Effectiveness of Father Education Programs in Improving Personal Care Skills in Individuals with Autism Spectrum Disorder[1]

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Abstract

This study investigated the effectiveness of the Father Education Program in implementing the steps of teaching personal care skills to participating fathers, examined the level of performance in personal care skills taught by fathers to individuals with autism spectrum disorder (ASD), analyzed the impact on the sustainability of these skills, and determined the views of the parents of individuals with ASD regarding the research process and effectiveness. There were two dependent variables. The first dependent variable was "the level of implementation of the steps of teaching personal care skills by the fathers participating in the research", and the second dependent variable is "the level of children with ASD performing the personal care skills taught to them by their fathers and the level of maintaining the skills they have performed". The independent variable was the "Father Education Program". Therefore, the study was carried out in two experimental processes. While three fathers with a child with ASD participated in the first experiment, their children participated in the second experiment. The first experimental period of the study was designed according to the multiple probe design across subjects whilst the second experimental period was designed according to multiple probe design across skills. The developed program was implemented to fathers in five sessions, and after fathers met the criteria, they taught their children personal care skills such as "shaving a beard using a razor, cleaning underarms using a bath razor, and cleaning the genital area using depilatory cream". Study results revealed that the father education program was effective in terms of participant fathers' implementing of the steps of teaching personal care skills to their children. Additionally, individuals with ASD were able to perform and maintain the personal care skills taught to them by their fathers. Lastly, the parents of participant individuals with ASD had positive views on the research process and its effectiveness.

Key words: Father education program, Personal care skills, Self-care skills, Family education, Autism spectrum disorders.

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INTRODUCTION

Autism Spectrum Disorder (ASD) constitutes a broad categorical term that encompasses a range of neurodevelopmental disorders characterized by similar symptoms and features. The concept of ASD encompasses two distinct subcategories: (1) limitations in social and communication skills, including verbal and non-verbal communication abilities, and (2) restricted interests, activities, and repetitive behaviors (APA, 2013, p. 809). The DSM-5, a widely used diagnostic manual, classifies ASD as a unified category and defines it as a neurodevelopmental disorder marked by the presence of limited or recurring patterns of interest and behavior, as well as significant impairments in social interaction and communication (DSM-5, 2013). The aforementioned differences among individuals diagnosed with ASD have significant implications for their experiences, behaviors, and abilities in various life situations.

The literature consistently reports difficulties experienced by individuals with ASD in acquiring various skills, including academic skills (Eliçin, Yıkmış, & Cavkaytar, 2015; Griswold, Barnhill, Myles, Hagiwara, & Simpson, 2002; Goldstein, Minshew, & Siegel, 1994), daily living skills (Keen, Brannigan, & Cuskelly, 2007; Murzynski & Bourret, 2007), game skills (Sancho, Sidener, Reeve, & Sidener, 2010), and self-care skills (Gillett & LeBlanc, 2007). The acquisition of self-care skills is deemed essential for individuals with ASD as these skills play a critical role in daily routines, increase social acceptance, and promote personal responsibility. Self-care skills encompass a range of activities such as eating, dressing, personal hygiene, toileting, and grooming (Farlow & Snell, 2000; Tekin-İftar, 2002; Yücesoy Özkan, 2007). The significance of mastering these skills lies in their fundamental nature and the impact they have on overall quality of life.

The personal care skills expected to be performed in daily life encompass a range of activities such as oral and external hygiene, hair care, foot care, body and clothing cleanliness after using the toilet, and genital area hygiene (Duncan et al., 2022). Similar to individuals from other disability groups, individuals with ASD are expected to be capable of performing these personal care skills, which are part of self-care skills, independently. However, the severity of the disorder in children with ASD may impede their acquisition of self-care and daily living skills (Carothers & Taylor, 2004; Hibbert, Kostinas & Luiselli, 2002) and in particular, basic self-care skills may develop slowly (Scherf et al., 2015). Additionally, individuals with ASD may exhibit a slower rate of acquisition of self-care skills compared to their peers. In the post-school years, a plateau in the acquisition of daily living skills by individuals with ASD has been reported and they may face challenges in acquiring these skills at later ages (Memari et al., 2013). Furthermore, experts in the field indicate that the difficulties in acquiring daily living skills by adults with ASD also have negative implications for their social interaction, independent living, and professional skills (Töret, 2017).

Hence, systematic instruction in the acquisition of personal care skills is imperative for individuals with ASD. Research has shown that without support in teaching self-care skills, individuals with ASD may struggle in retaining or acquiring new skills (McGovern & Sigman, 2005). A review of the literature reveals that different teaching methods, techniques, and tools are employed in teaching self-care skills to individuals with ASD and other special needs. The use of various methods, programs, and strategies in teaching daily living, self-care, and personal care skills to individuals with ASD has been shown to facilitate the acquisition of these skills. These methods include (a) constant time delay period instruction (Aykut, 2012), (b) video modeling instruction (Çakmak, 2011; Charlop-Christy, Le, & Freeman, 2000), (c) simultaneous prompting instruction (Okyar & Çakmak, 2019), (d) high-tech iPod and iPad supported point of view video modeling technique (Gentry et al, 2015), (e) teaching through singing (Kırşehirli, 2011), (f) teaching using technology-supported skill teaching software based on applied behavior analysis principles (Çankaya, 2013), (g) instruction using the gradual reduction of prompting method (Özen et al., 2002), (h) instruction using peer modeling (Charlop, Schreibman, & Tryon, 1983), (i) instruction using picture cards (Pierce & Schreibman, 1994), (j) instruction using video self-modeling (Buggey et al., 1999), and (k) instruction through training programs in which families, teachers, and caregivers are trained to teach skills to individuals with ASD (Cavkaytar & Pollard, 2009; Yücel & Cavkaytar, 2007).

Upon a meticulous examination of these studies, it can be discerned that they are categorically classified as either direct or indirect instructional studies. Direct instructional studies pertain to instances

where the researchers work directly with the individuals, while indirect instructional studies involve the provision of training to teachers and parents with the objective of imparting skills to their children. Representative examples of direct instructional studies include the education of self-care skills to children through collaboration with mothers (Çakmak, 2011; Sönmez & Varol, 2008), as well as the education of self-care skills through collaboration with teachers (Doğan & Çakmak, 2021) and assistant teachers (Sabanova & Cavkaytar, 2007).

The family is almost the most important factor influencing the education of children, both before and during the school education process. The family is almost the most important factor influencing the education of children, both before and during the school education process (Toprakçı & Aslan, 2021). In order to positively influence this factor, it is necessary to educate the family. Family education is essentially a systematic and planned training program aimed at providing information to, or imparting skills to, parents (Schultz, Schmidt & Stichter, 2011). The objective of family education is to equip families with the necessary knowledge and skills to meet the needs of their children, and to enable them to generalize the acquired knowledge and skills to diverse situations as required (Mahoney et al., 1999). On the other hand, family education programs strive to assist parents in acquiring effective methods and techniques for instructing their children in the required skills and concepts, as well as managing their behavior (Tavil, 2005). The categorization of family education programs is dependent on various factors, including the number of participants, the setting in which the program is conducted, and the objectives of the program to be implemented (Tavil, 2005; Çakmak, 2011). In terms of family education programs, there exist multiple approaches based on families, including those that view parents solely as care providers, those that view parents as guardians of their children, and those that view parents as instructors of their children (Cavkaytar, 2013). Regarding the number of participants, family education programs can be classified into group-based programs or one-to-one programs (Cavkaytar, 1998; Çakmak, 2011; Lundahl, Nimer, & Parsons, 2006; Tavil, 2005, Tavil, 2019). In terms of the setting, family education programs can be held in the home, institution, or a combination of home and institution (Akçamete, 1989), and with the advancement of technology and the accessibility of computers and the internet, distance family education programs have also become prevalent. Additionally, family education programs can be differentiated based on their objectives, with some programs focusing on imparting applied behavior analysis principles and processes to parents, while others aim to teach concepts and skills to parents (Şen, Atasoy & Aydın, 2010; Tavil, 2005). According to conventional societal norms, mothers are primarily responsible for the care and education of their children, while fathers are regarded as the primary financial providers. However, the results of various studies and evaluations paint a different picture. Koçak (2004) evaluated the Father Support Program (FSP) of the Mother Child Education Foundation (AÇEV) and found that society does not offer adequate training opportunities for fathers to fulfill their parental responsibilities. The report highlights that, in the current fast-paced world, it has become increasingly challenging for fathers to fulfill their roles as parents. To address this issue, the report suggests the need for training programs designed specifically for fathers. Additionally, Gürimşek, Kefi & Girgin (2007) conducted research on father involvement and found significant barriers to participation through interviews with fathers in schools where father involvement was not encouraged. According to the fathers' reactions, 86.4% of fathers did not believe in the necessity of participation, 82.6% did not participate because of difficulties in communicating with other parents at the school, 77% did not participate because of difficulties in communicating with the teacher, 75.4% did not participate because of transportation difficulties, 64.1% did not participate because they were not informed in time. In addition, 65.3% of the interviewed fathers stated that they did not participate because they did not feel comfortable at school, 62.9% thought that the mother was responsible for their child's education, and 55.5% stated that they did not know how they could contribute to their child's education.

