most of his conversations. According to Mr. K, Kumin is a good boy who is healthy and obedient. Kumin has been receiving ABA therapy, speech therapy, and sensory integration therapy. Kumin also receives intelligence/cognitive intervention and special physical education intervention twice weekly, respectively.

Kumin responds to Mr. K's invitations to tickle or lift him up, but other than this, Kumin mostly bangs his toys on the floor while lying down. Mr. K reports that Kumin has difficulty holding attention and is

④ Echolalia refers to the repetition of speech made by others, and is considered one of the defining features of ASD (APA, 2013).
⑤ Scripting in autism, which involves repeating lines or phrases from media or other sources, differs from typical language use in that it is not part of a shared convention and relies more on imitation than self-generated speech (Gerber, 2021).

very behind and insensitive in social interaction—he does not interact with others but does scripted play with strangers. Kumin can be very anxious in new settings or at the beginning of a new school year that he often cries for a month, his body can become very stiff, or he keeps repeating words like "say hello" (what he was taught) in the corner of the room alone. He shows more stereotyped behavior under stress. Kumin is also under-reactive to the sense of pain, which has caused injury several times in the past, and thus, Kumin has anxiety related to hospitals as well. Kumin loves sea animals, his favorite cartoons, and re-enacting them. His engagement can last for a couple of minutes only when he engages in reenacting his familiar cartoons exactly as they are with his father. However, he does not understand the concept of taking turns or playing.

Kumin's vestibular sensory seeking is very high, and he often initiates physical play by saying "Hug me," meaning "I want to be lifted up and flipped." From their first play video, it was clear that Kumin could not attend to his father except to meet his sensory needs.

> *Kumin approached his father, seeking a hug, which involved being lifted up. In response, his father engaged in various high-intensity physical play activities, resulting in Kumin laughing and enjoying the interaction. His father attempted to redirect Kumin's attention by suggesting alternative play activities such as playing with a doctor's kit or playing ball together. Despite his father's efforts, Kumin persistently requested a hug and showed no interest in the other play activities suggested by his father. He appeared inattentive, spaced out, and unable to focus on his father's requests. For instance, when his father asked him to bring a ball, Kumin needed to be reminded twice, and even when he brought the ball, he dropped it along the way and reiterated his request for a hug. Completing a single task required multiple prompts or modeling from his father. When his plea for a hug went unfulfilled, Kumin promptly left his father to play alone, engaging in activities such as jumping, kicking his legs, and engaging in repetitive play with his favorite sea animals, involving scripted dialogue or actions (from*

their 1st play clip).

Kumin's tendency to primarily engage in high sensory-seeking play concerned his father. To encourage Kumin to participate in different activities or shift his focus, Mr. K (Kumin's father) employed negotiation strategies and suggested engaging in various types of play, particularly role play. Despite Mr. K's efforts, Kumin's interest in other types of play remained minimal, and even when he did participate, he required multiple prompts to do so.

Recognizing the importance of following the child's preferences, Mr. K continued to incorporate physical play but also learned techniques to make it interactive and aligned with Kumin's interests. The techniques included slowing down the pace of play and regularly waiting for Kumin's response while actively engaging with affect. However, Mr. K found it challenging to learn and apply these new play skills simultaneously.

> *In the fourth play clip, Kumin approached his father, Mr. K, and said, "Hug me." In response, Mr. K practiced play skills of whispering with affect (emotion) and asking, "Up?" Kumin softly answered, "Up." Without delay, Mr. K lifted Kumin up and exclaimed, "Wow, you are high up!" He then asked, "One more time?" and Kumin softly answered, "One more time." Without further attempts for Kumin's initiation, Mr. K immediately lifted him up again, moving around while holding him on his chest, making sounds like "Swish~~ swish~~ Weeeeee~~." Immediately after, Mr. K took Kumin to the couch and encouraged him to jump several times. As Kumin continued asking for more hugs, Mr. K kept providing stimulation by lifting him up, moving rapidly, spinning, using sound effects, and incorporating big and fast movements (from their 4th play clip).*

Despite Mr. K's occasional attempts to incorporate play skills, such as slowing down and introducing pauses during physical play, Kumin mostly remained engaged in high-intensity and fast-paced play with his father. Moreover, as Mr. K implemented the coaching advice,

Kumin's interest in physical play seemed to wane because the frequent pauses hindered his pursuit of stimulation. Mr. K found it challenging to incorporate affect and be animated during play. Without these elements, the slower-paced physical play did not provide the same level of excitement or amusement that Kumin sought.

When Kumin was disengaged from physical play, he would often bang the floor with a toy, recite a few words, run to other rooms, or kick his legs and jump while sitting. Mr. K attempted to join in Kumin's play by mimicking him or playfully obstructing him, but Kumin sometimes became upset, leaving Mr. K feeling disheartened. It appeared that Kumin could only connect with his father through high-stimulating physical play, and Mr. K was coached to devise a way to utilize Kumin's sensory preferences to establish a more genuine connection between them. In order to increase engagement in play, Kumin should enjoy the time and play with Mr. K.

When Kumin lost interest in physical play, Mr. K found a new opportunity to connect with his son through yoga ball jumping. He turned this activity into a mutual play experience, taking turns singing familiar songs in rhythm, pretending the yoga ball was a spaceship blasting off, and using a colorful tube toy to invite Kumin to play, utilizing his sensory preferences.

> *Mr. K positioned Kumin on a yoga ball, holding his leg, and rolled him from his back. Throughout, Mr. K's voice had a deep and slow tone, creating a rhythmic effect as he rolled his son back and forth. He then changed his position to face his son, holding Kumin's arm and gently pushing him backward to make eye contact. While singing the song "Baby Shark," Mr. K deliberately sang it slowly and utilized varying tones, including high and low pitches, and a deep voice. When singing the verse "shark," his voice became deep and strong, synchronized with the rhythmic rolling of Kumin. Mr. K waited for Kumin's response, and Kumin sang the next verse of the song (from their 8th play clip).*

Despite Mr. K's efforts, Kumin often broke off from the play after

only a few minutes, going to different places to play alone or engaging in scripting words while jumping and running around. This made Mr. K feel discouraged, as he found it challenging to connect with his son even though there was an improvement in the length of Kumin's staying with him. It seems that Kumin's short attention span and difficulty in processing information slowed the process.

To address the challenge of sustaining the play with his son, Mr. K learned to simplify his language to make it easier for his son to process and to focus more on affect through gestures, facial expressions, voice tone, and sound. Additionally, he incorporated his son's sensory preferences into their play continuously. His affect improved as he practiced new skills and also tried small confined areas to play so that Kumin could have less distraction. Through this process, Mr. K discovered that Kumin could engage most in their master bedroom, where he had access to blankets, pillows, and a mattress that provided Kumin with tactile, visual, and proprioceptive/vestibular input. As a result of these adjustments, Kumin was able to sustain his engagement for longer periods of time.

> *In the master bedroom, Kumin and Mr. K engaged in a playful activity called "sandwich." Mr. K asked Kumin to lie down, and Kumin readily followed. As Mr. K placed pillows on top of Kumin one by one, he described the process, saying, "I am making a sandwich... I'm putting a cheese... lettuce..." He then paused, waiting for Kumin to initiate and interact. Kumin responded by saying, "Apple," and Mr. K acknowledged it by repeating "apple" and adding another pillow. This exchange repeated a few times. Then Mr. K loudly but slowly said, "Daddy," while he placed himself on top of Kumin, pretending to eat, and saying, "Yum, yum." Kumin enjoyed this interaction and laughed, saying, "Let's eat together." Mr. K enthusiastically repeated Kumin's expression and continued making the sandwich. To add variation, Mr. K lay down himself and asked Kumin to place pillows representing different ingredients (cheese, lettuce, apple, and whatever Kumin said). Mr. K indicated "bread," inviting Kumin to come on top, and Kumin placed himself on top of his dad, remarking, "bread, heavy"(from their 11th play*

clip).

Kumin demonstrated an improved capacity for neural connection with his father, as he could engage in play for over 20 minutes without breaking off. Despite using echolalia or scripted language, his expressions became more contextually accurate. This increased attention and sustained interaction highlighted the strengthened neural connection between Kumin and his father.

Figure 1 illustrates Kumin's play development, evident through observed improvements in the Functional Emotional Assessment Scale (FEAS). While Kumin still requires substantial assistance, indicating a need for maximum support in FEAS levels 1, 2, and 3, he has shown significant progress in level 4. This improvement in play development occurred within a secure and engaging environment tailored to his interests. The progress achieved highlights the positive impact of his father's consistent support, suggesting the potential for further improvement. The advancement in Kumin's play development, especially when compared to his starting point, signifies his enhanced ability in imitation, joint attention, and engagement. Consequently, this has resulted in an increased duration of play with his father.

2) Mr. K's Experience: Building a Meaningful Connection

Mr. K, in his late 30s, along with his wife, has been taking turns caring for their son Kumin since his diagnosis. Currently, Mrs. K is a full-time caregiver while Mr. K works to provide for their family. Nevertheless, Mr. K remains heavily involved in his son's daily life and treatment, taking Kumin to various intervention centers when he is not working at night and spending time playing with him after work. Mrs. K reports that Mr. K knows their son best and is particularly skilled in playing with Kumin, as he has received praise for his parenting abilities during their attendance at parenting classes.

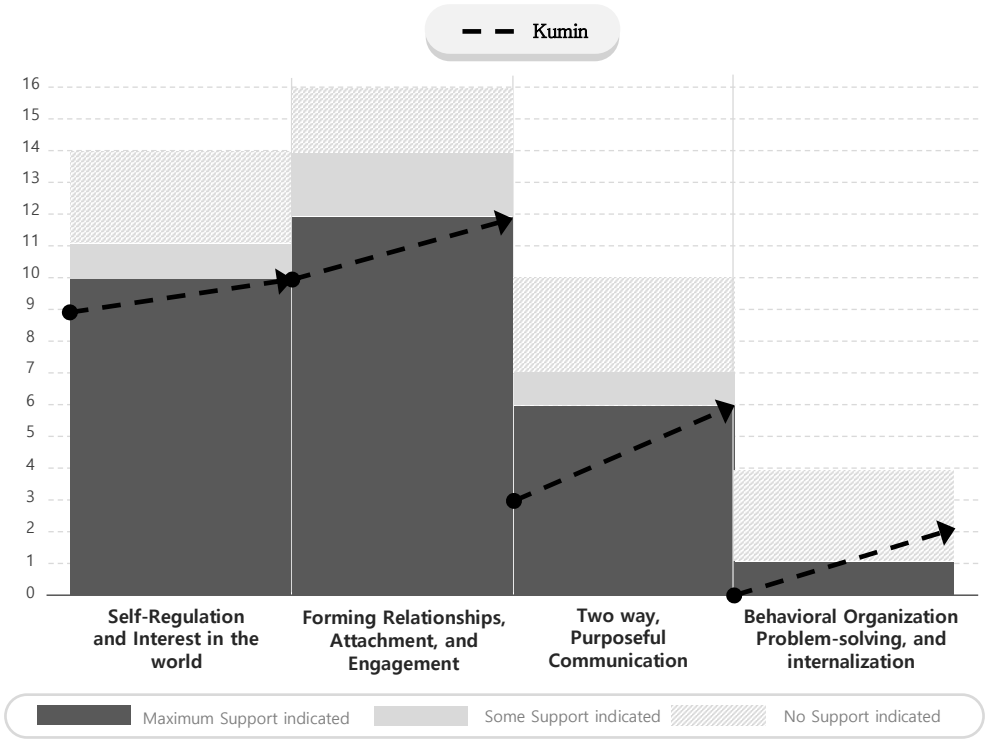

Figure 1. FEAS for Kumin

Mr. K engages in various types of play with Kumin, including physical play and the reenactment of scripts. However, he feels that he lacks certain play skills to achieve his goal of making Kumin happy through play. Mr. K notes that Kumin does not ask for more play, and if he stops playing, Kumin seems content. Mr. K found joy when Kumin laughed a lot, and they both sweated a lot through physical play as he stated several times in his journal. He often felt "less satisfied" when he and Kumin were not engaged in physical play (10/12/22;10/27/22 from father's journal). It was obvious that Mr. K truly felt competent playing physical play with his son.

As Mr. K applied the play skills he learned during play with his son, he witnessed notable developmental changes in Kumin.

> *Kumin responded well to my affect! (10/01/22). I pretended to not understand his intention, and he said one more time, and this happened several times! (10/05/22). A variety of verbal responses came out during the play (10/16/22). It is close to echolalia, but it is*

often said in a complete sentence (10/30/22). Kumin started singing "Head, Shoulders, Knees, and Toes" first. It was effective in utilizing sound (onomatopoeic) instead of words (11/7/22).

Kumin actively asked for more play, made eye contact, and showed a lot of smiles and I also actively played with the toys my child wanted (9/24/22). Kumin requested first to play what we did before! (10/1/22). He brought a yoga ball to me and asked me to play! (10/7/22). Kumin increased the frequency of eye contact and interaction with me (10/15/22). Kumin had very good eye contact when I played what he wanted! Like having a verbal and non-verbal conversation with him and I felt good (10/21/22). I felt good because there was a lot of eye contact while playing (10/24/22).

Simultaneously, Mr. K observed and recognized specific cues from Kumin, such as clear eye contact, initiating play requests, or displaying increased verbal responses during play. This heightened awareness allowed Mr. K to understand how to make the play sessions more interactive and engaging for his son.

As a result, Mr. K experienced positive emotions both during the play sessions and when witnessing Kumin's high level of involvement in play. These positive experiences were reflected in Mr. K's journal entries.

Kumin imitated the monster very well (roaring), and before, he didn't imitate that detail (10/17/22). I pretended I was bitten by a shark and Kumin blew on the wound (10/29/22). When accompanied by singing, Kumin readily accepts new play activities, and I feel happy (11/8).

Building an Affective Relationship with Kumin

During their play sessions, Mr. K aimed to meet Kumin's need for sensory satisfaction, while Mr. K desired Kumin's happiness. However, this approach didn't fully serve the purpose of establishing a genuine connection, building attachment, and strengthening their

relationship. It was challenging to communicate this issue to Mr. K because he primarily engaged with his son through high-energy physical play, and without that type of stimulation, Kumin didn't show much interest. The researcher advised Mr. K to adjust the pace of play, incorporate regular breaks, observe Kumin's reactions, and create more opportunities for Kumin to initiate his own desires and intentions rather than solely focusing on fulfilling Kumin's requests. While improving play skills led to increased engagement from Kumin, it is essential to prioritize genuine connection and relationship building as the foundation for further enhancing play development.

> *Kumin's response to less stimulating physical play seemed fine, and it appeared that play was progressing in a more relaxed atmosphere. It might be good to explore more methods in this direction (10/27).*

The capacity to play first necessitates a child's motivation to share their joy or intention through prolonged chains of reciprocal interaction, and every play can turn into a meaningful mutual interaction (Greenspan & Wieder, 1996, 2006). Following Kumin's interest but skillfully inviting him to more genuine engagement created longer reciprocal interaction. Mr. K endeavored to practice new play skills to support Kumin's development and reported a significant improvement in their relationship. They became closer and developed a stronger bond as he learned how to engage in play that fostered a connection with his son rather than solely focusing on stimulating him. This increased interaction and bonding enabled Kumin to express his desire to play more with Mr. K.

> *Lowering the play level definitely seemed to facilitate better interaction and bonding, and it made me feel good (11/7). Kumin sang a song in rhythm while playing horseback requesting various movements (11/14/22). I saw a little bit of Kumin expressing his feelings through facial expressions (11/19).*

With various plays that involved Kumin's sensory preference, their relationship became stronger. Kumin initiates play with his dad more than before, often in the morning, he goes to his dad's room and wakes him up to play with increased frequency. Kumin also talks about Dad and his whereabouts during the day.

> *Spending the whole day playing together, Kumin expressed affection towards me, and it was enjoyable (11/19).*

This long back-and-forth mutual interaction supported Kumin's neuro-connection with people and longer attention span (Rogers et al., 2019), with their play sessions lasting for 20-30 minutes compared to just three to five minutes previously. Mr. K stated,

> *Through play, the attachment with my son increased. I also gained confidence in playing. We played together for 30 minutes, and Kumin does not run away from me and stayed with me (12/03/22).*

The combination of abundant play and the enjoyment of shared moments played a vital role in fostering a deeper bond with Kumin. This dynamic contributed significantly to strengthening their relationship.

> *Kumin seems like he has clearly found a play he wants to play with me (10/10/22). Even if he was playing alone, he came nearby and include me in his play (10/23/22). As soon as I lay down, he brought a pillow and starts playing sandwiches (11/28/22).*

> *My son seems to feel comfortable, and we got closer than before. He seems much more comfortable, enjoying play, and our relationship really got better (12/03/22 Home visit).*

Most of all, their playing together changed their relationship from stimulation seeker and provider to sharing a deep connection. Mr. K's final report in his journal stated,

I used to think that simply making a child happy through fun and sensory play was enough, but I realized that engaging in play for the purpose of building attachment has led to more interaction and strengthened relationships with the child. Therefore, I intend to continue playing consistently to advance to the next developmental stage.

By engaging in play that aligned with Kumin's interests and incorporating affective elements, Mr. K was able to establish a longer-lasting connection with his son. In turn, it fostered Kumin's desire to actively engage in play with his father. As a result, their positive emotional relationship grew stronger.

3) Coaching Mr. K: Learning to Have a Genuine Connection

Before receiving coaching, Mr. K had concerns about Kumin's play. Kumin would often lie down and bang his toys on the floor, and he seemed responsive only to high levels of stimulation, such as tickling or being thrown and flipped. Mr. K would sometimes use these highly stimulating activities as a reward to encourage Kumin to engage in other types of play. However, Mr. K was worried about Kumin's limited interest in other forms of play and the potential over-stimulation caused by the intense play. He was unsure if repeatedly engaging in this type of play was appropriate for Kumin.

Furthermore, Mr. K noticed that Kumin's motivation and enjoyment in play didn't last long unless the play was highly stimulating or novel, resulting in Kumin's engagement lasting only three to five minutes at a time. Mr. K's goal was to increase Kumin's engagement in play by improving his own play skills and promoting joint engagement. However, Mr. K felt inadequate in consistently providing the highly stimulating play that Kumin seemed to prefer, and he believed he lacked play skills despite being a loving play partner. He expressed discouragement, feeling that Kumin never asked for more play, indicating a lack of connection between them.

Mr. K struggled to sustain Kumin's engagement and build a deeper emotional connection. Despite his creativity, he felt disappointed and lacked confidence as Kumin could only remain engaged with him for a duration of three to five minutes. Kumin turned to his mother for comfort and security during distressing moments. Mr. K recognized the importance of developing a stronger emotional bond with Kumin.

In order to build an emotional connection with Kumin, Mr. K underwent coaching to modify his play patterns and shift his focus. Through this process, he made several adjustments in his approach, moving away from solely satisfying Kumin's sensory needs. The high level of stimulation provided by Mr. K, without incorporating affect and skill, only served to stimulate the child rather than establishing a meaningful and reciprocal connection. To address this, Mr. K acquired additional play skills. Mr. K initially found it challenging to change his play style, as evidenced by his journal entry at the beginning of the coaching process.

> *Although the play proceeds smoothly without major issues, I had a concern that the slightly decreased tension might make the experience less enjoyable for the child (9/24).*

Through coaching, Mr. K learned various play skills such as utilizing affect, incorporating rhythm, and anticipation. Mr. K actively worked towards fostering emotional connection during their play interactions. He slowed down the pace of play, ensuring a more relaxed and unhurried interaction. He stayed physically close to Kumin, creating a sense of proximity and intimacy. Mr. K made a conscious effort to maintain eye contact, allowing for more meaningful face-to-face moments between them. He also incorporated gentle stroking and massages, which provided a soothing and comforting experience for Kumin. In addition, Mr. K utilized the power of music and singing by engaging Kumin with nursery songs while gently inviting Kumin to physical activity.

Mr. K gained a valuable understanding of the significance of building an affective relationship and connecting with his son,

prioritizing the relationship over pure stimulation. He learned to adjust the pace of play, utilizing affect to woo Kumin for a longer engagement. In doing so, it not only captured Kumin's attention but also created a shared and enjoyable experience. These modifications helped foster a stronger connection between them and facilitated a more meaningful and intimate interaction. The stronger connection enabled him to transform Kumin's one-way interactions into two-way interactions, promoting a more meaningful and engaging play experience.

> *Kumin responded when I animated my facial expression and used animated sounds, and he sang songs well, taking turns singing, and sometimes when I used anticipation, Kumin started the song. Kumin's use of meaningful language increased (10/28).*

By reducing the intensity of play and emphasizing connection and attachment, Mr. K noticed that Kumin started staying with him for longer periods of time. A comparison of the play videos before and after coaching indicated a significant increase in Kumin's initiation of interactions with his father through various playful activities. Prior to the intervention, Mr. K and Kumin were hardly able to have back-and-forth interactions, as Mr. K stated in the interview.

> *Kumin can stay with me for three to five minutes only during a re-enactment of his favorite cartoons as it is (8/15/2022).*

Mr. K's use of play techniques effectively supported Kumin's sensory needs and maintained longer enjoyable engagement. Long back-and-forth interaction indicated that Kumin's attention and communication increased for reciprocal engagement. Father's affective play focusing on genuine connection enabled Kumin to better coordinate his thoughts and activities which laid the foundation for future social skill development and language. Kumin's speech therapist reported to Mrs. K that Kumin can sit for a long time and focus on learning for a long time. She attributed this change to

Kumin's father's playing at home daily. Mrs. K said that she was very thankful that her husband spent time playing with Kumin, and she thinks this is very important, especially because Kumin is a boy and a father can give something different to sons, and Mr. K did his part very well.

