



Teacher goals in an early intervention program for children with hearing loss¹

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Abstract

This study aims to describe the content of a natural auditory-oral early intervention program and to investigate the goals of the teachers who work in the program. The study was designed as an action research. Two teachers of the deaf and six families and their children were the subjects of the study. The data were collected through video recordings, teachers' reflective journals, children's educational files, and by family interviews, and analyzed holistically after a period of five months. The results of the study indicated that the teachers had goals for both the children and for the families. They focused on the development of listening skills, production of speech sounds, and meaningful use of the words and sound imitations while working with the children. Moreover, they encouraged the parents to interact with their child and attempted to improve their interaction skills. To achieve the goals, they modeled certain language facilitating techniques with the children, they observed the parents while they interacted with their children, and provided suggestions, depending on their observations. They used different types of play as a learning context during the sessions. Parents reported that they learned "how" to interact with their children and stated that the intervention improved their child rearing practices positively. All children involved in the study produced some single words and two children started to use simple two word combinations at the end of the data collection period.

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Keywords: Early intervention, hearing loss, action research

1. Introduction

The definition of early childhood intervention by Dunst highlights the importance of nurturing environments and the significant role of adults in children's lives. He describes early intervention as "the experiences and opportunities afforded to infants and toddlers (and preschoolers) with disabilities by the children's parents and other primary caregivers (including service providers) that are proposed to promote the children's acquisition and use of behavioral competencies to shape and influence their pro-social interactions with people and objects" (as cited in Bruder, 2010). The statement runs parallel to the natural auditory/oral approach, which places a special emphasis on the parents' role in language development of the children with hearing loss (Clark, 2007; Cole and Flexer, 2007).

The idea that lies at the core of the early intervention programs is the trust in parents' ability to take active roles in determining their children's educational needs and goals. Parents can learn strategies for conveying specific skills and competencies to their own child if provided with appropriate instruction, modelling, and reinforcement. They can become effective teachers of their own children with support so that they can assist in program planning and/or teaching activities, either at the learning center or home. Specific areas of parent guidance must include understanding the nature and prognosis of the condition, physical management, managing self-care, and daily living

¹ This study was presented at the 3rd European Conference on Social and Behavioural Sciences, Sapienza University, Rome, Italy. February 6-8, 2014.

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activities, guidance, and behavior management, by responding appropriately to different or unexpected behaviors (Ackah and Appiah, 2009; Goff, Evangelou, and Sylva, 2012) and in case of hearing loss specifically understanding the use of techniques and strategies which promote language development (Brown and Nott, 2005; Clark, 2007; Cole and Flexer, 2007; Des Jardin, 2006).

The natural auditory-oral approach strongly recommends family-centered natural environment principles, such as routine-based, relationship-focused, parent-implemented intervention, which utilizes supportive, empowering practices, and recognizes the family's existing routines, interactions, and activities as sources of intervention (Brown and Nott, 2005; Clark, 2007; Turan, 2010). Embedding natural learning opportunities throughout the day ensures that intervention is delivered in ways that are acceptable, functional, and relevant to families, and encourages the child's generalization of skills (Mahoney and Wiggers, 2007; Mahoney, 2009). It should be noted that natural environments refer not merely to the location in which services are provided, but rather to the context of the everyday activities of the family and the interactions between the child and significant adults (Harjusola-Web, Gatmaitan, and Lyons, 2013; Mahoney, 2009). This perspective requires shifting the role of the teachers of the deaf who work in early intervention from directly teaching to the child to teaching the parents. As a result, the teachers are expected to focus on contextualized learning in family routines, support the child's participation in interest-based activities, and going beyond teaching the child discrete skills, and noticeably promoting the parent or caregiver's responsiveness to the child (Brown and Nott, 2005; Clark, 2007; Kaiser and Hancock, 2003; Turan, 2010).

Indeed, teachers of the deaf who work in early intervention programs are required to have abilities in two different areas. First, they need to know how to work with young children, and second, they need to establish a – good, supportive, family-centered relationship with parents of these children. They are not simply teachers of the deaf, but rather mentors whose role are to encourage parents to establish their way of interaction with their children in order to improve the child's language abilities (Brown and Nott, 2005).