It is frequently stated in the literature that the acquisition of self-care skills by individuals with ASD is much slower and delayed compared to their peers with typical development. On the other hand, the difficulty of studies aiming to teach skills to individuals with ASD draws attention. For example, Horn (1982) states that while teaching daily living and home care skills to adults with ASD, anger outbursts and behavioral problems of adults with ASD often end the study sessions. Although this situation is not surprising, it may also be associated with the general characteristics of individuals with ASD. In their

study, Ummanel and Gürkan (2017) found that it was difficult to work with individuals with ASD, while Ergül (2021) reported that teachers found it difficult to work with individuals with ASD. In this study, each implementation was explained in stages and in detail. Therefore, it is thought that this study will guide families on how to provide their children with the skills they aim to teach.

In addition, considering that individuals with ASD are dependent on their routines and feel safe in their own environments, many experts support conducting studies in their own home environments (Mullan, Boyd & McConkey, 2021). In this study, the teaching of individuals with ASD was carried out in their own home environments in privacy using their own materials. Therefore, it is thought that this study will facilitate the skill learning of individuals with ASD and make it more practical for families to teach skills to their children, and it can also serve as a guide for families who want to teach skills to their own children.A literature review reveals that the number of studies devoted to teaching personal care skills to individuals with ASD is scarce. These studies (Aktaş, 2015; Ardıç, 2015; Batu et al., 2014; Cavkaytar & Pollard, 2009; Eyiip et al., 2018; Gillett & LeBlanc, 2007; Gökçe, 2017; Koegel, Bimbela & Schreibman, 1996; Olçay Gül, 2015; Ozonoff & Cathcart, 1998; Ünlü, 2015; Stahmer & Gist, 2001; Yücel & Caykaytar, 2007).

Another issue that makes the study important and necessary is that special education teachers or educators may face difficulties when working on skills related to sensitive areas such as the genital area and armpits. Because ethical problems may arise when practicing these skills that require privacy. Therefore, fathers are suggested to play a role in teaching these skills to their sons with ASD. However, when it is considered that fathers may lack the necessary knowledge and expertise in teaching these skills, the importance of this study increases even more.

To address this gap, a family education program for fathers was designed and implemented in this study. The aims of this study were grouped into three categories and presented as follows. Purpose of Effectiveness: 1. Is the Father Education Program effective in enabling fathers to successfully implement the steps involved in teaching personal care skills to their children with ASD? 2. Is there evidence to suggest that the skill teaching practices of fathers who completed the Father Education Program are effective in promoting the acquisition of personal care skills in their children with ASD? Purpose of Monitoring: Is the Father Education Program effective in maintaining the self-care skills acquired by children with ASD participating in the study after one, three and five weeks? Purpose of Social Validity: 1. What are the opinions of the fathers who participated in the father education program about the purpose, process, and effectiveness of the research? 2. What are the opinions of the mothers of children with ASD about the purpose and effectiveness of the research?

METHOD

This part presented the research design, participants, setting, experimental process, dependent and independent variables, validity and reliability, data collection tool, and data analysis.

1. Research Design

This study was designed according to single-subject experimental designs. Single-subject research refers to studies in which the effectiveness of the independent variable is evaluated within each subject, based on standard conditions, using repeated measurements from one or a few subjects (Hammond & Gast, 2010). The first experimental period of the study was designed according to the multiple probe design across subjects whilst the second experimental period was designed according to multiple probe design across skills.

2. Participants:

The initial phase of this study was carried out with three fathers of children with ASD and the subsequent phase involved their children with ASD. Several criteria were established for participant selection. As the selection process for the fathers involved reading and writing, the requirement was that they must be literate, have no prior experience in skill development training, not know each other, and participate in the study voluntarily. The participants with ASD were required to have a need for personal care skills, a confirmed diagnosis of ASD, the ability to remove their clothing, the capacity to follow

instructions of three or more words, a waiting time of at least two minutes, and no psychomotor impairments affecting their hand function. Three fathers and their sons with ASD who met these prerequisites participated in the study. Information about the participants was given in the tables below.

Table 1. *Characteristics of fathers*

Fathers	***Age***	***Education level***	***Number of children they have***
First father	52	Bachelor's degree	3
Second father	43	Secondary education	3
Third father	55	Associate degree	2

Regarding Table 1, the first father, 52 years old, held a bachelor's degree and had three children. The second father, 43 years old, completed secondary education and was also a parent to three children. The third father, 55 years old, had an associate degree and two children.

Table 2. *Characteristics of children*

Children	***Age***	***Gender***	***Grade***	***School***	***Support education***
Âdem	15	Male	9	Special Education Vocational School	SERC
Ali	16	Male	10	Special Education Vocational School	SERC
Alper	20	Male	-	-	SERC

SERC: *Special Education and Rehabilitation Center*

Table 2 presented information on the age, grade level, and special education support services of three participants, Âdem (15 years old), Ali (16 years old), and Alper (20 years old). Âdem and Ali were both enrolled in a special education vocational school, with Âdem in 9th grade and Ali in 10th grade. All three participants received special education support services at a special education and rehabilitation center.

3. Setting

The study utilized two distinct settings for the experimentation process. The first experimental process, performed with fathers, was conducted at the Aksaray University Disabled Student Unit. This setting was selected due to its provision of necessary technical and study facilities, including a well-suited environment for computer-aided education, classroom organization, and individual studies. The second experimental process, involving the teaching of skills by fathers to their children, took place in the participants' homes. The bathroom areas and other suitable spaces in the children's homes, such as toilets, were used for the purpose of the study. The selection of the home setting was made to allow for a more natural and practical learning environment.

4. Varibles

Dependent Variables: The present study examined two dependent variables. The first one pertained to the extent of implementation of the teaching steps for self-care skills by the participating fathers. The second dependent variable examined the level of mastery and maintenance of self-care skills by the fathers of children with ASD.

Independent Variables: The independent variable was a father education program, comprising of five sessions. The program was delivered using a video model with fixed-pause instruction.

5. Data Collection Tools:

Tools for data collection related to both experimental processes have been included. Firstly, data collection tools used in the first experimental process are given. Form for Executing a Skill in a Step-Wise Manner, Reinforcer Determination Form Based on Fathers' Opinions, Father Reinforcer Use Form, Instrument for Determining the Implementation Level of Steps in Teaching Personal Care Skills, Father Education Session Application Reliability Recording Form. *Data Recording Tool, Social Validity Data Collection Tools for Mothers and Fathers. Tools for data collection related to both experimental processes have been included. Firstly, data collection tools used in the first experimental process are given.*

Form for Executing a Skill in a Step-Wise Manner): The form was developed by the researcher in order for the fathers to form the sub-steps of the skills that their children need and that the fathers would teach within the scope of this study, such as beard shaving, armpit cleaning, and genital area cleaning.

Reinforcer Determination Form Based on Fathers' Opinions: This form was developed by the researcher to plan the concrete and social reinforcers that fathers planned to use during the study.

Father Reinforcer Use Form: The form was developed by the researcher to help fathers focus on key points and maintain consistency in their use of reinforcers.

Father's Prompt Usage Form: This form was developed by the researcher to record how fathers use the prompt for modeling a response, with a constant time delay procedure (4 seconds).

Instrument for Determining the Implementation Level of Steps in Teaching Personal Care Skills: This instrument was developed by the researcher to determine the implementation levels of the steps in teaching personal care skills for fathers. The form filling process was done by the researcher. The purpose of using this form was to determine the level at which the father applying the steps of teaching the skill was when teaching the relevant skill. Accordingly, marking was done using the single-opportunity method. The main instruction of the skill was told to the father and columns were created for the father to put a + sign for the step he did correctly and a - sign for the step he did incorrectly.

Father Education Session Application Reliability Recording Form: This form was prepared by the researcher to record the application reliability of the fathers' training sessions. In this tool, the skill steps expected to be realized by the researcher are included in the left column of the data collection tool. The researcher followed the practitioner to see whether the practitioner fulfilled these steps or not and marked the yes column if the practitioner fulfilled these steps and the no column if the practitioner did not fulfill these steps.

The data collection tools used in the second trial process were listed below.

Data Recording Tool: This tool was developed by the researcher to determine the level of children's mastery of the target skills. It includes an implementation data recording tool and a separate form prepared separately for each skill to collect baseline probe monitoring data. The main part of the instrument includes the skill steps that the child should perform for each skill, and the opposite column includes probe, baseline, instructional, and monitoring data. The fathers were taught how to use this tool during the experiment.

Social Validity Data Collection Tools: Social validity data were collected from both fathers and mothers. To determine the social validity of the study, the researcher developed the Social Validity Data Collection Tool for Fathers to determine the fathers' thoughts about the program at the end of the program, to what extent the program to be implemented met their needs and whether they were satisfied with participating in the study. This form consisted of open-ended and closed-ended questions.

To determine the social validity of the study, the Social Validity Data Collection Tool for Mothers was developed for mothers. This form aimed to determine the opinions of mothers, who were not directly involved in the family education program, about the program, which was prepared with the support of the video model and aimed to enable families to teach skills to their children. This form consisted of open-ended and closed-ended questions.

6. The Experiment Process:

The research was conducted in two experimental processes. Information related to the first experiment process was given below. The father training program, which is the first experimental process of the study, was developed by the researcher. The developed father training program consists of 5 teaching sessions. The father education program, which is the first experimental process of the study, was developed by the researcher. The father education program developed consists of 5 teaching sessions. The aim of the father training program is to teach the fathers participating in the program how to teach a skill to an individual with special needs. Each session of the father training program consisting of five sessions is presented separately in the subheadings.

