Bolu Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi (BAİBÜEFD)

Bolu Abant Izzet Baysal University Journal of Faculty of Education

*2023, 23(3), 1361–1375..https://dx.doi.org/*10.17240/aibuefd.2023..-1217045

An Investigation of the Effect of Parent-Child Interaction Therapy on Symptoms Related to Social Interaction Dimensions of Autism

Ebeveyn-Çocuk Etkileşim Terapisinin Otizmin Sosyal Etkileşim Boyutu ile İlgili Belirtileri Üzerindeki Etkisinin İncelenmesi

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Geliş Tarihi (*Received*): 09.12.2022 **Kabul Tarihi (*Accepted*):** 13.07.2023 **Yayın Tarihi (*Published*):** 24.09.2023

Öz: Otizm spektrum bozukluğu sosyal etkileşim, iletişim ve sınırlı ilgi kümelerinde çeşitli semptomlar içeren bir nörogelişimsel bozukluktur. Bu semptomlara bağlı olarak çocukların çeşitli uyum ve davranış problemleri yaşadıkları alan yazında açıkça belirtilmiştir. Bu çalışmanın amacı ise Türk kültürü için geçerlilik çalışması henüz yapılmış olan ebeveyn çocuk etkileşim terapisinin (PCIT) otizm tanısı ve davranış problemleri olan 67 aylık bir kız çocuğu üzerinde etkisini incelemektir. Ebeveyn ile çocuk arasındaki etkileşimi oyun terapisi teknikleri ile ele alan PCIT, terapist odaklı değil ebeveyn aracılı bir erken dönem müdahale yaklaşımıdır. Davranış ve uyum problemlerinin yanı sıra etkileşim temelli bir yaklaşım olan PCIT'nin otizm belirti kümelerinden sosyal etkileşim belirtileri üzerinde herhangi bir etkisinin olup olmadığının belirlenmesi hedeflenmiştir. Bu hedefe bağlı olarak çalışma vaka incelemesine uygun olarak yürütülmüştür. Yapılan çalışmada davranış ve uyum problemleri için Eyberg Çocuk Davranışları Ölçeği (ECBI) ve PCIT'de Çocuk Davranışlarının Haftalık Değerlendirme Aracı (WACB-P) kullanılırken otizm belirtileri üzerindeki etkinin belirlenmesi için Sosyal İletişim Kontrol Listesi-Revize Form (SİLKOL-R-OTV) kullanılmıştır. Çalışma sürecinde etik kurul onayı alınmış ve aydınlatılmış onam formu ile katılımcıların onayı alınmıştır. Gözlem verisi olarak DPICS kodlama formu kullanılmıştır. Elde edilen sonuçlar PCIT'nin atipik otizm tanısı olan çocukların uyum ve davranış problemleri üzerinde olduğu kadar sosyal etkileşim, iletişim, taklit ve oyun becerilerini iyileştirme noktasında da etkili olduğunu göstermiştir. Elde edilen sonuçlar alanyazın ile tartışılarak araştırmacılara öneriler sunulmuştur.

Anahtar Kelimeler: otizm, sosyal etkileşim, davranış problemleri, ebeveyn-çocuk etkileşim terapisi

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Abstract: Autism is a disorder that includes a variety of symptoms related to social interaction, communication, and limited sets of interests. It has been clearly stated in the literature that children experience various compliance and behavioral problems due to these symptoms. The purpose of the present study is to examine the effect of parent-child interaction therapy (PCIT), which has just been validated for Turkish culture, on a 67-month-old girl with an autism diagnosis and behavioral problems. PCIT, which takes the interaction between the parent and the child with play therapy techniques, is a parent-mediated early intervention approach, not therapist-oriented. In addition to behavioral and compliance problems, this study aimed to determine whether PCIT, an interaction-based approach, has any effect on social interaction symptoms, one of the clusters of autism symptoms. Based on this aim, the study was conducted in accordance with a case report. In this study, the Eyberg Child Behavior Scale (ECBI) and Child Behavior Weekly Assessment Tool (WACB-P) in the PCIT were used to assess behavioral and compliance problems, while the Social Communication Checklist-Revised Form (SILKOL-R-OTV) was used to determine the effect on autism symptoms. Ethics committee approval was obtained during the study process and the consent of the participants was obtained with an informed consent form. The DPICS coding form was used for observation data. The results showed that PCIT was effective in improving social participation, communication, imitation, and play skills, as well as compliance and behavioral problems in children diagnosed with atypical autism. The obtained results were discussed in the light of the literature, and suggestions were presented to the researchers.

Keywords: autism, social interaction, behavioral problem, parent-child interaction therapy.