The teacher's competence in teaching the child is essential while working with the parents. Competence requires mastery of child intervention procedures, understanding the theoretical basis of the intervention, and the ability to present information in a way that it is understood by the parents. The teachers must be able to implement the intervention with the child, to instruct parents in performing the intervention, and to troubleshoot with the parents in its use in order to provide specific feedback, guidance, and coaching toward effective implementation of the intervention (Kaiser and Hancock, 2003)

It is important to note that successful intervention requires careful planning and preparation for individual sessions (Estabrooks, 2006; Kaiser and Hancock, 2003). For each individual session the teacher should prepare a lesson plan, set up the room before the parents arrive and spend some time with the parents discussing the session plan and targets. Goal setting defines the roles of parents and teachers during the intervention process (Kaiser and Hancock, 2003, Kummerer, 2012). The framework also helps to monitor child's progress. For each session the teacher should plan the activities that will be used to establish interactive play, memorization, and the goals for the child and the family.

In a typical parent guidance session it is suggested to allocate 10 min. to the parents to discuss the progress of the child since their last visit and 10 min. for the teacher to observe the parents while they interact with their child. A discussion of the observed interactions should follow ,after which 10 min. should be allowed for the teacher to play with the child, 10 min. for the parents and teacher to engage in a joint listening activity often involving music, 10-15 min. for parent and teacher discussion about the possible activities between the present and following session of parent guidance. In addition, opportunities to discuss how language can be expanded as the parents and child engage in interaction related to the daily routines should be provided throughout the session (Clark, 2007; Turan, 2010).

Although family-centered services have been the recommended practice for more than three decades, general implementation and specific practices remain elusive (Kumarer, 2012). Most of the studies indicate the effectiveness of the family-centered intervention (for examples see Bruder, 2010; Dunst, Hamby and Brookfield, 2007; Fordham, Gibson and Bowes, 2011; Gascon-Ramos, et.al. 2010; Mahoney, 2009), but very few describe how the intervention in the routine educational practice is implemented (Brown and Nott, 2005; Clark, 2007; Turan, 2010). It is important to learn more about how the effective practices were managed in routine work to improve the quality of early intervention in real life settings (Kaiser and Hancock, 2003; Kumarer, 2012; Mac Cormick and Brennan, 2001). Therefore, the present study aimed to describe teachers' goals in a natural auditory-oral approach program for parents of children with hearing loss. The two research questions were: 1. What are the goals of the session? and 2.

How they were implemented in the sessions? The results of the study are the part of a larger study that describes an in service training for the teachers of the deaf for early intervention.

2. Method

The study was designed as an action research, since it intended to contribute everyday practices in early intervention. Action research is a practical approach to professional inquiry in any social situation. As its name suggests, action research concerns actors – those individuals that carry out their professional actions from day to day - and its purpose is to understand and to improve on those actions.

Action research is about trying to understand professional action from the inside; as a result, it is research that is carried out by practitioners on their own practice, not (as in other forms of research), done by someone on somebody else's practice. Action research in education is grounded in the working lives of teachers, by focusing on their own experience (Waters-Adams, 2006). It is described as being about: 1) the improvement of practice; 2) the improvement of the understanding of the practice; and 3) the improvement of the situation in which the practice takes place (Waters-Adams, 2006).

2.1. Participants

Two teachers of the deaf, and six families and their children were the subjects of the study.

Both of the teachers were working in preschool classrooms at a special school for children with hearing loss. Each had six years of experience as classroom teachers. They volunteered for an in service training to improve their performances. They were called "Ayşe" and "Zeynep" to maintain anonymity. Ayşe had three years of experience in early intervention. Zeynep only had been in intervention sessions as an observer and was a co-teacher with more experienced teachers in early intervention.

The school where they worked had a strong auditory-oral educational philosophy. It was a day school and also served as an early intervention center for young children with hearing loss and their families. The school is affiliated with a Turkish University to function as a research center, as well. The author conducted the in service training. She guided, coached and evaluated the teachers during the training period. She was the senior audiologist in the school and experienced in working with parents.

