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The Effects of Telehealth Training on Parents of Children with Autism in Albania

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The Effects of Telehealth Mand Training on Parents of

Children with Autism in Albania

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ABSTRACT

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The present study evaluated telehealth training with parents on techniques for working with their children with autism spectrum disorder in Southeastern Europe. The purpose of this study was to research the effects of telehealth training on the parents and the increase of mands on the children. The participants of this study included three mothers and three children, which totaled six participants. Parents were trained on how to increase functional communication in their child. Telehealth training was based on an effective training package called Behavior Skills Training (BST). BST consist of instructions, modeling, rehearsal, and feedback. The resources needed for the training were minimal. They included access to internet, a device installed with a camera, and the children's preferred items which were placed within view but outside the reach of the child. Sessions were recorded where parents interacted with their child during the generalization sessions as well as during the role plays with the trainer. The videos were observed in order to collect frequency data, determine if parents completed each step of the training, and if the child manded during each session. All three parent participants reported an increase in manding from their child, better communication skills between them and their child, and an increase in self-efficacy. These results suggest that countries in South-Eastern Europe should seek to implement telehealth training, mand training, and parent training as a program that not only these families may benefit from, but also the entire community. Future research should be conducted with a larger sample size and with more trainers using telehealth as an effective tool to increase better communication and decrease problem behaviors.

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DESCRIPTION OF THESIS STRUCTURE AND CONTENT

This thesis, *The Effects of Telehealth Training on Parents of Children with Autism in Albania*, is written in a hybrid format. In the hybrid format, both traditional thesis requirements and journal publication format are brought together.

The preliminary pages of this thesis fulfill requirements for formatting and submission to Brigham Young University. It is presented as a journal-ready format thesis that fulfills the qualification for publication in educations journals in the future.

The literature review is included in Appendix A. The consent form is included in Appendix B. Appendix C includes information about the instruments necessary for this study. Appendix D has the list of demographic questionnaires. Appendix E includes the training fidelity form. Appendix F is comprised of the operational definitions of the terms used during the research study. Mand skills training is found in Appendix G. And lastly, data collection form is in Appendix H.

This thesis format contains two reference lists. The first reference list involves references included in the journal-ready article. The second list includes all references used in Appendix A, titled "Literature Review".

Introduction

Autism spectrum disorder (ASD) is a neurodevelopmental disorder that involves repetitive behaviors or thought patterns as well as impairments in social skills and language (American Psychiatric Association [APA], 2013). Children with ASD also often emit many challenging behaviors such as aggression, self-injurious behavior, stereotypic behavior, tantrums, and destruction. (Holden & Gitlesen, 2006; Matson et al., 2011; McClintock, Hall, & Oliver, 2003; Rojahn, Matson, Lott, Esbensen, & Smalls, 2001). These challenging behaviors are present early in a child's life and often continue into adulthood (Rogers & Wallace, 2011). These challenging behaviors are associated with lack of communication and without effective intervention, challenging behaviors have been related with negative family outcomes such as increased stress levels and depression in parents (Bernheimer, Gallimore, & Weisner, 1990; Emerson, 2003; Hastings, Kovshoff, Ward, et al., 2005; Herring et al., 2006; Peters-Scheffer, Didden, Korzilius, & Matson, 2012; Seltzer, Greenberg, Floyd, Pettee, & Hong, 2001), and impaired sibling relationships (Greenberg, Seltzer, Orsmond, & Krauss, 1999; Orsmond, Kuo, & Seltzer, 2009). Hence, useful trainings and interventions practices done effectively can prevent and address challenges for families of children with ASD (Aman, 2005; Rodger, Braithwaite, & Keen, 2004).

ASD affects more than 1% of children and is usually noticeable in behavior and communication before the age of three years. The rate of autism diagnoses has increased rapidly since 1980 according to the Centers for Disease Control and Prevention (CDC) which reported that 1 in 59 children now have a diagnosis of ASD (CDC, 2018).This is an increased number compared to the one of 2004 which was 1 in 166 (CDC, 2014). This increase has expanded the need for intervention services, especially access to early intervention. As these numbers have

increased, the need for early intervention and more therapy also increases. This statistic may continue to change as epidemiological reports show that the numbers of children with autism may be increasing worldwide (Kopetz & Endowed, 2012; Symon, 2005)

Although ASD is a lifelong disorder, many studies have shown that early intervention may result in improvements in communication, social skills, and even increased intelligence (American Academy of Pediatrics, 2001). In the United States, the most commonly used evidence-based intervention is Applied Behavior Analysis (ABA). It teaches new adaptive, functional and social skills as well as functional communication while reducing problem behaviors (Virues-Ortega, 2010). The evidence-based practices such as ABA and can be costly. Parents may wait up to eight years to receive services, at which point it is no longer an early intervention and the effectiveness is questionable (Hall, Bouldin, Andresen, & Ali, 2012). There are many families who have a child with autism in their homes who do not receive these services due to inaccessibility (Chen, Liu, Su, & Lin, 2008).

In countries where access to professionals trained in autism intervention is limited, there is a greater impact of having a child with a disorder than in countries with better resources. According to a study done by Vasilopoulou and Nisbet (2016), most parents of children with ASD demonstrated lower subjective physical and mental health as well as poorer social functioning and lower satisfaction with their environment compared to the other groups.

Attempting to work and provide care to a child with special needs appears to be particularly difficult, and parent in that situation are also more likely to work part time and be paid less than people of the same educational background (Emerson, 2007; Fujiura, Park, & Rutkowski-Kmitta, 2005). Furthermore, studies have shown that poverty can be both the cause and the consequence of intellectual disabilities in these families (Emerson, 2007; Fujiura et al.,

2005). Corr, Santos, and Fowler (2016) found that children that come from families in poverty have an increased risk of academic failure, substance abuse, and life altering diseases.

One cost-effective way of disseminating effective practices based on ABA principles to families around the world is telehealth (Barkaia, Stokes, & Mikiashvili, 2017). Telehealth is not a specific type of treatment but rather a modality of treatment. Guidelines for telehealth treatment delivery exist in the USA and Canada (e.g., APA, 2013; American Telemedicine Association, 2013; Consortium of Telehealth Resource Centers, 2015). Telehealth is application of technology which shows "the use of telecommunications and information technology to provide access to health [or behavioral health] assessment, diagnosis, intervention, consultation, supervision, education, and information across distance" (Nickelson, 1998, p. 527). This can include communication through the telephone, email, online chat rooms, or videoconferencing, etc. (Phillips, Vesmarovich, Hauber, Wiggers, & Egner, 2001; Torres-Pereira et al., 2008). Telehealth allows parents to receive coaching from behavior therapists located all over the world.

Research has shown that parents have learned interventions and utilized them correctly with their children, helping them learn and benefit their developmental learning overall such as verbalization, social and adaptive skills (Brookman-Frazee, Stahmer, Baker-Ericzen, & Tsai, 2006). The learning can happen in many areas such as social and adaptive skills, functional communication, and expressive language. It was noted that parents of children who participate in interventions via telehealth consultation usually are highly satisfied with the levels of treatment (Hall & Bierman, 2015). Teaching parents how to intervene not only helps their children but also the family as a whole (Burrell & Borrego, 2012). This way, when the child desires something he used his verbal communication and interact more with the members of his family.

One limitation of previous studies is the location of the research. Most research has been completed in the United States of America, which limits the generalizability of the findings. Furthermore, in the few studies that have been done, parents act as trainers and they can learn how to implement strategies that have been taught to them effectively but also teach other parents how to work with their children (Kuhn, Lerman, & Vorndran, 2003; Loughrey, Betz, Majdalany, & Nicholson, 2014; Symon, 2005). The studies showed that when the parents interact with their children and they also involve other caregivers in the training it was beneficial for the child because of increased social interactions and communication between family members.

A cheaper and more easily attainable system for passing on important and beneficial information could be helpful to families around the world, specifically those in underdeveloped nations. The current study could add to the current literature by showing the following. First, that parents who are struggling with the functional communication of their children with autism diagnoses can be trained to increase function communication in their child. Second, it could demonstrate that telehealth can be a cost-effective delivery system that allows different behavior therapists and professional Board Certified Behavior Analysts (BCBAs) to reach out to developing countries. This study could also inform and advise families with a focus on mothers and first caregivers, who are one of the most influential individuals in the life of a child (Hastings, Kovshoff, Brown, et al., 2005). Finally, the study could train parents how to appropriately treat children with an autism diagnosis as well as train them on how to teach functional communication to their children on the spectrum. Meadan and colleagues showed that in 12 parent trainings for parents of children with autism, both parents and children had positive side effects (Meadan, Ostrosky, Zaghlawan, & Yu, 2009). The study showed improvement in the

social and communicative behaviors of the children diagnosed with ASD. The study examined the influence of parent-implemented strategies on their children's social skills and in learning new strategies.

According to a 2002 study, parent training increases the connection between the parent and their child and makes a difference in their lives (Dillenburger, Keenan, Gallagher, & McElhinney, 2002). As parents often spend the most time with their children, it is appropriate that they are the target of this training and they receive guidance during the training in order to work effectively with their children. Starting this study, the research team believed that by helping the mothers of those children with ASD, all lives involved, would improve. This change can lead to community and even national change in the way that those diagnosed with autism are cared for. Through telehealth, which is a system that facilitates the transmission of information, families may improve their interaction with their children and provide a better future and perhaps better employment.

The present study assessed the use of telehealth and instructed mothers in Albania on how to teach their children communication skills by using "manding" (the term for "request" used by applied behavioral analysts) as a way of functional communication. The purpose of this study is to increase levels of communication primarily between the child and parent, but the training can also be used to increase levels of communication, between the child and any other individual. The behavior interventions for three different children with autism used in this study were manding and teaching parents how to give praise (Plavnick & Vitale, 2016).

Statement of the Problem

This study focuses on addressing issues that have not been addressed or studied to date. While telehealth parent training has been shown to be an effective method in reaching more

families in geographically distant areas, there is little evidence on how effective it would be in various regions (i.e., Utah to Albania). A lack of evidence is also seen in how parent training via telehealth in the parent's native language can help children increase their functional communication, improve their life because of better communication, and create better relationships between the parent and the child. This study aims to address the issues regarding the parent training done via telehealth in families that have at least one child diagnosed with autism.

Statement of Purpose

The purpose of this study is to evaluate the effects of using telehealth technology for training parents of children with autism in Albania. Other countries in Eastern Europe have been the subject of similar studies on parent training (Hansen et al., 2017) and telehealth training (Latifi et al., 2015), but Albania is a unique country. As a study team, we wanted to conduct a study in Albania since Albania has a different culture, people, and language from other places where similar studies have been conducted. There are no BCBAs and access to services is significantly limited.