Atıf/Cite as: Ulaş, S. (2023). An Investigation of the Effect of Parent-Child Interaction Therapy on Symptoms Related to Social Interaction Dimensions of Autism. *Bolu Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, *23(3*), 1361-1375. *doi.org/*10.17240/aibuefd.2023..-1217045

Plagiarism/ Ethic: This article has been reviewed by at least two referees and it has been confirmed that it is plagiarism-free and complies with research and publication ethics. https://dergipark.org.tr/tr/pub/aibuelt

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1. INTRODUCTION

Autism spectrum disorder (ASD) is a neurodevelopmental disorder that emerges itself in the early stages of life, with inadequacies in social interaction and communication, limited and repetitive behaviors, activities, and interests. According to the DSM-5, difficulties in social and emotional responses in social interaction and communication, inadequacies in the use of nonverbal communication elements necessary for social interaction, and problems in establishing, maintaining and understanding relationships, in the dimension of limited and repetitive behaviors repetitive motor movements, insistence on sameness, and intense or limited reactions to sensory stimuli constitute the primary symptom clusters (American Psychiatric Association, (APA), 2013). In a study conducted by the Centers for Disease Control and Prevention (2018) on the determination of the prevalence rates of autism spectrum disorder, this ratio was found to be 1:59. In addition, it has been reported that 70% of children with autism have other psychiatric problems as comorbidity (APA, 2013; Simonoff et al., 2008), while it has been reported that approximately 40% of them may have two or more psychopathologies (DeFilippis, 2018). The prevalence rates of anxiety in children with autism were found to be between 11% and 84% (White et al., 2009). Schoorl et al. (2016) found that, in addition to children with typical development, children with autism have difficulties in emotion regulation, which is associated with the oppositional defiant disorder, conduct disorder, and high aggression. In a review study in which comorbidities with autism were discussed, mood disorders, phobias, and obsessive-compulsive disorder were found. In addition, the main factors that affect the comorbidity psychopathology of autism are the presence of mental retardation, the severity of autism, adaptive behaviors, developmental regressions, communication problems, social skills, behavioral problems, gastrointestinal symptoms, sleep problems, sensory issues, quality of life, stress and well-being of parents and siblings (Mannion et al., 2014). In addition, when adolescents and children diagnosed with autism with high functionality are compared, it has been shown that adolescents may be aware of existing social interaction and communication problems and experience depression and anxiety more intensely due to the autism diagnosis (DeFilippis, 2018).

In this context, as in all individuals with special needs, early intervention for children with autism is considered necessary. There are various classifications of intervention approaches for children with autism. Family mediated approaches have come to the fore recently emerged (Bearss, 2018). Apart from applied behavior analysis and its various forms, parent-child interaction therapy (PCIT) is one of the most prominent approaches to the intervention of mood, compliance, and behavioral problems in children with autism. It was developed as a therapeutic approach focused on improving compliance and behavioral problems observed in children aged 2-7 years (Funderburk & Eyberg, 2011). However, recent studies have proven to be an effective approach for intervention in children with autism, compliance and behavioral problems (Allen et al., 2022; Furukawa et al., 2018; Han et al., 2022; Masse et al., 2016; Vetter, 2018; Scudder et al., 2019; Solomon et al., 2008; Zlomke & Jeter, 2020). PCIT is a short-term and low-cost early term therapy application that aims to provide behavioral improvement by facilitating parent-child interaction at the center (Eyberg, 1998). In the intervention approach, which is based on parenting styles, attachment theory, social learning theory, and coercion theory, play therapy and behavioral techniques are taught to parents. In the therapy process, a mirrored room was used, and the parent and child in the playroom were instantly guided by the therapist's monitoring room. The therapeutic approach consists of two phases: child-directed interactions (CDI) and parent-directed interactions (PDI). Each stage had skills that required mastery. The mastery criteria for CDI are in two groups: do skills (behavior description-BD, reflection-RF, and labeled praise-LP) and don't skills (questions-QU, commands-Co, and negative talk-NTA), and for PDI is effective commands (EC), effective follow through (EFT), and child compliance percent (least %75).

1.1. The purpose of the study

The purpose of the present study is to examine the effect of interaction-based PCIT on a 67-month-old girl with autism, on social participation, communication, imitation, and play skills as well as compliance and behavioral problems. In this direction, the main problem of the research is "Is parent-child interaction

therapy an effective intervention approach for the compliance and behavior problems of the child with autism, as well as social participation, communication, imitation and play skills?" expressed as.

1.2. Importance of research

This study examines the effect of the PCIT approach, which has just been adapted for Turkish culture, on children with special needs and their families. Determining the possible effect of PCIT, which aims to intervene, especially in behavioral and compliance problems, on autism symptoms makes this study important. In this way, presenting a current approach to the social interaction problems of children with autism, as well as compliance and behavior problems for professionals, is another importance aspect of the study.

2. METHOD

2.1. Design of the research

This study was designed and conducted in accordance with a case report design. In this context, the family of a girl with autism, who was determined to be suitable for PCIT as a result of detailed interviews and evaluations, was studied within the framework of the Standard PCIT Protocol.

2.2. Descriptive Characteristics of the Case and Family

Yağmur's mother was a teacher at the age of 36, and her father was an engineer at the age of 37. The parents have been married for ten years and now live together. It was observed that parents' marital harmony was at a good level, and they experienced feelings of inadequacy in terms of parenting skills. Yağmur has a 9-year-old brother, and his development is typical. In the family history, there were no cognitive, behavioral, emotional, or medical problems in the mother, father, or siblings.