All children had bilateral profound hearing loss. Their ages were between 12 months to 23 months at the beginning of the study. Three of them were using cochlear implants and three were using powerful digital hearing aids. Three children had deaf parents. They were living in extended families and grandparents were involved with the foster and upbringing of these children.

2.2. Data Collection

The data were collected using video recordings of the intervention sessions, children's educational files, teachers' reflective journals, and audio recordings of the teacher and parent interviews.

2.2. 1. Data Collection Procedure

The teachers observed intervention sessions conducted the author before they started their own sessions. They discussed the issues that they thought required more comprehension with the author. When they felt fully confident to proceed, they began their sessions independently. It took five weeks for Ayşe and seven weeks for Zeynep to start their own sessions.

Each teacher worked with three families. Each family came to center for individual sessions every two weeks. Data was collected over five months. Each session was video recorded. Nine sessions were evaluated with Ayşe and 11 were evaluated with Zeynep. The evaluations of the sessions were audio recorded. The teachers kept reflective journals and evaluated themselves. Their videos were compared with their session plans.

At the end of the data collection period, an interview was conducted with the families that focused on their satisfaction with the program.

2.3. Validity and Reliability (Trustworthiness)

Video recordings, session plans, and teachers' reflective journals were used for triangulation. Another university member who works in the department of the education of the deaf and lectures in qualitative analysis reviewed the data for its reliability. Another teacher who is experienced in early intervention reviewed video recordings for the validity.

2.4. Analysis of Data

Audio transcriptions, session plans, and the reflective journals were coded to establish themes and interpreted holistically in consideration of the consistency among the data.

3. Results

The findings of the study demonstrated that the teachers had two sets of goals in all their sessions. The first set was related to the child and the second was linked to the parents. Children's individual programs in their files indicated the goals related to the children and parents.

The teachers set goals for improving listening, interaction, speech, and language abilities for the children. They set their target and described the actions. Some examples are presented below.

"He will spontaneously imitate animal sounds while playing with the farm animals." "She will give doll's clothes to her mother when she is asked by listening only." "She will look up when she heard her name." "She will concentrate on play at least 10 mins." "She will wait for her turn while playing animal bingo." "He will dance when he hears the music and will stop when it is turned off."

The analysis of session plans indicated that goals related to parents were established to improve the parent's interactive style, play skills and their skills in behavior management of the child.

"T.A's mother usually misses her interest in play. She is directive. Next time, we will play with dolls and see if she is more relaxed in free play." "SBB's mother only labels the toys. Next time I will explain to her how talking about the actions in play helps SBB to improve his language." "Ş's grandparents had difficulty in controlling her behavior. Next time I will talk about it and suggest being more consistent with the rules." "ES's grandmother can make the play more interesting simply by taking one toy at a time. I will discuss this in the next session."

The teachers used various sorts of age appropriate toys and materials to achieve their goals. They always used the toys and play materials in a scenario and in a pretend play form like feeding the toy animals, singing lullabies to dolls, and pretending to clean the house. It was observed that for each session the teachers planned and prepared materials for 3-4 plays. Some examples were balls, toy cars and trucks, story books, dolls and dolls' clothes, tea cups, water play, toy animals, play dough, preparing simple snacks, and pretend housework.

Video analysis of the sessions showed that each session had a similar pattern: starting the session, guiding the families in the play, and closing the session.

Teachers started the sessions by asking about the progress the child made since their last visit. They asked questions about the sounds the child responds to, the speech sounds he/she produced, his/her comprehension of daily language, and if he/she has any words or word combinations. During this phase, they also had a casual conversation about the family such as asking if everyone in the family was in good health, or if any mentioned problems in the last session in family life were resolved.

Before starting to play with the child, the teacher explained the targets to the parents. During the play she indicated the sounds and sound imitations, and expected the child to imitate the sound from time to time. She also encouraged and coached parents during the play. Some examples extracted from the video analysis of Ayşe in one of her sessions are presented below:

Ayşe (explaining the goal to the parent): We are going to play with water. We want him to listen to the sound that water makes, we imitate the water sound "shshshsh" and expect him to repeat that sound. We will also float the boat and imitate the "wuuuup" sound.

Ayşe (to the child pointing out the sound and sound imitation): Listen to the boat. The boat goes "wuuuup" (waits for a while). What does the boat say?