Many similar studies have shown that parents can be successful in learning interventions and using them to benefit their children's lives (Brookman-Frazee et al., 2006; Meadan et al., 2009; Suppo & Floyd, 2012). The intervention was expanded to teaching skill acquisition and increase self-efficacy and parent knowledge of effective teaching strategies. In general, the purpose of this study was to improve the communication skills between parents and their children through telehealth training.

Research Questions

To address the limitations in current research, this study sought to address the following research questions:

1. To what extent does telehealth training impact Albanian parents' ability to implement mand training with fidelity?

2. To what extent does mand training via telehealth increase children's mand behaviors?

3. To what extend is telehealth parent training socially valid in Albania?

Method

The following method section provides a detailed description of the participant selection and recruitment; the settings in which the research took place; the measures used for collecting and analyzing data; and the research design and data analysis. Approval was obtained from the institutional review board for this project.

Participants

Recruitment. The director of a clinic that served children with developmental disabilities in Vlore, Albania provided a list of ten parents of children with ASD. The clinic in Vlore was selected based on an established relationship with the university made through previous studies. After receiving the list of potential participants, the research team sent an email in Albanian to each of the suggested participants describing the purpose and procedures of the proposed study and asking about their willingness to participate.

In this email the criteria for participating in the study was outlined as follows: (a) children needed to be between 3 and 12 years old, (b) have internet access in the home (c) have a smart phone or a laptop with a camera (d) have time to participate in scheduled appointments (e)

children were non-verbal to the extent that they could speak no more than 10 words and were not able to make requests independently (f) commit to attending appointments.

Seven families responded and expressed interested in participating. The research team interviewed each family via Zoom® to ensure that they met inclusion criteria and were willing to participate. From the interviews, three parents met the inclusion criteria described above. Once the parents who met criteria were identified, they were sent consent materials in the Albanian language via email (see Appendix B). After the consent forms were completed, participants were then sent a demographic questionnaire sent by the study investigator via email. The recruited participants for this study met with the study investigator once a week via Zoom® or Skype©.

Three mother-child dyads were recruited for this study. Each child was diagnosed with autism or a related development disorder by their pediatrician and/or psychologist prior to participation. Basic participant information can be found on Table 1. The names used in this study are pseudonyms.

Samantha and Klevi. Samantha was a 32-year-old mother of two children. She completed high school and was a stay-at-home mother. Her oldest child, Klevi was a 6-year-old boy diagnosed with autism, attention deficit hyperactivity disorder (ADHD) and epilepsy. Klevi's receptive communication was delayed and consisted of following one or two step instructions with some difficulty. He struggled to maintain attention on tasks lasting longer than one minute at home and school. His expressive communication skills were significantly delayed. He could say approximately five words such as yes, no, water, mom and go. He was receiving speech therapy services twice per week in a clinic located in Vlore. He also attended kindergarten three days a week. His social play was usually initiated by his younger brother while in the home and he seemed to attend for a short amount of time. Klevi struggled to stay in

one place and focus on tasks given to him. His parent reported that he often ran away in public when he saw something he wanted due to not being able to express himself verbally. He rarely engaged in self-harming behaviors such as hitting himself on the head with an open hand.

Ema and Era. Era's mother, Ema, was 35 years old and Era was her only child. She had a master's degree from the University of Vlora and enjoyed her career as a mathematics teacher as well as spending time with her daughter. Era was eight years old, and diagnosed with autism by the Child Development Center of Tirana when she was three years old. According to testing done at the Child Development Center of Tirana, she had very limited expressive language, and her language comprehension was equivalent to a five year old. Her speech consisted of echolalia of the first or last two letters of words said by another person. On rare occasions she would produce a one word spontaneous verbalization which would usually be mom, have, am and head. Era's mother believed that social skills might have been delayed due to being an only child, and not attending school. Her family expressed that when she was not able to make efficient requests or express herself she would become frustrated and start pinching or biting the other members of her family. Era participated in skill development group therapy once a week, but her family did not report noticing a difference in her behavior.

Ani and Juli. Our third parent participant, Ani, was a literature teacher who lived in Vlore. She dedicated most of her time to Juli who was 4 years old and diagnosed with autism by pediatricians and psychologists in Albania and Greece. Juli had many complications such as difficulty walking without support, speech delays and being blind in one eye. Juli received Applied Behavior Analysis therapy (ABA) multiple times during the past 2 years and his parents were trained by the speech therapist and recreational therapist on how to work with him at home. His receptive language was around the level of a three-year-old child, and his expressive

language consisted of repeating others when prompted. He was able to follow one step directions consistently. Juli had no spontaneous speech, however, he was very good at trying new sounds and making nonsense words daily. He often displayed vocal self-stimulatory behavior by screaming and making high pitch noises. If he was interested in an object or activity, he would try to get the attention of the people involved in the activity. He preferred to play with a limited variety of toys and demonstrated only a few social skills while playing with his older sister.

Table 1

Participant Demographics

Participant dyad	Parent age	Child age	Child disability	Parent occupation	Parent education
Samantha	32	6	Autism & epilepsy	Caregiver	High School
Ema	35	8	Autism	Teacher	Masters
Ani	45	4	Autism & physical dis.	Teacher	Bachelors

Note. Participant ages are rounded to the nearest year. Parent education refers to the highest level completed.

Setting and Materials

The study was conducted using internet videoconferencing. Parents were in their family room while connecting via Zoom® or Skype© teleconferencing software with the researcher. The same room was used each meeting. The camera was pointed in the direction of the participants. Several items that were preferred to the child were arranged for the role play. During the generalization probe, when children were present, preferred items (toys, balls, etc.) were placed within view, but out of reach of the child.

Materials required by the research team for this study included a computer with Zoom® teleconference software downloaded or Skype©, a webcam, and a paper and pencil for collecting data. Materials required for parents included a computer or smart phone that could capably run

Zoom® teleconference software or Skype©, access to the internet, their child's preferred toys, and the capability to play with their children indoors on their digital devices.

Measures

Two direct measures obtained through observation were used to conduct this research. The first was parent implementation fidelity, and the second was child mands. Mands are defined as a vocal request by saying the name or the approximation of the object while facing the object or reaching for it. Mands are functionally equivalent to a request or a command. Mands are important because they can help an individual gain access to reinforcement or replace challenging behaviors with functional communication. One indirect measure was used following the study to collect social validity information from the parents. These will be described below. Other definitions for observable behaviors can be found in Appendix F.

Data collection procedures. The research team observed how the mothers implemented the skill being taught with their children. Researchers observed interactions between parents and children using video-conferencing two times throughout the study. A password protected file in Dropbox was also created where parents were able to upload the videos. The recorded videos were kept in a password protected computer that only people affiliated to the project could access. Providing feedback after each session was an essential part of the research for this training. Feedback was provided following each training session by the research team. All feedback was provided verbally and stated the correct response topography for the parents' behaviors. The videos and documents were also uploaded on the Dropbox online website provided by Brigham Young University where they were protected by a password and shared only with approved research staff. At the end of the training researchers conducted a follow up

questionnaire and observed how much parents had learned during training, how helpful it was, and how much their children improved during the data collection period.

Child mands. Skinner (1957) defined a mand as a response that one reinforces with a specific consequence and is under the control of deprivation or aversive stimulation. In our study manding was defined as vocal requests by saying the name or the approximation of the object while facing the object or reaching for it. To qualify for a mand in this study, it needed to be a mand for a specific item or include the first two or three sounds of the item.

Parent implementation fidelity. Implementation fidelity was measured during the role play using the task analysis checklist in Figure 1. Fidelity was the primary measure used throughout the study for making decisions for phase and condition changes. Each task analysis item is displayed as one of the steps on the training skill sheet. Steps were marked with a dichotomous "yes" or "no" indicating the presence or absence of each item. Parent implementation fidelity was measured during brief role play sessions. A new trial began when: (a) the parent completed all steps, (b) the child emitted a mand, (c) the parent re-arranged the environment.

Fidelity Checklist	Completed
1. Environment arranged (item ready)	Y N
2. Parent oriented to child	Y N
3. Parent used positive affect	Y N
4. Parent provides the model of the word	Y N
5. Parent waits 7 sec for the child to mand	Y N
Child Mands (option)	F P No
6. (No Mand) Parent models the word again (2nd time)	Y N
7. Parent waits 7 sec for the child to mand	Y N
Child Mands	F P No
8. (No Mand) Parent models the word again (3rd time)	Y N
Child Mands	F P No
9. Parent praises	Y N
10. Parent provides the item	Y N

Figure 1. Parent implementation fidelity checklist.

Social validity. At the end of the study a seven-item questionnaire was administered to parents. Parents rated their agreement on a 5-point Likert scale ranging from 1= disagree and 5= agree. The questionnaire was based on Hansen et al. (2017). The purpose of this questionnaire was to evaluate the goals, procedures, and outcomes of the study (Wolf, 1978). Figure 2 shows the questionnaire used at the end this study.

	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree
Increasing your child's requests is an important treatment goal.					
Training over the internet was effective.					
I trust the person who taught me the skills.					
I would prefer to have somebody to come to my house to show me how to help my child's behaviors.					
The training was helpful.					
My child's requests have increased since the training.					
I will use these skills in the future.					

Figure 2. Social validity questionnaire.

Procedures

Role play sessions. All trainings and assessments were conducted online using either

Skype© or Zoom®, whichever parents preferred. The intervention took place via video-

conferencing while participants were in their home. After a time was agreed upon, the parent

would be ready for a research team member to begin video-conferencing. The parent had

preselected motivating items and had them ready for the session. The motivating items would be

in one of the rooms of their house and often in the same room as their child. During the role play

sessions, the presence of the child was required not to be in the room. That way the parents could

focused on the training and role-plays. The research team trained and taught the techniques of

BST (Behavior Skills Training) via video-conferencing and answered any questions parents had

during the training. Role plays involved having the research assistant play the role of a child and the parent playing the role of the parent. Each trial required the parent or caregiver to prepare the environment, collect six to eight preferred objects, and be ready for the child to mand.