Yağmur was born on 21.02.2017 and the start date for therapy was 15.09.2022 (5 years 7 months). In the medical history of the child, she was hospitalized for 4 days due to a urinary tract infection, there was no history of surgery, there was no seizure or crisis, she had a 30% cross-eye in her right eye, high palate problem, there was no hearing problem, she fell down the stairs at a level that could not turn off consciousness at the age of 4, and it was stated that she did not have any health problems other than. According to the information about the prenatal period, the mother had a traffic accident when the baby was 3 months old. Apart from that, cigarettes, alcohol, drugs, etc. use is not available. The birth weight was 2.700 gr. The birth occurred by cesarean, and the child came into the world with bruising from lack of oxygen. The child was placed in the neonatal incubator because of respiratory difficulties as a result of the child's lungs collecting water.

In the infancy period, the general characteristics of Yağmur; the family stated that they do not like to be fed, do not like to be touched, do not follow objects, constantly watch ceilings, do not have any sleep-related problems, and have normal level of activity. The child used her first word at the age of two, and there was no sentence yet. Unsupported sitting and walking were observed at 9 and 22 months of age, respectively. Yağmur, who never crawled, did not know how to get up from her seat when she learned to walk and walked when her parents lifted her. The mother taught the child to get up from the seat for 3 months. She learned how to crawl when she was 3 years and 6 months old. Yağmur could not distinguish between mother and father until the age of 2.5. According to the parents, the child had delayed learning in object tracking, getting up from lying down, getting up from a sitting position, and acquiring new words. Although the child does not currently have toilet training, there is no initiative by the parents due to an insufficient level of readiness. Since the child avoids touching objects, she has received sensory integration sessions and the related problems are fewer. Yağmur is currently 13 kg, there is no medicine she regularly uses, and there is no current disease for which she is treated.

Yağmur's current situation at home: inadequate attention span, not thinking before acting, outbursts of anger, not listening when spoken to, trouble following directions, refusal to eat and eating problems (pure and liquid food intake without solid food consumption), crying easily. She preferred to spend time at home. Yağmur was evaluated as a child who likes to listen to songs on the phone and even eats thanks to them; in other words, a child with screen exposure. Parents who said that they love their children very much stated that it is very difficult to engage in any activity together. Additionally, parents stated that they tried to discipline their children by warning them (No! Stop! Don't!).

The current situation of Yağmur, who goes to a special education kindergarten, is described by the family, who stated that she liked to attend school, their children's general intelligence level was below average, she could not establish friendships, did not even like to share the same environment with her peers, and preferred to play individual games when she had to be in the same environment as her peers.

The therapist's observations during the evaluation interview were as follows: toe walking, limited eye contact, and making meaningless and disjointed sounds while playing games (aaaa…../uuuuuu…..), limited functional play, putting toys in the mouth and hitting the teeth, and changes in facial expressions, although they are related to the situation or are not meaningful. Repetitive behaviors about the mouth and its surroundings, no biting behavior, teeth banging, finger twitching, problems in responding to the name, and taking commands as the physical distance increases; the child acts as if she has her own jargon (e.g., saying "buu" for water) and is expressive, there are significant limitations in language (mother, father, grandfather, mama..) Resistance to interaction and enjoyment of individuality. There is no problem observed as a motor; there is object permanence, searching for the dropped toy, and imitation skills at a normal level at the level of mobility (such as imitating the therapist hitting the table). The child's current medical diagnosis is atypical autism.

The therapy goals were expressed by the family as "increasing the child's expressive language skills and social behaviors, increasing the duration and frequency of eye contact, and extinguishing negative behaviors (anger, etc.)".

2.3. Data Collection Tools

2.3.1. Eyberg Child Behavior Scale (ECBI)

Eyberg Child Behavior Scale was developed by Eyberg and Pincus (1999), the developer of PCIT, to evaluate the behaviors of children aged 2-16 and consists of 36 items problem (yes/no) and intensity (1-7). This is a two-dimensional parent-reported measurement tool. The scale was adapted to Turkish culture by Seçer and Ulaş (2022). The confirmatory factor analysis fit indexes (X^2/sd:1.2, RMSEA: .063, RMR: .041, NFI: .96, NNFI: .96, CFI: .97, GFI: .95, AGFI: .86) were found to be at a good level (Schumacker & Lomax, 2004). The clinical cutoff point for admission to therapy in the PCIT process should be 114 points from the ECBI intensity subscale and 17 points from the problem subscale.

2.3.2. Weekly Assessment Tool of Child Behavior-Positive Form (WACB-P)

It is a tool developed by Forte et al. (2012) in which children's behaviors are evaluated on a weekly basis and used to monitor the change in the child's compliance skills, especially in the parent-directed interaction step of the PCIT process. The assessment tool, which consists of 9 items, has a 7-point likert structure.

2.3.3. Social Communication Checklist-Revised Form (SILKOL-R-OTV)

This was developed by Ingersoll and Dvortcsak (2010) to evaluate the social interaction and communication skills of 18-72 months old children with autism. Adaptation in Turkish culture (İnan et al., 2020) was used to evaluate the effectiveness of parent-mediated interventions. The scale has dimensions such as social

participation, using communication, understanding communication, imitation and play, and it was found that the four-dimensional structure fits well in the CFA (X^2/sd=2.23, RMSEA:0.068; CFI:0.916; TLI:0.913).