Ayşe (to the parent while encouraging): This is very good. You told him what you did.

Ayşe (to the parent while coaching): You may wait until he finishes with the boat then introduce the duck. Before showing the duck say “quack quack” and wait for a while.

The teachers also guided parents to control taking turns and establishing joint attention, both of which are important skills to support language development for children in the early years. Some examples are as follows:

Zeynep (to the parent while giving examples on how to improve taking turns): Before saying something, wait until the child stops vocalizing; when she looks at you answer her and wait for her turn.

Zeynep (to the parent while explaining some techniques to improve joint attention): Let's see what she really wants to do with the doll... (the child pretends to feed the doll with the bottle); you see she feeds it then you may join her and pretend to do the same thing. Imitate eating sounds, say “it's yummy.” Pretend to clean the doll's mouth and ask what else happens.

It was noted that for each game or play, the teachers had explained their anticipations and modeled for the parents for a short period. After that, they observed the interaction between the parent and the child and joined in when parents had difficulty in sustaining play, missed the opportunities to enhance language, or could not use the necessary techniques to improve the child's listening and language skills. Some examples were as follows:

Ayşe: You may point to your ear and repeat “listen.”

Zeynep: You may stop the play to indicate that you expect him to do something else.

Ayşe: Talk about dressing the doll like “let's put her cardigan on.”

Ayşe: Ask him what the cow says and wait.

In each session they sang songs related to the game or rhymes and played a listening game.

Zeynep (to the child): Listen, the sheep sings the little lamb song (after playing with animals).

Ayşe (to the child): This little one says it is mine, it is mine (tickling the child).

At the end of the each session the teachers asked parents if they had any questions related to the session, about the development of the child, or any concerns that they might want to share. The issues were addressed if any were brought up. Examples of some issues parents wanted to discuss are presented below:

Parent 1: He does not share his toys with his sister; they fight all the time.

Parent 3: She cries if she does not get anything she wants.

Parent 4: The grandparents have been pampering him a lot lately.

Parent 6: How will we handle toilet training?

If nothing came up, the teachers summarized the session goals, indicating the child's performance.

Ayşe: Her attention is much better now; she plays longer.

Zeynep: He vocalized a lot today.

Ayşe: I think he used “give me” on purpose when you showed the train.

Ayşe: She imitated “meow” spontaneously.

They also emphasized the parents' positive aspects while interacting with the child.

Zeynep: You talked to him so naturally today.

Zeynep: I liked the way you played with trucks.

Ayşe: It is good that you expected him to use her voice to attract attention.

Before the parents left the clinic they discussed the activities they might practice at home. Their reflective journals demonstrated that they also thought about their own performances. If they thought something was missing in the session they attempted to address it in the next session.

Ayşe: ES needs more variety in play. I should prepare more material next time.

Zeynep: I might have given more time to the parents to play with Ş. Sometimes we all spoke at the same time. I should be more careful with that.

Ayşe: We all unnecessarily insisted on ES repeating the words she already knew. Next time I must tell the parents to be more conversational with the child instead of insisting on repetitions.

At the end of the study, the parents were interviewed to learn more about their opinions on intervention session and what parts they found most useful. All parents admitted that they learned how to deal with their child and became more efficient in solving the problems.

One of the parents explained that, “I didn't know what to do at the beginning. I learned how to play with T. at home. I gained an insight here that helped me to continue play and talk to her at home.”

Another one contested that, “They guided us here. SB is a different child. We could not accept his hearing loss at first and did not know what to do for him. But in time with the support we had from the teacher, we began to comprehend his needs and how to deal with him. He made good progress.”

Parents reported different parts of the intervention as most useful. C.’s mother stated that the teacher’s sincere interest helped her a lot and she also found the listening games more useful. Ş.’s grandmother underlined that the behavior management techniques helped them at home. ES’s mother and SB’s father specified the games they learned in the sessions were most useful at home. T’s mother agreed that she had set her expectations at a more realistic level and learned that it would take some time for T. to learn new vocabulary.

They all reported that they were willing to continue the program with the same teacher.

4. Discussion

The study aimed to describe teacher goals and their implementation in an early intervention program for children with hearing loss in a routine early intervention practice.