First Experiment Process: The first experiment process of the research was carried out by applying five separate sessions with each father. *Baseline and Probe Sessions in the First Experiment:* Since the individual reactions exhibited during baseline and probe data collection were the same as the reactions that might occur in the instructional sessions, the same data collection form was used for both instructional and probe sessions (Tekin-İftar & Kırcaali-İftar, 2006). While collecting baseline and probe

data, the fathers were given the main instruction by saying "teach the expert to shave the beard, teach the expert to clean the hair under the armpit, teach the expert to clean the hair in the genital area" and the practices of the fathers were recorded. *Implementation of Father Education Sessions in the First Experimental Period:* After the baseline data were collected, the first experimental process of the study, father trainings, was conducted in five sessions by the researcher at Aksaray University Disabled Students Unit. The researcher prepared separate teaching plans for each session. In the teaching plan, general objectives for each session were determined and separate objectives were created for the researcher and the fathers. *First Session of Father Education Program:* The general aim of this session was for the participants to correctly differentiate their personal care skills from their other skills by 100% after the training provided. In this session, the researcher organized a lecture on the importance of acquiring basic personal care skills and the personal care skills of adults affected by ASD and prepared an assignment highlighting the importance of fathers' personal care skills. *Second Session of Father Education Program:* The general aim of this session was to teach fathers to analyze a given skill according to the forward chaining method with 100% criteria each time. The researcher presented why it was necessary to divide the execution of a skill into different steps a skill and showed a sample (hand washing) to the fathers. The researcher gave feedback to the fathers. The researcher assigned the fathers to break down the skills of "shaving beard with a razor, cleaning armpit hair with a bath razor and cleaning the genital area with depilatory cream" that their children need and checked the fathers' homework and gave feedback before the third session. *Third Session of Father Education Program:* The general aim of the session was to have the fathers mark the reinforcer identification form and the reinforcer use form with 100% accuracy and verbalize the appropriate use of the materials to be used in the study. The researcher checked the assignments given at the end of the second session. The researcher explained to the fathers what a reinforcer was. The researcher presented how to determine the reinforcer and the steps of appropriate reinforcer use. The researcher informed about the materials to be used and how to use them in accordance with their function. *Fourth Session of Father Education Program:* The general aim of this session was for fathers to use the modeling cue and the fixed pause (4 seconds) duration cueing process with 100% accuracy. The researcher informed fathers about the cue, response cue, processing processes using response cues, and the constant time delay process. The researcher told the fathers that the type of cue to be used in the study was modeling. Using video movie support, the researcher made a presentation by showing the fathers how the sample "hand snaking" skill was performed with the modeling prompt processing process. While making the presentation, the researcher had the fathers mark the "father's prompt usage form" checked the forms, gave feedback, answered the fathers' questions, and ended the session. *Fifth Session of Father Education Program:* The general aim of the session was for the fathers to mark the "ınstrument for determining the implementation level of steps in teaching personal care skills" with 100% accuracy. Fathers were given a presentation on how to teach skills in accordance with the steps of the instrument. In these presentations, fathers were asked to fill in the instrument with 100% accuracy. The researcher gave feedback to the fathers, answered questions about the session, and ended the session.

Second Experiment Process: The second stage of the study involved the observation of skill teaching practices carried out by fathers for their children in the home environment. The fathers who participated in the first stage of the study were selected based on their achievement of 100% criteria using the "instrument for determining the implementation level of steps in teaching personal care skills". The second experimental period of the study consisted of instructional sessions in which the participant fathers independently taught skills to their children. In all sessions of the study, the sessions were conducted one-on-one face-to-face with the practitioner father, the researcher collecting data, and the child. The fathers only taught skills to their children, and the researcher monitored the fathers' teaching sessions, marked the research data on the forms and collected the data. Single opportunity technique was used during the evaluation of the sessions. In the study, baseline data were collected for all subjects. Baseline data were collected from all subjects participating in the study for three consecutive days. After the baseline data showed stability, the first skill was taught. For the implementation data, Data were collected by the researcher using the "data recording tool" through direct observation of the fathers' teaching sessions. Data recording procedures were marked on the data recording tool as correct/incorrect participant responses before the prompt, correct/incorrect participant responses after the prompt, and no response. To ensure the validity of the data collected, the researcher informed the

fathers and family members to remain neutral during the sessions, refraining from providing any cues or signals to the child during their responses.

7. Collection of Social Validity Data

The study's social validity was assessed by collecting data from the parents (both mothers and fathers) of the participating children. To obtain this data, the researcher conducted individual interviews with each mother and father. The questions used in the interviews were based on a pre-determined form, and the answers were recorded on a voice recorder and corresponding recording form. Social validity data collection tools and data collection processes were given below. Father and Mother Social Validity: In order to determine the social validity of the study, a Father Social Validity Form Data Collection Tool was developed by the researcher to determine the fathers' thoughts about the program at the end of the program, to what extent the program to be implemented met their needs and whether they were satisfied with participating in the study. This form consists of open-ended and closed-ended questions. The researcher interviewed each father and mother individually and asked the questions written on the form one by one. The answers of the fathers were recorded on a voice recorder and a recording form.

8. Validity and Reliability

Internal Validity: The independent variable of the study was the use of the father education program in teaching three personal care skills that male children require. Three different fathers were included in the research experiment process to implement the independent variable. Father education was administered individually to the participating fathers by the researcher, thus controlling for mutual influence among fathers. Father education was administered individually to the participating fathers by the researcher, thus controlling for mutual influence among fathers. To ensure that the participating fathers were not influenced by any other variables other than the independent variable, a discussion was held with the fathers, and they were informed about not participating in another training related to self-care, daily life, and personal care skills during the research application process. In addition, the prerequisites for the selection of the fathers to participate in the study were predetermined. Only fathers who met these criteria were included in the study. The father education program was prepared in advance by the researcher, and application reliability data were collected to ensure the reliability of this program. During all phases of the research, two independent observers were present and inter-observer reliability data were collected to eliminate measurement errors that could result from potential differences in evaluation during the data collection process.

External Validity: External validity refers to the extent to which the findings of a study can be generalized to other populations, settings, or situations. The provision of comprehensive information regarding participant characteristics, baseline phase, and application environment in single-subject experimental design studies enhances the generalizability of the intervention, thereby increasing its external validity (Tekin-İftar & Kırcaali-İftar, 2018). In the current study, external validity was ensured by clearly and thoroughly documenting participant characteristics, participant selection criteria, the characteristics of the environment in which the intervention was conducted, and the methods for collecting data during the baseline and implementation phases.

Application Reliability: The *Father Education Session Application Reliability Recording Form* was used to determine whether the fathers were able to carry out the practices in accordance with the content of the pre-planned father education program. The form included specific steps to be performed by the researcher, and options for either "yes" or "no". All sessions were recorded by video during the implementation. Afterwards, an expert in the field of special education who was pursuing a doctoral degree assessed the fulfillment of steps recorded in the application reliability data collection form through observation of the video recordings. If the steps were carried out as intended, a check mark was placed in the "Yes" column, and if not, the "No" column was marked accordingly. Application reliability was determined by computing the ratio of observed practitioner behavior to planned practitioner behavior, and converting this to a percentage (Billingsley, White, & Munson, 1980). The resulting calculation indicated a 100% application reliability.

Inter-observer Reliability: To assess the inter-observer reliability of the baseline, instructional, and follow-up data on the personal care skills being studied with the fathers and children, a comprehensive approach was adopted. This involved the full involvement of the expert included in the study throughout all stages of the second experimental process. The instructional material was video-recorded with the consent of the fathers and mothers, with particular attention given to the recording process due to the sensitive nature of the personal care skills being taught, which required the children and fathers to be unclothed. In some cases, it was necessary to restrict the video recording due to the requirement for the fathers to model the skills, including those involving the *genital areas*, during the teaching process. The data were collected by the researcher and simultaneously recorded by another expert in the research environment with special permission from the families. The data were then analyzed by a research assistant, an expert in the field of special education and currently pursuing a doctoral degree in the same field, who monitored and annotated the data. The inter-observer agreement was calculated based on this analysis.

The procedures that the researcher had to perform during the second experiment process were collected with the "*Second Experiment Process Inter-observer Reliability Record Form*". The data obtained were monitored and marked by an expert working as a research assistant in the field of special education and continuing his doctoral education in the same field, and inter-observer agreement was calculated. Inter-observer reliability was calculated by dividing the total agreement between more than one observer by the sum of agreement and disagreement and multiplying by 100 (House, House & Campbell, 1981). In the first experiment, inter-observer reliability was calculated as 100% and in the second experiment, inter-observer reliability was calculated as 98%.

9. Data Analysis

Analysis of Effectiveness and Monitoring Data: In the context of single-subject experimental designs, the analysis of data is typically performed through the utilization of visual representation in the form of graphs (Tawney & Gast, 1984). The current study utilized the "Multiple Probe Across Subjects Design" and "Multiple Probe Across Skills Design" as single-subject experimental designs, and the data collected were analyzed through graphical representation for visual interpretation and analysis.