2.3.4. DPICS-IV Manuel

The clinical manual developed by Eyberg et al. (2014), the founders of PCIT, was used. The coding system focuses on behavioral observations of the quality of interaction between parents and children. The verbal and non-verbal behaviors of the parents and the child's reactions were coded, thus providing standardization in the progression of the therapy process for all behavioral categories. The coding categories for CDI, which is the first step, are neutral talk (TA), behavior description (BD), reflection (RF), labeled praise (LP), unlabeled praise (UP), question (QU), command (CO), and negative talk (NTA), and the coding categories for PDI number of commands (CO), number of effective commands (EC), child compliance level (Co), and effective follow through (EFT) of the given command.

2.3.5. Intake and Therapy Process Evaluation Interview Form

In the intake assessment step of the case, demographic characteristics, developmental characteristics, medical conditions, social and peer relations, school and rehabilitation, etc. used to obtain detailed information in the fields. On the other hand, in the interview form, which was carried out in order to clearly reveal how the quantitative data were reflected in the lives of the participants after the completion of the therapy process, questions about therapy goals, therapy satisfaction level, and the changes observed in the child were included.

2.4. Procedure

During the research process, therapies were carried out by the researcher, who was a PCIT therapist, with the rights granted by PCIT International. The entire process was clearly communicated to the parents, and the therapy sessions were videotaped.

First, an intake assessment interview was conducted with the family and data were collected using various measurements and intake assessment forms. In this context, ECBI and SILKOL-R-OTV scores were calculated. Based on this evaluation, it was determined that the family and child were suitable for therapy using the PCIT approach. The family participated in a child-directed interaction phase teaching session, which lasted approximately 90 minutes. The following sessions lasted an average of 75 min in the form of coach sessions with simultaneous guidance to the family. The mother and father participated in this process. The session starts were cyclical, and the parents worked individually in the playroom. During this process, the other parent observed the use of skills by watching the playroom from the monitoring room. The family, who came to the session once a week, recorded a 5-minute skill usage video every day, except for the session days, and received daily feedback from the therapist. The family met the mastery criteria of the first level (CDI) in the 4th session, a teaching session was held for the parent-directed interaction (PDI) step, which is the second step, and the family met the PDI mastery criteria in four sessions and the PCIT graduation requirements in ten sessions, two teachings, and eight coaching in total. The data obtained from the whole process is presented descriptively.

2.5. Ethical approval of the research

In this study, all the rules specified to be followed within the scope of "Higher Education Institutions Scientific Research and Publication Ethics Directive" were complied with. None of the actions specified under the heading "Actions Contrary to Scientific Research and Publication Ethics" (plagiarism, republishing, not getting the explicit consent of the participants, not informing about the process, not getting permission from the necessary institutions during the research process etc.), which is the second part of the directive, have been taken.

Ethics committee approval information

Ethics committee approval of the study was obtained from a university in Turkey. Information on the number of sessions and session dates are clearly presented to the journal in the ethics committee approval document.

3. THERAPY PROCESS

3.1. CDI Teach and Coaching Sessions

When the family came to their first session, a 5-minute evaluation interview was held, and then the mother and child were left in the playroom, and the therapist and father went to the monitoring room. It was stated that because the DPICS coding, which is the observation data for the first five minutes, will be coded to the mother via headphones, there will be no guidance. The agenda was determined and coached through coding. After the coaching process was completed, the same process was repeated for the fathers. The case's family was evaluated and the session was terminated. All the CDI sessions were conducted in the same manner.

As a result of the coding, for the 1st CDI coaching session, the mother's TA:30, BD:2, RF:13, LP:1, UP:3, QU: 7, CO: 9, NTA:0, and the father's TA:26, BD:1, RF:10, LP:4, UP: 1, QU:14, CO:6, NTA:0. Agenda set and coached for BD and LP increase, and QU and CO decrease for mother and father. For the 2nd CDI coaching session, the mother's TA:17, BD:7, RF:12, LP:12, UP:6, QU:1, CO:2, NTA:1 and father's TA:20, BD:11, RF: 13, LP:6, UP:15, QU:1, CO:4, NTA:0. Agenda set and coached to increase BD for the mother, and increase LP, and decrease QU, and CO for the father. For the 3rd CDI coaching session, the mother's TA:23, BD:12, RF:11, LP:11, UP:5, QU:0, CO:2, NTA:0 and father's TA:23, BD:18, RF: 7, LP:14, UP:9, QU:0, CO:3, NTA:0. Although the mother met the CDI mastery criteria, she was coached on the number of CO, whereas the father was coached on RF and CO. For the 4th CDI coaching session, the mother's TA:21, BD:23, RF:11, LP:11, UP:2, QU:1, CO:1, NTA:0 and father's TA:16, BD:10, RF: 10, LP:20, UP:11, QU:0, CO:1, NTA:0. Agenda were set and coached for QU and CO reduction for mother and father, respectively. Since both parents met the CDI mastery criteria in the four child-directed interaction sessions, an evaluation was made to move on to the parent-directed interaction stage, which is the 2nd step.