For a role play session, the first trial began when the therapist finished reading the script. Subsequent trials started when parents either (a) completed all steps, (b) the researcher with the role of the child emitted a mand or (c) the parent re-arranged the environment. Role play sessions began with the researcher reading the following script: *We are going to do a role play. You are going to play the part of the parent and I am going to play the part of the child. I would like you do what you would normally do with your child when they have something that they want. I might act different than your child, but what is important is how you act. Therefore, do what you would normally do with your child.*

A session consisted of three role-play trials. The first trial depicted the child engaging in a mand behavior without modeling. The second depicted the child engaging in a mand behavior with a model. The third depicted the child not engaging in a mand. The purpose of the three types of role plays was to ensure that parents were trained on all three possible scenarios they could face in real situations. Each scenario was repeated twice during role play sessions. Researchers measured how the parents implemented the training, and whether all steps were implemented with fidelity according to the manding of the child. After each meeting, upcoming appointments were set. After the training, ongoing performance feedback was provided after each role-play session.

Generalization probes sessions. At the beginning of the study, parents were asked to provide videos of them interacting with their child. Videos were ten minutes long and were recorded in a natural environment. Parents were asked to interact as they normally would with

their child and to show how they prompted mand behaviors. After baseline role plays were completed, parents submitted the first generalization video. The videos were recorded between 7:00 and 8:00 pm.

Following the training sessions and role plays, the second video was submitted. During sessions when the parents were asked to interact with their child, the research assistant would mute the microphone and observe how parents interacted when the child would mand for an object.

Baseline. All parents were prepared with the preferred items that motivated their child the most. Preferred items were placed within the view, but out of reach of the child. After the trainer greeted and went over what she would be working on that day, the parents were ready to role-play with the trainer or show the trainer how they worked with their child. The baseline phase began with the first role play session. The primary dependent variable was parent implementation fidelity. The trainer conducted the role plays where she played the role of the child and the mother played the role of the parent. Once a stable baseline was established with a minimum of three data points, parents were asked to submit a generalization probe video. As described above, this video was used to code parent implementation fidelity and child mands. Videos were made using Zoom© and Skype© as web teleconferencing software. Parents were given a prompt that read "We would like observe you interacting with your child for two minutes. Using strategies, you know or have learned, please do what you need to do to increase your child's requests." We collected three data points for baseline for the first mother, four baseline data points for the second mother and five baseline data points for the remaining mother.

Training. The training steps are provided on Table 2 found in Appendix E. The study used a Behavior Skills Training (BST) approach. There are four steps to conducting BST. The first step is to provide instructions, where the trainer provides clear steps to the trainee. The second step is modeling, where the trainer models the steps to perform the skill. The third step is rehearsal where the trainee has an opportunity to practice the steps. The final step is feedback where the trainer provides any correction and/or positive feedback to the trainee. Steps that are not completed correctly in BST are repeated until an accurate demonstration of the skill is made.

The training was conducted during a single session for each mother, where the research assistant trained them in the Albanian language, with the help of the project mentor who assisted through the entire process. The project mentor was Dr. Hansen; his role was to observe the sessions while the research assistant trained the parents and collected data, implementation fidelity was done together by the research assistant and project mentor who are both fluent in Albanian. After each session, mothers decided on a time, place and day when they were be able to record a video. All training sessions were recorded. This was essential so that researchers could see not only how parents were implementing the new things they had learned through this training, but also how well they maintained the previous teachings. The implementation fidelity was assessed during role play sessions and also during in-vivo sessions with the child.

The content of the training was focused on training parents to increase mands in their child. For example, if a child is thirsty (i.e., motivating operation), and they walk into a room and ask their father for a glass of water (mand), and the father provides the child with a glass of water (reinforcer), the child has engaged in a mand behavior. Two types of fidelity were collected on the research assistant: training fidelity and role-play fidelity.

Training fidelity. Training fidelity was measured on a form that included each step of the training as it was to be delivered by the principle investigator (see Figure 3). There was a total of 17 yes or no items that were coded for fidelity for each parent. The number that they got correct was divided by 17 to obtain the percentage. Training fidelity was 100% for Samantha, 88.2% for Ema, and 100% for Ani for an average training fidelity of 96.1%.

Training Fidelity	Yes/No
Trainer greets the parents online and builds rapport	
Trainer provides consent document	
Trainer conducts demographics interview	
Trainer completes SDQ	
Trainer completes baseline role plays	
Parents submit 10 min video	
Trainer observers how the parents interact with the child and keeps data	
Trainer provides an explanation and rationale for mand training	
Trainer trains & models the parents in all the steps of Mand training,	
Trainer gives time to parents to ask any questions that they may have	
Parents engaged in training	
Trainer collects data	
Trainer conducts a practice role play with parents following the training	
Trainer gives feedback	
Trainer observed how the parent will implement the lessons on their child	
Trainer gives feedback and allows time for any of their questions	
Trainer closes the training online.	
Total Training Time:	

Figure 3. Training fidelity form.

Role play fidelity. Role play fidelity was coded on 23.1% of assessments. Role-play fidelity was coded on a form that can be found on Figure 4. There was a total of five items on the role-play fidelity rating. Role-plays were delivered at 100% fidelity throughout the study.

Steps	Yes/No
Trainer read the role play script	
Trainer ensured that the parents arranged several items	
Trainer emitted mands	
Trainer refrained from correcting parents mistakes	
Trainer thanked the parents at the end	

Figure 4. Role play fidelity form.

Interobserver agreement. Interobserver agreement (IOA) is one indicator of measurement quality in this study. According to Cooper, Heron, and Heward (2007) , there are many methods for calculating IOA, each one of them gives a different view of the extent and nature of the agreement. Methods of calculating interobserver agreement for data obtained by event recording are based on comparing a) the total count recorded by each observer per measuring period and b) the counts tallied by observers during each of the series of smaller intervals of time within the measurement period or c) each observer's count of 1 or 0 on a trial-by-trial basis. Two observers watched randomly selected videos and scored each trial independently for 23.1% of sessions. An agreement was coded when the two observers scored the same code for an occurrence or nonoccurrence of a behavior in each cell. A disagreement was coded when the two observers' behavior observations differed in a cell. Interobserver agreement (IOA) was calculated by dividing agreements by the sum of agreements and disagreements. IOA for parent implementation fidelity was 98.3% (range = 90.0%-100.0%), for child mands IOA was 95.4% (range = 91.0%-100.0%, for training fidelity, IOA was 100%, and for role-play fidelity IOA was 100%.

Design and Analysis

This study utilized a non-concurrent multiple baseline across participants design (Watson & Workman, 1981). The non-concurrent design was chosen because parents were recruited at different times and were independent of each other. Multiple baseline designs are used because they are appropriate for evaluating the effects of skill acquisition. Analyzing the data and the changes that happened in different children and in different families during a period of time is an important element of the data analysis. The independent variable is the training and the dependent variable are the parent's mand training skills.

In this design the data was collected over three data points from our three participants. Baseline data was gathered from each participant. Following the baseline simulation, training data was collected for the participants and then finally a follow up simulation was done. This process continued until all three participants received the intervention. The graphed data shows the results collected during the time. When the study was completed, we used the visual data analysis of level, trend, variability and phase change consistency to identify the effectiveness of the intervention.

<div align="center">

Results

</div>

Figure 5 displays data collected on parent implementation fidelity in both role play and generalization sessions and child mands during generalization sessions. The X axis shows the sessions, the Y1 axis shows the percentage of mand training steps completed, and the Y2 axis shows the frequency of child mands. In this section, the results are described for the parents' training fidelity during role-play sessions, generalization probes, and the child mands. Each role-play session data-point on the graph represents three trials as described above.
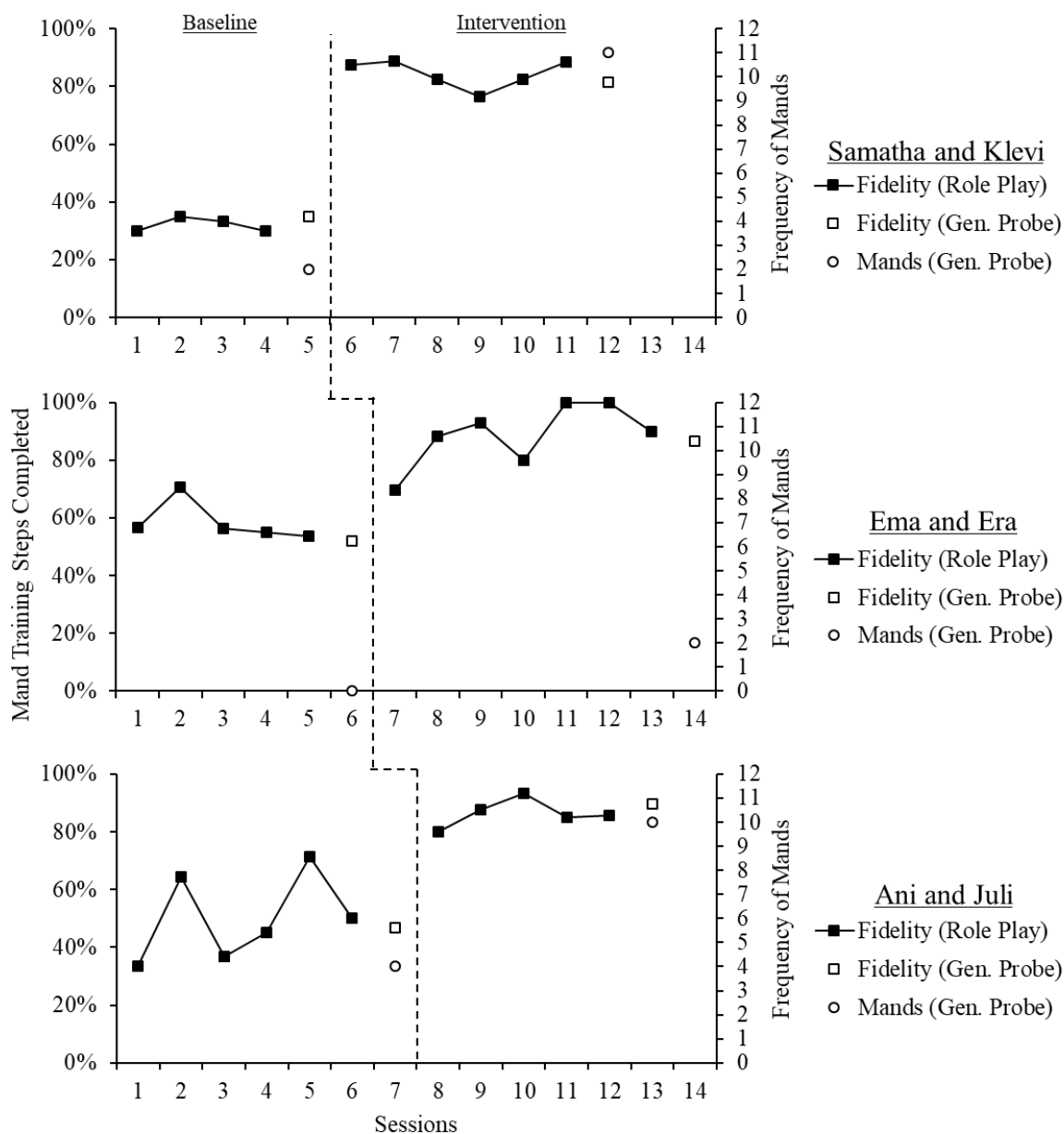
Figure 5. Results of parent fidelity and child mands.