Analysis of Social Validity Data: In this study, two social validity data collection forms were developed and administered to gather data on the social validity of the research. The first form, titled "social validity form data collection tool for fathers", the second form were"social validity data collection tool for mothers". The forms utilized a combination of open-ended and closed-ended questions, and the data were collected through face-to-face interviews between the researcher and the participants. The findings were analyzed using descriptive methods and presented through a combination of tabulated results and direct quotes from the fathers.

FINDINGS

1. Findings Regarding the Levels of Teaching Personal Care Skills to Children by Fathers: In line with the research objectives, the "Instrument for Determining the Implementation Level of Steps in Teaching Personal Care Skills" was used to determine the level of implementation of the steps of teaching personal care skills by the fathers participating in the study. The results obtained from this instrument were utilized to create a graphical representation of the level of implementation of personal care skill instruction stages by the fathers of the three participants: Âdem, Ali, and Alper. This graphical representation was depicted in Figure 1.

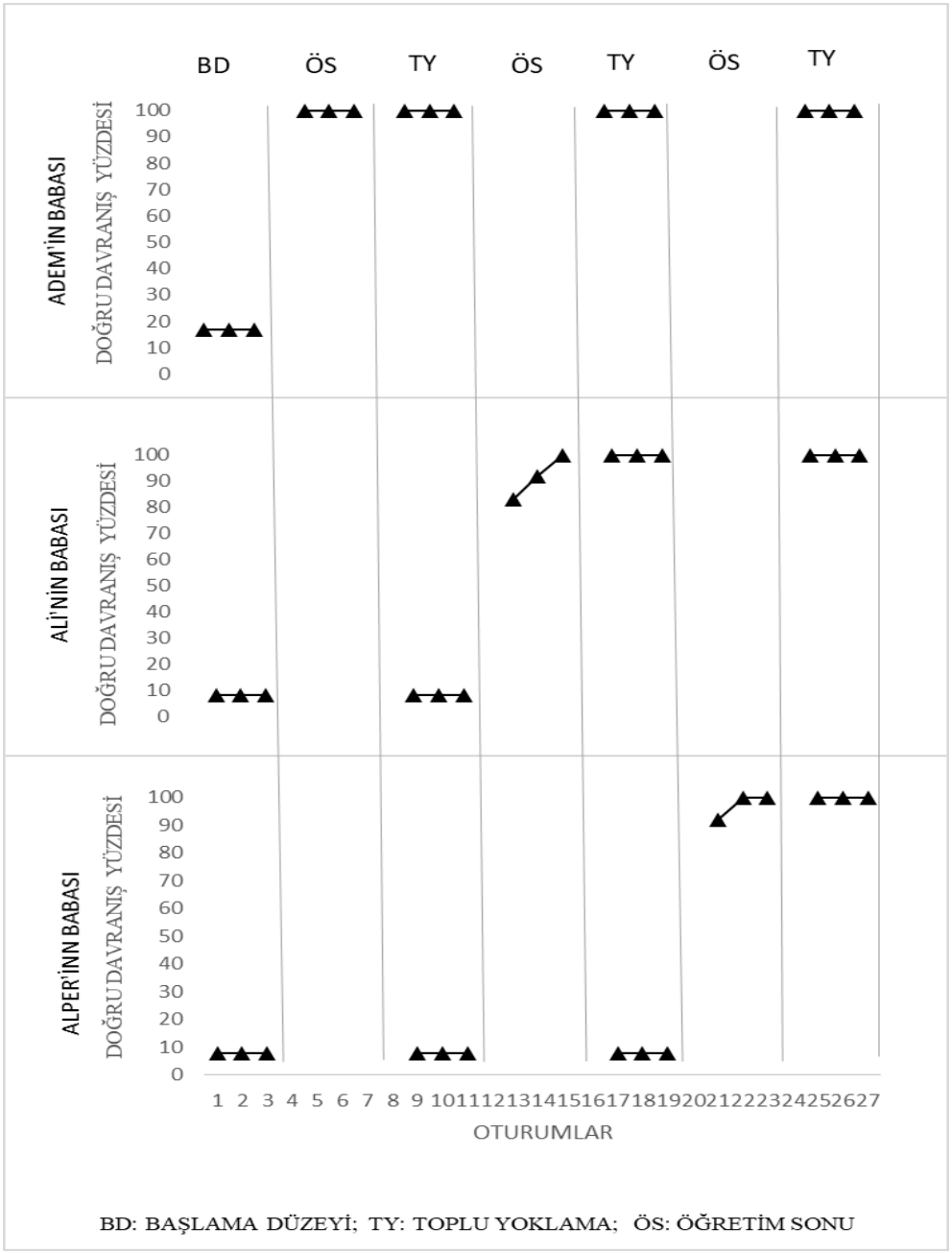

Figure 1. *Percentages of fathers' implementation of the steps of teaching personal care skills to their children.*

As depicted in Figure 1, prior to the initiation of the father education program, the baseline and probe data indicated that the participants' fathers, Âdem, Ali, and Alper, demonstrated limited implementation of the steps for teaching personal care skills to their children, with only 2 out of 12 steps (11.7%), 1 out of 12 steps (8.3%) and 1 out of 12 steps (8.3%) respectively being correctly implemented. However, after the completion of the father education program, all of the participating fathers met the targeted 100% criterion regarding the level of implementation of the steps of teaching personal care skills to their children. The results showed that the fathers were effective in teaching personal care skills to their children as a result of the father education program, and there was a significant difference between the baseline and probe level data before and after the program was implemented.

2. Findings Regarding the Level of Realization of Personal Care Skills Steps in the Baseline, Probe, Instructional Process and Follow-up Processes of the Children Participating in the Study

2.1. Data on Âdem: The baseline and probe data collected prior to the Father Education Program revealed a low level of independent mastery of personal care skills, such as shaving the beard by using a shaving machine, cleaning the armpit by using a bath razor, and cleaning the genital area by using

depilatory cream. Upon completion of the program, Âdem's father taught the skills to him with 100% criterion. Through the father's efforts, a gradual increase in personal care skill mastery was observed throughout the teaching process compared to the baseline and probe data. Further, stable results were obtained through follow-up data collection after 2, 4, and 6 weeks, indicating the efficacy of the father education program in teaching personal care skills to children.

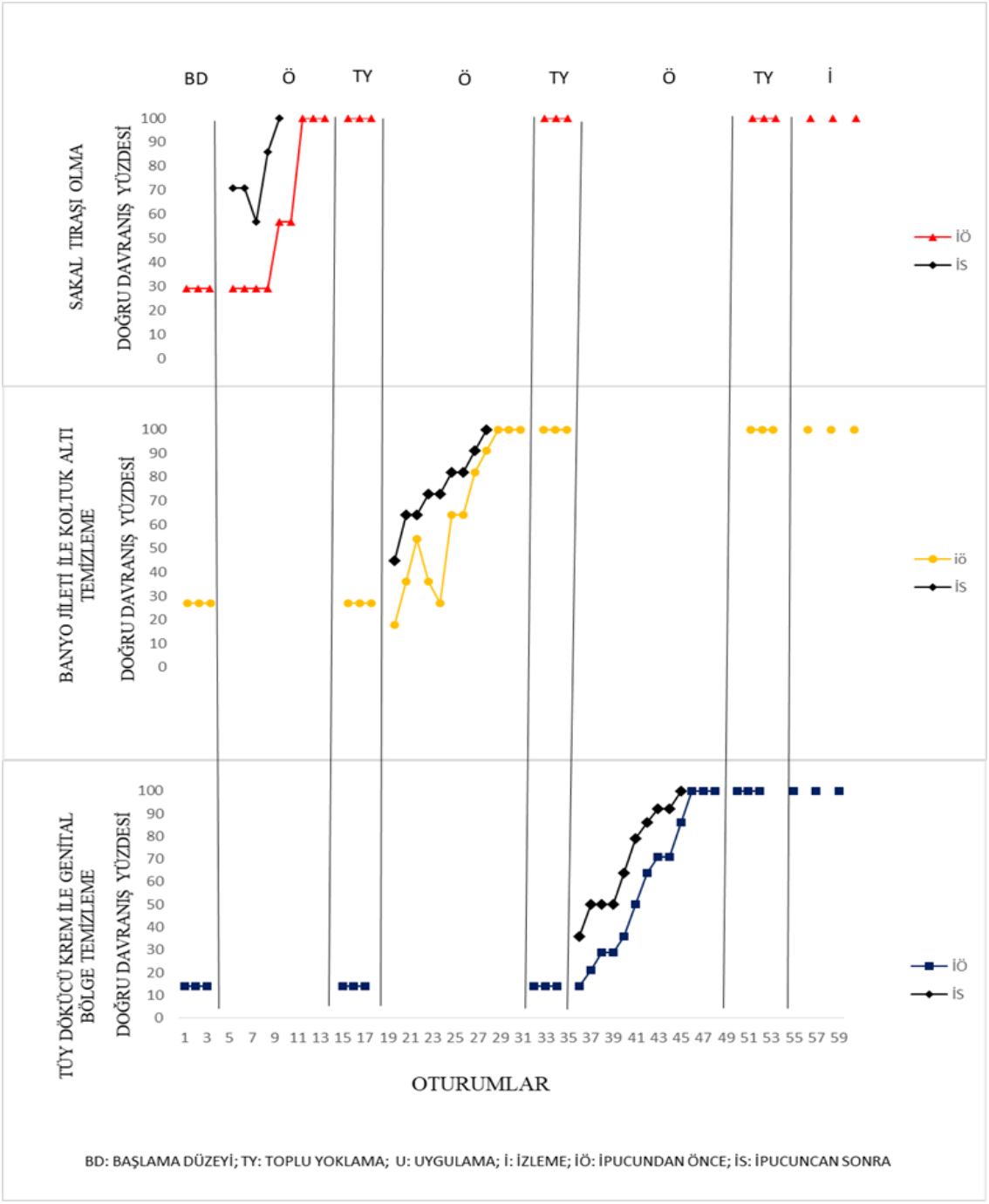

Figure 2. *Âdem's ability to perform the steps of self-care skills in the baseline, probe, instruction and follow-up processes after his father's intervention.*