Table 4. Coaching Mr. K

Coaching Phase	Coaching for Interactive Play	Play Skills Utilized
Early Phase	Strengthen dad's play skills by utilizing his natural play, and connecting with the child, don't be afraid of challenging the child *Kumin asks Dad to lift him up, but Dad pretends not to understand with a playful expression. Kumin repeats his request, and as Dad lifts him up, he pauses several times to slow down the play.*	WWW (wait, watch, wonder), Slow down, Pause, Use Affect, Challenge the child, and Build anticipation
Middle Phase	Follow the child's interest, Challenge the child, Expand play ideas and have them become familiarized to the child *Dad gives Kumin a Superman ride by swinging him side to side while saying 'swish, swish' and then pausing to look at Kumin with an animated affect on his face. Kumin looks back at Dad and says 'swish' to encourage him to continue.*	Playful obstruction, Pretend ignorance, Affect-less words, more affect, Utilize songs, movement, rhythm, action, and lots of anticipation
Late Phase	Follow the child's interests, make familiar play more complex to challenge the child, and continue to incorporate the child's sensory preferences to maintain engagement for a longer periods. Provide a small area for longer engagement. *Dad pretends to make a sandwich and playfully put himself on top of Kumin, while looking at him with an animated* *affect and waiting for his response. Kumin looks back at Dad and says 'bread'.*	Playful obstruction, Anticipation, Pretend ignorance, More affect-voice, facial expression, Gestures, action- more fun for the child using his sensory preference

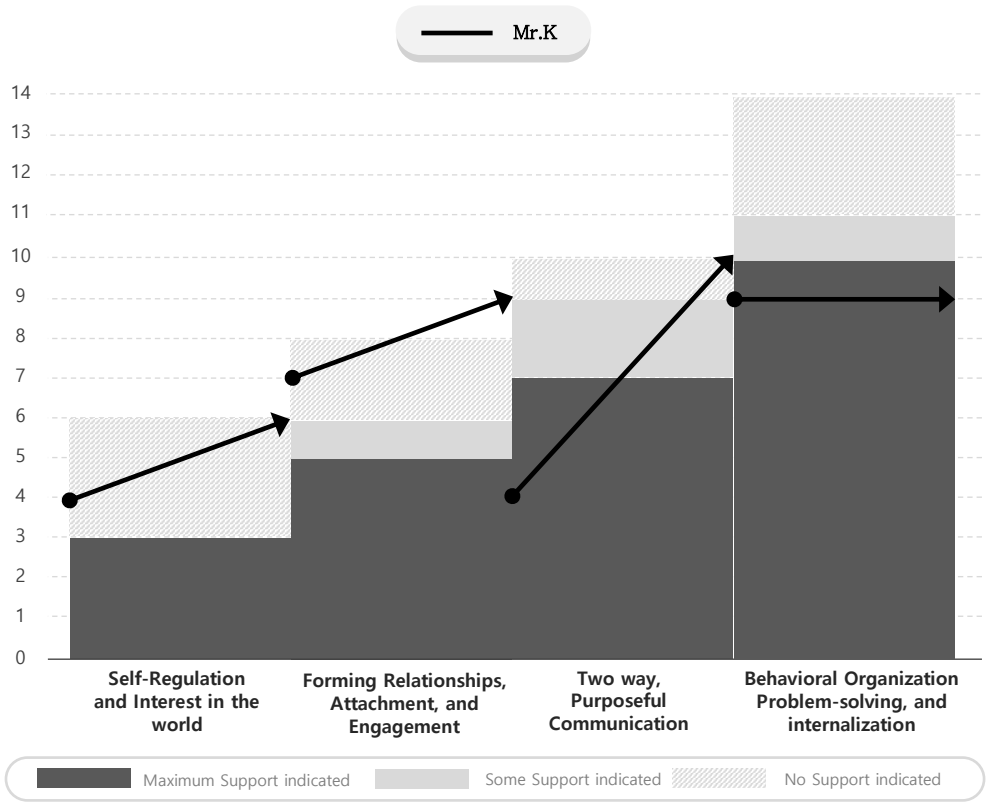

Figure 2. FEAS for Mr. K

Mr. K's skill in interactive play has shown remarkable improvement, particularly in two-way purposeful interactions, progressing from needing maximum support to not needing any support in FEAS.

2. Nawon and Mr. N

1) Nawon's Play: Taking the Initiative in Play

Nawon is a five-year-old boy who loves engaging in physical activities such as jumping, spinning, and crashing. He frequently climbs monkey bars at home and enjoys staying on top by himself for extended periods. Additionally, he is fond of riding bikes outdoors. According to his parents, developmental regression occurred when Nawon was around 30 months old, resulting in a loss of his social and communication capabilities. Nawon used to possess a rich vocabulary,

being capable of saying words for body parts, types of fruits, numbers, shapes, and complex sentences such as “I’m afraid of cats,” “Turn on the light,” and “My friend wore a mask.” Unfortunately, he has since lost his language abilities and now communicates primarily in single words and simple phrases to meet his basic needs, despite being five years old. Additionally, Nawon's pronunciation has become inaccurate, making it challenging for others to understand him beyond his caregivers. Nawon was diagnosed with ASD at the age of three, with a CARS score of 30.5, indicating mild to moderate ASD. Following the diagnosis, he has been in speech, sensory integration, and Applied Behavioral Analysis (ABA) therapy, but his development has remained relatively unchanged.

Nawon does not play with peers or others and only interacts to fulfill his needs, such as taking food without permission. He struggles with social play and has difficulty establishing appropriate relationships with others. Although he can communicate requests such as "Give me water" or "Go to the bathroom" to his parents, he does not speak to others and instead expresses himself directly through actions. Nawon's parents report that he is active and cheerful, with a strong inclination towards physical activity, which involves risky activities. Nawon's love for vestibular and proprioceptive sensory input is evident, with jumping and climbing being his preferred activities. His father plays outside the playground with him, while his mother focuses on pre-academic activities such as drawing lines. However, since Nawon does not respond to his parents' attempts to play, both parents experienced frustration and subsequently avoided playing with him. Nawon typically ignores or does not respond to his father's play suggestions. Mrs. N reports that Nawon is unable to engage with people but follows strangers easily. Although the parents are aware of Nawon's affinity for physical play, they are unsure about the direction that would be helpful for his development, tailored to his neurological characteristics.

In the first play clip with Nawon, it was observed that Nawon had difficulty engaging with his father. To create an engagement in the

play, Nawon's father frequently directed and prompted Nawon to do things, and Nawon did not show interest. However, Mr. N was able to identify that Nawon loves jumping on the couch, and they were able to enjoy this activity together briefly. Nonetheless, when Mr. N stopped the play, Nawon immediately lost interest.

Dad and Nawon are in the living room.
Dad: Nawon, Daddy is cleaning. (glances at Nawon) What is Daddy doing?
Nawon: cleaning
Dad: Daddy is cleaning right? Let's try together, Nawon.
Nawon: (rolls away on a toy car)
Dad: Come on over. Let's try together. (gets up to get Nawon) Weeee~ clean.
Nawon: No
Dad: No? Daddy should do it alone? Wow (starts punching punch bag) Nawon, this is fun. Koong koong koong koong Do you want to try Nawon? Koong koong koong koong (walks over to Nawon) Shall we try cleaning or doing this? Do you like jumping on the sofa? Hold my hand?
Nawon: (walking around on the sofa, starts jumping)
Dad: Don't run away. Hold my hand and let's jump.
Nawon: (squeals and giggles)
Dad: Jump, jump. Wow, you're doing great. Great job! (laughs)
Nawon: (laughs)
Dad: Why are you so excited? Oh, you're very excited. This time Daddy will lift you up. Yay (lifts Nawon to jump higher) This isn't as fun?
Nawon: (squeals and laughs)
Dad: woo hoo! Yay! I'm getting dizzy. Again? (walks towards Nawon again) Was it fun?
Nawon: (walks away)
Dad: koong Nawon, look here. Try hitting it. Koong Koong. (blocks Nawon's path with the punching bag) You cannot pass!
Nawon: (giggles)
Dad: Where are you going? Nawon, try Koong. The sofa must hurt. Come on down.
Nawon: (comes down from sofa)
Dad: Shall we play with the stethoscope?
Nawon: (giggles)
Dad: Here, Daddy will do it.
Nawon: (skips away)
Dad: Where are you going? Oh, hand over the stick to Daddy. Come over here. We play here. Time to play in the living room.
Nawon: (runs back into the living room)
Dad: You're going to climb the ladder? Try coming up here! Daddy will go in the middle. Here, Daddy came into the middle. Try coming to Daddy.

Come on up.
Nawon: (climbs up to face Dad)
Dad: Wow. Shake, shake, shake, shake. You're jumping on here too.
Nawon: (tries going down)
Dad: Stay up here. Daddy is bored alone.
Nawon: (jumps down and goes to sofa)
Dad: Aigoo It's hot. (walks over to Nawon) Nawon, should we try jumping here again? Hold my hands and jump? Should we hold hands and jump?
Nawon: (jumps a few times, holding hands)
Dad: Why did you stop? No. Should we try playing ball? (handing ball to Nawon) Try making the basket Nawon.
Nawon: (jumps away to the other side of the sofa)

In order to foster engagement and play, Mr. N needed to build a stronger relationship with his son by following Nawon's interests and inviting him to a wider range of play activities. It was also important for Mr. N to learn about Nawon's sensory preferences and incorporate them into their playtime to encourage Nawon's back-and-forth play interaction. Therefore, Mr. N was taught various physical play he can play with his son, such as jumping with variation, rolling forward and backward, lifting him upside, throwing him like a rocket, and using the home swing for a strong/light push with affect. Additionally, anticipation play, characterized by gradually increasing tempo or volume, such as saying, "I am going to get you," was introduced.

As Mr. N practiced new physical plays with his son, Nawon's interest grew bigger, and he started enjoying the play with his father. The aim was to support the initiation from Nawon and for him to experience joy and fun through various plays with his dad. The researcher modeled simple, fun sensory-motor play, and Mr. N was coached to use less language, slow down, and use animated affect to support Nawon's regulation and motivation. Mr. N was able to invite Nawon to various fun physical play that met his sensory preferences. Nawon became familiar with many physical plays his father played, and he was introduced to numerous play names (especially mom was good at putting a name for a new play).

Mrs. N reported that after a month of playing with his dad, Nawon had started eagerly waiting for his father to come home from work. It seemed that their playtime together had helped strengthen their bond. As Nawon experienced joy through various types of play, his initiation of play began to increase, and he started requesting more of his favorite play activities. Mr. N learned to slow down their play so that Nawon could engage in mutual play for longer periods of time. As Nawon climbed the monkey bars, Mr. N slightly obstructed his solo play by popping his face up in front of Nawon with a certain facial expression, inviting Nawon to clearly communicate his intention to proceed with his action. By playfully obstructing Nawon's solo play and turning it into a mutual play, Mr. N helped strengthen Nawon's neural connection with his father (Siposova & Carpenter, 2019). Mr. N utilized physical play to enhance pre-academic skills such as counting and language development in his play with Nawon. Nawon's voluntary initiation of play became more frequent in their play.

Toward the middle stage of intervention, Mr. N learned to enhance their existing repertoire of mutually enjoyed play activities by gradually incorporating new elements. Specifically, Mr. N learned to use the technique of "pretending ignorance" in order to encourage longer periods of reciprocal communication with Nawon. Mr. N received coaching on how to introduce more complexity into their play, for example, by asking Nawon questions or encouraging him to solve problems through play. Mr. N learned to replace saying numbers with facial expressions by nodding rhythmically when they took turns saying numbers. While this sometimes puzzled Nawon, it ultimately supported his development of communication skills. Through these efforts, Nawon's ability to clearly and accurately convey his intentions was strengthened.

As a result, Nawon began to initiate play more frequently and demonstrated a greater willingness to engage in extended interactive play with his father. Mr. N also reported experiencing a deeper sense of connection during these interactions. With the coaching on using affective cues, such as facial expressions, vocal tone, and gestures,

Mr. N was able to facilitate more enjoyable and rewarding play experiences with his son. Ultimately, this led to longer periods of mutually enjoyed back-and-forth engagement between Nawon and his father.

Toward the end of coaching, Nawon's voluntary initiation in play, requesting more interaction, and responding to his father more accurately, resulted in their extended mutual interactive play.

Below showcases their last play, which shows improved mutual interaction in play.

Nawon and Mr. N are in their master bedroom.
Nawon : (Jumps on the bed by himself and approaches dad again smiling)
Dad : What should we do?
Nawon : Dad, let's jump!
Dad : Jump or throw?
Nawon : Jump….(moves away and jumps by himself)
Dad : Oh..where are you going?
Nawon : (Goes back to dad) Dad, jump..
Dad : No swing?
Nawon : (Leans in front of Dad)
Dad : Is this jump? No~~ this is the throwing! (Dad lifts Nawon for throwing)
Dad : Throwing?
Nawon: Yes….
Dad : 1,2,3 (throws Nawon to the bed)
(Nawon counts 1,2,3 too)
Nawon : (Nawon gets up and pulls his pants up)
(Mom : Nawon's pants are down)
Nawon : (Jumps by himself and goes back to dad) dad, let's jump!
Dad : Jumping? Throwing?
Nawon : (Jumps by himself and walks away to get something) Water….
Dad : Water?
(After water, Dad brought Nawon to the bed)
Nawon :D..a….d…(approaching dad closely)
Dad : What?
Nawon : Um…um….(leans in front of dad)
Dad : Thro…….
Nawon : Thro….
Dad : Throwing? (looks at Nawon with affect)
Nawon : Throwing
Dad : Throwing (flips Nawon around) boom~~
Let's throw?

Nawon : Yes…
(Dad and Nawon count 1,2,3 together and Dad throws him on the bed)
Nawon : (Jumps by himself and smiling, walks toward dad) 1,2,3,
Dad : 1,2,3 what is that?
Nawon : (Laughing, looks at dad)
Dad : Throw…….. (affect in his face)
Nawon : Throw…
Dad : Throwing!
Nawon : 1,2,3
(Mom : Dad, throw me? -talks like Nawon for Nawon to learn the proper way to say)
Dad : (Flips him and gets ready to throw Nawon)
Nawon : 1,2,
Dad : (Looks down Nawon) 1,2,
(They both count 3 and dad throws Nawon on the bed)
(Mom : Nawon, your pants are down, pull it up!)
Nawon : (Jumps on the bed by himself and pulls up his pants, making an unrecognizable sound)
Dad : Nawon, you want to ride on a train? (pointing to the train toy)
Nawon : (Shaking his head, goes close to Dad) no..
Dad : No train? Then swing?
Nawon : No…
Dad : Then what?
Nawon : Dad, let's jump
Dad : Not throwing.. jumping, right?
Nawon : Yes
Dad : Let's go to the 100th floor. Then let's go to the grandpa's house
Nawon : Yes
Dad : 1,2, 3 (lifts Nawon up high)
Dad and Mom: Grandma, hello!
Nawon : 1…2….1, 2…3..
(Dad puts Nawon down on Nawon's saying 3)

Nawon had a challenge playing with his father, as both parents reported that they gave up playing with Nawon because the play was not possible with Nawon. However, Nawon was able to sustain his interaction with Mr. N for a considerable amount of time, engaging in long chains of back-and-forth playful interaction throughout the intervention.

Nawon's initiation into play increased dramatically, and he expressed his intentions more clearly. Nawon's initiation in the interaction to share his joy or request for more joy dramatically increased as he and his father had built up shared knowledge of

experience with increasing reciprocal engagement, let alone the increases in his response to his father's joint engagement. Their engagement seemed to be the most prototypical of joint engagement in that they had shared attention (Siposova & Carpenter, 2019). An increased number of back-and-forth interactions means sustained play between the child and father, which paves the next level of development. Through the play, Nawon demonstrated his capabilities of engagement and language development and increased his interest in social interaction. As Nawon's initiation increased, his expressions became more contextually appropriate, thanks to Mr. N's use of affect through his facial expressions and tone of voice, which encouraged Nawon to initiate further. By jointly attending to the play and responding contingently to his father, Nawon was able to sustain engagement with Mr. N.

The researcher observed that Mr. N had started to support Nawon's symbolic play by introducing abstract ideas during their play sessions. For example, he introduced the concept of an elevator or grandma's house when lifting Nawon. Mrs. N provided feedback to her husband directly or by voicing Nawon's thoughts to promote accurate expression.

Nawon's Functional Emotional Assessment Scale (FEAS) exhibited remarkable improvement, transitioning from a maximum support indicated to entering a zone where no support was indicated. Figure 3 illustrates the changes in his play development.

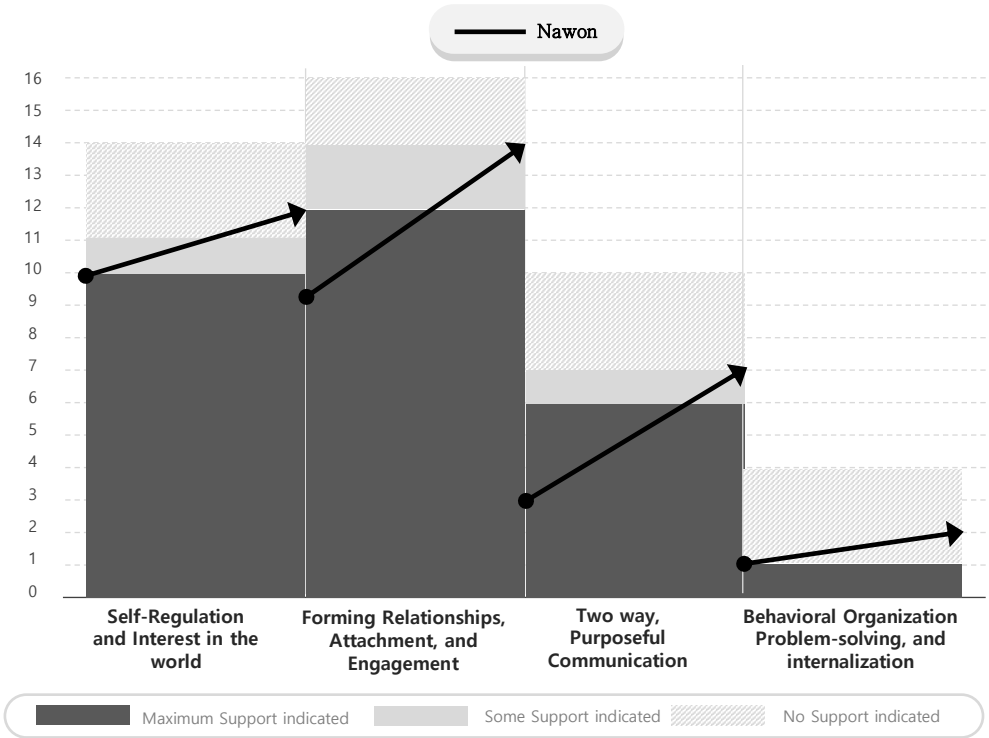

Figure 3. FEAS for Nawon

2) Mr. N's Experience: Growing Confidence in Play

Mr. N, who is in his late 30s, spends most of his time playing with his son Nawon outside, engaging in physical activities like playing in the playground or helping Nawon ride a bike. However, he rarely plays with Nawon indoors. As Mrs. N is currently on maternity leave and plans to return to work next year, Mr. N intends to take paternal leave and become a full-time caregiver for Nawon. Consequently, Mrs. N encouraged Mr. N to learn how to play with Nawon and participate in this research. After reviewing the first play video, it was determined that the primary goal for Nawon was to receive support in engaging in continuous back-and-forth interaction and taking initiative in the interaction rather than solely responding in two-way communication.

Nawon exhibited frequent bouts of solitary laughter and giggled and often squealed, indicating his difficulty with regulation. Mr. N frequently attempted to initiate joint attention, but used an excessive

amount of language, spoke rapidly and placed excessive demands on Nawon, which only served to further dysregulate him. Most of the activities were directed by Mr. N, with Nawon displaying little interest. Nawon did, however, display interest and delight when Mr. N invited him to jump. Mr. N appeared unsure how to encourage Nawon to initiate joint attention by sharing his own joy and interest. Although Nawon could respond to joint attention, initiating it seemed to be a challenge.

> *During playtime, Nawon's facial expressions were noticeably joyful, and it felt different from when he played alone, which brought about a sense of positivity. I realized that I should continue practicing the play techniques I learned through coaching consistently for a week so that they become ingrained in my body (9/18).*

In the beginning, he had to keep thinking about what he learned through the coaching in play with his son, which made play less enjoyable. However, as time passed, he became used to many plays and became more naturally playing with his son. He hardly played with his son at home and did not know how to play. However, he later had lots of play ideas to play together, such as jumping together, throwing, swaying, massaging, singing songs together, riding a blanket train, jumping with songs and counting, playing rocket to take off, swinging fast or slow, being a spaceship, spinning, rolling forward and backward, hand-standing play, playing taco, playing bear walking, pushing and pulling, counting and jumping on trampoline, tickling, etc. In his journal, he expressed his personal growth and improvement in his interactions with his son.

> *I started to feel more comfortable and accustomed to playing as time went on. As I became more proficient in the technical aspects of play, I found myself paying more attention to my child's expressions and reactions, which gave me a sense of personal growth (9/21).*

According to the researcher's coaching notes, during the sixth coaching session on October 22nd, the researcher observed an improvement in Mr. N's play skills with Nawon and documented this in her notes.

> *Nawon's father is transforming from a play novice to a play genius! Lots of improvement is observed from the clip! I will introduce new elements to their play now.*

He also expressed challenges practicing new plays and play skills he learned which indicated increased self-reflection.

> *While engaging in new play activities, I realized that I needed to continue practicing consistently for a few more days to become fully comfortable. Additionally, I noticed that my son and I were not yet consciously focusing on our mutual interaction during play. I found it challenging to maintain focus on the instructions given for the play and sometimes forgot about the importance of interaction. I concluded that I should pay more attention to fostering mutual interaction during our play sessions (10/9).*

Mr. N experienced a profound sense of joy and pride as he witnessed Nawon's growth in social communication capacities through their play interactions. This included noticeable improvements in areas such as increased eye contact and the voluntary initiation of play requests.