Parent Treatment Fidelity

      Samantha. During the baseline phase role-play sessions, Samantha achieved a

percentage of 32.1% steps completed (range = 30.0% to 35.0%). The generalization probe was

similar to the role-play sessions, 35.0%. Visual analysis showed that there was very little

variability and a flat trend during the baseline. During the intervention phase, Samantha's fidelity

increased to an average of 84.4% (range = 76.5% to 88.9%). The generalization probe following the intervention phase showed a similar level as the role-play sessions, 81.6%. Visual analysis showed very limited variability and a high degree of change from baseline to the intervention phase. The trend was stable during the intervention phase. Samantha frequently skipped the step dealing with wait time and she would elaborate on the words.

Ema. During baseline, fidelity for Ema's sessions was 58.4% steps completed (range = 55.0% to 70.6%) during the role-play sessions. The generalization probe showed a slightly lower level of fidelity, 52.1%. Visually, role-play data had small amounts of variability with a stable trend during baseline. When the training was implemented, fidelity increased to an average of 88.7% (range = 69.6% to 100.0%). The generalization probe during the intervention phase was similar to the role-play sessions, 86.6%. Visually, role-play data had moderate variability with an increasing trend during the treatment phase. The most frequent steps that Ema struggled with were wait time and presenting the model as a question rather than modeling the word.

Ani. During baseline, Ani's fidelity was an average of 50.1% steps completed (range = 33.3% to 71.4%). The generalization probe showed similar fidelity to the role-play sessions, 46.7%. Visual analysis of the baseline showed moderate variability with a slight increasing trend. When the intervention was implemented, the fidelity during the role plays increased to 86.3% (range = 80.0% to 93.3%). The generalization probe showed a similar level to the role-play sessions, 89.5%. Visual analysis showed a stable trend and high level immediately following baseline. The most frequent steps that Ani missed were the same as Samantha and Ema. Ani tended to not wait long enough after prompting the Juli. In addition, she would phrase models as questions.

Child Mands

During baseline, Klevi had 2 mands. Following the intervention, Klevi increased to 11 mands. During baseline, Era had 0 mands. Following the intervention, she increased slightly to 2 mands. During baseline Juli engaged in 4 mands. Following the intervention, he increased to 10 mands.

Social Validity

The results of the social validity questionnaire are shown in Table 2. Parents rated all items highly. On average, items 1,2,3,5,7 were rated on average of 5, which is indicated strong agreement with the statement. The lowest items were 4 and 6, although lower, they still indicated agreement to strong agreement with the statements.

Table 2

Social Validity Results

	Dyad 1	Dyad 2	Dyad 3	Average
Increasing your child's requests is an important treatment goal.	5	5	5	5.0
Training over the internet was effective.	5	5	5	5.0
I trust the person who taught me the skills.	5	5	5	5.0
I would prefer to have somebody to come to my house to show me how to help my child's behaviors.	4	5	5	4.7
The training was helpful.	5	5	5	5.0
My child's requests have increased since the training.	4	5	5	4.7
I will use these skills in the future.	5	5	5	5.0

Note. Social validity questionnaire was rated on a scale of 1-5.

Discussion

This study focused on parent training via telehealth to assist parents with implementing mand training with fidelity. This study trained parents effectively and increased communication

between the children with ASD and their caregivers. Measures included parent implementation fidelity during a role play and during a generalization video along with their children's mands recorded during the generalization video. The study also asked parents about their perspectives on the telehealth training and the effects of the study. Overall, findings indicated that the training was effective and socially valid. Each of these findings will be discussed in this section.

The first research question evaluated the extent to which telehealth training impacted Albanian parents' ability to implement mand training with fidelity. This question was answered in the following way. Across baseline, all mothers lacked some of the components of mand training including modeling the word, giving the child time in order to repeat the word back, reinforcing any efforts. Children also displayed a lack of skills as they did not mand for many items. Following the training, all three parents increased fidelity to a higher level (range = 88.4%-88.7%). The parents were able to prompt and model more effectively, give reinforcing approximations, and whole words.

The second research question evaluated the effects of telehealth training on the children's mand behaviors during a generalization probe. Telehealth training showed that children with ASD can potentially improve their expressive language and increase their requests towards their preferred items. When mothers implemented the training with fidelity, a change in behavior and in expressive language was noticed as well as an increase in mands from all three children. High percentages of treatment integrity likely contributed to the telehealth intervention's effectiveness. Participants reported that their children used more words and requests outside of the study context as they tried to implement the elements, they learned during the telehealth training.

The third research question evaluated the social validity of the telehealth training for Albanian parents. The results of the social validity questionnaire showed that mothers found the

telehealth training procedures easy to implement, and helpful for their children. Parents also indicated that were happy with the results and would surely continue to use what they learned during the training.

Taken together these results add to the research literature in the following ways. First, telehealth studies have not been used in this manner in Albania. Although a video parent training has been reported in Albania (Dai et al., 2018), no other studies have used telehealth to train parents. The present study extends the findings of the study by Barkaia et al. (2017) conducted in the republic of Georgia which trained parents directly. Barkaia and colleagues (2017) showed that telehealth methods could be used to train therapists who worked with parents and children, but the present study worked directly with parents to coach and train them on a basic behavioral language intervention. Lastly, the present study extended the research on applied behavior analysis interventions in Albania by showing how a naturalistic teaching arrangement, implemented by parents, could increase children's mand behaviors.

More broadly, the present study extends the findings of current research to the effectiveness of telehealth training in behavior analysis. Tsami, Lerman, and Toper-Korkmaz (2019) presented a study including telehealth and mand training in five different countries but it did not include Albania. Involving mothers of a developing countries as participants in a study where not only parent skills were developed but also their children's mand skills increased makes a compelling case for telehealth training.

The telehealth training was effective in increasing mands and communications in children but also bettering a relationship between them and the mothers. Parents reported that meeting with the research assistant and learning more about techniques on how to better teach their child how to request increased their skills significantly, and they especially appreciated receiving these

services in their native language. These results were reported by all three mothers despite their age or background.

Limitations

This study adds to the literature on using telehealth as a method of training. In spite of the strengths of this study and the promising findings, there were several limitations. First, there was only one baseline and one treatment data point on child manding so the results should be interpreted with caution. Second, the present study was conducted with the support of western professionals. In Albania, where there are no BCBAs, a study similar to this would be difficult. Third, the training was on a single skill that was taught in one session. Therefore, it is unknown if these findings would impact other parenting skills in Albanian families. Fourth, only mothers of children with autism participated in this study, therefore, it is unknown if fathers could implement similar strategies. Fifth, there was only one data point lag across the participants which makes it difficult to interpret the outcomes. Another limitation was that intervention agent and data collector were the same person (not blinded). Finally, no follow-up was conducted to identify longer-term impacts of the intervention and training did not include mastery criterion. In future studies, the experimenter could improve by preparing a more involved training where parents are given more time to self-evaluate the training and express what they learned through feedback given to them.

Future Research and Conclusion

Future research could address some of these limitations in the following ways. Similar to Dai and colleagues (2018), the present study could evaluate trainings with a larger sample size and a greater number of parenting skills. In addition, findings could be extended to evaluate corresponding changes in child behavior, which would ultimately validate these practices. Future

research could include a broader sample size that includes mothers, fathers, and other caregivers such as grandparents.

In conclusion, the present study was an evaluation of a telehealth training for Albanian parents. The aim was to teach a simple skill, namely parent implemented mand training. Three parents participated and increased their ability to teach their children to engage in mands. These findings add to several recent studies on the efficacy of telehealth as a means of disseminating effective behavioral interventions in developing countries.

If goals are to (a) train parents in Albania, (b) who have children diagnosed with autism, and (c) use telehealth technology, then skilled trainers would be needed. Skills necessary would include language abilities or experience working with translators in the Albanian language. In this article the researchers outlined the concerns and problems that they came across and stated the most common issues that they faced throughout the study.

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APPENDIX A

Literature Review

Autism

Autism spectrum disorder (ASD) is a group of life-long neurodevelopmental conditions characterized by significant deficits in the social and communication domains and by restrictive, repetitive, and ritualistic patterns of behavior, interests, or activities (American Psychiatric Association [APA], 2018). The last several years have shown that ASD has significantly increased in the UK and US populations with estimates reaching 1.7% and 2.0%, respectively (Blumberg et al., 2013). Recent estimates have suggested 1 in every 59 individuals have a diagnosis of ASD (Centers for Disease Control and Prevention [CDC], 2018). Children with ASD also often engage in many challenging behaviors such as aggression, self-injurious behavior, stereotypic behavior, tantrums, and destruction (Holden & Gitlesen, 2006; Matson et al., 2011; McClintock, Hall, & Oliver, 2003; Rojahn, Matson, Lott, Esbensen, & Smalls, 2001). These challenging behaviors are present early in a child's life and often continue into adulthood (Rogers & Wallace, 2011). These challenging behaviors are associated with lack of communication and in the lack of effective intervention, challenging behaviors have been related with negative family outcomes such as increased stress levels and depression in parents (Bernheimer, Gallimore, & Weisner, 1990; Emerson, 2003; Hastings et al., 2005; Herring et al., 2006; Peters-Scheffer, Didden, Korzilius, & Matson, 2012; Seltzer, Greenberg, Floyd, Pettee, & Hong, 2001), and impaired sibling relationships (Greenberg, Seltzer, Orsmond, & Krauss, 1999; Orsmond, Kuo, & Seltzer, 2009).

The lifelong nature of this condition also means a large demand on different services of support, such as social care, speech therapy, behavior therapy, and other education sectors. In the

UK, the cost of these services have been estimated at £1.5 ($2.2) million across a lifetime (Buescher, Cidav, Knapp, & Mandell, 2014), making ASD one of the costliest medical conditions to support (Knapp, Romeo, & Beecham, 2009). Individuals with ASD have shown lower scores on life-quality indicators as well as lower rates of employment, therefore having to be fully dependent on their families for their entire lives (Howlin, Goode, Hutton, & Rutter, 2004). The researchers' goal in this study is to assess the effects of using telehealth technology for training parents and assist them in developing better communications skills for their children.