2.2. Data on Alper: Before the implementation of the Father Education Program, Alper demonstrated low levels of independent performance in personal care tasks such as shaving the beard by using a shaving machine, cleaning the armpit by using a bath razor, and cleaning the genital area by using depilatory cream. The program aimed to educate fathers on teaching these skills to their children and was completed with 100% criterion by Alper's father. The data collected during the teaching process showed a gradual improvement compared to the baseline and probe data collected prior to the program. Follow-up data collected after 2, 4, and 6 weeks after the completion of the program

demonstrated stable performance of the taught skills by Alper. Therefore, the results emphasized the effectiveness of the program on Alper's father regarding teaching personal care skills to children.

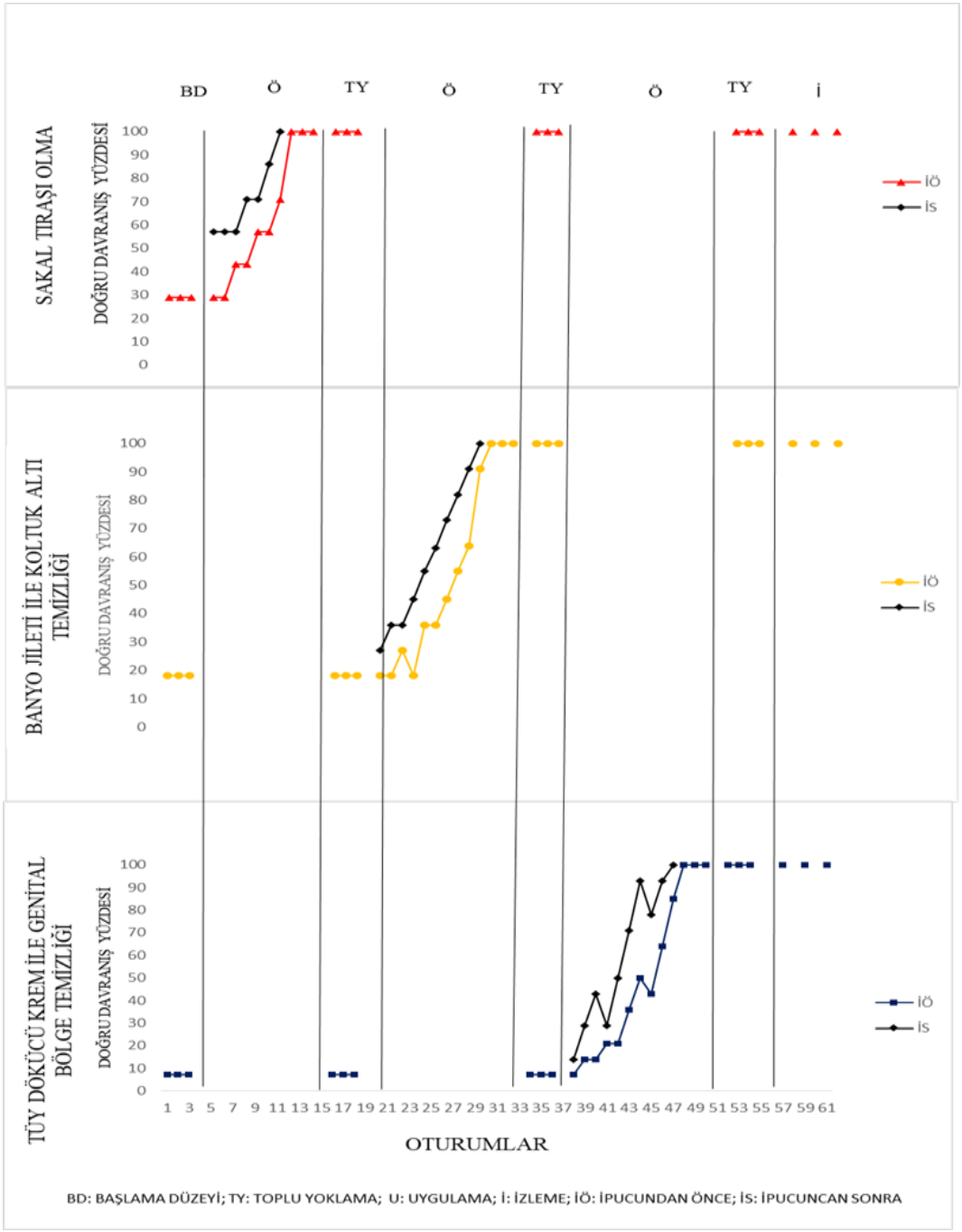

Figure 3. *Alper's ability to perform the steps of self-care skills in the baseline, probe, instruction and follow-up processes after his father's intervention.*

2.3. Data on Ali: The analysis of the baseline and probe data collected prior to the implementation of the teaching program for Ali revealed that he had low levels of independent proficiency in personal care tasks, including shaving with a machine, cleaning underarms with a bath razor, and using depilatory cream for genital area cleaning. The Father Education Program was completed by Ali's father with 100% criterion and involved teaching the skills to Ali. The data collected during the teaching process showed a gradual improvement compared to the baseline and probe data collected prior to the program. Follow-up data collected after 2, 4, and 6 weeks after the completion of the program demonstrated stable performance of the taught skills by Ali. Hence, the results emphasized the effectiveness of the program on Ali's father regarding teaching personal care skills to children.

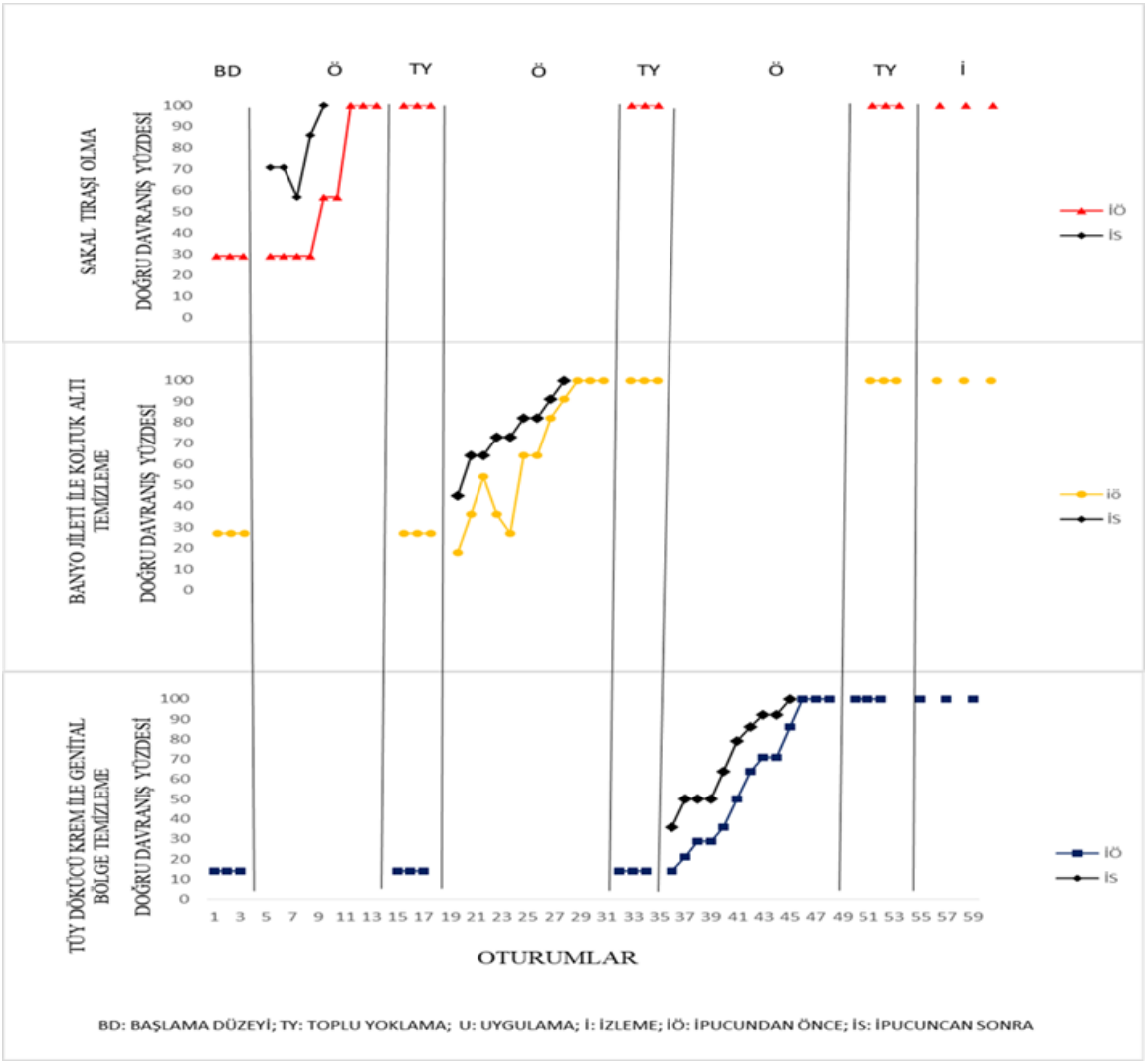

Figure 4. *Ali's ability to perform the steps of self-care skills in the baseline, probe, instruction, and follow-up processes after his father's intervention.*