> *Nawon is clearer in expressing what he wants, and I feel very proud of him (10/5/22). Nawon brought a blanket for the blanket train play. He never voluntarily asked for this play (11/22/22). He requested Superman play voluntarily, and I am very pleased Nawon likes this new play (12/4/22). We had pretty good eye contact. It seems that he is improving (12/11/22). We took turns counting as we jumped together while holding hands, which went well. I was very happy (12/12/22).*

Of greater significance, as he gained knowledge about his son, Mr.

N became a more attuned father to Nawon. Through this process, he not only discovered more about his son but also recognized his son's untapped capabilities. More importantly, he became a more attuned father to Nawon as he learned about his son.

> *I learned that Nawon needs lots of physical activity during the day to play various play with me in the evening (10/11/22). I learned that my son can say, "Dad, do it again" or "Dad, one more time," without me requesting him to say or directing him to say so (10/23/22). I learned that my condition and my son's condition affect the way we play (10/25/22). I think I can pick up on subtle cues that Nawon is sending me, even when he doesn't express himself (11/20/22).*

Above all, Mr. N noticed a significant improvement in their relationship as Nawon actively sought him out to play together, indicating a stronger bond between them. Mr. N stated this in his last interview.

> *I haven't played much with my son in the past. I should have done it sooner. Playing physically was fun and tiring, but there was nothing my child asked me to do first in the past...but now he asks me to play together... It's limited, but I really like it. Through this father-mediated intervention, from the child's point of view, there was nothing he wanted to do with me even after I came in early, but now he has something. For me, I had a sense of duty to come in early so as not to skip daily playing. I was in charge, and I played with my child at that time…I think my wife has been more relaxed than before, too (12/25/22).*

Nawon's improvement in two-way purposeful communication is a significant sign that he has made progress in his capability to initiate interaction and two-way communication. The progress refers to the child's ability to open circles of communication by initiating intentional and purposeful actions during play and responding to the caregiver's cues in a contingent manner.

Building an Affective Relationship between Nawon and Mr. N

Initially, Mr. N struggled to come up with play ideas that Nawon would enjoy and didn't know how to join Nawon's world, so he ended up directing the whole play based on his own play agenda. Additionally, Mr. N reported that he found it challenging to play with Nawon at home, even for 15 minutes, as he rarely did so. Mr. N needed to build a stronger relationship with his son by following Nawon's interests and inviting him to a wider range of play activities. It was also important for Mr. N to learn about Nawon's sensory preferences and incorporate them into their playtime to encourage Nawon to take the initiative in play. After receiving coaching on playing with his son according to his preferences, Mr. N quickly observed a noticeable change in Nawon's attitude towards him throughout the process.

> *Nawon asked for Jump play as soon as I entered the house. He seemed to be waiting for me and made me cheerful after work (9/30/22). My son kept trying to hug me, and he responded positively to massages and tickling play, and for the first time, I felt I was not physically tired playing with my son (11/18/22).*

Mr. N's play skills also improved, and he expressed feeling more comfortable playing with his son. Mr. N was also coached to attune more sensitively to Nawon. The coaching involved Mr. N being mindful of Nawon's comfort levels and needs, such as holding him gently in comfortable areas, stopping massage when Nawon showed discomfort, and ensuring more blankets were placed on the mattress before Nawon was thrown on it. Nawon's father's sensitivity towards him created a sense of safety and trust in their relationship.

As Mr. N became familiar with the play skills, the engagement and their back-and-forth playful interaction started to grow.

> *As soon as I arrived home, Nawon immediately grabbed my hand and enthusiastically pulled me towards the bed, signaling that he*

wanted to jump. He even expressed it verbally. We engaged in a combination of active physical play, such as jumping and throwing, as well as calm activities, like massages and singing. I noticed that as we played, Nawon's ability to express his desires during playtime became increasingly clear (12/6).

After learning to play and interact with his son, he expressed the strong bond they shared. He particularly emphasized the deep sense of connection he felt when Nawon approached him to engage in play. Initially, Nawon did not express a desire to engage in play with his father before he received coaching. However, through this father-mediated intervention, they have enjoyable things to do together, and Nawon often asks to play more when Mr. N comes home from work. Although physically tired at times, Mr. N feels proud after playing with his son, and Nawon's initiation of joint engagement has increased significantly. This physical play has made Mr. N more confident in playing with Nawon, especially as Nawon enjoys activities stimulating his vestibular and proprioceptive senses. Mr. N has observed developmental progress in his son and plans to continue playing with him. Above all, there was a profound sense of bonding and connection between them.

Mrs. N has also noticed positive changes in Mr. N's play skills and their relationship. She had some free time while Mr. N played with Nawon, laughing together. Even Mr. N's sister and parents have noticed changes in how he interacts with Nawon. Before Nawon's regression, he occasionally approached his parents, but he lost interest in playing with them after the regression. However, since the father-mediated intervention, Nawon has been approaching his father more often and showing interest in playing with other people, particularly adults and older siblings.

3) Coaching Mr. N: Learning to be a Sensitive Father

One significant challenge Mr. N faced was to develop increased sensitivity to his son's verbal and nonverbal cues, as he often missed

many of them. For instance, he overlooked subtle cues such as Nawon's body squirming or facial expressions. In addition, Mrs. N mentioned in the interview that Mr. N did not know how to play or attune to Nawon, and even her parents had expressed concern about Mr. N's ability to hold Nawon safely. Therefore, to encourage interactive play and foster a playful relationship, it was crucial to guide Mr. N to become a more playful play partner, learn to attune to Nawon and his interests and build a stronger relationship. Mr. N's goal was for Nawon to take an interest in both parents and ask to play together. Coaching Mr. N required direct modeling from the researcher.

To enhance Nawon's engagement with his father, the researcher continuously created play activities utilizing Nawon's preferred physical play in collaboration with Mr. N. By employing simple DIRFloortime skills, such as slowing down, pausing, anticipating, and high affect, we were able to make Nawon's play more interactive and mutual. As Nawon sought strong sensory stimulation, Mr. N was coached to be cautious to avoid overstimulating him. His use of high affect, but slow process was helpful in supporting Nawon's regulation. Gradually, Mr. N learned to join Nawon's play, although he still struggled to attune to Nawon's cues.

Mr. N was open to trying everything the researcher introduced or showed him but found it challenging to adjust the activities to suit Nawon's different intentions or cues in the beginning. However, as he continued playing with Nawon, his playing skill improved greatly. The researcher faced challenges with direct modeling, especially due to Nawon's size as a big boy, making it difficult to lift or throw him. Although attempts were made to demonstrate actions without physically performing them, it was less effective as Mr. N required concrete, direct examples. Mrs. N played a significant role in providing support by occasionally demonstrating the techniques as her husband struggled to execute them according to the coaching. However, the daily play sessions with his son provided Mr. N with ample opportunities to practice these skills.

Toward the end, Mr. N was coached to incorporate symbolic ideas

into physical play. He intentionally made the interaction more challenging for Nawon by asking simple questions, offering choices, and pretending not to understand, thus encouraging Nawon to take the initiative. These strategies aimed to expand Nawon's play levels and foster his cognition and language. As Mr. N improved his ability to engage with Nawon during play, he recognized the importance of being attentive and responsive to his son's signals, especially since he had missed Nawon's cues on several occasions in the past. As he became more sensitive to Nawon's body movements, facial expressions, and words, he was able to adjust his interaction with Nawon. This created a secure and enjoyable environment, leading to longer play sessions and a stronger bond between them. By considering Nawon's interests and being sensitive to his cues, a deep connection was formed between father and son.

Nawon was able to generalize his play skills to his mother, and Mrs. N was delighted with his progress. Despite Nawon frequently requesting the same play activities with his mother, Mrs. N saved them as rewards to be provided when Mr. N came home because Nawon was focusing on practicing pre-academic skills to prepare for kindergarten, which required him to sit at a table for a long time. Additionally, Mrs. N found it challenging to engage in physical play with Nawon, an area where Mr. N was able to provide something unique.

Nawon's consistent crying and avoidance of the particular table task allowed the researcher and the family to explore playful games and activities that incorporated concepts such as counting numbers, accurately pronouncing words, and engaging in simple role-playing with dolls. However, towards the end of the intervention, both parents became more involved in teaching pre-academic skills during play sessions, which hindered initiation from Nawon. While it was important to respect and acknowledge the parents' ideas and goals in supporting their child's educational development, the researcher also redirected Mr. N's focus towards prioritizing the building of a fun and affectionate relationship with Nawon over longer periods of time. This redirection aimed to strengthen Nawon's foundational capacities

and highlight the significance of fostering a positive parent-child bond.

Table 5. Coaching Mr. N

Coaching Phase	Coaching for Interactive Play	Play Skills Utilized
Early Phase	Invite Nawob to share joy through physical play *Pushes swing with high stimulation and stops, looks at Nawon with affect inviting him to express his desire. At 1,2,3, slowly pushes a swing again with high affect, and have Nawon anticipate what is coming.*	Affect (voice, facial expression), Pause, Slow down, and Anticipation
Middle Phase	Make familiar play complicated and expand play *When Nawon initiates asking lifting him up with a body gesture, Mr. N pretends not to understand Nawon showing affect in his face, voice, and gestures. Nawon expresses more with gesturse or words, and tries to initiate again, and Mr. N responds contingently.*	Pretending ignorance, Anticipation, Playful obstruction, and use of Affect
Late Phase	Following the child, Keep expanding play ideas by following the child, Make familiar play to be more complicated *When Nawon asks for jump holding Mr. N's hands, Mr. N challenges Nawon, saying, "is swing what you want?" pointing a swing, pretending ignorance, with affect. Nawon has to express more clearly. Or Mr. N asks Nawon if he wants jumping or throwing, challenging Nawon through familiar play.*	Affect, Challenge the child through familiar play, Choice giving, Pretending ignorance for more clear expression

Changes in Mr. N's play skills indicate an improvement in FEAS.

His play skills for engagement and purposeful interaction improved from maximum support to some support.

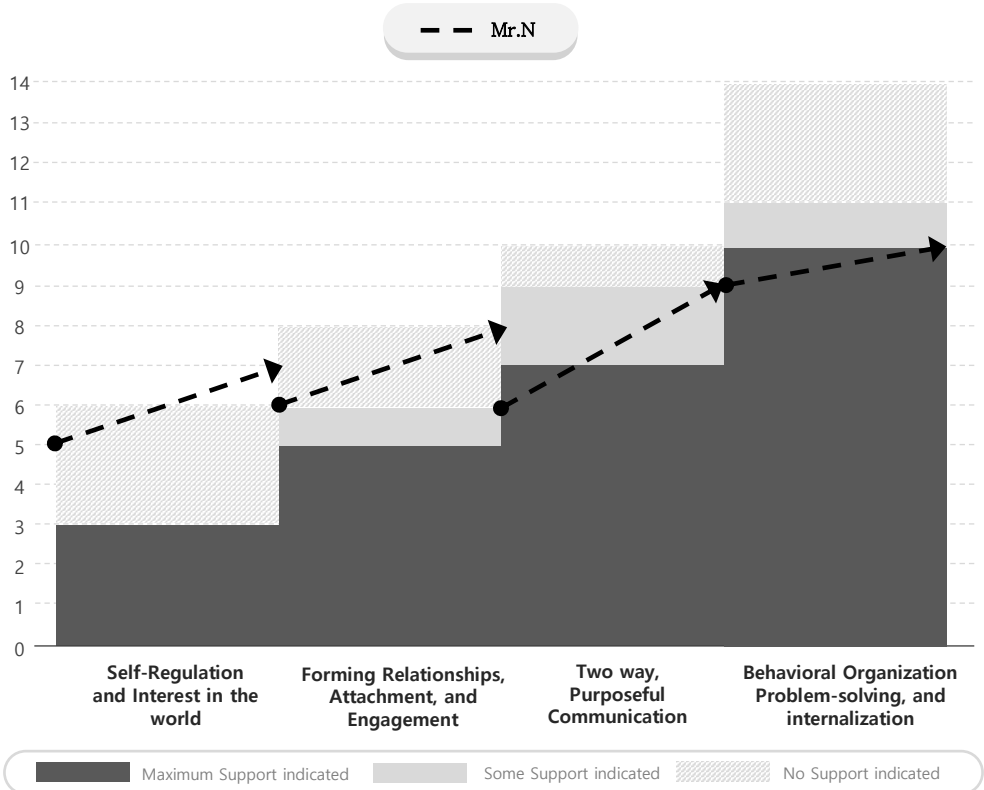

Figure 4. FEAS for Mr. N

3. Minki and Mr. M

1) Minki's Play: Becoming a Leader in Play

Minki, a three-and-a-half-year-old child, attends regular preschool in the morning and therapies in the afternoon due to his recent diagnosis of Autism Spectrum Disorder (ASD). Despite his diagnosis, Minki is a bright cheerful child with a good smile. According to his father, he is delicate, has strong preferences, and is quite sensitive. Minki's CARS score of 30.5 indicates mild to moderate severity, and he has been receiving several types of

therapy, including ABA therapy, group ABA therapy, speech therapy, and occupational therapy. Minki's communication can be out of context and out of sync, and his expressive language is delayed. He has been passionate about trains since he was 20 months old, often spending hours playing with them. Although he can play with peers when invited, it is typically brief, and he prefers to play alone with his favorite toys, mostly trains and cars. Minki's parents are concerned that his interests are limited, and he is experiencing delays in mutual social communication and showing interest in others. Minki likes routines and patterns, and changes can cause him distress. He is visual and picks up details well, but this sensory aspect can make him nervous in certain situations.

Minki's interactive play is limited to his own interests, and he can play simple symbolic play, such as pretending to give his dad a shot when his dad pretends to be sick. However, these plays do not last long, making it difficult to continue symbolic play. Minki exhibits repetitive behavior, such as incessant opening and closing doors and switching on and off, as well as awkward speech patterns. Minki has a younger sister, Mina.

From his natural play with his father, Minki demonstrated an ability to engage in reciprocal interaction but primarily focused on solitary toy play or building blocks. Mr. M sought to playfully engage Minki through physical play (animal walk, beard attack), occasionally following his lead. Although Mr. M tended to lead their play, he displayed enthusiasm for physical activities involving touch, such as "beard attack." While his knowledge of facilitating symbolic play and fostering extended two-way interaction was limited, there is potential for him to build upon his existing strengths and learn new strategies to further support his child's play and communication capabilities.

As Mr. M and Minki preferred physical play, the researcher provided coaching to Mr. M on various physical play activities that could enhance their playful interactions and strengthen their bond. To increase their back-and-forth communication while engaging in physical play, it was essential to ensure that Minki remained engaged

in continuous circles of communication with Mr. M. The researcher introduced Mr. M to several play skills, including slowing down, employing the WWW technique (wait, watch, wonder), and letting his child initiate play rather than taking the lead. By slowing down and employing the WWW technique, Mr. M could observe and respond more thoughtfully to Minki's cues and actions, creating a more responsive and supportive play environment.

Mr. M was also coached to use WH questions often to challenge Minki to stay with him longer while at the same time not losing the fun part of their play. During horseback rides, WH questions such as “Where do you want to go?”, “Why do you want to go?”, “What else do you want to give a ride?” and “How come Mina can’t go?” challenged Minki to think and respond while playing, which increased their mutual back-and-forth interaction. Mr. M encouraged Minki to explore beyond the familiar places within their home and suggested visits to places such as grandma's or uncle's house. They also discussed what they might see along the way. In addition, Mr. M was advised to create a clear play environment, free of distractions such as train sets, which could draw Minki's attention away from their playtime. Through regular play sessions, Minki began to enjoy spending time with his father and engaged in longer periods of mutual interaction.

After several weeks of coaching, their play evolved to include more playful and imaginative pretend play, such as playing police, thieves, or monsters, with each play lasting approximately five to ten minutes. When Minki became distracted, Mr. M skillfully re-engaged him to determine his intentions or wishes. Minki's symbolic play developed through opportunities for extended chains of two-way engagement, enabling him to engage in more complex and challenging play styles that facilitated problem-solving, critical thinking, and processing (Baron-Cohen, 1991). One of the challenges Minki faces is the short duration of each play, and the transitions between different plays occur too quickly, which impedes the development of symbolic themes. Additionally, while playing with Mr. M, Minki continues to look for his mother.

Minki exclaimed, "Vomiting is landing on us! Let's run away! Dad, you are the thief!" Dad asked Minki what he should do as a thief, and Minki responded with excitement, running away. Dad asked Minki again, seeking his input. Minki clung to Mom, pleading, "Mom, save me, hold me." Mom appeared tired and did not move. Dad approached Mom and Minki, saying, "I will steal you from Mom," and he held Minki and ran to another room. Mom followed, videotaping the play session. Minki reiterated, "Mom, you are a thief, stealing me, please." With playful affect, Dad chased Mom and Minki to the bedroom, where Mom hid Minki under the blanket. Dad playfully searched for Minki, pretending to eat him (4th video).

Minki consistently played with his father every day for an hour, and his increased engagement and fun time with his father supported Minki to focus on the play without looking for his mom. Mr. M applied the coaching by pretending to be a subway, inviting Minki to participate in symbolic play; it sparked Minki's enthusiasm as it was one of his favorite topics. He eagerly shared his knowledge and even took on the role of guiding Mr. M by memorizing every subway station line by line. Mr. M was pleased with Minki's impressive memory while also recognizing the importance of supporting reciprocal interaction and complex communication. To achieve this, the researcher coached Mr. M to incorporate a noble element into their play by creating obstacles in Minki's memory-based play. For instance, Mr. M introduced the idea pretending there was a fire at a particular station, preventing them from going there. Initially, Minki resisted these changes, but Mr. M learned to gradually introduce challenges to his son's play and encourage him to adapt and think creatively. Additionally, the researcher coached Mr. M to pretend to be a crocodile crawling in the swamp instead of pretending to be a subway. In this new play scenario, Mr. M would try to catch Minki, or Minki pretended to be on the crocodile's back, guiding him where to go, demonstrating Minki's improved problem-solving skills and fostering more complex communication.

Minki, in his father's arms, exclaimed, "I don't love you, Dad. Cry." Dad, pretending to be hurt, asked Minki, "You don't love me?" and softly pretended to cry. Minki then demanded, "Cry harder." Dad increased the intensity of his pretending to cry. Minki instructed him to cry even harder. Dad exaggerated his crying, squeezing Minki tightly and moving him up and down. Minki laughed a lot in response. Then, Minki announced, "There is a sandstorm. We should leave." Dad asked, "Where should we go during this sandy storm?" Minki suggested, "Let's go to the Han River." Dad asked, "How should we get there? By bus? Taxi?" Minki replied, "Subway." Dad lowered his back, pretending to be a subway so that Minki could climb onto him. With a rhythmic tune, Dad walked on all fours, imitating a subway heading towards the Han River. Suddenly, Dad pretended to be afraid, exclaiming, "Oh no, there's a shark! I'm scared." Minki confidently declared, "I will remove it," and got off Dad, removing a shark stuffed animal with great laughter (7th video).

Additionally, Mr. M was coached to use animated affect to make the play sessions more engaging and enjoyable for Minki. He also learned to incorporate anything Minki brings into a mutual affective play. For example, when Minki spotted a faraway firework outside, he incorporated it into fireworks play by lifting Minki up and down rapidly like an exploding firework with animated sound effects. By respecting any play ideas Minki brings, Mr. M was able to deepen his symbolic play and expand it so that their play lasted for a long time, improving mutual interaction.

Having become comfortable with his father and the various play ideas they had explored, Minki began to progress through their plays rapidly, adhering to certain established patterns. Mr. M joined in the play but carefully challenged Minki by “pretending ignorance” about what to to do next or creating conflict by expressing confusion or disagreement so that Minki could slow down and re-create his play. To enhance Minki's motivation for creating new ideas, Mr. M received coaching on incorporating more affect into his voice and facial expressions. Affect can serve as a link between our ideas or

thoughts and our actions (Greenspan, 2001; Greenspan & Wieder, 2006).

> *Minki and Dad are engaged in a game of police and thief. Minki asks Dad to play the role of the thief and steal something. Dad asks Minki, "What should I steal?" Minki hands Dad a toy and says, "Steal this one." Dad pretends to be a thief, using a different voice, and exclaims, "Haha, I am a thief! I am stealing this!" He then runs away. Minki pretends to be a police officer and drives a small toy car, chasing Dad into another room. As Minki approaches Dad, Dad switches to a different voice and says, "Oh no, the police is here! I should run away!" Dad runs to another room. From a distance, Dad pretends to call the police using a different voice, pleading, "Police officer, please help me! Come help me!" Minki responds enthusiastically, "Okay!" and drives the toy car to chase Dad again. Minki eventually finds Dad in a room, and they both burst into laughter (10th video).*

Mr. M mentioned this in his journal.

> *Minki's play evolved from theft -> report -> intake -> dispatch to arrest, and his plot gradually deepens (11/27/22).*

Despite Mr. M's uncertainty about where Minki's play would lead or whether he was engaging in the same theme for too long, he demonstrated patience and introduced new challenges to make the play experience enjoyable. An instance of this was their prolonged hospital-themed play, which ultimately helped Minki overcome his fear of medical facilities. Through this experience, Mr. M recognized the transformative power of play and its potential for growth and development, as documented in his journal.

> *I think every bad experience can be played out through play, and it is very powerful (10/20/22).*

With daily playing with his dad, Minki increased his social play

skills, expressing his desire and intention, negotiating, and playing with his sister at home. Minki's preschool teachers had reported that he could attend a regular kindergarten instead of a special education school, as he interacted and played well with his friends at daycare.

Minki's abstract thinking ability significantly improved, as evidenced by his FEAS score. Previously, he was situated in the zone where maximum support was required, but he has now progressed to the point where no support is indicated.