Telehealth

Technology has become an important part of our lives with smart phones, laptops, and high-speed internet, which makes the connections between different parts of the worlds easily accessible and more affordable. Due to the importance of technology in our society, it is not surprising that healthcare organizations have embraced technology in newer ways. The application of technology in providing such services has been termed 'telehealth,' which is "the use of telecommunications and information technology to provide access to health [or behavioral health] assessment, diagnosis, intervention, consultation, supervision, education, and information across distance" (Nickelson, 1998, p. 527). This can include communication through the telephone, email, online chat rooms, videoconferencing, etc. (Phillips, Vesmarovich, Hauber, Wiggers, & Egner, 2001; Torres-Pereira et al., 2008).

Telehealth uses telecommunication to share information in different formats (e.g., audio, digital, video) and provides professional health-related education, clinical care and administrative services from a distance (Darkins & Cary, 2000). In previous studies, the effectiveness of parental interventions were demonstrated by seeing a significant reduction in the

children's difficult behaviors as well as improving the responses in expressive language and functional play (Anan, Warner, McGillivary, Chong, & Hines, 2008).

Telehealth is also known as telemedicine, or video therapy, and is a form of technology that allows individuals to receive professional services, medical information, and support from a distance (Perednia & Allen, 1995). This may involve video conferencing and video streaming to communicate in real time with a healthcare provider (Dudding, 2009). Telehealth expands beyond traditional health providers, diagnosis, and monitoring and describes a broader scope of different healthcare services such as educating and training patients, parents, or caregivers at a distance. It is a diverse collection of technologies and has diverse clinical applications.

Nickelson (1998, p. 527) wrote, "The use of telecommunications and information technology can provide access to health [or behavioral health] assessment, diagnosis, intervention, consultation, supervision, education, and information across distance." This access can be provided via telephone, computer, Zoom©, Skype©, VSee©, Viber©, etc., so long as health privacy issues are considered. Telehealth has been applied in many ways across a number of fields. For instance, it has been used for parent training (Reese et al., 2015; Xie et al., 2013), speech and language therapy interventions (Georgeadis, Brennan, Barker, & Baron, 2004; Grogan-Johnson et al., 2011), and mental health support (Klein et al., 2010).

For decades, telehealth has been established as a viable option to address the disparity between the demand for and the availability of a variety of rural healthcare needs (Wittson & Benschoter, 1972). Technology demands, interest in technology, and culture have changed in the last 20 years. Technology has developed in many ways that have helped society drastically. Technology can be accessed any time of the day and in virtually any location with basic, inexpensive equipment to customize the information relevant to the individual's learning needs.

This information can be shared across settings and people (Feil et al., 2008). The need for telehealth has increased and has started to be used in many clinical applications. For example, it is being used as shorthand for remote electronic clinical consultation. Telehealth was shown to reduce costs associated with providing behavior analytic interventions by up to half (Horn, Barragan, Fore, & Bonham, 2016; Jennett et al., 2005). It was viewed favorably by parents living in rural communities (Salomone & Maurizio Arduino, 2017).

Telehealth has been the solution for remote areas where communities find it challenging to access various services (Barretto, Wacker, Harding, Lee, & Berg, 2006; Fisher et al., 2014; Lee et al., 2014; Vismara, Young, Stahmer, Griffith, & Rogers, 2009). Incorporating communications of telehealth that include video conferencing technology platforms has made the services more accessible. These services are less expensive than in-person treatment, which includes other expenses such as substantial travel and office expenses. In-person treatments typically require more of a time commitment, especially when the clients live in the rural or remote areas. Another advantage telehealth provides is that it allows for the dissemination of services to a wider client community and operates over multiple settings, such as clinics, schools, and homes. Most particularly, it provides services in geographically distant areas (Lee et al., 2014).

Telehealth services have been used in behavior assessments conducted for children with problem behaviors (Barretto et al., 2006). The services were provided via videoconferencing rather than in a hospital or other facility. Researchers have used telehealth for professional development and parent training for ASD (Boisvert, Lank, Andrianopoulos, & Boscardin, 2010). In the 2010 study, 46 participants with ASD received services delivered via telehealth. The results suggested that telehealth was a promising approach in treatment of individuals with ASD.

Hamad, Serna, Morrison, and Fleming (2010) trained 51 professionals, paraprofessionals, and family members in principles and procedures of Applied Behavior Analysis (ABA) using an online distance-learning course that included narrated slide presentations, video examples, and application exercises. The study showed the effectiveness of the training using the long-distance courses.

More recently, Wacker et al. (2013) performed a study in which he implemented a functional analysis procedure and found that communications through technology and distance-coaching can be an effective way to train the parents of children with ASD. The costs for implementing in home telehealth were significantly less than in-home therapy. The study demonstrated that by training parents on how to better teach functional communication to their children, problem behaviors were reduced. Taken together, these studies show that telehealth is an effective platform not only in medicine but also in parent training by increasing the parent's knowledge and implementation skills (Meadan-Kaplansky & Daczewitz, 2015). This method allows specialists to provide training, consultations, and clinical service in real time at any distance.

Barkaia, Stokes, and Mikiashvili (2017) demonstrated that telehealth coaching was effective in helping therapists increase verbalizations in children with autism. Therapists in the Republic of Georgia were trained by researchers in Virginia in the United States to provide coaching for professionals in Georgia (Barkaia et al., 2017). After collecting a baseline of children diagnosed with ASD on verbal communication, they started the training in manding and echoics. In this training, they observed how the child independently (without any prompting) requested an object, item, or action. During the baseline, the Georgian therapists were instructed to implement interventions for language development using their current knowledge. The coach

provided three therapists with written descriptions of the echoics and mand verbal operants (Barkaia et al., 2017). The results showed that cultural differences between Virginia and Georgia-Sakartvelo influenced coaching comments. The mean level of non-descriptive praise was higher than the mean level of descriptive praise for both groups. Even though the coaching and all of the data collected were in Georgian, the study was under the direction of an English-speaking graduate student in America.

This mismatch in culture is a potential weakness of the study as it is anticipated that teaching is most effective within the same culture rather than from an outside culture. Teaching in the native language had a great impact in this study as it was more acceptable and understandable not only as a language but also culturally.

Many studies, including the telehealth studies, have shown promise in teaching different behavior techniques, various management strategies, and general parenting technique to low income and/or young parents. This study adds to current literature a study of parents in Eastern Europe being trained on how to teach their children functional communication skills using telehealth as a vehicle for the training (Baggett et al., 2010; Feil et al., 2008; Mackenzie & Hilgedick, 2000). Telehealth has been shown to reduce costs associated with providing behavior analytic interventions by up to half (Horn et al., 2016; Jennett et al., 2005).

According to several studies, video conferencing techniques have shown to be a great way to teach, give instructions and feedback remotely, and implement different trainings and techniques of behavioral training (Heitzman-Powell, Buzhardt, Rusinko, & Miller, 2014; Machalicek et al., 2016; Vismara, McCormick, Young, Nadhan, & Monlux, 2013; Wainer & Ingersoll, 2015). Even though there have been many studies regarding telehealth, little research

has been conducted in Albania. Our study adds to the literature by researching more in the telehealth field regarding the training of parents who have children diagnosed with autism.

To determine the extent to which telehealth could be helpful, this study focused on mand training via telehealth to parents in Albania. A mand is a verbal operant maintained by a characteristic reinforcer and is evoked by the establishing operation for that reinforcer and is similar to a request given by one person to another (Skinner, 1957). Interventions based on Applied Behavior Analysis (ABA) have been shown to be very effective in reducing problems associated with autism (Virues-Ortega, 2010). In spite of its effectiveness, ABA interventions can be expensive and require technical expertise to implement (Keenan, Dillenburger, Moderato, & Röttgers, 2010).

Albania

Albania is a small developing country located in the Balkan Peninsula with a border on the Adriatic and Ionian coastline. Albania has a population of 3,057,220 (Central Intelligence Agency [CIA], 2018) where the majority of the population are ethnic Albanians. The census of 2013 reports 68,448 individuals with disabilities, which represents 2.2% of the current population (CIA, 2018). According to a report published by "Save the Children," this percentage includes only those who are receiving disability payments. The report documented a significant underestimation of children with disabilities in the country (Cuko, Kulla, & Kasapi, 2012).

Albania struggles with early detection and access to services for individuals with autism and UNICEF (2016) reports a subpar system of care and numerous barriers to that care. It is difficult to know the actual circumstances because of the lack of research within this area. Networks such as Autism Speaks Global Autism Public Health Initiative (GAPH) that attempt to increase the quality of life of those who have ASD or are diagnosed with different disabilities

and mental illness have been established in Albania. Even though there are networks starting to flourish in Albania, they are mainly located in the capital and they cannot afford to allow access to every family or provide services to them. According to the HDI (Human Development Index), Albania remains one of the poorest countries in Europe (CIA, 2018). Since there is a lack of services, parents have a hard time finding clinics who will accept their children (Dai et al., 2018). Access to smartphones and internet technology (Sherifi & Senja, 2015) combined with a lack of professional resources makes Albania a good location to evaluate telehealth training.

Families cannot afford to pay for special services for several reasons. A bad economy, for example, contributes to the struggle. Many families of children with autism face copious amounts of stress and they tend to be jobless or work part time at best. Autism can be a cause of poverty in developing countries (Fujiura, Park, & Rutkowski-Kmitta, 2005). Albania also lacks professional resources, for example, there are no Board-Certified Behavior Analysts (BCBAs) in Albania as of February 2020 (Behavior Analyst Certification Board, 2020). Therefore, telehealth services could be helpful. Because of the lack of trained BCBAs in Albania, many children diagnosed with ASD do not receive services. Telehealth could be utilized to help the parents learn how to teach manding through functional communication (Latifi et al., 2015). In addition, Albanian families confront difficulties that relate to economy, education, accepting culture, and the transportations for families that live in the rural areas. Since there is a lack of services, parents have a hard time finding clinics who will accept their children.

Family members such as mothers, who get trained and learn to implement behavior support strategies benefit from decreased child challenging behavior and functional skills and may experience reduced stress and depression in the process (Feldman & Werner, 2002; Koegel, Bimbela, & Schreibman, 1996; McConachie & Diggle, 2007; Schreibman, Kaneko, & Koegel,

1991; Vaughn, White, Johnston, & Dunlap, 2005). Parent education may also facilitate parent generalization of skills to other challenging behavior or family routines (Sears, Cho Blair, Iovannone, & Crosland, 2013). However, many families of children with ASD experience obstacles in support to implement intervention strategies at home and in the community (Koegel, Symon, & Koegel, 2002; Snell-Johns, Mendez, & Smith, 2004).