3.2. PDI Teach and Coaching Sessions

As in the child-directed interaction stage, a 90-minute PDI teaching session was held to teach the skills parents should use to manage and discipline children's behaviors in the parent-directed interaction stage. PDI sessions started with the use of skills specific to the child-directed interaction dimension, and coding was performed for each stage separately. CDI skills were coached first, if needed. PDI skills were then used, and the agenda of the day was determined by coding them.

In the 1st PDI session, the coding data for the mother's CDI skills were TA:23, BD:25, RF:13, LP:15, UP:2, QU:0, CO:0, and NTA:0, while the coding data for the father's CDI skills were TA:33, BD:7, RF:7, LP:13, UP:5, QU:0, CO:0, and NTA:0. In this context, while CDI coaching was not provided to the mother, CDI coaching was provided to the father for BD and RF. Afterward, PDI coding was performed and the mother gave 19 commands, 15 of which were effective commands, the child's compliance with the given commands was 12, and the mother's effective follow through was 7; the father gave 14 commands, one of which was an effective command, the child's compliance with the given commands was 10, and the father's effective follow through was 2. During the coaching process, both the mother and father were coached on PDI skills.

In the 2nd PDI session, the coding data for the mother's CDI skills were TA:24, BD:7, RF:7, LP:11, UP:3, QU:0, CO:1, and NTA:0, while the coding data for the father's CDI skills were TA:20, BD:15, RF:18, LP:9, UP:8, QU:0, CO:0, and NTA:0. In line with these data, the mother was coached for the use of BD and RF, and the father for the use of LP. In the PDI coding made after the coaching, it was determined that the mother gave 11 commands, 10 of them were effective commands, the child's compliance with the given commands was 10, and the mother's effective follow through was 10; it was seen that the father gave 18

commands, 8 of them were effective commands, the child's compliance with the given commands was 14, and the father's effective follow through was 3. As a result of the coding, the coaching agenda was determined for the father to give effective commands and effective follow through, even though the mother met the PDI expertise criteria.

In the 3rd PDI session, the coding data for the mother's CDI skills were TA:16, BD:14, RF:16, LP:14, UP:7, QU:0, CO:1, and NTA:0, while the coding data for the father's CDI skills were TA:27, BD:27, RF:14, LP:4, UP:13, QU:0, CO:1, and NTA:0. As a result of the coding, the mother was not given CDI coaching, whereas the father was given CDI coaching to increase the number of LP. Subsequently, PDI coding was started, and the mother gave 16 commands, 10 of which were effective. The child's compliance with the given commands was 12, and the number of effective follow through for the commands given by the mother was 9. The father gave 13 commands, eight of which were effective. The child's compliance with the given command was 7 and the effective follow through was 4. Coaching was provided for both the mother's and father's PDI skills during the coaching process.

In the 4th PDI session, while the coding data for the mother's CDI skills were TA:28, BD:12, RF:10, LP:19, UP:9, QU:0, CO:0, and NTA:0, the coding data for the father's CDI skills were TA:24, BD:17, RF:7, LP:10, UP:10, QU:1, CO:0, and NTA:0. As a result of the coding, CDI skills were not applied to the mother, whereas the father was coached for LP. The number of RFs, on the other hand, was not included in the agenda during the coaching process as it included the reflection of all the speeches of the child. In PDI coding, the mother gave nine commands, eight of which were effective, the child's compliance was 9, and the mother's effective follow through was 7. It was observed that the father gave 16 commands, 12 of which were effective commands, child compliance was 16, and the effective follow through of the father's commands was 16. As a result of this session, parents were terminated because of their mastery of CDI and PDI skills.

3.3. Evaluation Session

It was decided to terminate parent-child interaction therapy with the family after meeting the required graduation criteria. An evaluation session with the parents was scheduled. In the evaluation session, necessary measurements were taken from the parents, and as a result of the interview form, the child's condition was discussed before and after therapy. The findings are presented as social validity. In this context, the measurement results of the ECBI and WACB scores, in which the compliance and behavioral problems observed in the child are measured, are as follows in Table 1.

Table 1.

ECBI Intensity, Problem, and WACB-P Scores

Scale		Parent	1. CDI	2. CDI	3. CDI	4. CDI	1. PDI	2. PDI	3. PDI	4. PDI
ECBI	Intensity	Mother	148	146	138	133	118	120	115	**108**
		Father	126	128	139	138	138	135	123	**92**
	Problem	Mother	23	22	20	21	16	15	14	**14**
		Father	19	20	19	21	17	16	15	**12**
WACB-P		Mother					16	17	26	**35**
		Father					30	25	49	**43**

According to the measurement results given above, it can be said that the evaluation of both the mother and father is in the same direction, and the child's behavioral problems decrease while the compliance scores increase. Likewise, the child's pre- and post-therapy scores were obtained from parents using the SILKOL-R-OTV Scale in Table 2.