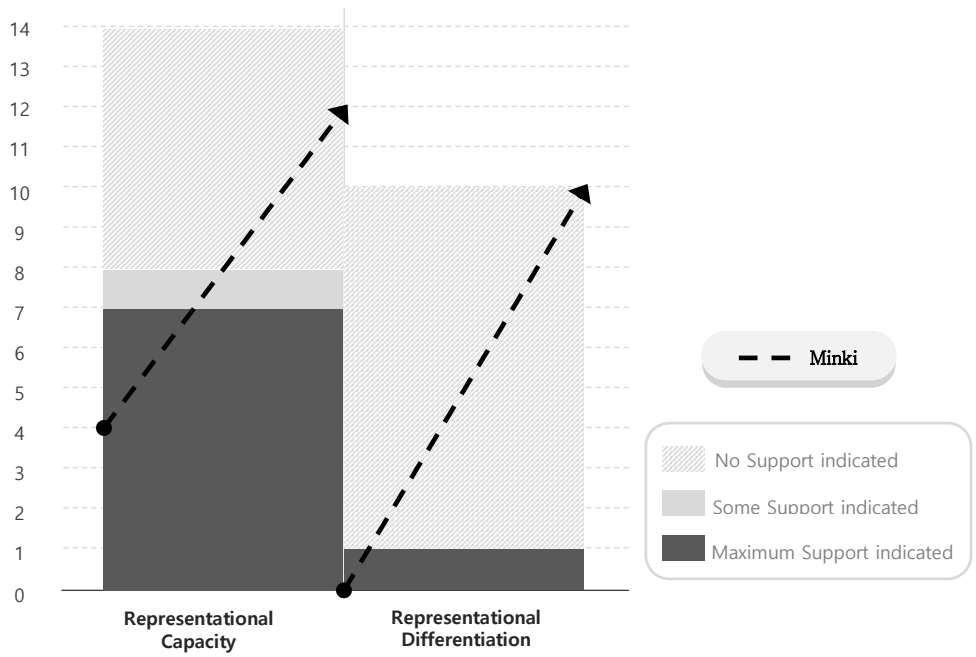

Figure 5. FEAS for Minki

2) Mr. M's Experience: Learning the Power of Play

Mr. M is in his late thirties and has a strong ability to engage in physical play with Minki, and he also leverages his strength in playing the piano to interact with him. On the other hand, Mrs. M is a full-time homemaker who cares for Minki and his younger sister, Mina. Mrs. M has expressed her worries about Minki's tendency to frequently comment on how scary or intimidating Mr. M is, and his reluctance to spend time with his father. Mr. M explained that he is responsible for disciplining Minki and administering consequences for

his actions. Therefore, Mr. M aims to improve his relationship with Minki and build a stronger bond with him. Mr. M hoped to strengthen his relationship with Minki through their father-son playtime. As soon as they started playing together, Mr. M felt a sense of joy and laughter from his son. In fact, Minki even physically clung to Mr. M, which brought him great happiness.

> *My son laughs a lot and physically clings to me! He looks different from when he watches media or reads books (9/20/22).*

As they played with various play ideas, Mr. M experienced challenges.

> *I tried to slow down my play as I was coached, but it was not easy! (9/24/22). Minki follows very well to new plays, but each new play did not last long. However, I feel he likes playing with me and we both sweated a lot and this made me proud of myself (9/25/22). Minki loves daddy train rides, and I wonder if I am just his riding tool, but I felt my son's weight and realized how fast he is growing! (10/6/22).*

During the home visit, he also conveyed his unease about playing in front of the researcher.

> *When playing and filming in front of the teacher, I become quite cautious. I feel a strong pressure to do well. I consider it a challenge that I need to overcome (9/23)*

Once Mr. M started taking a facilitator role in the play and letting Minki lead, Mr. M discovered Minki's new capability.

> *I discovered that my son has the capacity to play role-play! (10/8/22). I was impressed that my son played out his past experience in our play. He has a brilliant memory! (10/9/22). My son definitely loves play involving lots of body touch (10/13/22).*

Mr. M learned that Minki's anxiety level went down after they played out the anxious themes many times at home. For example, after several doctor visit plays at home, Minki did not become anxious when he saw his doctor (usually, Minki displayed a high level of anxiety).

> *I discovered the magic of play through doctor visit plays, and I will continuously let Minki lead our play to play out his experiences (10/20/22).*

Mr. M expressed his joy in playing with his son daily at home, acknowledging the challenges and appreciation for his wife's support in taking care of their children. He also recognized the significance of his own well-being in order to engage effectively in play with his son.

> *I also found great joy in this playtime with my son. He seems different from how he plays with the media (9/23/22). It is gratifying to have a few things that my child and I always do, just like ordering the usual dish at a favorite restaurant (9/30). Our special play was possible because my wife and mother-in-law supported me. Otherwise, it would not have been possible (11/19/22). I learned that my condition is also very important to play well with my son. I was in a good mood, and more capable of being animated to make it fun (12/08/22).*

Engaging in play with his son brought Mr. M a great deal of joy, as well as opportunities for self-reflection and personal growth through the challenges it presented. Furthermore, Mr. M reported that his relationship with his wife had also improved. He felt embarrassed watching the first play clip he had taken to show the researcher realizing how much his play skills had improved from then. Mrs. M gave a lot of feedback throughout the coaching process and participated actively by asking questions and filming the play videos. She reported that her husband's play skills had improved so much that he had reached her level. She had previously felt that it was

unfair for her to quit her job and become a full-time caretaker for their children, taking Minki to several therapies every day. However, this feeling had reduced dramatically because her husband was spending time regularly with Minki. His understanding of Minki deepened, which in turn gave her the pleasure of some free time.

Although all the scores remained within the mild stress range, Mr. M's Parenting Stress Index (PSI) score had increased. Mr. M reported that he became more aware of his actions and influence helping him to be more mindful in the succeeding playtimes. The slightly increased stress index can be attributed to his increased pondering as a father. On the contrary, Mrs. M's stress levels had dramatically reduced. Through the father-mediated intervention, she felt very satisfied as her husband became more involved in child rearing and intervention, and they were able to share the same level of concern regarding their son. Finally, Mr. M became a believer in father-mediated intervention, as he stated the following in the last interview.

> *I was very involved in parenting in general. I spent a lot of time, but it was simply a matter of trying to spend time, so did I really spend it efficiently and effectively? Looking back, I don't think so. I spent 48 hours driving in the car, running around, and playing, but I don't think I had much bonding with my son. My wife was in charge of emotional bonding, and my son's attachment to her had deepened. But now, as my emotional bonding with my son has grown through play, it seems that the relationship with the children has improved greatly through playing together. My wife is also very satisfied. I think it's because the child's attitude has changed, and when I play with my children, my wife can have some rest, too. If anyone takes this opportunity, then they will feel the difference... I think there are many dads who don't know how to play. When the mother is the mediator, the mother and child become the participants, but when the father is the mediator, it seems to attract everyone (12/19/22).*

Building an Affective Relationship with Minki

Due to Mr. M's disciplinary role, Minki often says that Mr. M is scary and is more attached to his mom. Mrs. M hopes that Minki's relationship with Mr. M will strengthen and that Minki will become attached to him as well. Minki and Mr. M enjoy utilizing physical types of play, such as giving piggyback rides, plane rides, horseback rides, wheelbarrow walks, being tickled with his dad's beard, reading books together, and playing Minki's favorite songs on the piano upon Minki's request.

After several weeks of coaching, their play evolved into more playful and imaginative pretend play, such as playing police, thieves, or monsters. Despite enjoying playtime with his father, Minki continued to seek out his mom and cling to her, requesting the same physical play. It was evident that his mom remained Minki's primary attachment figure, even though he derived enjoyment from playing with his father. To engage Minki in play, Mr. M had to initiate various fun and enjoyable activities, inviting Minki to participate. Minki enjoyed physical play, running around, and using his body during play. Therefore, Mr. M's play consisted of a great deal of touch and physical activity. Through these enjoyable play activities, Minki began initiating more requests for play, and Mr. M allowed him to take the lead, facilitating his play using techniques he had learned through coaching. Minki's symbolic play developed through opportunities for extended chains of two-way engagement, enabling him to engage in more complex and challenging play styles that facilitated problem-solving, critical thinking, and processing (Baron-Cohen, 1991). Minki's relationship with Mr. K increased as they engaged in fun play daily. Mr. M stated in his journal,

> *There have been numerous moments when Minki clearly felt that I was more fun than any toy, and today, seeing Minki laugh uncontrollably, it is evident that he truly enjoys spending time with me (10/17). Minki's preferred rankings in his heart: 1st place mom, 2nd place train, 2.5th place dad, 3rd place Mina, grandmother. However, during playtime, it seems that Dad's ranking rises to*

around 1.5th to 2nd place (10/24).

Over time, Mr. M became a playful play partner who helped Minki to develop his symbolic play capability. This experience allowed him to become more reflective about himself, his son, and his family. As he discovered his son's new capabilities, Mr. M felt grateful and appreciative of his wife. Most importantly, he was able to transform into a desired playmate for his son instead of remaining a father that his son was afraid of.

Mr. M reported that his relationship with his son had strengthened, and his son's previously "negative" behaviors had reduced. Additionally, his son's language had improved. Mr. M described his relationship with his son as "special," characterized by physical touch, playful experiences, and role-playing, which developed special cues between father and son. For example, when Minki approached him and said, "Dad, let's do the push," it meant that Minki wanted to play out the police play scenario and decide who would be the police and who would be the thief.

3) Coaching Mr. M: Becoming an Affective Player

Different from his wife, Mr. M displayed a relaxed and positive attitude toward Minki's autistic symptoms. While Mrs. M expressed concern about Minki's developmental delays and ASD diagnosis, Mr. M's primary goal was to strengthen his attachment with Minki, who often sought his mother's presence. This discrepancy created an imbalance between Mr. M and Mrs. M regarding their perspectives on Minki's ASD. Consequently, Mrs. M took charge of Minki's treatment planning, caregiving, and all school-related matters. Although Mrs. M did not openly express it, she appeared to be experiencing feelings of depression. When Minki asked to play with her, Mrs. M would often redirect him by saying, "Tell Dad" or "I am tired." However, once Mr. M became actively involved in learning to play with his son, he was like a dedicated student, never missing a day of playtime with Minki. He actively asked questions, practiced

new skills, and proudly reported their progress. Coaching Mr. M was an exciting experience as he eagerly anticipated my feedback. Additionally, as Mr. M started playing with Minki on a daily basis, Mrs. M's exhaustion seemed to lessen.

Previously, Mr. M had primarily focused on disciplining, Minki, while his wife developed a strong attachment with Minki and his sister. Consequently, Minki developed a fear of his father and formed a closer bond with his mother. Although Mr. M engaged in consistent physical play, his overall demeanor remained somewhat neutral, resulting in Minki rarely initiating play with him.

To make playtime with his father more enjoyable and engaging for Minki, efforts were made to enhance playfulness through various physical play, emotional expressions, and tone of voice. For example, Mr. M used a different voice when he acted and exaggerated his feelings while playing, which drew Minki further into playful interaction. In addition, Mr. M aimed to be more playful and actively followed Minki's lead, stimulating his thinking and promoting ongoing communication. By recognizing and incorporating Minki's preferences of movement, Mr. M added a special dimension to their play sessions. Mr. M's increased affective and emotional expression made the playtime more engaging and fun. As they spent quality time together, a deep attachment and mutual understanding gradually developed between Mr. M and Minki. This transformation was facilitated by Mr. M's efforts to adapt his approach and create a more playful and positive environment for their interactions.

Mr. M was eager to learn, diligently taking notes of the coaching he received and actively applying it in his daily play interactions. He documented questions in his notes and sought guidance from the researcher to find better solutions. Minki's grandmother, who was often present at home caring for Minki's younger sister, occasionally voiced her questions or expressed concerns about Minki's mother being overly worried about Minki. Supporting both Mr. M and Minki meant working within the context of the entire family system. They held high expectations of the researcher, seeking comprehensive knowledge and respecting their opinion.

From simple physical play to physical play with many symbolic themes, Mr. M gradually learned how to facilitate his son's play. The once-a-week home visit served as a routine check for the family for their parenting. Additionally, Mrs. M sought the researcher's advice on multiple occasions about her own way of playing with Minki.

The researcher observed a change in the family atmosphere, throughout the home visit coaching, particularly in the later stages. Both parents became enthusiastic learners, diligently applying and reporting the results of their efforts, allowing the researcher explain and demonstrate her knowledge and skills freely.

Additionally, Minki's repetitive behavior presented a challenge, but it was turned into an opportunity for fun and joyful play. For example, Minki's habit of opening and closing doors was transformed into a play where Mr. M pretended to be a train crossing the door, which Minki had to handle accordingly. Mrs. M adopted a behavioral therapy approach to address Minki's repetitive behavior, involving either ignoring him or physically removing him to a different activity. She remained patient while the researcher coached Mr. M on how to join in on Minki's repetitive behavior, turning it into a mutually enjoyable play utilizing animated affect. Whenever Minki turned off the lights, Mr. M would respond with a mix of delight and a playful plea, exclaiming, "Oh no! Please give us the day back!" chasing Minki, and Minki gladly turned this game into monster play. This simple but meaningful response transformed Minki's repetitive action into a playful game centered around nighttime monsters, hiding, and chasing with his father's support.

By attributing meaning to Minki's repetitive behavior, Mr. M turned it into a playful interaction, resulting in a significant decrease in repetitive behavior. Mrs. M asked numerous questions to find the best approach for her son. Minki's repetitive behavior mostly disappeared when his father, Mr. M, incorporated it into fun play ideas with coaching. In DIRFloortime, all behavior is seen as meaningful and can be shared between the child and adult, including repetitive behavior (Greenspan & Wieder, 1998, 2006).

Minki's little sister sometimes presented a challenge when she

wanted to join in on playtime, causing Minki to accidentally bump into or push her when he was excited. Mrs. M's mother came to their home to support daily tasks and was able to take care of Minki's sister, allowing Mr. M and Minki to play uninterrupted. She also asked questions about child-rearing and sought guidance on certain issues she was facing. As Minki's play became more elaborate and symbolic, he gradually included his sister in his play. Family support was crucial in providing one-on-one playtime for Minki and his father.

Mr. M's final comment on his experience demonstrated the value of coaching.

> *The past 12 weeks have been a significant turning point for our family. I remember the time when I was struggling to find a way to parent and support Minki, and I shared the first play video with the teacher. Even now, I feel embarrassed and find it difficult to watch that video. However, through that process, I gained insights into the problems and became more actively involved. As a result, not only did Minki make progress, but also the relationship with my wife grew stronger. I would like to express my gratitude to the teacher who made all of this possible. I believe that this coaching approach, which lifts up the least involved figure in parenting and plays like a father, could be considered the completion of family therapy.*

Table 6. Coaching Mr. M

Coaching Phase	Coaching for Symbolic Play	Play Skills
Early Phase	Add symbolic play theme to their physical play, Expand physical play ideas, and Create obstacles in the play to problem solve *Dad, with Minki on his back pretending to be a train, asks, "I can't move anymore because there is an obstacle here, what can I do?" Minki gets off of Dad's back and says, "I will remove the obstacle" and removes it out of the way.*	Pretend there is an obstacle, what can we do? Affect: be an animated character.
Middle Phase	Keep adding symbolic ideas into their physical play. Follow the child's lead and facilitate his play with questions, pretend ignorance, make a familiar play more complex, and add various emotion *Dad pretends the obstacle is too heavy, that they can't move it. Minki says, "hmm….I can move it! I am the strong man" Dad utilizes WH question, "Why are you strong? Am I strong, too?" Minki says, "No, you are not". Dad shows sad emotion.*	Pretend ignorance, utilize WH questions, and challenge the child's emotion
Late Phase	Follow the child's lead, pretend ignorance, Ask questions using WH, join the child's play plot, deepen the plot, and take a role-be animated. *Minki pretends to be a police officer and catches Dad, who is a thief. He puts Dad in jail and gives him food. When Dad says he is hungry, Minki accommodates him with different imaginary foods as Dad requests them.*	Make a plot more fun and exciting, be in the character and deepen the plot with the child, and challenge the plot to problem solve

Mr. M has made significant improvements in his play skills.

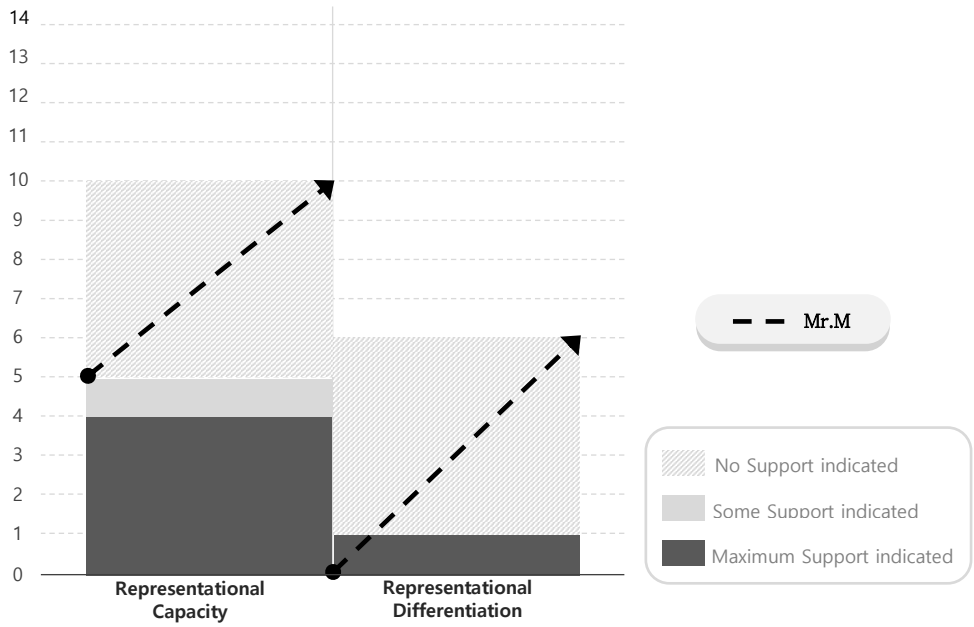

Figure 6. FEAS for Mr.M

4. Bodam and Mr. B

1) Bodam: Growing to be a Symbolic Player

Bodam is a five-year-old boy diagnosed with autism at the age of four, with a CARS score of 35. His language, fine and gross motor development were also delayed. To address his health sensitivity in his intestine, Bodam has been on a special gluten-free diet for two years, which his parents believe helps mitigate his autistic challenges. Additionally, his father takes him to a kids' cafe regularly to support his gross motor development. Although Bodam's development is currently within the typical range except for gross motor development, he continues to exhibit repetitive behavior, limited interests, and restricted patterns of behavior. Based on what both parents have reported, Bodam exhibits intense, repetitive behavior, including actions such as repeatedly opening and closing doors,

pressing elevator buttons, and plugging and unplugging cables at home. Bodam had received weekly sensory integration therapy in the past, but he is not currently receiving any other intervention. While he engages well with his parents, he has limited interest in play ideas and peers at his preschool, including participating in social play. Additionally, he exhibits limited emotional expression or delayed expression.

Bodam enjoys participating in ghost play, taco play, and dinosaur play, but he becomes upset if the play patterns are changed. Despite being able to engage in symbolic play, Bodam experiences high levels of anxiety and rigidity during play and in many other situations. For example, during his symbolic play sessions, Bodam always follows a fixed routine from start to finish, displaying rigidity in his play. This rigidity also extends to his daily life – for instance, he insists on using a particular gate to enter his apartment building and parking the car on the same floor. If he cannot do so, he throws a tantrum. Bodam is very sensitive to sound and light and prefers to have certain background music playing while avoiding certain sounds and light. Playing in his home environment provides safety for Bodam to practice and strengthen his capacity. Mr. B's goal for playing with his son is to create good memories to last forever since Bodam often cries and throws tantrums when Mr. B has to leave for work or run errands, indicating separation anxiety with his father.

Greenspan and Wieder (1998) noted that autistic children can experience high levels of anxiety when they do not develop abstract mental representation, which appears to be the case for Bodam. During their initial play video, Bodam demonstrated the ability to engage in extended back-and-forth interactions; however, he tended to fixate on physical toy properties, facts, and numbers, frequently asking questions on those topics. Meanwhile, Mr. B liked to lead and control the play, limiting Bodam's imagination from developing further into a more complex symbolic play. Their play followed a predictable pattern start and end, and when this pattern was broken, it often resulted in a meltdown for Bodam. Finding ways to help Bodam's play evolve to a more imaginative and symbolic level was

crucial.

Mr. B's tendency to focus on fact-based play and provide logical answers to Bodam's questions had an adverse effect on Bodam's play development. Bodam's desire to receive answers to all his questions from his father resulted in persistent questioning, hindering his imaginative play. For instance, when Bodam pretended to drive a car in the sea, Mr. B immediately pointed out that cars cannot drive in the sea, which led to Bodam questioning why. When Bodam pretended to be a doctor to fix a broken flying dragon, Mr. B said that doctors fix humans and not flying dragons. In their flying dragon play, Bodam put some money into the dad dragon so that the dad dragon can fly. Depending on the amount of money, dad dragon flew or stopped flying. This type of play made Bodam focus on numbers and logically question the ideas. For example, Bodam questioned, "Why aren't you stopping when I took out all the money?" or "You should fly for 999,999 minutes." Thus, to overcome this challenge, Mr. B was coached to be more flexible with pretend play ideas and reduce giving logical answers to Bodam's questions during the play (rather than supporting Bodam to come up with his own answers) and facilitate Bodam's play instead of leading the play. When Mr. B became more playful and flexible, allowing Bodam to play out any ideas, Bodam's play truly blossomed.

It is worth noting that, according to Mrs. B, Mr. B is an anxious father who finds it challenging to hide his anxious emotions, even in front of Bodam. Additionally, Mrs. B described him as overprotective of his son. It is assumed that Mr. B's use of logic might have provided him with a sense of control and safety, which became embedded in the play with his son. Mr. B observed every playing skill quickly and practiced it in their play, though changing himself from "Mr. Must-control" to "Mr. Flexible" took some time. Mr. B also utilized lots of affect (emotion) in his play with his son, giving voices to play characters and animating feelings through his face and voice.

