

# Caregiver involvement in support services for a child with hearing loss?

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**Abstract:** Family-centered practices are considered one of the crucial components of services offered to children with hearing loss in early intervention. These practices aim to empower caregivers to support the language development in children with hearing loss through family-centered early intervention. In Turkey, early intervention practices are commonly provided under the supporting services provided by Private Special Education and Rehabilitation Centers (PSERCs). However, there is limited information regarding the ways of involving caregivers in the support service process and about the content shared to empower them. This research was designed as a holistic single case study based on a qualitative approach to examine how caregiver involvement is achieved in support services in PSERC for pre-school children with hearing loss in Turkey. Data obtained through observations, semi-structured interviews, documents (Audiogram, activity items, etc.), and researcher diaries were analyzed inductively. Results demonstrate that a range of practices, such as informational notes, quarterly meetings, and debriefings are implemented at the focal PSERC. However, it found that the only practice that was consistently followed is debriefings. Although the content shared in the debriefings were seemingly supportive for the language skills of children with hearing loss, the information caregivers needed was diverse. The results clearly demonstrate that current attempts to involve caregivers at PSERCs lack family-centered practices. A more comprehensive approach is required to improve services at PSERCs and make them truly family-centered. Further research is crucial to this end.

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## Introduction

Based on the studies conducted over many years, early diagnosis and intervention are generally effective for the developmental needs of children with special needs (Bricker et al., 2018; Guralnick, 1998), specifically for language, communication, and social-emotional development of children with hearing loss (Yoshinaga-Itano, 2003). Moreover, active caregiver involvement in the early intervention process has significant positive consequences for the development of children with hearing loss (Holzinger et al., 2022; Yoshinaga-Itano et al., 2020). In this sense, family-centered practice based on strengthening the family and activating the intervention process is adopted as the basic principle in the early intervention of children with hearing loss (Joint Committee on Infant Hearing, 2019).

Family-centered approaches involve systematic practices that include respecting the capabilities and competencies of families, providing objective (de)briefings to make conscious decisions, supporting their choices, and offering opportunities for active involvement while acquiring new skills (Dunst & Espe-Sherwindt, 2016). Considering the needs of children with hearing loss in terms of spoken language development, the main purpose of family-centered practices offered in the early period is to support children's knowledge and abilities in improving their language skills based on the structure and characteristics of the family (Brown & Nott, 2005; Holzinger et al., 2022; Moeller et al., 2013). Routines in daily life (e.g., reading books, playing games, care routines) not only provide a meaningful learning context

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for children but also facilitate learning processes by exposing them to similar contexts repeatedly in all areas of their lives and by creating opportunities to transfer what they have learned (Cole & Flexer, 2020). Therefore, the experts providing early intervention services should inform caregivers about the strategies for language development of children in accordance with their age, and should guide them about generalizing these strategies across their daily routines and activities (Curtin et al., 2021; Moeller et al., 2013; Noll et al., 2021).

Literature suggests that family-centered approaches positively impact children's development by enabling caregivers to develop confidence in their interactions and in using strategies that facilitate language skills (Costa et al., 2019; Dunst & Espe-Sherwindt, 2016; Holzinger et al., 2022; Yoshinaga-Itano et al., 2020). On the other hand, the quality of family-centered practices is still questionable and therefore it needs to be investigated (Alliston, 2007; Bailey et al., 2012). Researchers focusing on young children with special needs, including those with hearing loss (Ingber & Dromi, 2009; Decker & Vallotton 2016), emphasize that family-centered approach has not yet been fully implemented in many countries (Crais et al., 2006; Vilaseca et al., 2019). For instance, Ingber and Dromi (2009) reported that caregivers of children with hearing loss seek more active involvement in the evaluation and decision-making processes. Yet, the authors conclude that experts do not sufficiently consider caregiver needs in the service processes. Decker and Vallotton (2016), similarly, note that caregivers need more detailed information to provide rich language input to their children. It is evident that experts in practice face significant challenges, such as difficulty comprehending family perspectives, a lack of knowledge to empower families, and insufficient time or interest to read relevant resources (Bailey et al., 2012; Espe-Sherwindt, 2008). Likewise, these international findings concerning family-centered early intervention are also valid for the practices in Turkey (Antmen, 2010; Atmaca & Uzuner, 2020; Bekar et al., 2021; Sari et al., 2017).