3. Social Validity Findings of the Father Education Program: In this study, the development and utilization of two social validity data collection tools was carried out. The first tool was designed for fathers and was referred to as the "social validity data collection tool for fathers", while the second tool was designed for mothers and is referred to as the "social validity data collection tool for mothers". The results of the study indicated that both fathers and mothers of the participants, Ali, Alper, and Âdem, showed positive opinions towards the program. The fathers of Ali and Alper answered affirmatively to all closed-ended questions, while the father of Âdem answered "undecided" to one question: Do you think that your child's acquisition of personal care skills, which we determined together that your child needs, will make your child more independent in their daily lives? However, in their responses to open-ended questions, all fathers expressed satisfaction with the program and perceived it as important and positive. Similarly, all mothers who participated in the study answered positively to the closed-ended questions and stated satisfaction and positive perceptions of the program. They also reported observing progress in their children and an improvement in their daily lives as a result of the program. In a nutshell, the social validity findings of the research indicate a high level of social validity. This is attributed to the systematic implementation of the father education program, which was tailored to the needs and levels of the participant fathers, and the selection of appropriate and functional materials for the second experimental phase of the research. Additionally, the high level of motivation displayed by the participant fathers, who fully and voluntarily participated in all stages of the study, further supports the validity of the research. These factors collectively contribute to the robustness of the social validity findings, lending support to the effectiveness of the father education program.

DISCUSSION and RECOMMENDATIONS

The present research focused on the efficacy of the father education program in the imparting of self-care skills to individuals with ASD. The study aimed to evaluate the impact of the training program on the ability of participating fathers to effectively teach self-care skills, as well as the effectiveness of the program in enhancing the self-care skills of individuals with ASD and promoting the retention of these skills over time. Additionally, the study aimed to gather the perspectives of the mothers and fathers of participating individuals with ASD regarding the research process and its outcomes.

Discussing effectiveness goals: In this study, it was found that the implementation of the father education program was effective in teaching personal care skills to their children in participating fathers. This finding supports the results of studies that demonstrate the effectiveness of family education programs in the literature. Research has been conducted on the effectiveness of family education programs in teaching toilet skills (Özcan & Cavkaytar, 2009), chain of command home skills (Batu, 2008), shopping skills (Tekin-İftar, 2008), improving communication skills (Mccathren, 2010; Mobayed, Collins, Strangis, Schuster & Hemmeter, 2000), self-care and home skills (Cavkaytar, 1998, Çakmak, 2011). Studies show that family education programs are effective in teaching the desired skills. The findings of this study also support the results of previous studies in the field.

Technological advancements have demonstrated the utilization of technology in the education of individuals with ASD (Bosseler & Massaro, 2003; Clark & Green, 2004; Golan & Baron-Cohen, 2006; Mechling, Gast & Seid, 2009; Kocaoz et all, 2019). In addition, literature suggests that technology is often preferred in family education programs (Çakmak, 2011; Kurtoğlu & Cavkaytar, 2021). Kurtoğlu and Cavkaytar (2021) employed the use of video in their investigation of the effectiveness of a family education program in teaching personal care skills to individuals with intellectual disabilities and found that the use of video was a significant factor in the program's success. The present study aimed to examine the effectiveness of a video modeling approach in a father education program. This approach was complemented by the incorporation of reinforcement strategies, the utilization of constant time delay instructional method, and the arrangement of the environment-materials. The literature supports the notion that video modeling can be a valuable tool in facilitating learning and knowledge acquisition. This hypothesis was supported by qualitative feedback from one of the participating fathers who reported heightened motivation and a clearer understanding of the information being presented using video modeling.

The examination of the relevant literature reveals that single-subject experimental designs are commonly employed in studies aimed at imparting self-care and daily living skills to individuals with special needs through family education programs (Batu, 2008; Cavkaytar & Pollad, 2009; Tekin-İftar, 2008). The choice of this research design is deemed appropriate due to the sensitive nature of the targeted skills, as well as the requirement for maintaining privacy and quality. Moreover, conducting separate studies for each participating father was considered effective in light of the individualized approach to the learning process. The fathers taught the skills they learned to their children in the bathrooms of the children's own homes. Considering the effect of the environment in terms of children, children exhibit more comfortable behaviors in environments they know and feel safe. Therefore, it is thought that working in their own homes is effective for children to learn personal care skills.

The results also indicated that the number of skill steps was a significant factor in children's acquisition of personal care skills. For example, while the first child acquired the shortest skill step of shaving the beard in 6 sessions, the second child in 7 sessions and the third child in 7 sessions, the first child acquired the longest skill step of cleaning the genital area in 11 sessions, the second child in 12 sessions and the third child in 11 sessions. These findings suggest that the number of skill steps can impact the learning process. One of the issues believed to be as effective as the setting, material, analysis of skills and teaching method in teaching a skill is that the instructions should be given in accordance with the child's receptive language performance and directly in accordance with the desired action/behavior. In the study, fathers were instructed on how to deliver effective instructions through the utilization of a video model and through immediate feedback from the researcher.

Fathers' effective use of reinforcers is effective for individuals with ASD to learn self-care skills. In this study, fathers have described their children's every correct behavior and presented them with the reinforcements they had previously determined with the researcher. The researcher observed that introducing the reinforcements before the start of the study and informing the children when they would be given, excited the children and motivated them to participate more in the study. As stated in the literature, the use of reinforcement (e.g., Yalçın, 2020; Çakmak, 2011) has been found to be effective in enhancing children's learning. Similar outcomes are expected in this study.

In the study, the razors used for teaching beard shaving were selected from brands that have low vibration and low noise during operation. The razors used for teaching armpit cleaning were chosen as bathroom razors with protected tips. The depilatory creams used for private area cleaning were selected from a well-known brand that acts in the shortest amount of time. It is believed that the effectiveness and functionality of the materials used have a positive impact on the research outcomes. Additionally, determining the personal care skills (beard shaving with a machine, armpit cleaning with a bath razor and genital area cleaning with depilatory cream) aimed to be gained by individuals with ASD through the father education program may have increased the motivation of the fathers to work.

Discussion of monitoring purposes: The study investigated whether children with ASD were able to maintain the self-care skills taught by their fathers one, three and five weeks after instruction. The follow-up findings showed that the children were able to demonstrate the skills they learned after the completion of the study. Based on the literature, follow-up data were collected in many studies aiming to teach skills (e.g., Hughes, Schuster & Nelson, 1993; McKelvey, Sisson, Van Hasselt & Hersen 1992; Okyar & Çakmak, 2019). Both in the related studies and in this study, it was observed that the subjects exhibited the skills they learned while collecting follow-up data. The findings of the study emphasized the effectiveness of the father education program for individuals with ASD to maintain target skills. Experts in the literature recommend collecting long-term retention data in research. In this study, the last follow-up data was collected after five weeks, which meets this recommendation. Although follow-up data were collected, generalization data were not collected in this study. However, the literature argues that skills such as self-care and daily living skills are expected to be generalized by learners to different settings, materials, and people. In this study, generalization data could not be collected since the skills involved genital areas and generalization to different environments and individuals would be an ethical violation. Material generalization could not be made because the related skills could be performed with only three materials (bath razor, razor, and depilatory cream). This is also considered as a limitation of the study.

Discussing social validity purposes: The positive evaluations of the program by the fathers and their spouses may be attributed to several factors, including the acquisition of practical and useful skills that promote independence in daily life, the systematic and structured nature of the training, and the convenience of the practitioner conducting the training in the participants' homes. The participating fathers believed that the acquisition of personal care skills by their children would increase their independence in daily life and elicit positive attitudes from their surrounding individuals. Additionally, the fathers expressed positive views regarding the program implementation, perceiving it as effective in facilitating the acquisition of personal care skills by their children, clear and understandable in terms of its goals and procedures, and deserving of recommendation to other fathers. These positive views can be considered a manifestation of the fathers' successful role in promoting the acquisition of the targeted personal care skills by their children.

The participating fathers identified the use of videos, systematic preparation of the setting and materials, and their affection for their children as the most crucial factors in the program's implementation. Moreover, they reported feeling competent in teaching personal care skills after participating in the program, which supports the findings of its effectiveness. Furthermore, they acknowledged the effectiveness of reinforcement practices in special education, with one father stating, "Sir, I used to buy this chocolate bar for my son all the time, but we did not know that it would be given in pieces and would be so effective. From now on, I will only give this chocolate bar when he does the behaviors we want." This demonstrates the fathers' acquisition of knowledge regarding the use of

reinforcement, which is a critical aspect of educating students with special needs, by the end of the program.