Table 2.

SILKOL-R-OTV Scores

	Mother		**Father**	
SILKOL Dimension	Before Therapy	After Therapy	Before Therapy	After Therapy
Social Participation	28	**41**	23	**37**
Using Communication - Expressive Language	47	**49**	48	**49**
Understanding Communication - Receptive Language	17	**22**	15	**21**
Imitation and Play	28	**37**	29	**41**

According to the measurement results given above, it can be said that there is a significant increase in the social participation skills of both mother and father in terms of understanding communication, imitation, and play dimension scores. It was evaluated that two months, which is a relatively short time, is limited for the reflection of the increase in receptive language skills to expressive language skills.

The opinions of the parents obtained from the evaluation interviews were as follows:

Mother:

> *When you told us about the first CDI phase, I said that I was miscommunicating. We never interacted with Yağmur in this way. Rather, we were meeting her self-care needs. Then I was saying that if she did what we said, she did it; if she didn't, I was saying that she could only do that much. We tried to get special education teachers to work on their homework. However, it is only in line with the homework given by special education teachers, for example, showing a card and matching. Let me proceed to the next stage of therapy. Our interactions with Yağmur are very different. Better. Yağmur wanted to communicate. For example, we used to take a step before that, and we would not see any reaction from her. But now she herself comes, brings a toy, wants to interact, shows something, and tries to say something. This makes us happy. There is a significant lack of communication. When a person has a special child, he or she has the following opinion; "This kid can't do it anyway, she's already behind the peer, as if she doesn't know anyway." Once this thought pattern has settled on your head, you cannot approach the child seriously. What you try to teach is more limited. For example, I was going to say something to my child, but I was giving up saying that Yağmur would not understand it. We have now resolved this issue. While talking to Yağmur, the words I chose became suitable for her capacity. Our interaction is very good. Therefore, I would try to communicate with her in the baby's language. Now, I direct the adult communication language to her, and I think he understands. They noticed a change in*

the child by saying that she had new words such as her aunt or something in the family. Oh looks, she says, as well. Yağmur has 20 odd words. However, I know this is her mother at home. This is because Yağmur was not a child who pronounced these words everywhere. She knew, but she did not say, it. Now, when others hear it, they say "Aaa Yağmur" is saying that too. Yes, she knew, but I say that she is using it now. This is the direction heard from the environment. This is an important step in socialization. Because she uses her words, we have new ones. When she was at the CDI level, her teacher said that Yağmur did not listen to him while he was talking to Yağmur in the form of a bring-and-take command. Yağmur is waiting for her teacher to do what she has at that moment. We were doing that. I told the teacher this. Special education teachers especially need to join such training. I told the teacher that we do what Yağmur does; we make her feel that what she does is special; we do this to make her feel that we see her behavior and I expect this from you. The wrong thing we do is the question… We communicated by asking questions. Even when giving a command, we say that "Can you give it?", not "give it!". I was surprised by this fact. The reflection of the CDI language on Yağmur was in the form of a child interacting or wanting to communicate. We obtained this before proceeding to the PDI step. I was always playing a game and calling Yağmur, but Yağmur did not come, and she would get bored after two seconds. We were unable to play with Yağmur. With the CDI language, Yağmur comes to play herself, tries to communicate, and extends our game time. I can say the same at the PDI stage. We always say, let us give her a command when Yağmur is ready. It was a huge thing for me to be able to catch that. She was not the child who did not take commands, but she did not get them all. Now in my mind "Command when the Yağmur is ready!" there is. When this happens, things become easier. We observed a change in Yağmur after the 3rd CDI. She became used to it very quickly; for example, I am doing something in the kitchen. Yağmur picked up a toy and showed it to me. She tries to lure me. I will also quit my job. Let us take special time. Even if we do not shoot videos, I would do it because she wanted it, and she would be very happy about it. We are on our way to talk. Our word count has increased, and we will continue to do so. She would not eat, we used to open videos and feed her, but after I came here, I cut her off slowly, now I am playing with food. Now my child is taking commands. CDI sentences already emphasize the positive and are plausible. The most difficult question was not asked. Even when giving commands, I asked questions. Yağmur used to wave her hand back to make bye bye. However, now she is waving as she should and says bye bye. Before the therapy, we tried to feed the child with an excessive amount of love, that is, with love. Then the child spent the day alone. But after therapy, we started to gamify and communicate our love."

Father:

It is like playing a house with a child; we can do it with Yağmur right now. In other words, my daughter can pour me tea, cook, and Yağmur to does these things. We think we are late. If we were able to do these things in two months, I believe that things would be very different after a year. Yağmur is now sleeping independently. Seeing them also positively affects stressful situations. In addition to Yağmur, we benefited from this process. As she ignores Yağmur's repetitive games (turning or blowing a glass), her behavior fades. After the 3rd CDI session, my wife was doing something in the kitchen, and something fell, and there was a sound. Yağmur ran on me. She wanted me to be surprised by the "hıı...". There is an effort to react to events and contact us. Normally, we try to make Yağmur look at us, but now if we are not looking at her, Yağmur comes and turns our heads to look at her. If Yağmur were a talking child

right now, it would come to a level that would interrupt our conversations. If she did, she would definitely turn our faces away and interrupt our conversations.