As he took a role seriously but playfully, Bodam's symbolic play evolved. During the play, Mr. B learned to challenge and create

problems to deepen the play's plot so that Bodam had to handle the situation. Bodam took play seriously and had fun, involving himself deeply. Sometimes, when Bodam had to deal with many pretend situations that required flexibility, he had a meltdown. This meltdown created huge tension and concern for Mr. B, who felt despair and doubted Bodam's capacity to develop good social skills. Mr. B wanted to have additional online coaching to discuss this matter, and the researcher coached him on what he could do with Bodam to reduce future meltdowns. Therefore, Mr. B learned to balance out challenging Bodam while maintaining the fun part of the play. In the end, Bodam, being challenged continuously by his father through affective play, could handle difficult emotions well. Bodam started to bring friends to his play, which made Mr. B feel touched because Bodam had previously only focused on objects rather than people.

Bodam's play continued to be influenced by his past experiences as he began incorporating his friends into his playtime. In response, Mr. B received coaching to support Bodam's play ideas, deepen the play's plot, and introduce various affect to the play. Mr. B performed beautifully in his role as a playmate, challenging Bodam emotionally and effectively considering his son's perspective. Through this process, Bodam's development of perspective-taking ability improved, as evidenced by his expressions of amusement, and embarrassment during play. Additionally, Mr. B received coaching on effectively utilizing expression and communication to boost Bodam's self-esteem, encourage responsibility and courage, and build trust and flexibility within their play. Mr. B also learned to set limits and guide Bodam through meltdowns. For instance, when Bodam would get angry and yell at his cousin during play, Mr. B created a similar scenario as play activity, encouraging Bodam to explore and express his emotions through play. As a result, Bodam was able to improve his emotional development.

During their first play session, Bodam engaged in complex patterns of communication with his father when his father led their play most of the time. Bodam had the capacity to engage in long back-and-forth interactions. Mr. B took on a leadership role in their play, while

Bodam followed. Furthermore, their play always followed a pattern for how to start and end, and when this pattern was broken, Bodam had a meltdown. According to Mr. B, their play was consistently played out in a similar manner every time.

Dad and Bodam are playing in the living room. Dad suggested that Bodam should chase him.
Bodam : (Runs to catch him)
Dad : I got caught! Now, shall we play Kimbab or Ghost?
(putting a blanket over Bodam) You became a ghost! (Dad is putting a blanket over himself, too) I became a ghost, too! Bodam is the ghost! (Bodam is under the blanket) Bodam! get up! Get up! (stroking Bodam's back over the blanket)
Bodam : One month should pass…..
Dad : Are you kimbab? (tries to uncover Bodam by rolling the blanket) Bodam, be a ghost! I became a ghost, I am running away from you!
Bodam : (Turns to Dad and gets up and runs after Dad)
Dad : Ghost is running away~~
Bodam : (Runs after with blanket)
Dad : Got caught! Shall we play kimbab now?
Bodam : (Walks close to the piano and bangs on the keys of the piano)
Dad : Are you playing the piano? Play it!
Bodam : (Bangs on the several keys and then talks to mom-not understandable)
(Dad and Bodam-bangs on the keys of the piano)
Bodam : (Click the next song on the smartphone he carries with him and then walks away from the piano)
Dad : Bodam, shall we play kimbab?
Bodam : No, ghost play~
Dad : Ok! I am the ghost! Where are you?
Bodam : (Going up the bed and buried his face in the bed)
Dad : Where are you hiding? Let's catch him! (cover Bodam with Dad's blanket) got you!
Bodam : (Laughs) Now I am not bored.
Dad : You are not bored. Now you should be the ghost. Come catch me. Transforms to a ghost~~
Bodam : (Looking at the phone, then) I am a ghost again. (cover himself with a blanket). I am a ghost but a baby ghost. (rolling himself a little side to side) One month should pass.
Dad : Are you a baby ghost?
Bodam : Yes
Dad : Why do you need a month?
Bodam : I become big after one month (answers Dad from under the blanket with Dad's cell phone)
Dad : Now one month has passed (stroking Bodam) 1,2,3,4,…24…
Bodam : No, one year!
Dad : (keeps counting) 25, 26, 27..30! One month has passed!

Bodam : What is one month? (coming out of the blanket)
Dad : One month? One month is 30 days. Now our baby ghost has grown big! Come quickly to catch me! (runs away)
Bodam : You should wear a mask, too
Dad : Wear it? (Dad puts a blanket over himself, too)
Bodam : (Putting a blanket over himself) Mine is for a child.
Dad : Dad ghost is running away~~come get me!
Bodam : (Chasing Dad)
Dad : You got me! Daddy ghost got caught!
Bodam : (Looking at the phone)
Dad : Now kimbab play?
(Bodam is inside the blanket with the phone)
Dad : Daddy Dragon is about to leave! It is going to fly to the sky~ put 500 won and get on! It is about to leave! I am here getting ready by lying down here for you!
Bodam : (Inside the blanket) I am not going to ride!
Dad : No ride?
Bodam : (Peeks through blanket) Dad, are you going to leave?
Dad : Yes, it is going to fly to the sky!
Bodam : It is already put in.
Dad : What is already put in?
Bodam : 500 won is put in!
Dad : You should get on! That's how it flies!
Bodam : (not understandable)
Dad : No, you should get on so that it flies!
Bodam : I am going to get on later!
Dad : Let's get on now!
Bodam : I am at home.
Dad : Are you at home? (uncovering the blanket) let's leave in a hurry!
Bodam : I am at a hospital sick!
Dad : (takes away smartphone) It's Dad's. Now stop listening to music. Turn it off.
Bodam : why?
Dad : You listened to it a lot already. Give it to Dad.
Bodam : No
Dad : Give it to Dad, please. Stop the music, turn it off.
Bodam : I want to listen to it more.
Dad : Aren't they over yet? Do you want to listen to it more?
Bodam : Not over yet.
Dad : Ok.. then, get on me with that so that dad dragon can fly.

This script excerpt showcases Mr. B taking the lead in playtime based on his own agenda, allowing Bodam to use his phone despite knowing that Bodam was easily distracted by it. Mr.B focusing on his agenda during play may have been due to Mr. B's leniency towards

Bodam and his fear of Bodam's potential meltdowns. Although Bodam showed a capacity for pretend play, he often got stuck on numbers and lacked emotional depth. Emotions are essential in symbolic play as “emotional investment in relationships enables children to recognize the difference between what’s inside them, their fantasies, and the ideas and actual behavior of others" (Greenspan & Wieder, 2006, p.50).

With coaching, Bodam's symbolic play flourished, and his rigidity in both play and daily life significantly decreased. Mr. B learned to become a playful facilitator for Bodam's play, resulting in a more collaborative and imaginative play experience.

Dad is pretending to be Bodam, and Bodam pretends to be his friend, Sua, and Bodam also pretends to be many others.
Bodam : We got on a preschool bus. (putting a blanket over him)
Dad : Where are you going?
Bodam : To get on a preschool bus.
Dad : You are going to get on a preschool bus? Is this a preschool bus?
Dad : Sua, I want to be the first. You get off!
Bodam : I am Sua. I’m not going to get off!
Dad : Sua, I want to be the first. Bodam wants to be the first.
Bodam : I am Jieun now.
Dad : Hey, Jieun.
Bodam : I want to get on the bus first! Heung Chit Pong!
Dad : Yes, that’s right. Jieun.
Bodam : Sua, I want to be the first! Sua is also Heung Chit Pong흥칫뽕!
Dad : Right, Sua is Heung Chit Pong흥칫뽕! Jieun, Sua is Heung Chit Pong 흥칫뽕, right?
Bodam : Yes.
Dad : Let’s not play with Sua.
Bodam : (Pause) I am Sua.
Dad : Ok, transforming to Sua!
Bodam : Hey, Bodam and Jieun. You both are Heung Chit Pong흥칫뽕!
Dad :흥! Sua said Heung Chit Pong흥칫뽕 to me and Jieun.
Bodam : I am the first!
Dad : Why does Sua get on the bus first, I want to be the first. Why is Sua the first all the time?
Bodam : What should you do?
Dad : I want to be the first! I’m so Heung Chit Pong흥칫뽕!
Bodam : Sua, too?
Dad : Bodam is Heung Chit Pong흥칫뽕.
Bodam : Sua is Heung Chit Pong흥칫뽕!
Dad : So Sua is 흥칫뽕? (Dad is using his own voice now)

Bodam : Sua is Heung Chit Pong흥칫뽕!
Dad : Sua is Heung Chit Pong흥칫뽕? Sua told Bodam and Jieun 흥칫뽕. Sua, why is Bodam so angry? (use his own voice)
Bodam : Because he can't be the first.
Dad : Don't you think Bodam also wants to be the first as Sua? (use his own voice)
Bodam : I got on the first!
Dad : Sua got on the first? But Bodam also wants to be the first. What should he do?
Bodam : Cry.
Dad : Cry? Then, how about Bodam gets on first tomorrow since Sua was the first today? (use his own voice)
Bodam : No. Keep crying.
Dad : Keep crying? Ok, transforming to Bodam. [whining, crying] Sua, I hate you. I want to be the first but you are always the first! I don't want to get along with you! Heung Chit Pong흥칫뽕!
Bodam : [Laughing] No!!
Dad : I don't want to be friends with you. Jieun, you are also Heung Chit Pong흥칫뽕!
Bodam : Sua is also Heung Chit Pong흥칫뽕. I'm the first!
Dad : I wanted to be the first! Sua is always the first. It's not fun at all! Heung Chit Pong흥칫뽕! Bodam, are you having fun? (use his own voice)
Bodam : Heung Chit Pong흥칫뽕? Did you say Heung Chit Pong흥칫뽕 to Sua? Apologize now!
Dad : Apologies? Now? Do you want Bodam to apologize? (use his own voice)
Bodam : Yes.
Dad : Sua, I'm sorry for what I said. (Bodam's voice)
Bodam : I'm the first!
Dad : [Whining] I really want to be the first. But I won't say Heung Chit Pong 흥칫뽕 to Sua. Sua, can't I be the first tomorrow?
Bodam : Keep crying.
Dad : [Crying] Sua, what are you doing? (watching Bodam covering his face in a blanket) Are you also upset? (use his own voice)
Bodam : Yes, because Bodam is upset.
Dad: Does Sua get upset when Bodam is upset?
Bodam : (Coming out of blanket) We are now going on board. I'm going to drive.
Dad : What should Bodam do, then?
Bodam : Bodam is an inexperienced driver.
Dad : Should Bodam get in the back seat?
Bodam : Yes.

As Mr. B let Bodam lead his play by being flexible and reflecting his play verbally to join and be a play partner, Bodam increased

interaction, and their engagement lasted longer. Bodam's engagement changed from merely following Dad's ideas of play and responding to inviting Mr. B to various plays he created.

In particular, Bodam created a play scenario related to what he had experienced from his preschool, friends, past experience, and rigidity. Furthermore, he started to understand others' feelings and was able to reflect on his behavior. He seemed to develop a sense of agency (Greenspan & Wieder, 2006, p. 399). For example, in the play about getting a school bus to go to school, Bodam (pretending to be Sua) first gets on the bus, then Mr. B (pretending to be Bodam) argues that he wants to get on first and protests that it is not fair how Sua always gets to go on the bus first. Mr. B challenged Bodam's rigidity of getting on the bus first by demonstrating the tantrums Bodam throws when he couldn't be the first every morning. Bodam seemed confused or embarrassed in the clip. He did not say anything but covered his face in a blanket and pretended to cry hard or stated that he feels sad when Bodam (Mr. B) cries and always demands to be the first. Then next play, Bodam let other friends (in pretend play) be the first to eat ice cream. Mr. B (pretending to be Bodam's friend) challenged Bodam furthere by saying, "I don't want to play with you because you always like to win." Bodam responded with a sad face, "I am mad! That is Heung-chit-bboog." Lots of emotional themes played out.

Bodam appreciated playing out unpleasant past experiences of getting medical shots. Bodam had to get an IV (Intravenous injection) every week for three months a year ago, participating in some autism research. Parents reported that Bodam always had a difficult time, trying to avoid the situation by crying or running away. In several hospital plays, Bodam's facial expression made it apparent that he was in fear whenever Mr. B informed Bodam that he will be receiving a big shot. When Mr.B and Bodam tried playing out this scene, Bodam first covered his face with a blanket then pulled out his arm to Mr. B, saying that he is brave enough to get a shot. In the next play, Bodam encourages Mr. B (who was pretending to be Sua) to bravely get the shot too. Bodam tried to make sense of what

happened in his life by playing it out through symbolic play. The play provided Bodam with the sense of power and control of solving his problems and building feelings of confidence and accomplishment (Drewes, 2002).

Another significant change through play was Bodam's rigidity. Bodam became more flexible—for example, he said that it is ok to change the order in warming up food in the toy microwave (he used to strictly follow directions). In another example, he was ok with parking the car outside of garage (he used to always demand the car be parked in the same spot). Utilizing play, Mr. B facilitated Bodam to be more flexible by giving him opportunities to lead play with his ideas. By being a fun play partner (e.g., being animated, different voices for different roles, acknowledging Bodam's wish and intentions and reflecting on them).

Mrs. B reported from Bodam's preschool teacher that Bodam plays very well with his friends at school. Moreover, his anxiety has lessened resulting in reduced obsessive behaviors. Mr. B had emphasized how it was hard to try new things outside due to Bodam's unanticipated meltdowns, but this also dramatically reduced. They never imagined that this day would come, but both parents could now be relaxed. Bodam's rigidity lessened, and he became more flexible. Bodam no longer cried or have a meltdown when Mr. B had to leave home. Mrs. B reported a stronger attachment between Mr. B and Bodam and Mr. B and herself as well. Before, Mr. B played irregularly, but the regular play built emotional security between Bodam and his father. Bodam's core characteristics of autism had also changed, showing more interest in adults and friends who are older or the same age as him.

Bodam started to draw more person-looking figures and added more elements to his drawings. For example, he added fire in the drawing of his fire station and firefighter. Bodam also showed an ability to negotiate, take turns in games, and empathize. At school, he asked his friend how long he should wait to play with his friend and waited for the friend to come to play (teacher's feedback). When Mr. B pretended to be hurt, Bodam initiated playing doctor (previously,

Bodam would be uninterested when Mr. B pretended to be sick). The changes in Bodam align with prior investigations demonstrating the positive impact of affective components of interaction and secure attachment on a child's emotional development (Feldman, 2007; Meins & Russel, 1997).

The play clip from Bodam's initial natural play session to their last play session demonstrated a significant improvement. Although both scores initially fell within the "no support indicated" range, there was a notable shift in the scores from the very bottom of that range to the highest scores within the "no support indicated" range. The total representational capacity score increased from 8 (at the lowest end of the standard) to 12, (highest score) in this capacity. Similarly, the representational differentiation score improved from 2 (at the lowest end of the standard) to 10, (highest score). These findings highlight a positive developmental progress in Bodam's ability to engage in representational play following the intervention.

Bodam's FEAS score demonstrates a substantial improvement in his abstract thinking ability.

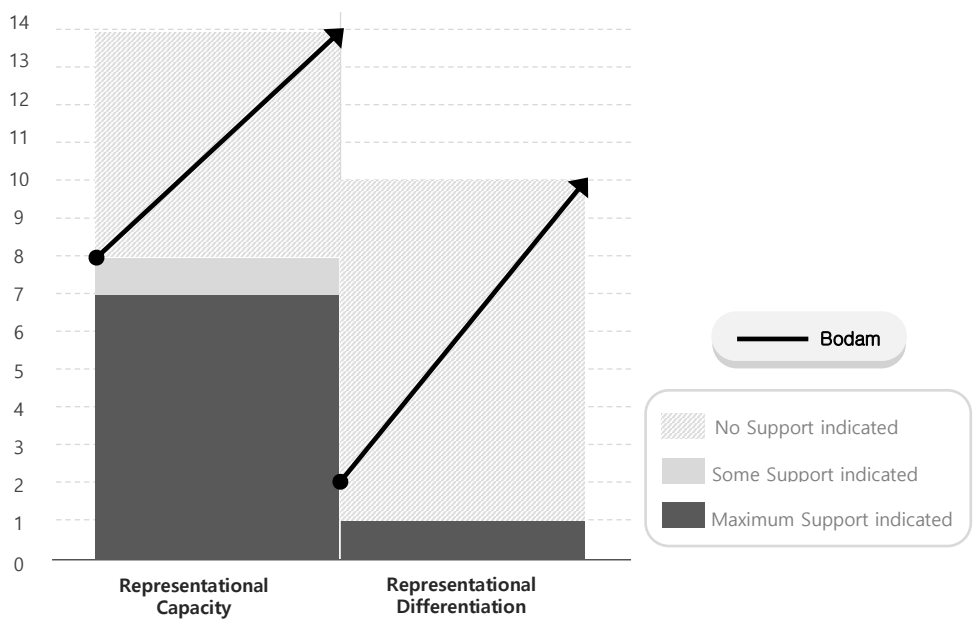

Figure 7. FEAS for Bodam

2) Mr. B's Experience: Becoming an Expert Affective Player

Mr. B, currently a government official in his early 40s, married his wife and had their son, Bodam, when they were both older. At the time of the research interview, Mr. B was a temporary stay-at-home dad due to his job situation. Both Mr. B and his wife take care of Bodam. Mr. B spends approximately an hour each day with Bodam engaging in physical activities outside the home (i.e., playground or a kids' café), since Bodam needs improvement in physical development, such as running, climbing, and hopping). Indoors, they engage in activities like puzzles, building Lego blocks, coloring, or reading. Mr. B expressed a desire for new physical play ideas to add variety to his routine with his son. He felt the need for alternative ways to bond with his child, as he had no memories of himself playing with his father.

Given Mr. B's desire to build a stronger attachment with Bodam and their shared interest in physical play, including roughhousing, the researcher recommended several new physical play types. Physical play, involving ample touch and laughter, is known to be highly effective in strengthening attachment bonds (Grossman et al., 2008). New physical play ideas, including throwing, wrestling, and dancing were suggested to Mr. B, which helped broaden his approach to play. Mr. B was encouraged to incorporate symbolic play themes into their physical play, and Bodam demonstrated a capacity to integrate them into their playtime.

Furthermore, Mr. B was coached on the value of playfully creating challenges or problems for Bodam to think about and solve, promoting more intentional communication and sustained play. To increase joint engagement, Mr. B learned to support Bodam's play by expanding and elaborating on his ideas, encouraging longer engagement and symbolic expression. Gradually, Mr. B learned to allow Bodam to lead the play and respect his creativity, resulting in blossoming symbolic play for Bodam. Through ongoing, joyful engagement with his father, and the chance to lead and express his ideas, Bodam improved in symbolic play, which in turn, reduced his

rigidity and anxiety.

Mr. B's goal was to be a "cool" dad who could play with his son and form a great amount of good memories with his son. He loved playing physically with his son as he wanted his son to improve his gross motor development. After involving lots of physical activity, he many times stated that he and his son felt so good after vigorous play. He reported that physical play helped Bodam expand his interest in other types of physical play. His playing physically supported Bodam's physical development, which was one of their concerns.

> *Bodam became interested in soccer and basketball play which he rarely showed interest in, and we played it for a long time. I think it is because we were involved in so much physical play (10/15/22).*

Gradually, Mr. B learned that there is no right and wrong in play and had Bodam lead the play, he reported this.

> *I learned that I did not have to answer Bodam's question logically and it is OK to have Bodam answer his question (10/3/22). I found out that I corrected Bodam's play when his play did not make sense, and this made Bodam lose interest in his own play. I let Bodam lead the play, and Bodam's play evolved into ideas I never imagined! (10/8/22).*

Bodam's rigidity in his daily life and his play also slowly changed as Mr. B let Bodam play out his own ideas freely in their play. Mr. B playfully challenged Bodam's rigidity through role play. Mr. B felt proud and closer to his son.

> *I felt on edge that Bodam might lose his temper during the play when things don't go his way. When he yells and cries incessantly, my mind goes blank (10/29/22). Bodam is now Ok with entering a house through a different apartment gate! (11/4/22). Bodam did not show the same tantrum when I challenged Bodam in play. I think he is getting better at dealing with changes in routine or his emotions*

(11/25/22). Bodam is not throwing tantrums when he loses rock, paper, or scissor play anymore! He even negotiated with me on what I should throw in order to win. When I threw different things, he slightly got mad but seemed to find it fun me cheating on him! I am so proud of him! (11/28/22).

Bodam is pretty good at being social now, he can express his feelings and communicate well with his friends (12/04/22). Bodam can control his feelings pretty well now, he used to yell or cry when he had to deal with negative emotions, but he is controlling it pretty well nowadays (12/4/22).

Mr. B gained an understanding of how his interactions influenced his son's play and vice versa. He had profound joy when his son improved in his cognition when they played rock, paper, and scissors, and his son cheated to win by imitating him. Most of all, Mr. B was able to witness his son's growth every day, which made him feel proud of his son.

Bodam's symbolic play generalized to other settings and other people—for example, when Bodam visited his younger cousin, they played fishing together by pretending the jump rope was a fishing rod. Bodam pretended to be a mermaid who had been fished out of the water. Mr. B stated at the last interview:

I think he has become a lot more flexible. I think he has grown a lot. We went out in the neighborhood today. We played the red light, green light game, and he understood how to play! Also, we went on a trip yesterday, but in the past, because of his rigidity... we were very afraid of not knowing when his tantrum would come... What we were supposed to do... we were under stress whenever we went out, but yesterday we had a great time, and we never imagined this day would come! Thank you so much for your support. I hope that in the future he will become more flexible and become a child who can socialize well with friends (12/15/22).

As Bodam's play evolved with Mr. B's play skill improvement, Bodam continued to progress in his developmental level. This father-

son playtime greatly reduced fathers' parenting stress.

There has been a significant improvement in Mr. B's play skills as well.