Despite the fathers expressing satisfaction with the program's implementation, they noted criticism regarding the study's lengthy duration. This criticism may stem from the fact that the study lasted four months. However, it is important to note that the acquisition of personal care skills through family education programs is a long-term process that encompasses both family education and the teaching of children by families. As such, the duration of the study is necessary for ensuring lasting and meaningful acquisition of the targeted skills.

The study also gathered social validity data from the mothers of children with ASD to assess its indirect effects. The opinions expressed by the mothers were consistent with those obtained from the fathers. However, the mothers noted that they were typically the sole participants in their children's education and feeding processes and expressed relief and pleasure at the involvement of the fathers through this study. Research indicates that mothers often bear the primary responsibility for the care and education of individuals with special needs and can become isolated in this process. It is believed that this study will encourage fathers to take a more active role in their children's lives in the long term.

Recommendations for Education and Practice: The underarm and genital area cleaning training in the developed father education program can be adapted to mothers and taught to girls in different disability groups by their mothers. The father education program can be used as in-service teacher training for teachers working with individuals with ASD. The father education program can be used to teach various personal care and self-care skills to individuals with ASD and other disability groups. The effectiveness of the father education program has been realized during the COVID-19 pandemic, and online delivery can be implemented as an alternative mode of training when in-person training is not feasible. The father education program can be adapted and applied in the acquisition of other skills that require privacy, such as protection from abuse and masturbation.

Recommendations for Future Research: Further studies with larger sample sizes, in different settings and by different practitioners, can be conducted to increase the generalizability of the findings. Different father education programs based on different approaches can be developed to make fathers competent in teaching personal care skills to their children with ASD, and their effects can be investigated comparatively. Although there was no limitation in the skill teaching of children with ASD regarding the touching of shaving foam and depilatory cream by children with ASD, future studies can investigate the possibility of a limitation on "touching". The effectiveness of family education programs using animation techniques can be investigated as an alternative to video modeling. The literature shows that family education programs are mostly carried out with mothers. However, this study argues that fathers are also successful in teaching skills to their children. Therefore, father education programs can be developed for teaching different skills and their effectiveness can be investigated. The effectiveness of online and in-person delivery of the father education program can be compared.

Otizm Spektrum Bozukluğu Olan Bireylere Kişisel Bakım Becerileri Kazandırmada Baba Eğitim Programının Etkililiği[2]

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Özet

Bu çalışmada, Baba Eğitim Programının, araştırmaya katılan babaların, kişisel bakım becerilerini öğretme basamaklarını uygulama düzeylerinde etkili olup olmadığı araştırılmış, otizm spektrum bozukluğu olan bireylerin, babaları tarafından kendilerine öğretilen kişisel bakım becerilerini gerçekleştirme düzeylerini ve gerçekleştirdikleri becerileri sürdürme düzeylerindeki etkisi incelenmiş ve programa katılan otizm spektrum bozukluğu olan bireylerin anne ve babalarının araştırma sürecine ve etkililiğine ilişkin görüşleri belirlenmiştir. Bu amaç doğrultusunda araştırmanın iki bağımlı değişkeni bulunmaktadır. Birinci bağımlı değişken, "araştırmaya katılan babaların kişisel bakım becerilerini öğretme basamaklarını uygulama düzeyleri", ikinci bağımlı değişken ise "otizm spektrum bozukluğu olan çocukların, babaları tarafından kendilerine öğretilen kişisel bakım becerilerini gerçekleştirme düzeyleri ve gerçekleştirdikleri becerileri sürdürme düzeyleridir". Araştırmanın bağımsız değişkeni ise Baba Eğitim Programıdır. Dolayısıyla çalışma iki deney sürecinde gerçekleştirilmiştir. İlk deney sürecine otizm spektrum bozukluğu olan çocuğa sahip üç baba katılırken, ikinci deney sürecine aynı babaların çocukları katılmıştır. Çalışmanın birinci deney süreci, denekler arası yoklama evreli çoklu yoklama desenine göre ikinci deney süreci beceriler arası çoklu yoklama desenine göre planlanmıştır. Araştırmada, babalara otizm spektrum bozukluğu olan çocuklarına kişisel bakım becerilerini öğretme basamaklarını uygulayabilmeleri amacıyla video film destekli "Baba Eğitim Programı" geliştirilmiştir. Geliştirilen program beş oturumda babalara uygulanmış ve babalar ölçütü karşıladıktan sonra, çocuklarına "tıraş makinesi kullanarak sakal tıraşı olma, banyo jileti kullanarak koltuk altı temizliği yapma ve tüy dökücü krem kullanarak genital bölge temizliği yapma" kişisel bakım becerilerini öğretmişlerdir. Çalışma sonucunda, baba eğitim programının, çalışmaya katılan babaların, çocuklarına kişisel bakım becerilerini öğretme basamaklarını uygulamalarında etkili olduğu, otizm spektrum bozukluğu olan bireylerin, babaları tarafından kendilerine öğretilen kişisel bakım becerilerini gerçekleştirebildikleri ve sürdürebildikleri görülmüştür. Bununla birlikte programa katılan otizm spektrum bozukluğu olan bireylerin anne ve babalarının araştırma sürecine ve etkililiğine ilişkin görüşlerinin olumlu olduğu belirlenmiştir. Elde edilen bulgular doğrultusunda veriler, alan yazın ile ilişkilendirilerek tartışılmış ve bazı önerilerde bulunulmuştur.

Anahtar Kelimeler: *Baba eğitim programı, Kişisel bakım becerileri, Öz bakım Becerileri, Aile Eğitimi, Otizm spektrum bozukluğu.*

E-Uluslararası Eğitim Araştırmaları Dergisi

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Genişletilmiş Özet

Problem: OSB'li bireylerin öğrenmede güçlük yaşadıkları alanlardan olan özbakım becerileri, Yeme, giyinme, kişisel bakım, tuvalet ve kişisel bakım gibi pek çok beceriyi içerisinde barındırmaktadır. Bu becerilerin; yaşamsal olması, günlük rutin kullanılması, özel gereksinimi olan bireylerin toplumsal kabulünü artırması ve kendi yaşam sorumluluğunu almaya önemli ölçüde hizmet etmesi özbakım becerilerinin kazandırılmasının en önemli gerekçesi olarak ifade edilmektedir (Farlow ve Snell, 2000; Tekin-İftar, 2012; Yücesoy Özkan, 2007). Günlük hayatta uygulanılması beklenilen kişisel bakım becerileri ise ağız-dış temizliği ve bakımı, saç temizliği ve bakımı, ayak temizliği ve bakımı, tuvalet sonrası beden temizliği ve giysi temizliği, genital bölge temizliği gibi pek çok beceriyi kapsamaktadır (Duncan, Meinzen-Derr, Ruble, Fassler & Stark, 2022). Özbakım becerileri içerisinde yer alan kişisel bakım becerilerini diğer tüm yetersizlik grupları gibi OSB olan bireylerin kendi başına gerçekleştirilmesi beklenmektedir. Ancak OSB olan çocukların, bu bozukluktan etkilenme düzeyleri, öz bakım ve günlük yaşam becerilerini kazanmada (Carothers ve Taylor, 2004; Hibbert, Kostinas & Luiselli, 2002) ve özellikle de temel kişisel bakım becerilerini gerçekleştirmelerinde güçlüklerle karşılaşmalarına ve kişisel bakım becerileri kazanımlarının yavaş gelişmesine yol açabilmektedir (Scherf, Elbich, Minshew & Behrmann, 2015).

Yapılan alan yazın taramasında OSB'li bireylere kişisel bakım becerilerinin öğretimini hedefleyen araştırma sayısının oldukça sınırlı olduğu görülmektedir. Oysaki OSB'li bireyler, sosyal etkileşim, dil ve davranış desteği kadar kişisel bakım becerilerinin öğretiminde de desteğe ihtiyaç duymaktadır. Özellikle genital bölge, kol atı gibi bölgeleri içeren becerilerin özel eğitim öğretmenleri ya da diğer eğitmenler tarafından çalışılması mümkün olamamaktadır. Bu nedenle bu becerilerin erkek çocuklarına öğretiminin için babalar tarafından yapılması önerilmektedir. Ancak babaların bu becerileri öğretmede sınırlı bilgi ve beceriye sahip oldukları varsayılmaktadır. Bu çalışmada da babalara yönelik aile eğitim programı geliştirilmiş ve uygulanmıştır. Bu bağlamda araştırmanın amaçları üç grup altında aşağıda sunulmuştur. Etkililik Amaçları: Baba Eğitim Programı, çalışmaya katılan babaların, çocuklarına kişisel bakım becerilerini öğretme basamaklarını uygulamalarında etkili midir? Baba Eğitim Programını tamamlayan babaların çalışmaya katılan otizm spektrum bozukluğu olan çocukları ile yaptıkları beceri öğretim uygulamaları, çocuklarının kişisel bakım becerilerini kazanmalarında etkili midir? İzleme Amacı: Baba Eğitim Programı, çalışmaya katılan otizm spektrum bozukluğu olan çocukların kazandıkları kişisel bakım becerilerini bir, üç ve beş hafta sonra sürdürmelerinde etkili midir? Sosyal geçerlik amacı: Baba eğitim programına katılan babaların, yapılan araştırmanın amacına, araştırma sürecine ve araştırmanın etkililiğine ilişkin görüşleri nelerdir? Araştırmaya katılan OSB'li çocukların annelerinin araştırmanın amacına ve etkililiğine ilişkin görüşleri nelerdir?