4. CONCLUSION AND DISCUSSION

This study was carried out to determine whether PCIT, which is an early childhood intervention approach in the international literature, is effective in social participation, communication, imitation, and play skills, as well as compliance and behavioral problems observed in a child with autism. In this direction, PCIT sessions were held with a child with autism and their parents. In this context, as a result of the therapy that lasted for 10 sessions, both ECBI, WACB-P, and SIL-KOL-R-OTV findings and the findings of the interviews with the family revealed that PCIT was able to determine the compliance and behavioral problems observed in a child with autism, as well as social participation, communication, imitation, and play skills. It has been determined that the findings obtained may be due to the fact that PCIT is interaction-based and has a structure built on the principles of play therapy. In addition, based on the fact that PCIT is largely based on social reinforcements (labeled praise, imitation, etc.), it has been said that the functions of behavior can be changed due to the consistent response to unexpected reactions of children with autism in social situations (Masse et al., 2007; Masse et al., 2016). While the effect of PCIT on compliance and behavioral problems seen in children with autism has been proven by international studies (Lesack et al., 2014; Masse et al., 2016; Zlomke et al., 2017), findings parallel to the literature were obtained in this study. According to Agazzi et al. (2013), applied PCIT in a case study conducted with the assessment that skill teaching would be difficult without the management of these behaviors of children with internalization and externalization problems, and concluded that it was effective. In addition, as a result of a study in which the effect of PCIT was examined in children with autism and children with typical development, it was reported that the improvements observed in children with autism were significantly higher than those in children with typical development, as well as improvements in autism symptoms (Zlomke & Jeter, 2020). This study found that there was an improvement in social participation, imitation, and game skills. This means that the child's social participation behaviors (e.g., I am very happy when you look into my eyes to look into the eyes), communication skills (e.g., I love to hear your voice, you speak very well), and game skills (e.g., I am so excited to play games with you in our special time) can be said to be the result of reinforcement and active ignoring of undesirable behavior. As a result of the review study conducted by Vetter (2018) on PCIT and autism, PCIT was found that PCIT is a functional approach for children with autism as well as reducing parenting stress. In this study, it was observed that the stress status of parents decreased based on the parents'statements. In addition, as a result of the study in which positive parenting skills were observed behaviorally and coded as DPICS data, it can be said that the level of mastery of parents in the use of skills is related to the change observed in the child. This result confirms the emphasis in the literature on the effectiveness of parent-mediated interventions. As a result, it has been seen that PCIT is an effective approach to the internalization and externalization problems seen in children with autism and also has a healing effect on social participation, imitation, and play skills.

Limitations of the Study and Recommendations

While the study findings are limited to a single case, it is recommended to conduct studies with designs suitable for experiments. Although the reflections of therapy skills may increase over time, the absence of follow-up measures was considered a limitation to present the results of the evaluation and measurement at the end of therapy. Another limitation is that it was studied with a child with atypical autism, whose autism symptoms were generally mild level (APA,2013).

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UZUN ÖZET

1. GİRİŞ

Otizm, sosyal etkileşim, iletişim, sınırlı ilgi alanları ve tekrarlayan hareketler ile karakterize nörogelişimsel bir bozukluktur. Tipik gelişim gösteren çocuklarda olduğu gibi otizm tanılı çocuklarda da uyum ve davranış problemleri görülmekte ve hatta görülme sıklığının fazla olduğu bildirilmektedir. Bu problemlere müdahale noktasında son zamanlarda ön plana çıkan yaklaşımlardan biri de ebeveyn-çocuk etkileşim terapisidir (PCIT). PCIT, çocuk ile ebeveyn arasında kurulacak sağlıklı, samimi ve sıcak ilişkinin çocuğun davranışlarının kontrol edilmesi be yönetilmesi noktasında önemli bir gereklilik olduğu savından hareketle iki basamaklı bir yaklaşım olarak yapılandırılmıştır. Çocuk yönlendirmeli etkileşim ve ebeveyn yönlendirmeli etkileşim olmak üzere ardışık bir yapı söz konusudur. PCIT'nin kurucusu olan Dr. Sheila Eyberg, ebeveynlere çocuklarının terapistleri olmalarını hedeflemiştir. Bu nedenle bir PCIT terapisti çocuk ile doğrudan çalışmayıp ebeveyn aracılığıyla çalışmaktadır. Ebeveyne oyun terapisi becerileri öğretilir ve uzmanlaşması için koçluk seansları düzenlenir. Bu çalışma da ise otizm tanılı bir çocuk ve ebeveynlerinin katılımı ile Türk kültürü için yeni bir yaklaşım olan PCIT'nin çocukta görülen uyum ve davranış problemleri yanı sıra sosyal katılım, iletişim, taklit ve oyun becerileri üzerinde etkili olup olmadığının incelenmesi hedeflenmiştir. Bu nitelikte bir ebeveyn aracılı müdahale yaklaşımının henüz Türk kültüründe olmayışı, mevcut yaklaşımların kayıt vb. üzerinden ebeveynlere geribildirim verme şeklinde ilerlediği yapılan alanyazın ile görülmüştür. Oysa PCIT'de eşzamanlı koçluk yapılması ve becerilerin doğrudan rol oynama ve model olma ile öğretilmesi yönüyle önemli bir ihtiyaca cevap vereceği değerlendirilmiştir.