Basic skills, such as requesting desired items, are limited in children with autism. In the present study, the study team coached three mothers in these basic skills, such as manding using functional communication. Parent training has been frequently used for parents of children with ASD or different behavior disorders (Brookman-Frazee, Stahmer, Baker-Ericzen, & Tsai, 2006). The studies have shown that through these trainings' parents learn to reduce problem behaviors and improve their child's verbal communications skills (Symon, 2005).

Mand Training

One of the primary diagnostic features of autism is communication deficits (American Psychiatric Association, 2015). One intervention to improve communication in children with autism is Mand Training (Shafer, 1995). Mand training involves contriving motivating operations (MO), modeling and prompting, and contingent reinforcement (Sundberg, 2004). Michael (1988) also recommends that mand training be conducted in natural environment. Mand training delivered by parents has been shown to increase requests in children (Chaabane et al., 2013). Parent implemented mand training has not been evaluated when delivered via telehealth in Albania, therefore, this study aims to evaluate and study the effects of telehealth in Albania.

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APPENDIX B

Consent Forms

<u>Consent to be a Research Subject</u>

<u>Introduction</u>

This research study is being conducted by Blake Hansen, an assistant professor at Brigham Young University, Provo, Utah USA, to determine effective methods of teaching parents of children with disabilities how to manage simple challenging behaviors and teach skills. You were invited to participate because you have a child with a disability.

<u>Procedures</u>

If you agree to participate in this research study, the following will occur:

> Between 1 July and 22 July, you will be called for an informative session about the research and the trainings. It will last 30 minutes so that you may learn more about the study and complete several forms. This will be conducted online using video conference software.

> Between 1 July and 22 July you may record a video of how you interact with your child. The video should be 10 minutes long. We will assist you with a means to record you and your child.

> Between 23 July and 23 August you will have a 30 minute training. You will be video recorded during the training.

> Between 24 August and 30 August you will be asked to complete several forms about the training. You may record another video of how you interact with your child. The video will be 10 minutes long. We will assist you with a means to record you and your child. This meeting will be online and last 40 minutes.

> Between September 9 and 30, one meeting will be held in Tirana where you will meet research staff and have an opportunity to share the skills you have learned with others. This meeting will be in person and last 40 minutes.

> We will provide all materials and be available to answer any questions you may have.

<u>Risks/Discomforts</u>

There is a minor risk of loss of privacy through the research process. The researcher will mitigate this risk by assigning you a random number in place of your name on all stored documents. We will share video recordings with others only if you agree to allow the researcher to do so.

<u>Benefits</u>

There will be no direct benefits to you. It is hoped, however, that through your participation researchers may learn how to help parents of children with disabilities.

<u>Confidentiality</u>

The research data will be kept on a password protected computer and only the researcher and staff will have access to the data. At the conclusion of the study, all identifying information will be removed and the data will be kept in the researcher's locked office.

BYU	Institutional Review Board	
	7-19-2019	1-19-2020
	Approved	Expires
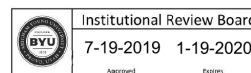
Compensation

Participants will receive $20 USD. We will provide you will all materials for this study.

Participation

Participation in this research study is voluntary. You have the right to withdraw at any time or refuse to participate entire without jeopardy to your standing with Brigham Young University.

Questions about the Research

If you have questions regarding this study, you may contact Blake Hansen at blake_hansen@byu.edu; 801-422-4691 for further information.

Questions about Your Rights as Research Participants

If you have questions regarding your rights as a research participant contact IRB Administrator at (801) 422-1461; A-285 ASB, Brigham Young University, Provo, UT 84602; irb@byu.edu.

Statement of Consent

I have read, understood, and received a copy of the above consent and desire of my own free will to participate in this study.

Name (Printed): _____ Signature _____ Date: _____

Video Consent

I consent to be video recorded during training for a total of 45 minutes.

Name (Printed): _____ Signature _____ Date: _____

I consent to make a video of me interacting with my child for a total of 90 minutes.

Name (Printed): _____ Signature _____ Date: _____

Miratimi per te qene subject I Kerkimit shkencor

<u>**Prezantimi/Parathenia**</u>

Ky studim hulumtues është duke u zhvilluar nga Blake Hansen, një profesor asistent në Universitetin Brigham Young, Provo, Utah USA, për të përcaktuar metodat efektive të mësimit të prindërve të fëmijëve me aftësi të kufizuara si të menaxhojnë sjelljet e thjeshta sfiduese dhe të mësojnë aftësi te ndryshme. Ju u ftuat të merrni pjesë sepse keni një fëmijë me aftësi të kufizuara.

<u>**Procedura**</u>

Nëse pranoni të merrni pjesë në këtë studim kërkimor, do të ndodhin këto:

- Midis datave 1 korrik dhe 22 korrik ju do te ftoheni per nje senace informuaese mbi hulumtimin dhe trajnimin. Ky trajnim do te zgjase 30 minuta ne menyre qe te mesoni me teper rreth ketij studimi dhe te plotesoni disa form. Kjo do te behet online duke perdorur sofuerin e vidoefoncerences
- Mes Datave 1 korrik dhe 22 korrik ju mund te regjistroni nje vido se si nderveproni me femijen tuaj. Vidjoja duhet te jete 10 minuta e gate. Ne do tju ndihmone me nje pjet per te regjistruar ju dhe femijen tuaj.
- Mes datave 23 korrik dhe 23 gusht ju do te keni nje trajnim 30 minutesh. Do te regjistrojme vidjo gjete ketij trajnimi gjithashtu.
- Prej 24 gushtit dhe 30 gushtit do tju kerkohet te plotesoni disa forma ne lidhje me trajnimin. Ju do te regjistroni nje vidjo tjeter se si nderveproni me femijen tuaj. Videoja do te jete 10 minuta e gjate. Ne do tju ndihmojme me nje mjet per te regjistruar ju dhe femijen tuaj.Ky takim do te jete online dhe do te zgjase 40 minuta.
- Midis datave 9 shtator dhe 30 shtator do te mbahet nje takim ne vlore ose ne tirane ku ju do te takoheni me stafin kerkimor dhe do te keni mundesise per te ndare me nejri tjetrin aftesite qe keni mesuar. Ky takim do te zgjase 40 minuta.
- Ne do te sigurojme te gjitha materjalet dhe do te jemi ne dispozision per tju pergjigjur cdo pyetje qe mund te keni.
- Pasi te mbarojme me te gjitha traojnimet do tju kerkojme prinderve qe te plotesojme nje pyetesor te fundit, te japin feedback reth trajnimit dhe kerkmit shkencor, cfare ata mesuan etj.
- Ne do te sigurojme qe prinderit kane materjalet e duhura gjate gjithe trajnimit.
- Ne Gusht do te perpilojme dhe analizojme te gjitha te dhenat qe do te marrim nga studimi dhe do te shkruajme rezultatet e studimit.
- Ne Tetor do te behet prezantimi perfundimtar I tezes.

Rezziqet/Shqetesimet

Ekziston një rrezik i vogël për humbjen e privatësisë përmes procesit të kërkimit. Studiuesi do ta zbusë këtë rrezik duke ju caktuar një numër të rastësishëm në vend të emrit tuaj në të gjitha dokumentet e ruajtura. Ne do të ndajmë regjistrimet video me të tjerët vetëm nëse pranoni të lejoni që kërkuesi ta bëjë këtë.

Perfitimet

Nuk do të ketë përfitime të drejtpërdrejta për ju. Megjithatë, shpresohet se përmes pjesëmarrjes tuaj, studiuesit mund të mësojnë se si të ndihmojnë prindërit e fëmijëve me aftësi të kufizuara.Gjithashtu shpresohet se ju do te mesoni se sit e komunikoni me mire e qarte me femijen tuaj me aftesi te kufizuara.

Konfidencialiteti

Të dhënat e hulumtimit do të mbahen në një kompjuter me fjalëkalim të mbrojtur dhe vetëm hulumtuesi dhe stafi do të kenë qasje në të dhëna. Në përfundim të studimit, të gjitha informacionet e identifikimit do të hiqen dhe të dhënat do të mbahen në zyrën e mbyllur të studiuesit.

Kompesimi

Pjesmarresit do te marrin 20$.Ne do te sigurojme te gjitha materjalet e duhura per kete studim.

Pjesemarrja

Pjesëmarrja në këtë studim kërkimor është vullnetar. Ju keni të drejtë të tërhiqeni në çdo kohë ose të refuzoni të merrni pjesë tërësisht pa rrezik për qëndrimin tuaj me Universitetin e Brigham Young.

Pyetje rreth studimit

Nese keni ndonje pyetje reth ketij studimi you mund to kontaktoni Blake Hansen at blake_hansen@byu.edu; 801-423-4691 per me teper informacion.

Pyetje rreth te drejtave tuaja si pjesmarres ne kete studim.

Nese keni ndonje pyetje rreth te drejatave tuaja si pjesmarres studimi mos hezitoni te kontaktoni Administratorin e IRB ne (801) 422-1461; A-285 ASB, Brigham Young University, Provo, UT 84602; irb@byu.edu.

Deklarata e miratimit te ketij studimi

Kam lexuar, kuptuar dhe marrë një kopje të deklarates se miratimit së mësipërme te ketij studimi , me vullnetit tim të lirë për të marrë pjesë në këtë studim.

Emri (Me shkronja shtypi):_____ Firma: _____ Data: _____

Miratimi/Leja per Vidjon

Une pranoj qe te behet regjistrimi I vidjos gjate trajnimit per nje total prej 30 minutash.

Emri (Me shkronja shtypi):_____ Firma: _____ Data: _____

Une pranoj te bej nje vidjo duke bashkevepruar me femijen tim per nje total 90 minutash.

Emri (Me shkronja shtypi):_____ Firma: _____ Data: _____

APPENDIX C

Social Validity Questionnaire

Social Validity Questionnaire

	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree
Increasing your child's requests is an important treatment goal.					
Training over the internet was effective.					
I trust the person who taught me the skills					
I would be willing to teach the skills to other people in their homes					
I would prefer to have somebody to come to my house to show me how to help my child's behaviors					
The training was helpful					
My child's requests have increased since the training					
I will use these skills in the future					

Please list any positive changes you have observed in your child.