Building an Affective Relationship with Bodam

Mr. B, despite being a loving father, had his own anxieties which influenced his engagement with his son. Bodam, who had experienced anxiety-inducing situations such as daily injections and dietary restrictions, sought assurance from Mr. B. Although they spent considerable time playing together, Mr. B's anxiety and worry towards Bodam, in combination with Bodam's own anxieties, effected their play dynamics. They both sought to control through fact-based or repetitive play that Bodam was accustomed to.

As soon as they started physical play, Mr. B noticed a difference in their bonding and stated in his journal,

> *I felt proud after playing and having fun with Bodam. I could hear his laughter continuously. Normally, when we played quietly, he would keep calling out "Dad, Dad," but after playing for an hour, he no longer looked for me. It made me realize that I had been passive in my play with Bodam until now. It seems that Bodam also felt satisfied after playing enough with me (9/15).*

> *It seems that Bodam's affection towards me has deepened. When Bodam was younger, he used to burst into laughter at the sound of a splash when throwing stones into a pond. Through play, I had the opportunity to witness that laughter again, and it made me happy (9/16).*

After enjoying their time together through physical play, Mr. B incorporated symbolic themes into their physical play. For example, they imagined that a powerful storm had caused the drone (Dad) to become broken. Or they played by simulating an earthquake, causing neatly arranged objects to scatter and tumble around. Those play required flexibility in thinking, and the result was expressed in Mr.

B's journal.

> *Previously, when Bodam's block tower would collapse, he used to get extremely frustrated. But now, he casually rebuilds the blocks without any fuss (9/23).*

As Bodam's flexibility increased, Mr.B was coached to involve role-play following Bodam. Mr. B transformed into a skilled play partner who could engage Bodam in imaginative and interactive play. This shift prompted Bodam to think and adapt in more flexible ways within social settings. As Bodam actively participated in both physical and symbolic play, his affection towards Mr. B grew stronger. He began to request more playtime with Mr. B and became more accepting when Mr. B had to leave home. Bodam built a sense of safety and secured attachment to his father.

Mr. B experienced a stronger relationship with his son and saw an improvement in his son's social and communication capabilities.

> *Bodam, at night, said that I should be his friend, and I felt overwhelmed. I guess he remembered my saying during the day in our play that I will become his friend forever (10/18/22). I felt very happy when Bodam asked for more play, like "One more minute!" (12/3/22).*

3) Coaching Mr. B: Learning to be a Flexible Player

Mr. B, an anxious individual, expressed concerns about potentially harming Bodam during physical play. While all the fathers engaged in physical play without much concern for safety, Mr. B became anxious even when the level of physical play was lower. He wrote about this anxiety several times in his journal but did not openly discuss it. Bodam exhibited separation anxiety towards his father, and Mr. B's anxiety seemed to add to Bodam's insecurity. Mrs. B observed that Mr. B struggled to find a balance and establish control in their relationship, often displaying rigidity and difficulty adapting. During

their play, the emphasis was placed on questioning and seeking answers, which heightened Bodam's anxiety and restricted his creative expression. Mr. B's approach of limiting Bodam's play hindered the development of his play skills, causing delays in his overall play progress. This play dynamic did not bring enjoyment or foster a deep emotional connection between father and son.

Mr. B underwent a transformative journey, letting go of his controlling play style driven by anxiety, and instead became a more enjoyable play partner for Bodam. Through coaching, Mr. B learned to embrace and support the expansion of Bodam's play, recognizing that there was no right or wrong way to engage in play. Bodam was encouraged to freely explore and express his own play ideas without any restrictions. This shift led to a remarkable transformation in Bodam's play, becoming vibrant and dynamic.

Mr. B's emotional involvement and commitment allowed him to become the ultimate play partner, and Bodam eagerly sought more playtime with his father. This change in play patterns significantly facilitated Bodam's development and fostered a deep, positive, and stable emotional relationship between them. For instance, a simple piggyback ride was transformed into an imaginative scenario where Bodam and his father embarked on a dragon ride, encountering a thunderstorm. This expansion of physical play to symbolic play stimulated Bodam's creativity and emotional engagement, further providing an outlet for expressing and processing his past experiences. As a result, his anxiety and rigidity lessened, and he gained a greater capacity for flexibility and adaptability.

Mr. B, as a soft-spoken and lenient father, took charge of playing with Bodam and believed he could do better than his wife, Mrs. B. He often disregarded his wife's feedback, which led to her expressing unhappiness towards him. As a result, Mr. B heavily relied on the researcher for guidance, asking questions and applying the skills taught to him. Occasionally, Mrs. B's impressions and observations regarding Bodam were more informative, and Mr. B was encouraged to seek information and advice from his wife. However, his tendency to disregard his wife's input created some boundary issues, as Mrs. B

desired a separate conversation with the researcher without Mr. B's knowledge. While the information was helpful for achieving better intervention results, the researcher had to be careful not to take sides.

Mr. B was a fast learner; when his anxiety emerged during playtime with his son, and the researcher gently addressed it, Mr. B seemed to have an "enlightening" moment and promptly adjusted his play style.

Mr. B's FEAS scores demonstrated significant improvement.

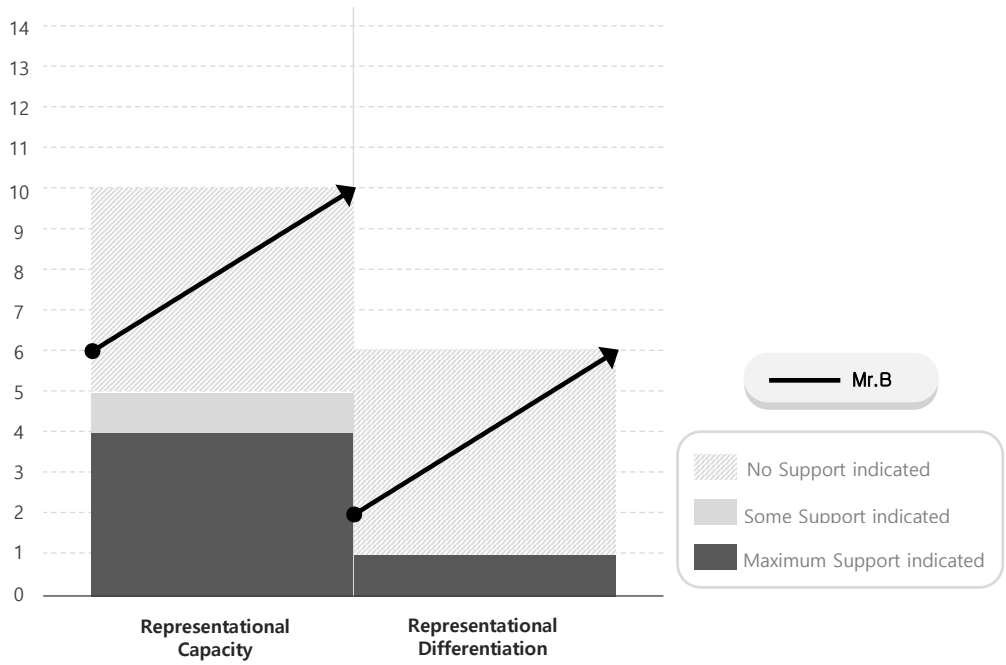

Figure 8. FEAS for Mr. B

Table 7. Coaching Mr. B

Coaching Phase	Coaching for Symbolic Play	Play Skills
Early Phase	Incorporate affective play, allow for creativity and flexibility in play, and encourage the child to expand their ideas. *Dad pretends to be a flying dragon and gives Bodam a piggyback ride. Suddenly, the flying dragon falls into the sea due to a thunderstorm. Bodam then pretends to be a baby mechanic to fix the dragon.*	Affect-animate, Create opportunity for symbolic play
Middle Phase	Follow the child's lead in play, create opportunities for problem-solving, acknowledge and reflect the child's efforts, emotions, and desires, and incorporate a range of emotions into play. *Bodam pretends to feed Dad laundry detergent by using a box as a prop. Dad responds with a surprised expression and whispers in Bodam's ear, "What will happen if I eat it?" Bodam tells Dad that he will have a stomach ache. Dad then pretends to be very sick, playing his role in the play.*	Affect, Whisper technique, Thicken the plot, Dramatize
Late Phase	Follow the child, Let the child be a play director, Don't be afraid to challenge the child, Make role play real and fun by giving voices to characters, Be a reflective father. *Dad says to Bodam, "I'm not going to play with you since you always go first in our school bus," during their pretend play. Bodam expresses discomfort, saying, "That's mean." Dad uses his own voice to support Bodam, asking, "Are you upset that your friend said that?"*	Instigate creativity, Vary emotions, Challenge and support

V. DISCUSSION

This chapter's discussion is divided into six primary sections. The initial section will concentrate on exploring the results based on the research questions. Subsequent sections will encompass the study's conclusion, limitations, implications, recommendations for future research, and a final reflection from the researcher.

1. Discussion

This study underscores the evolving nature of the play exhibited by autistic children. It also delves deep into the developmental significance of these changes in play, with a particular spotlight on the contribution of paternal physical play to their overall growth. By exploring the dynamic changes in play and concurrent father-child playful interactions, the study uncovers a marked improvement in the social and communication capabilities among autistic children. Additionally, the research delves into fathers' experiences while playing with their children and the formation and growth of a positive emotional bond with their sons. Importantly, it highlights the crucial role and significance of coaching to support fathers in comprehending and actively participating in these dynamic changes in play.

1) Development through Physical Play in Autistic Children

Play is commonly used as a universal measure to assess developmental progress across various domains. However, autistic children tend to engage in solitary play and may face difficulties transitioning to interactive play. The study's findings indicate that fathers who actively understood their sons' individual sensory needs were able to adapt playful interactions, motivating the children to participate and interact. As a result, notable changes were observed

in the children's play, shifting from solitary play to an increased engagement, then to symbolic play.

The shift from self-stimulatory or solitary play to an increased mutual interactive play signifies developmental progress. As Kumin and Nawon increased their attention and interest in playing with their fathers, they increased their foundational engagement skill, which is joint attention through continuous playful interaction. In social contexts, joint attention involves sharing interests, mutual communicative intent, and collective meaning (Adamson & Bakeman, 1991). Joint attention creates a shared psychological space where both individuals experience the same thing simultaneously and recognize that they are engaged in a collaborative activity with a shared goal. This true intersubjective sharing is considered to be a crucial aspect of social development (Tomasello & Carpenter, 2007). Difficulty in joint attention leads to limited interaction with others, negatively affecting children's language development or exploration of an environment (Min, 2014). Despite known challenges in joint attention (Clifford & Dissanayake, 2008; Dawson et al., 2004; Stone et al. 1997), children in the study demonstrated their capability of initiation of joint attention through their play with their fathers.

Physical play, which involved high stimulation and strength, particularly facilitated an increased initiation of joint attention and engagement in the children. This finding aligns with previous research that highlights the encouraging impact of fathers' playful and rough-and-tumble play on children's initiative (Bremer & Lloyd, 2021; Jung, 2020; Lee et al., 2021). By following their children's natural play and interests, fathers established joyful and meaningful relationships, leading to an increased frequency of joint attention initiated by their children (Heinrich et al., 2013). This finding is consistent with a study by Warreyn et al. (2014), which demonstrated that joint attention can be enhanced not by directly targeting it but through collateral outcomes within play.

During observed play sessions by Kumin and Nawon, children displayed improvement in their use of more accurate language during spontaneous social interactions, specifically by expressing their

intentions and desires. Furthermore, their imitation abilities were enhanced, as demonstrated by Kumin actively and effectively imitating his father's play both verbally and physically during their joint play sessions. As a result of the improvements in imitation, language, and joint attention, the children exhibited prolonged periods of play and actively engaged in more two-way reciprocal interactions.

Children's increased initiation of joint attention resulted in increased reciprocal playful interaction between children and fathers. This capability remarkably changed a child's play to symbolic play as children continuously improve their cognitive capabilities through fathers' playful challenges in their interaction. These changes highlight the capabilities of autistic children to develop symbolic play through consistent two-way interaction and complex communication within a supportive environment. Furthermore, simple physical play turned into a mutual play, which plays vital role in fostering flexibility and adaptability. This change was evident in the case of Bodam, who experienced a considerable reduction in anxiety and rigidity when participating in symbolic play (Honey et al., 2007).

Minki and Bodam experienced a decrease in anxiety and rigidity through their engagement in symbolic play, which aligns with research indicating that the development of emotional and behavioral regulation, as well as the ability to manage anxiety within a broader emotional range, is associated with the capacity for symbolic function (Stanley & Konstantareas, 2007). Specifically, Minki's anxiety related to hospital visits decreased, and he no longer constantly sought reassurance from Mrs. M. Likewise, Bodam's family was able to enjoy outings without concerns about Bodam's rigidity, highlighting the evidence of progress in emotional and behavioral regulation.

Through these tailored interactions, children were able to introduce complexity, creativity, and imagination into their play, using symbols to represent aspects of reality that may not be immediately present in their environment (Mastrangelo, 2009; Wieder, 2011). This study showed that autistic children often exhibit interests in non-traditional ways (Gernsbacher et al., 2008), but their

development can thrive when fathers understand how to connect with their children by embracing their unique way of engaging with the world.

2) Growing to be Special Play Partners to Their Sons

Fathers experienced various emotions throughout the process as they learned the play skills and interacted with their children. First, all participant fathers experienced joy, pleasure, and pride by witnessing their sons' progress while they played daily. Playing together provided fathers with the opportunity to sweat together and share moments of laughter while also witnessing improvements in their sons' eye contact, language, and non-verbal behaviors. This experience left them feeling proud. Fathers also found great potential in their sons. Secondly, fathers experienced anxiety and frustration as they played. Fathers reported experiencing anxiety related to various aspects of their child's condition, including their child's behavior, communication, and social interaction. The anxiety expressed by the fathers reflects research findings that parents of autistic children often experience higher levels of anxiety compared to parents of typically developing children (Hayes & Watson, 2013).

Interestingly, these emotional experiences prompted fathers to engage in introspection, leading to adjustments and adaptations in their approach and play skills. Fathers made conscious efforts to adapt their play style and better connect with their sons' unique interactional style. This finding highlights the fathers' ability to learn and modify their play to support their children's needs (Mitchell & Lashewicz, 2018). In particular, this process allowed Mr. M to become a more attentive and empathetic father, enabling him to support his wife, who took on the primary caregiver role.

However, among many play skills, learning to show affect was difficult for all the fathers. For affective relationship through play, it was necessary for fathers to learn to show affect through their face, voice, gesture, or rhythm. Animated affect is necessary, especially for autistic children, as it supports their mirror neurons (Itskovish,

2019). When they play physically, fathers focused more on having fun together by sweating a lot than creating more affective relationships utilizing their affect in play. This focus made it particularly difficult for all the fathers in the beginning. The concept of affect was hard to grasp for fathers, which may also be due to the cultural factor that influences our expression of affect (emotion) (Tsai et al., 2006). However, over time, fathers learned to be more animated and express clearer affect through their facial expressions and voice, which supported their sons in engaging in interactive and symbolic play. This change suggests that certain fathers may benefit from additional support in developing specific play skills based on cultural considerations.

By mediating the intervention at home, fathers were able to facilitate optimal performance from their sons through play. For autistic children, performing to their full potential in different settings can be challenging due to heightened anxiety (South et al., 2017). Coaching fathers as interventionists for their sons enabled them to tap into their potential and develop within a secure environment with trusted individuals. This sense of safety contributed to increased reciprocal and mutual play interactions. It also fostered a positive emotional connection between fathers and their children. Ultimately, it led to the development of a strong bond over time. These findings align with Paquette's Activation Relationship Theory (2004), which suggests that fathers' physical play serves to build attachment with their children. This study further demonstrates the applicability of the theory to autistic children, who often show a preference for physical activity. In this study, fathers' physical play played a significant role in establishing a positive emotional relationship with their sons.

The enhanced positive relationship between fathers and children not only impacts the relationship between fathers and mothers but also reduces parenting stress for both parents. Mothers expressed appreciation for their husbands playing with their sons, even when they arrived home late from work. As a result, all family members experienced decreased levels of parenting stress, fostering positive

relationships between spouses and a sense of unity within the family unit.

In summary, as fathers embarked on the journey of learning play skills and actively engaging with their children, they experienced a wide range of emotions. Through introspection and a willingness to adapt, fathers demonstrated their ability to modify their own play in order to effectively connect with their sons' unique world. This process of adjustment and growth led to stronger bonds between fathers and children, ultimately contributing to the development of enhanced social and communication capabilities in the children.

3) Tailored Coaching for Fathers: Bringing Families Together

Tailored coaching was initiated by considering fathers' preference for physical play with their children. The inclusion of physical play aimed to alleviate fathers' initial concerns arising from a lack of knowledge regarding how to engage in play with their children (Elder et al., 2003). Therefore, beginning with physical play catered to fathers' interests right from the outset, facilitating their active involvement (Davis & May, 1991).

As many other studies suggested (Fabino, 2007; Phares et al., 2005), father-mediated intervention required the clinicians' flexibility and cooperative efforts in supporting fathers. Flexibility to meet fathers' working schedules or changing schedules as needed was inevitable as three fathers worked full time, and Mr. B went back to work in the late phase of intervention. Therefore, this study utilized both home visit coaching and flexible online coaching as effective methods to meet the fathers' needs. This tailored coaching component played a vital role in the study.

Home visits provided valuable insights into the family environment, allowing the researcher to tailor their coaching approach accordingly. Through home visit coaching, the researcher had the opportunity to directly observe each father during play sessions, which enabled the identification of individual challenges. This direct observation was instrumental in better understanding and providing support to fathers

in their efforts to create a more playful and engaging environment with their children. For example, specific observations during home visits led to recommendations such as decluttering toys in the case of Minki or acquiring equipment like a trampoline for Nawon.

Observing playtime during home visits also enabled the researcher to identify potential disruptions and provide appropriate coaching support to fathers when needed. For instance, in one play session, Mr. B was confronted with a situation where Bodam suddenly became dysregulated, resulting in intense crying and screaming. Mr. B was unsure about the precipitating factor. The researcher was in a position to discern the underlying cause and provide guidance to Mr. B. It was apparent that Mr. B's insistence on pushing Bodam too hard during that specific playtime led to Bodam's loss of regulation. This circumstance facilitated the researcher in guiding Mr. B to recalibrate his approach, emphasizing the need for a balanced introduction of challenges during playtime. The researcher's direct observation and active involvement allowed for enhanced assistance to fathers in finding a balance in their approach while learning play skills. This valuable support was made possible through home visits, enabling a tailored approach that considered the needs and preferences of the fathers themselves, in addition to those of their children.

Furthermore, during home visits, the researcher observed the active participation of mothers and other family members, even though their explicit involvement was not initially requested. This unexpected inclusion provided an opportunity for additional parental coaching, particularly for mothers and sometimes a grandmother who played a significant role in caring for her grandchild. Minki's grandmother posed many questions about child-rearing during the home visit session. Minki's younger sister, Mina, showed interest in joining the play sessions between Minki and their father, Mr. M, which occasionally disrupted the concentrated father-son playtime. However, as Minki's play skills advanced, he began to include Mina in his play activities, transforming it into a spontaneous social interaction at home. This advancement provided Minki with an

excellent opportunity to practice his social skills. Furthermore, it underscores the reality that coaching fathers extends to coaching the entire family, and this necessitates a broad set of skills and understanding to cater to the unique needs of each family member. Families tended to rely heavily on the researcher, seeking advice and strategies for parenting and tackling difficulties. Therefore, professionals equipped with the skills and knowledge to work with the entire family, including promoting family-centered care approach, is highly significant.

Also, being involved in a family system required a cautious and skillful approach in a relationship with other family members. Recognizing the concerns of Kumin and Nawon's family regarding their sons' upcoming kindergarten experience, the focus and worries related to their ability to perform table tasks/assignments were acknowledged and respected. This recognition involved integrating educational purposes into play activities. Regarding Minki's repetitive behavior, a different approach was taken, but always with utmost respect and consideration, as Mrs. M had her own management strategies in place.

The home visit coaching approach fostered an environment where all family members collaborated towards a shared goal, promoting unity and a sense of shared purpose. It facilitated the implementation of this inclusive approach, bringing together the various family members to work towards the shared goal of supporting the child's development and well-being. The father-mediated intervention proved to be a unifying force for the entire family, emphasizing the significance of a family-centered approach.

On occasion, online coaching provided a convenient platform for fathers to engage in conversations related to not only intervention-related topics but also general child-rearing. With the absence of their child, fathers utilized this time to discuss other parenting issues they faced, as was the case with Mr. K who expressed concern about his son Kumin having difficulty transitioning at school. Mr. B found online coaching preferable, mainly because he believed that his child, Bodam, was listening to conversation that occurred during the

coaching sessions at home. Additionally, online coaching was convenient for fathers like Mr. M, who were able to participate in coaching sessions and discuss parenting matters, even while away on a business trip in a remote location. Therefore, online coaching provided a convenient way for fathers to receive guidance and support while meeting their preferences and needs. By being flexible in working with fathers, fathers were able to meet their needs more efficiently.

Importantly, this intervention alleviated the mothers' parenting stress and increased their active involvement. Unlike mother-mediated interventions that place additional stress on mothers, the father-mediated approach emerged as a valuable method to enhance fathers' roles within the family dynamics. Since autism is a lifelong condition requiring continuous support from the family, empowering all family members to actively participate in intervention throughout the day holds greater significance than solely relying on experts. Thus, this father-mediated intervention offered a potential solution to foster a more family-centered approach to autism spectrum disorder (ASD) care.

2. Conclusion

The findings of this study highlight the enhancement of social and communication capabilities in autistic children through the involvement of fathers in physical play with tailored coaching from the researcher. Significant improvements were observed in areas such as imitation, joint attention, prolonged engagement, and symbolic play, which are fundamental for the development of their social and communication abilities. These results underscore the importance of incorporating the father's physical play as a valuable tool in facilitating play and promoting overall development in autistic children. Throughout the 12-week duration of the study, children's play development was enhanced by the fathers' physical play. By respecting and incorporating their children's individual differences

into play, fathers effectively enhanced their sons' playful engagement. The coaching process enabled fathers to acquire new play skills and solidify foundational abilities in their children. As a result, the sons developed a strong desire to continue playing with their fathers. Despite the physical fatigue they may have experienced after work, the fathers found immense joy in engaging in playtime with their children.