Yöntem: Araştırmanın bu bölümde araştırmanın modeline, katılımcılarına, ortam, deney sürecine, bağımlı ve bağımsız değişkenlerine, geçerlik ve güvenirliğe, veri toplama aracına, verilerin analizine yer verilmiştir. Araştırmanın Modeli: Bu çalışma tek denekli deneysel desenlere göre planlanmıştır. Tek denekli araştırma, bir ya da birkaç denekten standart koşullar altında yinelenen ölçümler alınarak bağımsız değişkenin etkinliğinin her bir denekte kendi içinde değerlendirildiği araştırmalara denir (Hammond & Gast, 2010). İki deney sürecinde gerçekleştirilen bu araştırmanın birinci deney sürecinde *yoklama evreli çoklu yoklama modeli*, ikinci deney sürecinde ise *beceriler arası yoklama evreli çoklu yoklama* modeli kullanılmıştır. Katılımcılar: Bu araştırmanın birinci deney süreci OSB olan çocuğa sahip üç baba, ikinci deney süreci ise babaların OSB'li erkek çocukları ile araştırma gerçekleştirilmiştir. Katılımcıların belirlenmesinde bazı ön koşullar aranmıştır. Babaların seçim sürecinde; çalışmada kullanılacak materyallerin okuma ve yazma becerilerini gerektirmesi nedeniyle eğitime katılacak babaların okur-yazar olmaları, babaların daha önce beceri eğitimine ilişkin eğitim almamış olmaları, babaların birbirilerini tanımıyor olmaları, araştırmaya gönüllü olarak katılmaları ön koşul olarak aranmıştır. OSB'li bireylerde; kişisel bakım becerilerinde gereksinimleri olmaları, OSB tanısı almış olmaları, kıyafet çıkarma becerilerine sahip olmaları, üç ve daha fazla kelimeden oluşan yönergeleri yerine getirebiliyor olmaları, iki dakika veya üzerinde bekleme süresine sahip olmaları, ellerini kullanması ile ilgili psikomotor becerilerde yetersizliğinin olmaması önkoşul olarak aranmıştır. Bu ön koşulları sağlayan 3 baba ve OSB olan erkek çocukları araştırmaya katılmıştır. Bağımlı Değişken: Araştırmanın iki bağımlı değişkeni bulunmaktadır. Birinci bağımlı değişken, "araştırmaya katılan babaların kişisel bakım becerilerini öğretme basamaklarını uygulama düzeyleri", ikinci bağımlı değişken ise otizm spektrum

bozukluğu olan çocukların, babaları tarafından kendilerine öğretilen kişisel bakım becerilerini gerçekleştirme düzeyleri ve gerçekleştirdikleri becerileri sürdürme düzeyleridir. Bağımsız Değişken: Bu araştırmanın bağımsız değişkeni, beş oturumdan oluşan "Baba Eğitim Programı'dır. Baba Eğitim Programı sabit beklemeli süreli öğretimden yararlanılarak video model desteği ile sunulmuştur. Aşağıda "Baba Eğitim Programı" ile ilgili bilgilere yer verilmiştir. Deney Süreci: Araştırma iki deney sürecinde gerçekleştirilmiştir. Araştırmanın birinci deney süreci her baba ile ayrı ayrı 5 oturumun uygulanması ile gerçekleştirilmiştir. Araştırmanın ikinci deney süreci babalar tarafından kendi evlerinde çocuklarına yönelik gerçekleştirdikleri beceri öğretimi uygulamalarıdır.

Bulgular: Araştırmanın birinci deney süreci olan baba eğitim programına ilişkin elde edilen bulgular sonucunda, katılımcı babaların baba eğitim programına başlamadan önceki kişisel bakım becerilerini öğretme basamaklarını uygulama düzeylerine ilişkin başlama düzeyi verileri kararlılık göstermiştir. Ayrıca babalar ile yürütülen baba eğitim programı başlamadan toplanan yoklama verilerinin de kararlılık gösterdiği ve yoklama verilerinde anlamlı bir değişim olmadığı bulgusuna ulaşılmıştır. Uygulanan baba eğitim programıyla babaların çocuklarına kişisel bakım becerileri öğretme basamaklarını uygulama düzeylerine ilişkin hedeflenen %100 ölçütü karşıladıkları izlenmektedir. Bunlara ilaveten tüm babaların, baba eğitim programı başlamadan toplanan başlama ve yoklama düzeyi verileri ile baba eğitim programı uygulandıktan sonra toplanan verileri arasında anlamlı farklılıklar olduğu bulgusuna ulaşılmıştır. Yürütülen araştırmanın birinci deney süreci olan baba eğitim programı tamamlandığında araştırmaya katılan babaların tamamının, yürütülen baba eğitim programı sonucunda çocuklarına kişisel bakım becerileri öğretebilmeleri üzerinde etkili olduğu bulgusuna ulaşılmıştır. Araştırmanın ikinci deney sürecinde, araştırmanın birinci katılımcısı Adem, ikinci katılımcısı Ali ve üçüncü katılımcısı Alper'e ilişkin bulgular: Babaların çocukları ile çalışmaları sonucunda, çocuklara ilişkin öğretim süreci öncesinde toplanan başlama düzeyi ve yoklama verilerine göre öğretim sürecinde toplanan veriler arasında kademli olarak artış olduğu bulgusuna ulaşılmaktadır. Ayrıca tüm katılımcı çocuklar ile öğretim oturumları tamamlandıktan sonra, 2, 4 ve 6 hafta sonra izleme verileri toplanmış ve öğretilen becerilere ilişkin kararlı veriler elde edilmiştir. Sosyal geçerlik bulguları: Elde edilen sosyal geçerlik bulguları araştırmanın sosyal geçerliliğin yüksek olduğunu göstermektedir. Bu bağlamda sosyal geçerlik bulgularının etkili olmasında yapılan baba eğitimi programının paket bir program halinde sistematik bir şekilde katılımcı babaların düzeylerine uygun olarak sunulmasının, araştırmanın ikinci deney sürecinde kullanılan materyallerin araştırma amacına uygun seçiminin ve materyallerin işlevselliğinin etkili olduğu düşünülmektedir.

Öneriler: Geliştirilen baba eğitim program içerisinde yer alan kol altı ve genital bölge temizliği eğitimi annelere uyarlanarak farklı yetersizlik gruplarındaki kız çocuklarına anneleri tarafından öğretilebilir. Geliştirilen baba eğitim programı, otizm spektrum bozukluğu olan bireylerle çalışan öğretmenlere hizmet içi öğretmen eğitimi şeklinde öğretilebilir. Geliştirilen baba eğitim programı farklı kişisel bakım becerileri ve öz bakım becerilerinin otizm spektrum bozukluğu olan ya da diğer yetersizlik gruplarında bulunan bireylere kazandırmada kullanılabilir. Etkililiği test edilen programın Covid-19 sürecinde önemi daha fazla fark edilmiş olup izolasyonun gerekli olduğu ve ailelerin örgün eğitime ulaşamadığı durumlarda online eğitimler aracılığı ile hedef kitlelere ulaştırılabilir. Bu çalışmada OSB olan çocukların kazanması hedeflenen becerilerin genital bölgeleri içerdiği görülmektedir. İstismardan korunma ve mastürbasyon gibi mahremiyet gerektiren diğer becerilerin ediniminde de bu çalışmada etkililiği test edilen program uyarlanarak uygulanabilir.

Araştırmada elde edilen bulguların genellenebilirliğini arttırmak amacıyla, aynı araştırma, başka deneklerle, başka ortamlarda ve başka uygulamacılar tarafından tekrarlanabilir. Babaların OSB olan çocuklarına kişisel bakım becerilerini öğretmede yeterli duruma getirmede, farklı yaklaşımlara dayalı farklı baba eğitimi programları geliştirilerek, OSB olan çocukların kişisel bakım becerilerini öğrenmelerindeki etkisi karşılaştırmalı olarak araştırılabilir. Araştırmada OSB'li çocuklar ile yapılan beceri öğretimleri esnasında, OSB'li çocukların traş köpüğü ve tüy dökücü kreme dokunmaları ile ilgili bir sınırlılık yaşanmamıştır. Ancak OSB'li çocuklar ile ilgili yapılacak bu tür çalışmalarda "dokunma" ile ilgili sınırlılık olabilme ihtimali değerlendirilebilir. Bu çalışmada, baba eğitim programı içerisinde video model tekniği kullanılmıştır. İleriki araştırmalarda son yıllarda sıklıkla tercih edilen animasyon tekniği kullanılarak aile eğitim programları geliştirilebilir ve etkililiği araştırılabilir. Alan yazın incelendiğinde aile eğitim programlarının daha çok annelerle gerçekleştirildiği görülmektedir. Çalışma sonucunda babaların da çocuklarına beceri kazandırmada başarılı oldukları belirlenmiştir. Dolayısıyla farklı becerilerin öğretimi

için baba eğitim programları geliştirilebilir ve etkililiği araştırılabilir. Çalışmada kullanılan baba eğitim programı online şeklinde ve yüz yüze eğitimler şeklinde gerçekleştirilerek iki durumun etkililiği karşılaştırılabilir.

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