Pyetesori I Vlefshmerise Shoqerore

	Nuk jam Dakort	Nuk jam dakort deri diku	Neutral	Jam dakort deri diku	Jam Dakort
Rritja e kerkesave duke perdorur fjalet, eshte nje prej synimeve me te rendesishme per femijen tuaj..					
Trajnimi nepermjet internetint ishte I efektshem.					
Kam besim tek personin qe me mesoi aftesi.					
Do te isha i/e gatshem t'ua mesoja keto aftesi prinderve te tjere ne shtepite e tyre					
Do te preferoja qe dikush te vinte ne shtepine time per te me treguar se sit e ndihmoja me sjelljet efemijes tim.					
The training was helpful					
Kerkesat e femijes tim jane rritur qe nga fillimi I trajnimit.					
Do ti perdor keto aftesi qe mesova ne te ardhmen,					

Ju lutem rendisni cdo ndryshim positive qe keni verejtur tek femija juaj.

APPENDIX D

Demographic Questionnaire

Pyetesori

- Date of birth (mother) / Data e lindjes

- Place of living/ Vendbanimi-

- Level of education/ Edukimi actual-

- Date of Birth (child)/ Ditelindja e femijes-

- What is your child's main disability? (Cila eshte diagnoza e femijes tuaj?)

- Does he/she have other complications or other intellectual disabilities?

- When was he/she diagnosed? (Kur u diagnostika femija juaj per here te pare?)

Introductory questions on communication -Pyestje te pergjithshme rreth komunikimit

1. How many words, signs &/or gestures does your child use? - Sa fjale flet femija juaj? Sa gjeste ben femija juaj?

2. How does your child usually let you know what s/he wants or needs, e.g., if s/he is hungry or needs help? – Zakonisht , si e shpreh femija juaj deshiren ose nevojen per te patur dicka , p.sh kur ka uri or kur ka nevoje per ndihme?

3. Can you understand what your child is trying to communicate? – A e kuptoni ju se cfare do te thote femija?

4. Can other people understand what your child is trying to communicate? - Po njerzit e tjere e kuptojne femijen tuaj kur ai flet?

5. In general, will s/he look you or others in the eye when s/he wants something or when s/he is talking to you? - Ne pergjithesi, a u shikon femije ne sy kur kerkon per dicka psh ndihme or ushqim ose loder?

6. Does your child turn his/her head to look at you when you start talking to him/her or doing things next to him/her? When you call his or her name? – A e kthen koken femija juaj kur ju therrisni emrin e tij/saj?

7. If you are right in front of your child, does s/he turn his or her eyes to avoid looking at you? – Nese ju jeni perballe femijes tuaj dhe po I flisni atij/asaj , a e heq kontaktin me sy femija juaj nga ju me qellim qe ta shmang ate?

8. Will s/he look where you point when you point to show him/her a toy or a picture in a book? – A e ndjek me sy femija juaj juve kur ju tregoni me gisht drejt dickaje psh. Nje vend ose nje objekt?

9. Does your child ever use your hand like a tool, grab it and place it on what she wants?- A e perdor femija juaj doren tuaj si nje mjet per te arritur ate qe do . psh – te marr nje loder?

10. Does she/he use simple gestures to direct your attention or to request something; e.g., pointing at a toy, reaching up to be picked up, waving bye-bye to let you know she wants to go? – A perdor femija juaj gjeste te ndryshme per te marr vemendjen tuaj si psh te valezoje doren para jush, te tregoj me gish diku, te zgjas duart qe ju ta mbani ne krah etj?

11. Does your child use words and gestures together (coordinate use of words and gestures); e.g., pointing to an object and saying, "look Mommy," waving bye-bye and saying "bye-bye," shaking his/her head and saying "no?" – A perdor femija juaj gjeste dhe fjale sebashku (duke I

kordinuar erdorimin e fjaleve me gjestet); psh: duke treguar me gisht te object dhe te thote "Mami shiko", ose buke levizur doren majtas-djathtas dhe duke then "Mirupasfshim", duke tundur koken majtas-Djathtas dhe me pas te thote jo?

12. Does his/her face show a range of emotional expressions that match the situation, e.g., does s/he smile, frown, raise his or her eyebrows in surprise? – A tregon fytyra e femijes tuaj emocione te ndryshme sipas situates qe ndodhen psh. Te qesh, te ngrere vetullat, te inatoset etj?

13. How does your child respond when you use a gesture or facial expression to communicate with him/her, e.g., when you shake your head "no" or frown? - A u pergjigjet femija juaj gjesteve tuaja psh kur ju zgjasni t'i jepni doren?

Other general questions – Pyetje te tjera te pergjithshme

1. Is his receptive language more developed that his expressive language? – A eshte gjuha receptive me e zhvilluar se gjuha ekspensive per femijen tuaj?

2. Has he/she ever been aggressive towards himself/ family or friends? – A ka qene ndonjehere femija juaj agresive ndaj vetes se tij, familjarve ose miqve te tjere?

3. Is he/she using any kind of medication at the moment? – A eshte duke perdorur ndonje medicament ne kete perjudhe?

4. How often does he/she eat a day? – Sa shpesh ha femija juaj ne dite?

5. Do they have any prescribed medication now? – A perdor femija juaj ndonje lloj ilaci qe e merr dite per dite?

6. Are they receiving any kind of services now? If yes what kinds of services? – A merr femija juaj ndonje lloj sherbimi ne qendra speciale ose komunitare? Nese po cfare lloj sherbimi?

7. How much time does your child spend with you? – Sa kohe ne dite shpenzon femija juaj me ju?

APPENDIX E

Training Fidelity Form

Training Fidelity	Yes/No
Trainer greets the parents online and builds rapport	
Trainer provides consent document	
Trainer conducts demographics interview	
Trainer completes SDQ	
Trainer completes baseline role plays	
Parents submit 10 min video	
Trainer observers how the parents interact with the child and keeps data	
Trainer provides an explanation and rationale for mand training	
Trainer trains & models the parents in all the steps of Mand training,	
Trainer gives time to parents to ask any questions that they may have	
Parents engaged in training	
Trainer collects data	
Trainer conducts a practice role play with parents following the training	
Trainer gives feedback	
Trainer observed how the parent will implement the lessons on their child	
Trainer gives feedback and allows time for any of their questions	
Trainer closes the training online.	
Total Training Time:	

APPENDIX F

Operational Definitions and Examples and Non-Examples

Examples: Doll, Do, Chair, cha, Table, Tab, Ta.

Non-Examples: After the parent repeats the word "bottle" The child just reaches to get the bottle but not even say the word at all.

Environmental arrangement was defined as the parent collecting the preferred items and bringing them to where the mand training would occur, so they were available and visible during the session, but out of the reach for the child.

Parent oriented to child was defined as the parent's head being at approximately the same level as the child's head and orientating the body and eyes towards the child.

Positive affect was defined as the parents smiling and using a pleasant voice (i.e exaggerated modulation)

Examples: Pleasant voice, elevated ton of voice to get the child's attention, happy facial movements.

Non-Examples- Quiet voice, Grumpy face, Low levels of positive affect.

This included the intonation of the voice and showing the emotions on the facial movements.

Saying the word – Modeling was defined as clearly stating the name of the object in a pleasant voice.

Waiting time was defined as sitting silently, retaining the preferred object and being orientated toward the child. The waiting time was 7 to 10 seconds.

Giving praise was defined as a positive or affirmative statement provided by the parent to the child. Could be general (e.g., nice one!) or specific (e.g., nice work asking for the ball) in nature.

Providing the item was defined as handing the preferred stimulus to the child.

Examples. Parent hands the child the ball.

Non-examples. Parent withholds the ball and continues to prompt following a mand for the ball.

A total of 30% of the videos will be observed by research staff trained on the dependent variables to measure interobserver agreement (IOA).

APPENDIX G

Mand Skill Sheet

Increasing Requesting Skills

Rationale

Verbal communication skills are among the most important skills that young children can develop. Verbal communication allows children to obtain items that they want or need, connect socially with others, and learn other skills such as reading and math. Most programs for children with disabilities include making requests as an important skill to increase.

Challenging behavior is a powerful means of communication. For example, many children with limited communication skills throw tantrums to communicate what they want. One way to reduce tantrums in this case would be to teach children to get what they want through appropriate communication.

This page will teach you how to help your child request items that they want or need.

Skill Steps

1. Arrange the environment to promote motivation.	Place the most preferred item out of reach, further than other items, or limit access to the item by placing it on your lap or in your hand. The goal is to keep the item out of reach, but in sight.

2. Orient your body toward your child.	Begin engaging in an activity with a child, making eye contact, smiling, and focus your attention on the same task and your child. Play with the same items as your child. Watch for opportunities to allow your child to request.
3. Provide a model of the word.	When an opportunity arises such as when your child points, looks at a desired item, or begins to pick up the item, model the word for the item. For example, say "puppet"
4. If the child names the item, give it to them.	If the child uses the correct word for the item, provide the item. You may also praise the child's use of language by saying "nice!" "good words!" or any other positive comment.

5. If the child does not name the item, say the name again.	If the child does not use the correct word for the item, say the name of the item. Wait for the child to say the name for 5 seconds. If the child says the name of the item, provide the item.
6. If the child does not name the item a second time, name the item and give it to the child.	If the child does not use the correct word for the item, say the name of the item one more time while providing the item to the child.

Some children need to use the first sound of an item instead of the full name. For example, if a child only makes sounds, but does not say complete words, you may model the first sound rather than the whole word "p" instead of "puppet." You would use the same teaching strategy as used above.

For children who have difficulty with eye contact, you may wait for the request and eye contact at the same time.

When you use praise and compliments for children, it is important to vary the words that you use. For example, rather than saying "Good job" or "Bravo" only, say different words as often as possible.

Practice

Read the words *in italics* out loud to the trainee
Do the actions that are [in brackets]

Model the Skill

Let me show you an example. You play the part of the child and I will play the part of the parent. I will hold this toy. Pretend like you want the toy, but do not ask me for it.

[Hold the item away from the trainee]

[When the trainee begins to indicate that he or she would like the item, say the word for the item and wait for the trainee]

[If you need to explain the steps again to the trainee, feel free to do so. The purpose of this stage is to demonstrate how to teach requesting skills.]

[Be sure to compliment the trainees' participation].

Role Play 1

We are going to do a role play. You are going to play the part of the parent and I am going to play the part of the child.

Hold the toy out of my reach. When I show you that I want the toy, use the steps outlined above before you provide the toy.