This study found that the DIRFloortime approach, which emphasizes developmental capacities, individual differences, and building relationships, was highly effective in engaging fathers of autistic children. The core concept underlying this approach supports the notion of tailoring interventions to meet the child's and the father's specific needs while highlighting the significance of play in child development and enhancing the parent-child relationship.

Through tailored coaching, fathers with varying personalities and characteristics were able to actively participate as playful play partners and foster deeper connections with their sons. Mr. M stated that all fathers should be involved in the fathers-focused program because this is how fathers become serious about child rearing, making family relationships stronger than ever. This statement resonated with many other research studies emphasizing that a father's involvement has a profound impact on family cohesion, marital satisfaction, a sense of competency, and the establishment of stronger relationships with their children. This involvement instills an optimistic outlook regarding the future of their children (Donaldson et al., 2011; Flippin & Crais, 2011; Vacca, 2013). Similar to typically developing children, autistic children also experience progress and development through play.

This study sheds light on the transformative potential of play in addressing the social and communication challenges faced by autistic children. This study highlights the crucial importance of adults actively seeking and comprehending their children's unique play styles, recognizing the significant impact that play has on their overall development. Consequently, the study places emphasis on father-mediated intervention, which holds the potential to serve as a

direct pathway toward family-centered care in the realm of supporting individuals with Autism Spectrum Disorder (ASD).

3. Limitations of the Study

It is important to note that the findings of this research, being a case study, may not be generalizable to all autistic children and their fathers. The study specifically recruited fathers and children who enjoyed physical play and were not sensitive to touch and movement, which means that children with different sensory preferences may require different approaches from the outset.

Although mothers were not directly involved in the study, their voluntary participation could have influenced the dynamics of play development. Furthermore, it is important to note that during the study, the children were concurrently receiving behavioral interventions outside of the home. This external intervention may have introduced additional factors that could have influenced the children's play and potentially created confusion or delayed the focus on natural play interactions. Additionally, mothers' involvement in implementing behavioral interventions at home should be taken into consideration, as it may have also impacted the observed changes in the children's play. The combined effects of these interventions, both external and within the home setting, could have influenced the dynamics and outcomes of the play development observed in the study.

It is also important to interpret the results of this study with caution, as the focus was on autistic children with mild to moderate severity. Furthermore, it is worth noting that the fathers in the study were from a middle-class background, and their experiences and contexts may differ from those of fathers in different socioeconomic statuses.

In conclusion, although the findings provide valuable insights, it is crucial to take into account the limitations concerning the generalizability of the study, the potential impact of mothers'

participation, the severity of Autism Spectrum Disorder (ASD), the specific play styles exhibited by the fathers, and the socio-economic context.

4. Implications for Practice

This study underscores the significance of play development in autistic children, particularly when their unique interests and sensory preferences are acknowledged and respected. The engagement of fathers in physical play, aligned with their children's sensory preferences and supported by professional coaching, contributed to the improvement of children's play and fathers' play skills. The observed progress in children's play levels also demonstrated their social and communication development.

The findings of this study underscore the crucial importance of recognizing and celebrating the unique characteristics of each autistic child. Tailoring a father's play style to match a child's interests and integrating this natural form of play into the intervention creates an environment that nurtures the child's abilities and fosters their development. The emphasis of the study was on fostering a transition from individual, solitary play to interactive, mutual play. In addition, fathers were empowered with play techniques aiming to advance their children's progression into the realm of symbolic play. This approach, focusing on changing the environment rather than changing the child, aligns with the principles of diversity, emphasizing acceptance and appreciation for each individual as they are.

The dynamic changes of play demonstrated in this study reinstates the fundamental emphasis on the role of 'play' in the development of autistic children. While the majority of studies primarily focus on the outcomes of social and communication interventions, this research concentrated on the journey and developmental trajectory, thus underscoring the inherent significance of play itself to autistic children.

Involving fathers in the intervention process had a positive ripple effect on the entire family, as mothers willingly participated and sought parental coaching while providing support to their husbands throughout the process. By spending regular quality time with their children, fathers provided mothers with a much-needed respite from caregiving duties. It is worth noting that mothers often experience higher levels of stress and can feel overwhelmed by additional interventions. However, through shared responsibility in father-mediated intervention, the burden on mothers was alleviated, as previous research has reported (Koegel et al., 1992; Moes et al., 1992). As a result, mothers voluntarily engaged in the intervention and played an active role by supporting their husbands or seeking additional parental coaching from the researcher without explicit request. Moreover, the involvement of other family members, such as siblings, further illustrates the ripple effect of this father-mediated intervention. These insights carry significant value for enhancing the efficacy of future parent-mediated interventions and achieving a more family-centered approach.

By emphasizing the crucial role of parental involvement, particularly fathers, in interventions for autistic children, this research highlights an area that is often overlooked within the Korean context, where such interventions are typically therapist-led. The potential for this approach to alleviate financial burdens and increase parental competence and participation is significant, aligning with evidence suggesting that these factors contribute greatly to successful ASD interventions (Dunlap et al., 2006; Elder, 2002). Hence, this study was specifically conducted within the Korean context, highlights the significance and need for parent-mediated interventions in ASD. Ultimately, such parent-mediated interventions can serve as a catalyst for fostering improved family-centered care for individuals with ASD in Korea.

Overall, these implications offer valuable insights for improving future interventions and supporting families in their journey with their autistic children.

5. Recommendations for Future Studies

To enhance the play development of autistic children through fathers' physical play, future studies should aim to engage a larger and more diverse group of fathers, ensuring inclusivity in their participation. By doing so, researchers can gain a comprehensive understanding of the impact and outcomes of father-mediated intervention on the play development of autistic children.

The researcher found home visit coaching and online coaching to be highly valuable and effective. Home visit coaching allowed for assessing the home environment and providing tailored support to families in addressing specific challenges. Online coaching proved advantageous in accommodating fathers' varied schedules. Going forward, incorporating blended or trying online coaching methods could be helpful in extending support to remote families facing difficulties in accessing services in urban locations. Future research should explore these coaching approaches, as both traditional and digital platforms have demonstrated effectiveness in providing coaching support.

This study highlights the benefits of father-mediated intervention for autistic sons, with all male participants showing improvement through natural play. This improvement emphasizes the importance of a targeted approach that recognizes the heterogeneity of autism spectrum disorder (ASD). Additionally, investigating father-daughter play is worth exploring, as most existing research focuses on mothers. Understanding mothers' perspectives on raising sons with autism and their expectations of their husbands would also be valuable. In this study, all mothers expressed their belief that fathers could provide something different to their sons, underscoring the significance of considering both parents' viewpoints when designing and implementing interventions. Overall, future studies should aim for a diverse range of father participants and explore different coaching methods to optimize the effectiveness of the father-mediated intervention.

6. Final Reflection

I deeply thank all the families who participated in this study. As I coached them, they depended on me, respecting my expertise and requesting feedback or perspective on their sons' situations. All fathers were very responsible, even when they came home late from their work. This daily play enabled fathers and their sons to have a strong relationship, and this relationship itself brought all the changes in fathers and sons, including mothers. I would never replace this relationship with my expertise because no matter how good a coach I was, I realized again the importance of affective relationships and the power of play in child development not only for typically developing children but also for autistic children. Children should have the right to play and a right to develop through their natural means for their development, and autistic children especially should have the right to be respected as children. Fathers can be as good players as mothers, and fathers' impact on their sons can be invaluable. My theoretical orientation to intervention as a therapist is a humanistic approach, and this influenced my choice of approach to ASD intervention as well. I am always amazed by the power of play and relationship, which I believe brings the outcome of the intervention, and the participants all once again demonstrated this in the process.

I had the privilege to witness their growth, and I felt very honored to be part of their journey as a therapist. Not every moment went smoothly, but I tried my best to support the fathers and sons in their growth by referring to many different sources and consulting other experts. My heart was filled with warmth especially when Mr. B, who was anxious and nervous himself, learned to let go of controlling play and become very flexible and acquired near- similar-to-therapist's-insight toward his son.

For example, due to the diet regimen, Bodam was not allowed to eat ice cream. Bodam, in his play, pretended to eat ice cream, and when Bodam negotiated certain age that he actually can eat ice

cream, Mr. B expressed his feelings in his journal, stating that he was proud of Bodam being able to negotiate and felt sad that he had to negotiate his wish for ice cream, but truly ice cream play gave Bodam sense of mastering by playing out ice cream and have a release of his feeling (11/2/22 from father's journal). When Bodam's effort to break his rigidity showed in play, Mr. B gently patted Bodam's back, saying, "It can be OK not to follow certain ways!" (play clip from 11/4/22).

Mr. K was a good play partner for Kumin, and I wondered if they would have reached higher FEAS scores had I been better at coaching him. Kumin was a challenging case for me, and I learned a lot from him by having several consultations about his case. Importantly, working with autistic children requires many professionals with different expertise.

Each father, and their son, had a unique personality, but all shared a profound love and yearning to form a connection with their child. Mr. M was a devoted father who never missed a single play day, and his journal notes were filled with witty and insightful reflections. Mr. B had preference for sending messages and favored clear and direct communication. He had a talent for captivating his son with his animated affect in their role-playing, and it was evident that he enjoyed the time with his son. He asked me not to mention Bodam's autism in his presence, which reflects a common attitude towards autism in Korea (Kim, 2012). He expressed the belief that Bodam's autism will disappear, and therefore, he does not want Bodam to be aware of it. Mr. K was deeply attuned to his son's needs and preferences. He preferred to work collaboratively and offer his own ideas rather than merely following my instructions, recognizing that he knew his son best. As a coach, I greatly respected his approach, as he allowed his son to learn and implement new skills at their own pace. Lastly, Mr. N was a keen observer who absorbed everything and strived to make the most of the experience.

I am truly grateful for their invitation into their world and the opportunity to witness their deep love for their children.

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Appendix 1. Recruitment Notice for Research Study Participants

IRB No. 2207/004-003 유효기간: 2023년 07월 18일

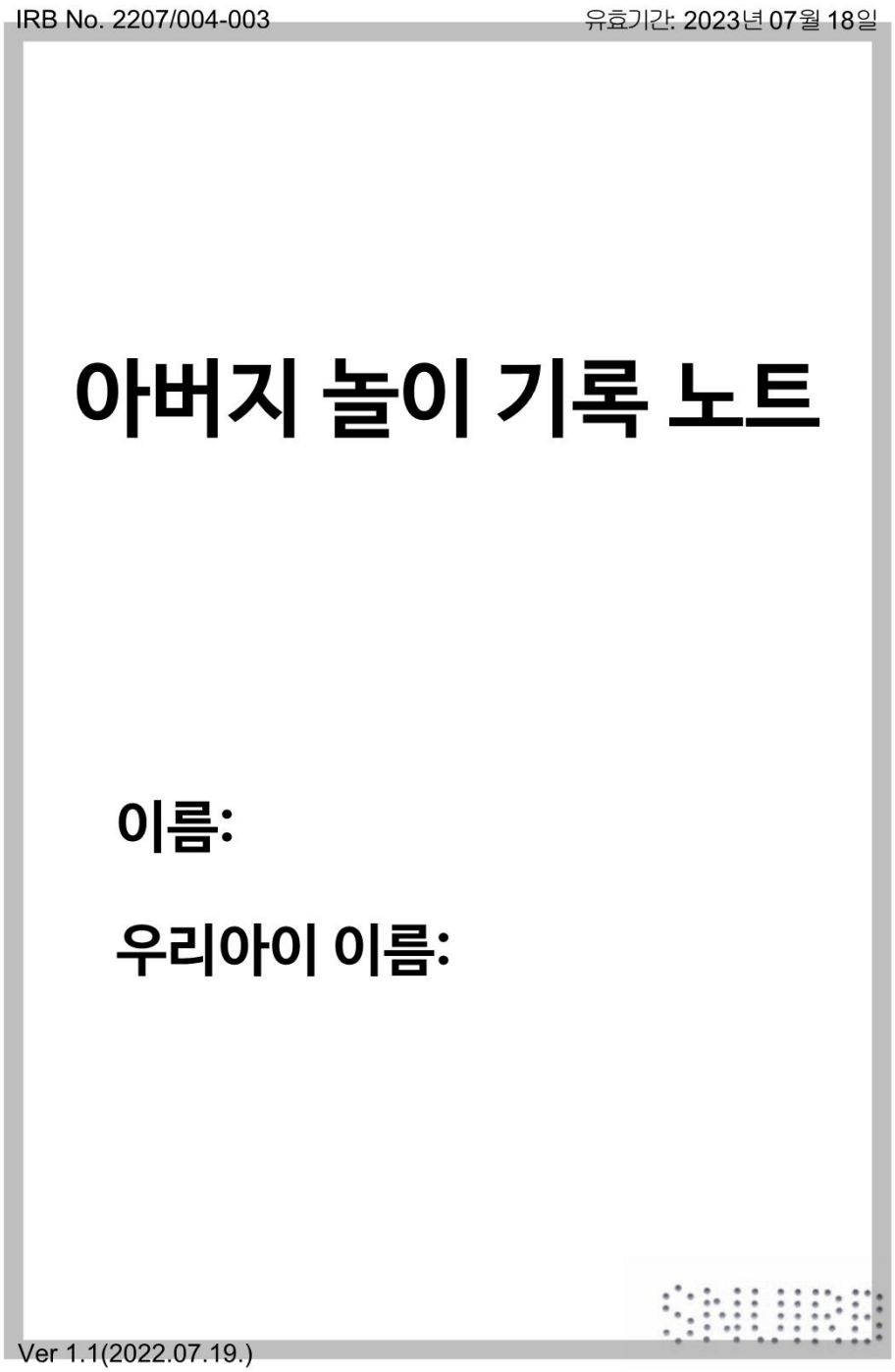
연구참여자 모집 안내문

안녕하세요. 저는 서울대학교 아동가족학과에 재학 중인 강향미입니다.
저는 **<자폐범주성장애의 발달적 접근 : 아버지 중재를 통하여>**라는 주제로 박사학위논문을 준비하고 있습니다. 이 연구에서는 연구자(치료사)가 가정을 방문하여 주 1회 아버지와 아동을 대상으로 신체놀이를 코칭합니다. 아버지들은 코칭을 받고 놀이 기술을 습득하면서 매일 자녀와의 신체놀이를 통해 느낀 다양한 생각과 경험을 기록합니다. 이를 통해 이 연구에서는 1) 중재자로 참여한 아버지의 경험은 어떠한지, 2) 아버지의 신체놀이가 아동의 공동주의 및 상징놀이의 개선에 어떠한 영향을 미치는지 알아보고자 합니다.

참여대상	**<만 2세-6세 자폐범주성장애 진단을 받은 자녀와 아버지 4 쌍>** 1) 자녀 자폐평정척도 (CARS)에서 30-36의 경증-중간 자폐진단을 받았고 다양한 신체활동 및 접촉, 움직임을 즐기는 아동 1) 아버지 - 매일 1시간 씩 자녀와 놀이에 임할 수 있는 아버지
연구기간	연구시작 시점으로부터 12주간 진행 (2022년 8월 이후)
연구절차	1) 아버지는 연구자로부터 사전 부모교육을 받습니다. 2) 연구자는 일주일에 한 번 가정에 방문하여 놀이를 코칭합니다. 3) 아버지는 코칭을 받고 12주 동안 매일 아동과 놀이를 한 후의 경험과 느낌을 일지에 기록합니다. 일주일에 한 번은 15분 간 놀이한 영상을 촬영하여 연구자에게 전송합니다.
연구장소	각 가정
사례	각 가정에 매달 가족 외식 상품권(10 만원 상당)을 드립니다.
문의	연구에 대해 궁금하신 점이 있거나 연구에 참여할 의향이 있으신 경우 연구책임자에게 연락주시기 바랍니다. **연구책임자: 강향미** **카카오톡ID: Love4child** **이메일:** mimikangkim@gmail.com

Ver 1.1(2022.07.19.)

Appendix 2. Example of Father’ s Journal



첫 번째 달

나는 우리 아이와의 놀이를 통해
우리 아이의 발달을 돕고자
3개월 간의 소중한 시간을 시작합니다.

시작에 앞서 나의 목표와 다짐을 적어봅니다.

나의 목표

나의 아이에 대한 목표

기타 다짐하는 말

Ver 1.1(2022.07.19.)

첫번째 달	오늘의 날짜 월 일 요일	시간 : ~ :

1. 오늘 놀이는 전반적으로 어땠나요?
2. 나의 기분은 어떤가요? 이유와 같이 적어주세요.
3. 놀이에서 만족스럽거나 긍정적이었던 것은 무엇인가요?
4. 놀이에서 어렵고 우려가 되었던 것은 무엇인가요?
5. 나 자신과 우리 아이에 대해 새롭게 배운 것은 무엇인가요?

Appendix 3. Functional Emotional Assessment Scales (FESA)

Stanley I. Greenspan, M.D. and Georgia A DeGangi, Ph.D., OTR
Interdisciplinary Council on Developmental and Learning Disorders, Bethesda, MD

The Functional Emotional Assessment Scale Administration and Scoring Form

Age: **3-4 Years**

Behaviors: **Player**

Name of Playee: 3 Date of Testing: _____

Age of Playee: _____

Person Playing With Playee: Mother: __ Father: ✓ Caregiver: __ Examiner: __

I scored in the sensory column, because the playee was playing with the toys, even the symbolic toys, in a sensory way most of the time.

General Scoring

Scoring is on a two-point scale for most items, except where indicated, and is:
- 0 = not at all or very brief
- 1 = present some of time, observed several times
- 2 = consistently present, observed many times
- Indicate N/O for behaviors that are not observed.

Where indicated to convert a score, transform the scoring as follows:
- 0 becomes a 2
- 1 = 1
- 2 becomes a 0

Scores for symbolic play should be entered in the SYM column and scores for sensory play entered in the SENS column. When the examiner facilitates play with the playee, enter scores in the EXAM column. The last column may be used for entering scores for additional players (e.g., mother, father, foster parent, babysitter) observed playing with the subject.

Scores are interpreted for the player playing with the playee for the symbolic and sensory play situations. If scores do not differ for symbolic and sensory play, then only one score is interpreted. However, if behaviors differ for the different play situations, then two scores are calculated, one for symbolic play, one for sensory play. These are interpreted using the cutoff scores presented in the profile form.

Age: **3-4 Years** Playee's Name: 4

Behaviors: **Player**

Key: SYM = Symbolic; SENS = Sensory; EXAM = Examiner	SYM	SENS	EXAM
SELF-REGULATION AND INTEREST IN THE WORLD			
1. Interacts calmly with playee, able to wait for playee's responses.		0	
2. Shows pleasant or animated, happy affect throughout play. *Scoring:* 0 = flat, somber, or depressed affect. 1 = content, but neutral. 2 = happy and animated with warm and engaging smiles.		1	
3. Is sensitive and responsive to playee's need for touch by stroking or touching playee in pleasurable ways and/or encourages playee to explore textured toys.		2	
Total For Self-Regulation and Interest in the World		3	
FORMING RELATIONSHIPS, ATTACHMENT, AND ENGAGEMENT			
4. Is relaxed during interchange with playee, not overly attentive to playee's every action.		0	
5. Looks at playee with affection, showing a warm connection.		2	
6. Enjoys being with and playing with the playee as demonstrated by smiles or a joyful look, and emits a sense of warmth by providing inviting gestures. Keep in mind cultural differences in how this may be expressed.		2	
7. Maintains a verbal or visual connection with playee, showing clear availability and interest in the playee. playee may move away from player to explore room, yet the player maintains connection to the subject across space through gestures, vocalizations, and facial expressions.		2	
Total for Forming Relationships, Attachment, and Engagement		6	
TWO-WAY, PURPOSEFUL COMMUNICATION			
8. Allows playee to decide on the play topic, to initiate play and explore toys in ways that the playee seeks or needs.		1	
9. Responds to playee's wishes, intentions, and actions in a contingent way, building on how the playee wishes to play. For example, playee may hand toy to player, and player responds by taking it and saying something about the toy, then gives the playee an opportunity to respond to what player just did. *Scoring:* 0 = consistently does opposite to what playee seeks, misreads playee's cues, changing activity from what playee wants to do. 1 = misreads playee's signals 25 to 50% of time, changing activity or toy while at other times reads playee's signals accurately. 2 = responds to playee's signals in appropriate way most of time (up to 75% time responsive to playee), staying on the activity that the playee has chosen.		1	

Age: **3-4 Years** Playee's Name: 4

Behaviors: **Player** 2

	SYM	SENS	EXAM
10. Predominately handles toys, engaging in parallel play and removing attention from playing with playee. *Converted Score** Score of 0 converts to 2		2	
11. Plays with playee at developmentally appropriate level. Player may play slightly above playee's level of skill, modeling new ways to do things or labeling what playee does or describing the functions of objects.		2	
12. Stimulates playee at pace that allows playee to respond, waiting for playee's responses. Avoids overstimulating playee with language or actions.		1	
Total for Two-Way, Purposeful Communication		7	
BEHAVIORAL ORGANIZATION, PROBLEM-SOLVING, AND INTERNALIZATION (A Complex Sense of Self)			
13. Responds and initiates reciprocal back and forth chains of interactions with playee, stringing together connected circles of communication or units of interaction. For example, player introduces baby doll, playee touches doll's face, player touches doll's hair, playee pats the doll, player says "baby," and playee glances between player and doll. The player may imitate playee (e.g.., pushing car alongside playee's), then interject their turn by an action or verbalization related to the playee's actions (e.g., "Oh, a bump!", then bumps their car into playee's car). *Scoring:* 0 = 0 to 2 circles. 1 = 3 to 5 circles. 2 = 6 or more circles.		0	
14. Uses gestures and facial expressions as a modality to promote circles of communication.		0	
15. Uses language or vocalizations as a modality to promote circles of communication.		2	
16. Elaborates on and builds complexity into theplayee's play behaviors while engaged in interactive sequences between player and playee. The player expands on what the playee does while remaining on the playee's play topic (i.e., the player does not introduce a completely new play idea). The player provides a small challenge or interesting twist to the play that requires the playee to respond slightly differently than before, thus creating a problem solving opportunity for the playee. For example, the player and playee are pushing a car back and forth toward each other. The player expands on this by creating a wall with their leg to prevent the car from rolling, then waits to see how the playee will solve this situation.		2	