The findings indicated that teachers selected their goals according to the theoretical orientation of the natural auditory-oral approach, which explains language development as a result of interactions between children and their social environment (Clark, 2007). They used their observations of the interactions between the child and the parents while preparing session plans and goals. The natural auditory-oral approach argues that the joint attention established between the parent and the child; following the child’s interest; and discussing the objects and actions that are within the immediate environment of the child are the main features of quality interaction that promotes language acquisition in young children. The teachers in the present study seemed to work on interactive skills of the parents rather than directly teaching the children certain vocabulary or grammar, as suggested by this approach (Clark, 2007; Turan 2010).

The natural auditory-oral approach claims that the parents of the children with a hearing loss should learn to recognize and utilize language, providing opportunities during their interaction with the children that naturally occurs between hearing children and their parents. However, hearing loss impedes this natural interaction style and restricts the language learning opportunities of the child. Thus, the main goal of early intervention is to support parents to constitute a natural interaction between themselves and their children (Clark, 2007; Cole and Flexer, 2007).

The teachers used different kinds of play material as a context for language learning to create an interactive environment for the child and the parents. They encouraged parents to follow the child’s interest, recognizing and using the listening and language teaching opportunities that occur during play activities. They modeled them for some teaching techniques and allowed them to practice. They observed and coached parents from time to time while they played with the child. This finding is consistent with the Brown and Nott’s (2005) model, which describes parent-child interaction in a meaningful context as the core of the spoken development of the children with hearing loss. They argued that meaningful situations, such as everyday life and play routines, provide necessary motivation for learning. These situations create opportunities for children to be actively involved in a conversation. Their need to learn is motivated by the desire to engage in meaningful interactions with others. Playing with the child assists in the creation of a reciprocal, responsive, and dynamic interaction between the child and the parent in a meaningful context.

The findings of the study also showed that the teachers were in a role that supported, nurtured, enhanced, and empowered the parents, rather than directly teaching the child. They observed, listened, and assisted parents, which were the suggested tasks of the teachers in early intervention programs (Brown and Nott, 2005; Clark, 2007; Kaiser and Hancock, 2003; Turan, 2010). The teachers carefully planned, defined their goals, and prepared the developmentally appropriate material for each session to create an appropriate environment to observe and assess both for the child and the parents. It is argued that the teaching tasks and supportive parents are dynamic and interrelated and might be revisited any number of times in a session. Therefore, observing, listening, and assessment are important sources of the information that a teacher can use while planning the session and providing appropriate support for parents (Brown and Nott, 2005).

The parent interviews revealed their satisfaction with the program and their teacher. The parents in the present study expressed their increased empowerment related to the different aspects of the program. All of them indicated

that they learned how to deal with their child and emphasized different dimensions of the content of the program that they found most useful and supportive, depending on their needs. This result is consistent with the studies that emphasized the importance of the content of intervention (Fordham, Gibson and Bowes, 2011, Gascon-Ramos, et. al., 2010). Parents in the study of Gascon-Ramos et al. (2010) had clear preferences for content that support them in assisting their child, regardless of maternal disposition and child specific characteristics.

It can also be claimed that the teachers had established a warm positive relationship with the parents. This was mostly observed in their initial exchange of greetings in the sessions. The teachers always asked about the well-being of the family, and inquired about the resolution of any problems in the family. The parents were observed to willingly shared their family issues from time to time and asked about the teachers' opinions related to their child's behavioral management. The relationship between the teachers and parents in the study can be described as a polite and caring attitude, which is expected to be an established pattern between acquaintances in Turkish culture. The attitude of the teachers toward the parents in the present study was different than the distanced professional attitude on this aspect. The parents comments about their teacher and their willingness to continue to the program with the same teacher supports this argument. The establishment of a warm relationship with the parents was reported as an important issue in the early intervention programs and seen as something culturally defined. Personal characteristics such as respectfulness, approachability, and personal interest are often perceived as more valuable than technical qualifications in some cultures (Kumarer, 2012). Establishing a trusting relationship is viewed as a process. It is suggested to remain genuine and congruent in intentions and actions to compose a firm relationship with parents (Jackson, Traub and Turnbull, 2008; Kumarer, 2012).

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