[Ensure that the toy is out of reach]
[Make noise and without providing eye contact, start to grab for the toy]
[When the trainee models the word, keep making noise]
[When the trainee models the word the second time, say the word]
[Ensure that the trainee complete all steps. If the trainee misses a step, prompt them by telling them what to do.]
[Praise the trainee for completing the first role play]

Role Play 2

Now we are going to do another role play. You are going to play the part of the parent and I am going to play the part of the child. This practice is to practice what you would do if the child has limited verbal communication skills. Remember, if a child has limited verbal communication skills model the first sound in a word. For example, if the child wants a ball, model the sound /B/.

[Ensure that the toy is out of reach]
[Make noise and without providing eye contact, start to grab for the toy]
[When the trainee models the sound, keep making noise]
[When the trainee models the sound the second time, say the sound]
[Ensure that the trainee complete all steps. If the trainee misses a step, prompt them by telling them what to do.]
[Praise the trainee for completing the first role play]

Role Play 3

Now we are going to do another role play. You are going to play the part of the parent and I am going to play the part of the child. This practice is to practice what you would do if the child does not respond well. Remember, if a child does not respond to the first and second prompts, provide the item while saying the word or sound for the item.

[Ensure that the toy is out of reach]
[Make noise and without providing eye contact, start to grab for the toy]

[When the trainee models the word or sound, keep making noise]
[When the trainee models the word or sound the second time, keep making noise]
[The trainee should model the word or sound and provide the item]
[Ensure that the trainee complete all steps. If the trainee misses a step, prompt them by telling them what to do.]
[Praise the trainee for completing the first role play]

Trainees have completed training when they demonstrate each step during the three role plays without assistance.

In Albanian language – Mand Skill Sheet (Trajnimi per te kerkuar)

Rritja e aftesive per te kerkuar

Persjatja

Aftesite e komunikimit verbal jane nder aftesite me te rendeishme qe nje femije ne moshe te vogel mund te zhvilloje. Komunikimi verbal i lejon fëmijët të marrin sendet që ata duan ose kanë nevojë, të krijojne shoqeri me të tjerët dhe të mësojnë aftësi të tjera të tilla si leximi dhe matematika. Shumica e programeve për fëmijët me aftësi të kufizuara përfshijnë aftesine per te kerkuar, si një aftësi të rëndësishme qe duhet te rritet me kalimin e kohes.

Sjellja sfiduese dhe e veshtire është një mjet i fuqishëm komunikimi. Për shembull, shumë fëmijë me aftësi të kufizuara të komunikimit qajne dhe ulerasin për të komunikuar atë që ata dëshirojnë. Një mënyrë për të zvogëluar zemërim në këtë rast do të ishte të mësonin fëmijët të merrnin atë që dëshironin nëpërmjet komunikimit të duhur.

Kjo faqe do tju mesoj juve se sit e ndihmoni femijen tuaj te kerkoje sende te ndryshme kur ata deshirojne ose kane nevoje per to.

Hapat e aftesise

1.Organizoni mjedisin për të nxitur motivimin.	Vendosni artikullin më të preferuar larg mundesisse te ta arritur famija juaj, më larg se sendet e tjera, ose kufizoni qasjen në artikull duke e vendosur në preherin ose në dorën tuaj. Qëllimi është të mbash sendin me larg se femija juaj mund te arrij, por te jete në pamje.
1. Orientoni trupin tuaj drejt femijes.	Filloni të angazhoheni një aktivitet me fëmijën, duke bërë kontakt me sy, duke qeshur dhe përqendruar vëmendjen tuaj në të njëjtën detyrë dhe në fëmijën tuaj. Luaj me të njëjtat sende si fëmija juaj. Shikoni per mundësi për të lejuar fëmijën tuaj të kërkojë.

2. Jepni nje model te fjales.	Kur lind një mundësi si per shembull kur fëmija juaj tregon me gisht diku, shikon në një artikull të dëshiruar ose fillon të marr artikullin, modelo duke emertuar fjalën perkatese për artikullin. Për shembull, thuaj "kukull"
3. Nese femija emeroton sendin , jepjani atij (per shembull kukullen)	Nese femija perdor fjalen e sakte per artikullin jepjani artikullin. You gjithashtu mund ta lavderoni duke perdorur fjale si pershembull "Bravo" " Shume mire" ose ndonje koment tjeter pozitiv qe ju deshironi.
4. Nese femija juan nuk e Emerton artikullin , perseriteni perseri emrin e artikullit.	Nese femija juan nuk e Emerton artikullin , perseriteni perseri emrin e artikullit.Prisni 5 seconda deri sa femija te emrtoje artikullin. Nese femija e Emerton artikullin, jepjani artikullin.
5. Nese femija nuk e Emerton artikulling per here te dyte , e thoni e njehere ju e me pas jepjani artikullin.	Nese femija nuk perdor fjalen e sakte per artikullin, thuaje e njehere emrin e artikullit per ted he jepjani artikullin femijes..

Disa fëmijë përdorin tingullin e parë të një sendi në vend të emrit të plotë. Për shembull, nëse një fëmijë vetëm bën tinguj, por nuk thotë fjalë të plota, mund të modeloni tingujt e parë në vend të të gjithë fjalës , per shembull "k" në vend të "kukullës". Do të përdorni të njëjtën strategji mësimore siç është përdorur më sipër.

Për fëmijët që kanë vështirësi në kontakt me sy, mund të prisni per kërkesën dhe kontaktin me sy te behen në të njëjtën kohë.

Kur përdorni lëvdata dhe komplimente për fëmijët, është e rëndësishme të ndryshoni fjalët që përdorni. Për shembull, në vend që të thoni vetëm "Shume mire" ose "Bravo", thoni fjalë të ndryshme sa më shpesh të jetë e mundur.

Praktika

Lexoni fjalët në italik me zë të lartë për trajnerin

Bëni veprimet që janë [në kllapa]

Modeloni aftesine.

Me lejo mu tju tregoj nje shembull.Ti luan rolin e femijes dhe une do te luaj rolin e prindit. Une do te mbaj ne dore kete loder. Pretendo ti do lodren, por mos me pyet per te.

[Mbaj sendin larg nga e rekrutuara]

[Kur e rekrutuara fillon te tregoj interes ne sendin dhe duket qe po kerkon sendin , thuaji fjalen e sendit dhe prit per te rekrutuaren]

[Nese keni nevoje per tjua shpejguar kete hap te rekrutuares , bejeni. Qellimi I kesaj fase eshte te demonstrojme sit e mesojme aftesine per te kerkuar nje send ose objekt.]

[Gjithmone jepni kopliemete rekrutes].

Roli 1

We do te bejme nje loje me role. Ti do te luash rolin e prindit dhe une do te luaj rolin e femijes.

Mbaje lodren larga nga aftesia ime per ta arritur. Kur une do te jap shenjat qe dua lodren, perdor hapat qe ju treguam me pare, para se ta japesh lodren.

[Sigurohu qe lodra eshte larg nga aftesia per ta arritur]

[Bej zhurme dhe pa bere kontakt me sy fillo te rembesh lodren]

[Kur rekrutja fillon te modeloje fjalen per ty, ti vazhdo dhe bej zhurme]

[Kur rekrutja fillon te modeloje fjalen per ty per here te dyte, thuaje fjalen]

[Sigurohu qe rekrutja I perdor te gjitha hapat. Neqoftese rekrutja nuk perdor nje prej hapave ose harron ta perdori e nxisni ate menjehere dhe I tregoni se cfare duhet te bej]

[Lavedorojeni rekruten dhe komplementojeni per luajten e rolit]

Roli 2

Tani do të luajmë një rol tjetër. Ju do të luani pjesën e prindit dhe unë do të luaj pjesa e fëmijës. Kjo praktikë është të praktikoni atë që do të bëni nëse fëmija ka aftësi të kufizuara të komunikimit verbal. Mos harroni, nëse një fëmijë ka aftësi të kufizuara të komunikimit verbal, tingulli i parë në një fjalë. Për shembull, nëse fëmija dëshiron topin, modeloni tingujt / T /

[Sigurohu qe lodra eshte larg nga aftesia per ta arritur]

[Bej zhurme dhe pa bere kontakt me sy fillo te rembesh lodren]

[Kur rekrutja fillon te modeloje fjalen per ty, ti vazhdo dhe bej zhurme]

[Kur rekrutja fillon te modeloje fjalen per ty per here te dyte, thuaje fjalen]

[Sigurohu qe rekrutja I perdor te gjitha hapat. Neqoftese rekrutja nuk perdor nje prej hapave ose harron ta perdori e nxisni ate menjehere dhe I tregoni se cfare duhet te bej]

[Lavedorojeni rekruten dhe komplementojeni per luajten e rolit]

Role Play 3

Tani do të luajmë një rol tjetër. Ju do të luani pjesën e prindit dhe unë do të luaj pjesen e fëmijës. Kjo praktikë është të praktikosh se cfare ju do të bënit nëse fëmija nuk reagon mirë. Mos harroni, nëse një fëmijë nuk i përgjigjet kërkesave të para dhe të dyta, ofroni artikullin duke e thënë fjalën ose tingullin për artikullin.

[Sigurohu qe lodra eshte larg nga aftesia per ta arritur]

[Bej zhurme dhe pa bere kontakt me sy fillo te rrembesh lodren]

[Kur rekrutja fillon te modeloje fjalen per ty, ti vazhdo dhe bej zhurme]

[Kur rekrutja fillon te modeloje fjalen per ty per here te dyte, ti vazhdo dhe bej zhurme]

[Rekrutja duhet te modeloj fjalen ose tingullin dhe te jap sendin]

[Sigurohu qe rekrutja I perdor te gjitha hapat. Neqoftese rekrutja nuk perdor nje prej hapave ose harron ta perdori e nxisni ate menjehere dhe I tregoni se cfare duhet te bej]

[Lavedorojeni rekruten dhe komplementojeni per luajten e rolit]

Rekrutja ka kompletuar trajnimin kur ka demonstruar cdo hap gjate te treja roleve te luajtara pa ndihme.

APPENDIX H

Data Collection Form

Fidelity Checklist	Completed
1. Environment arranged (item ready)	Y N
2. Parent oriented to child	Y N
3. Parent used positive affect	Y N
4. Parent provides the model of the word	Y N
5. Parent waits 7 sec for the child to mand	Y N
Child Mands (option)	F P No
6. (No Mand) Parent models the word again (2nd time)	Y N
7. Parent waits 7 sec for the child to mand	Y N
Child Mands	F P No
8. (No Mand) Parent models the word again (3rd time)	Y N
Child Mands	F P No
9. Parent praises	Y N
10. Parent provides the item	Y N