Age: **3-4 Years** Playee's Name:_____ 4

Behaviors: **Player** 4

	SYM	SENS	EXAM
17. Allows playee to assert self in play, exploring with confidence what they wish (e.g., playee expresses strong wish to play in a certain way such as banging toys, being silly, holding a doll, or running around room.) Player supports the playee's needs for dependency and closeness, assertiveness and curiosity, aggression, autonomy, or pleasure and excitement by admiring, showing interest, and/or by joining in to the playee's play in whatever way the subject seeks. Problems that may interfere with player's capacity to support this area might be intrusiveness, withdrawal, over protectiveness, or playing at level far above playee's level of competence.		1	
18. Shows pleasure and excitement in playing with playee in whatever way the playee wishes to play. *Scoring:* 0 = little pleasure and excitement shown by player. 1 = pleasure and excitement sustained by player over the course of several (3 to 5) circles of communication. 2 = pleasure and excitement sustained for many (6 or more) circles of communication. *Note here if playee is unable to sustain circles of communication if it affects player's score:* Playee can sustain circles:✓ Playee cannot:____		0	
19. Expresses appropriate limits on playee. The player may redirect playee not to leave room, not to hit them, or not to throw toy. If no need for limits arises during play, mark N/O and give 2 points.		N/O 2	
Total for Behavioral Organization, Problem-Solving, and Internalization		7	
REPRESENTATIONAL CAPACITY (Elaboration)			
20. Encourages playee to engage in symbolic play by modeling or combining materials in ways that encourage representational actions (e.g., player holds spoon near baby doll's mouth and says, "Feed baby?"). Player appears comfortable in playing make believe.		2	
21. Elaborates on playee's pretend play idea by building on playee's ideas and adding some complexity to them. (e.g., playee puts doll in car and pushes it and player says, "Oh, is Daddy going to the store?").		2	
22. Allows subject to express pretend play themes involving closeness or dependency (e.g., nurturing doll) without competing for subject's attention to be the one nurtured.		0	
23. Sustains pretend play, showing interest, pleasure, and excitement about the playee's pretend play idea by asking questions, laughing or smiling, and joining into the playee's play with enthusiasm (e.g., player says, "Oh, that's a good idea. What happens now? That's so funny!").		0	

Age: **3-4 Years** Subject's Name: 4

Behaviors: **Player** 4

	SYM	SENS	EXAM
24. Allows playee to express themes of assertiveness in pretend play (e.g., playee pretends they are a policeman and puts player in jail; playee pretends to go to work and tells player to stay home).		2	
Total for Representational Capacity (Elaboration)		6	
REPRESENTATIONAL DIFFERENTIATION (Building Bridges Between Ideas and Emotional Thinking)			
25. Elaborates on playee's pretend play, creating opportunities to logically connect ideas in play. The player accomplishes this by asking questions to give depth to the drama such as "how," "why," or "when." If the playee strays off the topic, the player asks questions to bridge the circle of communication back to the pretend play theme (e.g., "But what happened to the crocodile? He was ready to go for a swim and now you're playing with the truck.")		0	
26. Incorporates causality into pretend play by helping playee to logically connect three or more ideas into a reality-based story sequence. For example, if the playee is playing out how two animals fight, the player might ask "How come they're fighting?", "Do they know each other?"		2	
27. Helps playee to elaborate on a wide range of emotional themes, whatever they might be—assertiveness, pleasure and excitement, fearfulness, anger, or separation and loss. The player is accepting of the playee's expressions of different feelings and themes through play and shows no discomfort at the expression of different ideas from the playee.		0	
Total for Representational Differentiation (Emotional Thinking)		2	
Total Player Score		31	

The Functional Emotional Assessment Scale
Administration and Scoring Form

Age: **3-4 Years**

Behaviors: **Playee**

Name of Playee: 4 Date of Testing: _____

Age of Playee: _____

Person Playing With Playee: Mother: ___ Father: ✓
Caregiver: ___ Examiner: ___ Type text here

General Scoring

Scoring is on a two-point scale for most items, except where indicated, and is:
0 = not at all or very brief
1 = present some of time, observed several times
2 = consistently present, observed many times
Indicate N/O for behaviors that are not observed.

Where indicated to convert a score, transform the scoring as follows:
0 becomes a 2
1 = 1
2 becomes a 0

Scores for symbolic play should be entered in the SYM column and scores for sensory play entered in the SENS column. When the examiner facilitates play with the playee, enter scores in the EXAM column. The last column may be used for entering scores for additional players (e.g., mother, father, foster parent, babysitter) observed playing with the subject.

Scores are interpreted for the player playing with the playee for the symbolic and sensory play situations. If scores do not differ for symbolic and sensory play, then only one score is interpreted. However, if behaviors differ for the different play situations, then two scores are calculated, one for symbolic play, one for sensory play. These are interpreted using the cutoff scores presented in the profile form.

Age: **3-4 Years** Playee's Name: 4

Behaviors: **Playee**

Key: SYM = Symbolic; SENS = Sensory; EXAM = Examiner	SYM	SENS	EXAM
SELF-REGULATION AND INTEREST IN THE WORLD			
1. Is interested and attentive to play with toys.		2	
2. Explores objects freely without caution.		2	
3. Remains calm for play period with no signs of distress (crying or whining), showing appropriate frustration.		2	
4. Is comfortable touching textured toys and in being touched by player.		2	
5. Shows happy, content affect. *Scoring:* 0 = flat, somber, or depressed affect. 1 = content but neutral. 2 = happy and content, robust smiles, warm and engaging affect.		2	
6. Remains focused on objects or player without being distracted by sights or sounds. *Scoring:* 0 = distracted frequently; no focused play for more than a few seconds at a time. 1 = distracted some of the time with brief periods of focused play. 2 = remains focused in play most of the time with only brief distractibility.		1	
NOTE: SCORE ONLY ITEM 7 OR 8, WHICHEVER APPLIES. 7. Underreactivity: Requires up regulation from player to participate. *Scoring:* 0 = withdrawn, difficult to engage. 1 = sluggish or slow-paced in actions but can eventually be aroused or engaged. 2 = shows a bright, alert state with focused play throughout.		–	
8. Overreactivity: Requires down regulation from player to participate. *Scoring:* 0 = very active, moves quickly from one toy to the next or wanders away from player and toys constantly. 1= moderately active, occasional bursts of changing activity quickly or wandering away, then settles into play with one toy for short period. 2 = well-modulated in pace and activity level, focusing on a toy or player for long periods before changing activity.		1	
Total For Self-Regulation and Interest in the World		12	
FORMING RELATIONSHIPS, ATTACHMENT, AND ENGAGEMENT			
9. Shows emotional interest and connection with player by vocalizing and smiling at them.		2	

Age: **3-4 Years** Playee's Name: 4

Behaviors: **Playee** 2

	SYM	SENS	EXAM
10. Evidences a relaxed sense of security and/or comfort when near player. If playee is active and moves away from player, they reference them from across space and shows relaxed security in distal space.		2	
11. Anticipates with curiosity or excitement when player presents an interesting object or game.		1	
12. Displays signs of discomfort, displeasure, or sadness during interactive play if player should become unresponsive or engage in anti-contingent behaviors. *(If player is responsive or contingent, note that this was not observed with "N/O," then assign 2 points.)*		N/O 2	
13. Initiates physical closeness to player but is not clingy; if playee is active and moves away from playee, playee maintains a visual or verbal connection with player.		2	
14. Turns head away, averts gaze, moves away, or sits facing away from player without social referencing player. Appears indifferent, aloof, withdrawn, or avoidant of player. *Converted Score** Score of 0 converts to 2		2	
15. Social references player while playing with toys.		2	
16. After moving away, communicates to player from across space by looking, gestures, or vocalizations.		2	
Total for Forming Relationships, Attachment, and Engagement		15	
TWO-WAY, PURPOSEFUL COMMUNICATION			
17. Opens circles of communication: Initiates intentional actions with objects while also engaged in interactions with player (e.g., manipulates object then looks at mother and smiles or vocalizes).		2	
18. Gives signals: Initiates purposeful and intentional actions in play with objects. *Scoring:* 0 = needs considerable help to get started in play or to engage in purposeful actions; no clear gestures or organized intent. 1 = initiates play but engages in stereotypic actions; e.g., lining toys up, mouthing toys for long periods of time, banging toys without engaging in any other actions with the same toy, OR initiates play but actions appear aimless or disorganized. 2 = play shows intentionality and variety, engaging in two or more different behaviors with a given toy or activity. Gestures are specific and activity is functionally tied to objects.		1	

Age: **3-4 Years** Child's Name: _____ 4

Behaviors: **Child** 3

	SYM	SENS	EXAM
19. Closes circles: Responds to player's cues in contingent manner (e.g., player offers toy, playee takes it and puts it in a container). *Scoring:* 0 = does not notice player's response. 1 = notices player's response and looks, but does not respond contingently through actions; instead does something that has nothing to do with what player did (e.g., player holds toy out for playee; playee looks at player and toy, then returns to what they were doing before). 2 = notices player's response, then responds contingently by elaborating on what player did, by taking toy held by player and examining it, by imitating them, or some other response that is clearly linked to what player did.		2	
20. Uses language (i.e.., sounds, words, and/or gestures) during interactions. Circle which ones were used.		2	
Total for Two-Way, Purposeful Communication		7	
BEHAVIORAL ORGANIZATION, PROBLEM-SOLVING, AND INTERNALIZATION (A Complex Sense of Self)			
21. Engages in complex patterns of communication stringing together several circles of communication with player (initiated and elaborated on by playee) using gestures, vocalizations, and/or words. *Scoring:* 0 = 0 to 2 circles. 1 = 3 to 5 circles. 2 = 6 or more circles.		0	
22. Imitates or copies something new that the player introduces, then incorporates idea into play (e.g., player feeds doll; playee copies this).		1	
Total for Behavioral Organization, Problem-Solving, and Internalization		1	
REPRESENTATIONAL CAPACITY (Elaboration)			
23. Engages in symbolic play with the various toys or equipment (e.g., plays out cars racing), going beyond simple concrete actions (e.g., feeding self with cup).		2	
24. Engages in pretend play patterns of at least one idea in collaboration with player (i.e., one part of a script or scenario played out).		2	
25. Uses language or pretend play (e.g., playing out with doll figures) to communicate needs, wishes, intentions, or feelings.		1	
26. Uses pretend play to express themes around closeness or dependency (e.g., putting dolls to sleep next to one another; feeding caregiver and dolls).		0	
27. Uses pretend play to express themes around pleasure and excitement around humorous theme (e.g., imitating humorous behaviors).		2	

Age: **3-4 Years** Playee's Name: 4

Behaviors: **Playee** 7

	SYM	SENS	EXAM
28. Uses pretend play to express themes around assertiveness (e.g., cars racing).		1	
29. Creates pretend drama with two or more ideas that are not related or logically connected.		0	
Total for Representational Capacity (Elaboration)		8	
REPRESENTATIONAL DIFFERENTIATION (Building Bridges Between Ideas and Emotional Thinking)			
30. Pretend play, however unrealistic, involves two or more ideas, which are logically tied to one another. Playee may build on player's pretend play idea.		1	
31. Elaborates on pretend play sequence of two or more ideas, which are logically connected and grounded in reality. There is a planned quality, and playee can elaborate to "how," "why," or "when" questions, giving depth to drama.		0	
32. Uses pretend play or language to communicate themes containing two or more ideas dealing with closeness or dependency (e.g., doll gets hurt, then gets kiss from daddy, then plays ball together).		0	
33. Uses pretend play or language to communicate themes containing two or more ideas dealing with pleasure and excitement in humorous game (e.g., imitates funny word heard, watches how caregiver reacts, then laughs).		1	
34. Uses pretend play or language to communicate themes containing two or more ideas dealing with assertiveness (e.g., soldiers search for missing person, find her, then battle to save her again)		0	
Total for Representational Differentiation (Emotional Thinking)		2	
Total Playee Score		45	
TOTAL FEAS SCALE SCORE (add Player and Playee scores)		76	

Age: **3-4 Years** Playee's Name: 4

Behaviors: **Playee**

Functional Emotional Assessment Scale

Profile Form
For 3- to 4-Year-Olds

Subtest	Score			No Support Indicated	Some Support Indicated	Maximum Support Indicated
	SYM	SENS	EXAM			
Player						
Self-Regulation and Interest in the World		3		4–6		0–3
Forming Relationships, Attachment, and Engagement		6		7–8	6	0–5
Two-Way, Purposeful, Communication		7		9–10	8	0–7
Behavioral Organization, Problem-Solving, and Internalization		7		12–14	11	0–10
Representational Capacity		6		6–10	5	0–4
Representational Differentiation		2		2–6		0–1
Total Player Score		31		*42–54*	*40–41*	*0–39*
Playee						
Self-Regulation and Interest in the World		12		12–14	11	0–10
Forming Relationships, Attachment, and Engagement		15		14–16	13	0–12
Two-Way, Purposeful, Communication		7		8–10	7	0–6
Behavioral Organization, Problem-Solving, and Internalization		1		2–4		0–1
Representational Capacity		8		8–14	7	0–6
Representational Differentiation		2		2–10		0–1
Total Playee Score		45		*48–66*	*46–47*	*0–45*
Total FEAS Scale		76		**93–120**	**86–92**	**0–85**

Key: SYM = Symbolic; SENS = Sensory

Type text here

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Appendix 4: Result of Parental Stress Index (PSI)

(low-below 2.6, moderate 2.6-84.99, high 85-89.99, very high over 90)

PSI	Before Coaching	After Coaching
Mr. K	99 (competency:99, attachment:99)	95.8 (competency:95.8. attachment:83.2)
Mrs. K	99	86.2
Mr. N	88.1 (competency: 67.4, attachment: 30.9)	63.3 (competency: 25.1, attachment: 16.1)
Mrs. N	92.5	83.2
Mr. M	97.7 (competency: 7.1, attachment: 16.1)	64.1 (competency: 16.1, attachment: 68.1)
Mrs. M	99	87.7
Mr. B	97.7 (competency:98, attachment: 76.4)	64.1 (competency: 61.4, attachment: 16.1)
Mrs. B	99	94.7

국문 초록

자폐 스펙트럼 장애(Autism Spectrum Disorder, ASD)를 가진 아동들은 반복적인 놀이를 하거나 혼자놀이를 선호하기 때문에 사회적 의사소통의 발달이 어려운 경향이 있다. 이러한 자폐증 아동들의 놀이 특성을 이해하고 상호작용적인 놀이로의 전환을 촉진하는 것은 이들의 사회적 의사소통 발달에 매우 중요하다. 따라서 본 사례 연구는 자폐 스펙트럼 아동들의 놀이 변화와 그 발달적 의미를 조사하기 위해 수행되었으며, 특히 아버지와의 신체 놀이를 통해 자폐증 자녀와의 상호작용을 촉진하는 것에 주안점을 두었다. 이를 위해 이 연구에서는 발달 이론에 기반한 놀이와 관계의 중요성을 강조하는 DIRFloortime 접근 방법을 적용하였다. 더불어 연구자는 아버지들뿐만 아니라 자녀의 독특한 특성을 이해하고 존중할 수 있도록 맞춤형 코칭을 제공하였다.

본 연구는 아버지 중재로 자폐 아동들의 놀이 변화를 이끌어내며 이러한 변화의 발달적 의의를 이해하고자 하였다. 또한 아버지들이 자녀와의 신체적 놀이에 참여하는 경험을 탐색하고, 맞춤형 코칭의 중요성과 가족에 미치는 영향을 탐색하는 것을 목표로 하였다. 이러한 연구 목적에 따라 다음과 같은 연구문제를 설정하였다.

1. 아동의 놀이는 어떻게 변화하며, 이러한 변화의 의의는 무엇인가?
2. 아버지들은 자녀와 놀이에 참여하며 어떤 경험을 하며, 이러한 상호작용이 아버지-자녀 사이의 관계에 어떤 영향을 미치는가?
3. 아버지들에게 맞춤형 코칭은 어떤 의의가 있으며, 가족에 어떤 영향을 미치는가?

이 연구에서는 3세에서 7세 사이의 아동과 그들의 아버지를 연구 대상으로 선정하였다. 아버지는 매일 1시간, 12주 동안 자녀와 놀이를 하였으며, 연구자는 매주 아버지에게 코칭을 제공하여 아버지가 자녀와 효과적으로 놀이 할 수 있도록 도움을 주었다.

이 연구는 세 가지 주요한 결과를 밝혀냈다.

첫째, 아버지와의 신체놀이를 통해 연구 대상 아동들의 놀이 형태는 혼자놀이나 반복적인 놀이에서 상호작용적이고 함께하는 놀이로 전환되었다. 이러한 놀이 변화는 아동들의 사회적 의사소통 발달에 있어서 중요한 진전을 나타낸다. 아버지와의 함께 놀이가 증가함에 따라 아동들의

언어 사용의 정확도가 향상되었고, 눈 맞춤, 모방, 공동주의 시도, 그리고 지속적인 상호작용의 시도를 보였다. 또한, 아동들이 상징적인 놀이에 적극적으로 참여하게 되면서 경직된 행동과 불안 수준이 감소하였으며, 아동의 흥미에 맞춘 상호작용적인 놀이 시간은 아동들의 반복적인 행동을 상당히 감소시켰다. 이 연구는 아버지들이 자폐 스펙트럼 아동의 감각적 특성을 이해하고 아동의 흥미를 따라서 놀이에 참여함으로써 자녀들의 발달적 진전을 촉진할 수 있음을 명확하게 보여주었다.

둘째, 자녀와 함께하는 놀이에 참여한 아버지들은 자녀의 발달을 목격하며 기쁨과 자부심을 느꼈고, 자녀와 더 굳건한 유대 관계를 형성하였다. 그들은 자녀의 감정, 참여 수준, 그리고 의사소통 능력에서 긍정적인 변화를 관찰하였다. 동시에 아버지들은 자녀의 발달에 대한 불안, 좌절감, 그리고 우려와 같은 감정도 경험하였다. 이러한 다양한 감정을 경험하며 아버지들은 자기 성찰과 적극적인 참여를 통해 보다 민감하고 반응성이 높은 부모로 성장하였다. 아버지들은 자녀의 흥미와 감각적 선호도에 맞게 놀이 스타일을 변경하는 방법을 배웠다. 또한 자신의 접근 방식을 수정하고 감정적인 (affective) 연결에 초점을 맞추는 것을 통해 자녀에게 더욱 매력적인 놀이 환경을 조성하는 법도 익혔다. 이러한 배움의 시간을 거친 결과, 자녀들은 아버지와의 놀이를 기다리게 되었고 아버지는 함께 놀이하고 싶은 사람으로 바뀌었다. 이 연구는 아버지의 적극적인 놀이 참여와 맞춤 놀이는 자녀와의 긍정적인 정서적 관계를 강화시킴을 보여주었다.

셋째, 맞춤형 코칭은 이 연구의 아버지들을 지원하는 데 중요한 역할을 담당했다. 아버지들이 자녀와의 신체 놀이를 선호한다는 점을 고려하여 코칭을 구성하였다. 아버지들의 관심사와 일치하는 신체적인 놀이로 시작함으로써, 그들의 적극적인 참여와 참여가 촉진되었다. 가정 방문은 맞춤형 관찰과 권고사항을 제공하여 개별적인 도전 요소를 식별하고 다른 가족 구성원을 참여시킬 수 있게 했다. 온라인 코칭은 아버지들의 선호도와 일정을 고려한 편리한 플랫폼이 되었다. 맞춤형 코칭은 아버지들의 적극적인 참여를 유도하고, 자녀와의 더 깊은 이해와 강한 유대 관계를 형성하는 데 기여했다. 이러한 맞춤 코칭은 아버지들 자체 뿐만 아니라 가족 전체에 확장되어 어머니의 부모 교육 열망 및 자녀의 사회적 기술 향상을 위한 지원적인 가족 환경 조성과 같은 아버지 중재의 가족의 확장성을 이끌어냈다.

자폐 스펙트럼 장애는 개인의 전반적인 기능에 오래깊은 영향을 미친다. 자폐 스펙트럼 장애의 치료는 많은 시간과 가족 구성원들의 희생,

그리고 재정 투자를 필요로 하는 힘든 과정이다. 이러한 도전에 비추어 볼 때, 가족, 특히 아버지들의 역할은 점차적으로 중요해지고 있다. 이 연구는 그간 자폐 스펙트럼 장애치료에서 간과되었던 아버지들의 중요한 역할을 강조한다. 아버지들과 자녀에게 맞춤형으로 제공된 코칭은 그들의 독특한 요구에 맞게 지원되어, 놀이와 상호작용 능력을 향상 시킬 수 있었다. 이러한 개선은 아동들의 발달에 상당한 영향을 미치면서도 아버지들에게 긍정적인 경험을 제공했다. 이 연구는 신체놀이를 통한 아버지 중재가 자녀의 사회적 의사소통의 발달에 중요한 역할을 하는것을 밝혀낸 것에 의의가 있다. 자녀의 발달 뿐만 아니라 아버지를 중심으로 한 이러한 접근 방식은 공통의 목표를 향한 가족 전체의 참여를 촉진하게 되면서 자폐 스펙트럼 장애 가족 확장의 한 모델을 보여주었다.

키워드 : 자폐 스펙트럼 장애 아동의 놀이, 아버지의 신체 놀이, DIRFloortime, 맞춤형 코칭, 가족 중심 모델
학번 : 2018-35544