2. YÖNTEM

Çalışma bir vaka çalışması (case report) olacak şekilde tasarlanmıştır. Terapi seansları öncesinde değerlendirme formu kapsamında çocuk ve aile hakkında detaylı bilgi alınmış ve PCIT için uygun oldukları kararlaştırılmıştır. Aile bir kere çocuk yönlendirmeli etkileşim (CDI) öğretim seansına ve dört kere CDI koçluk seansına katılmıştır. CDI koçluk seansları ortalama 75 dakika ve haftada bir kere gerçekleştirilmiştir. Seanslar sırasında oyun odası ve izleme oda bölümlerinden oluşan aynalı oda kullanılmıştır. Ebeveynler ise çocukları ile yalnız ve sıra ile çalışmışlardır. Bu sıra ise haftalık olarak döngüsel bir şekilde belirlenmiştir. CDI uzmanlık kriterlerini karşılayan ebeveynler sonrasında bir kere ebeveyn yönlendirmeli etkileşim (PDI) öğretim seansına ve dört kere PDI koçluk seansına katılmıştır. PDI koçluk seanslar ortalama 90 dakika sürmüştür. Süreçte veri toplama aracı olarak Eyberg Çocuk Davranışları Ölçeği (ECBI), Çocuk Davranışlarını Haftalık Değerlendirme Aracı (WACB), SILKOL-R-OTV ve DPICS-IV Kodlama Sistemi kullanılmıştır. ECBI çocukta görülen problem davranışların değişiminin izlenmesi, WACB çocuğun uyum becerilerindeki olası değişimlerin izlenmesi ve SILKOL-R-OTV otizm tanılı çocuğun sosyal katılım, iletişim, taklit ve oyun becerilerinin PCIT sürecinden etkilenip etkilenmediğini belirlemek üzere kullanılmıştır. DPICS-IV kodlama sistemi ebeveynlere öğretilen pozitif ebeveynlik becerilerinin seans içi kodlanması için kullanılır. Bu ise sürecin davranışsal bir gözlem sonucunda değerlendirilmesine olanak tanır. Hem CDI hem PDI uzmanlık kriterlerini karşılayan ebeveynler ile sonlandırma seansı gerçekleştirilmiştir.

3. BULGULAR VE SONUÇ

Sonuç olarak çocukta görülen yıkıcı davranışların ve uyum sorunlarının azaldığı sosyal katılım, iletişimi anlama (alıcı dil) taklit ve oyun becerilerinin ise arttığı görülmüştür. İletişim becerilerinden ifade edici dil becerilerinde ise önemli bir değişimin olmadığı görülmüştür. Bu kapsamda çalışmanın bulgularının alan yazındaki diğer çalışmaların sonuçları ile aynı doğrultuda olduğu görülmüştür. Yapılan bu çalışma da ebeveyn ifadelerinden ebeveynlerin stres durumlarının azaldığı görülmüştür. Ayrıca pozitif ebeveynlik becerilerin davranışsal olarak gözlemlendiği ve DPICS verisi olarak kodlamaların yapıldığı çalışma sonucunda ebeveynlerin beceri kullanımındaki uzmanlık düzeylerinin çocukta gözlemlenen değişimle

ilişkili olduğu söylenebilir. Bu sonuç ise alan yazında ebeveyn aracılı müdahalelerin etkili olduğuna dair yapılan vurguyu doğrular niteliktedir. Çalışma bulguları tek bir vaka ile çalışılmış olması bir sınırlılık iken deneysel desene uygun tasarımlarla yürütülmüş çalışmaların yürütülmesi önerilmektedir. Terapi becerilerinin yansımaları zamanla artabilecek bir yapıda olmasına rağmen izleme ölçümlerinin olmaması terapi sonu değerlendirme ve ölçüm sonuçlarının sunulması bir sınır olarak değerlendirilmiştir. Ayrıca çalışmanın atipik otizm tanısı olan çocuk ile çalışılması otizm tanılı çocuk popülasyonu için bir sınırlılıktır.

ETHICAL APPROVAL OF THE RESEARCH

In this study, all the rules specified to be followed within the scope of "Higher Education Institutions Scientific Research and Publication Ethics Directive" were complied with. None of the actions specified under the heading "Actions Contrary to Scientific Research and Publication Ethics", which is the second part of the directive, have been taken.

ETHICS COMMITTEE APPROVAL INFORMATION

Name of the committee that made the ethical evaluation: Ataturk Unıversity Social and Human Sciences Ethics Committee Presidency

Date of ethical evaluation decision: 21.11.2022

Ethics evaluation document issue number: 21/311

CONTRIBUTION OF RESEARCHERS

Author 1: All process. (%100)

CONFLICT OF INTEREST

No conflict.