Early intervention practices in Turkey are provided within the scope of "support services" by the Private Special Education and Rehabilitation Centers (PSERC) affiliated with the Ministry of National Education (MoNE) together with the education and research centers affiliated with universities (MoNE Special Education Services Regulation [SESR], 2018; MoNE Special Education Institutions Regulation [SEIR], 2012). Therefore, PSERCs are instrumental in supporting children with hearing loss to develop their language skills as an important part of early intervention. Moreover, the involvement of caregivers and the provision of consultancy in the service process offered at PSERCs are protected by law. However, the ways to implement these services have not been defined (MoNE, SESR, 2018). The researchers cited in the national literature revealed that there were problems in cooperation with caregivers mostly based on the opinions of teachers and caregivers (Gürgür et al., 2016) and that caregiver involvement was limited to session observations and caregiver debriefings (Atmaca & Uzuner, 2020; Bekar et al., 2021).

Current research indicates that there are significant problems in ensuring caregiver involvement in the support service process for children with hearing loss in PSERCs (Atmaca & Uzuner, 2020; Bekar et al., 2021; Sari et al., 2017). PSERCs play a crucial role in providing support services, but not all children and caregivers have access to quality family-centered early intervention in these settings. While there have been limited studies on PSERCs, they do not directly examine caregiver involvement. Furthermore, research has provided information on how caregivers are involved in supporting children with hearing loss, but these information is lacking in detail and does not cover the specifics of the information given to caregivers to support their child's language development. Therefore, there is a need to investigate how to ensure the involvement of caregivers of children with hearing loss in the support service process in PSERCs, and what information is shared with them to support their children's language development. This research as a case study, will provide a detailed description of how caregiver involvement is achieved, as well as exploring the content of the information provided to caregivers in this context. Given the research results that reflect the negative opinions of educators on the involvement of caregivers (e.g., Atmaca & Uzuner, 2020; Bekar et al., 2021), it is crucial to understand the perspectives of educators and caregivers on practice holistically. Such an understanding will help identify how the perspectives of caregivers and educators shape caregiver involvement. In addition, the results of the present research will guide institutions and researchers in evaluating and improving the education in PSERCs in terms of family-centered practices. Based on these,

the aim of this study is to examine how caregiver involvement is achieved in the support services offered to a pre-school child with hearing loss in a PSERC affiliated with MoNE. Accordingly, the following questions were formulated; a) What kind of practices are carried out to improve caregiver involvement in support services? b) What kind of information is provided to the caregiver on how to support the language development of the child? c) What are the views about caregiver involvement in support services?

## Method

### Research Design

In order to gain a holistic and in-depth insight into the involvement of caregivers in support services for pre-school children with hearing loss, a single case study methodology was used (Yin, 2009; Bogdan & Biklen, 2007). Given the exploratory nature of the study (Yin, 2009), various qualitative data collection methods were employed, including observation, interviews, document reviews, and researcher diaries.

### Participants

The participants of the study consist of the education coordinator of the focal PSERC, a child with hearing loss receiving services from the focal institution, the child's caregivers (grandparents), and an individual support service teacher. After obtaining research permission and ethics approval from Anadolu University Ethics Committee through correspondence between the rectorate of Anadolu University and the focal institution, written consents were obtained from each participant. In accordance with the ethical principles, the child was assigned a code name while the other participants were referred with their titles. Information regarding the participants was collected via a demographic information form. Information about the child was obtained from the child's audiogram, the report from the Guidance and Research Center (GRC), and the form prepared for his caregivers.

The focal child Dağhan, who was three years and two months old at the time, was born on the 28th of July, 2014. Dağhan was diagnosed with profound bilateral hearing loss (a mean of 120 dB in the right ear/ a mean of 110 dB in the left one) when he was six months and 15 days old. He did not have any additional impairment other than hearing loss. Cochlear Implant (CI) was recommended to Dağhan, who was using a bilateral hearing aid, but the surgery was not approved by his mother and father. As a result of GRC evaluation, Dağhan was recommended to receive support services for hearing, language, and social communication within the support education program conducted by the PSERC for individuals with hearing loss. At the time, Dağhan received individual support services two sessions a week (Tuesday & Friday/45 minutes for each session) from a classroom teacher for the hearing-impaired at the PSERC.

Dağhan's mother and father have hearing loss and use sign language to communicate. Therefore, his education on spoken language was monitored by his caregivers – a 58-year-old grandfather who was a retired worker and a 50-year-old grandmother who was a housewife. His individual support service teacher was a 27-year-old woman. The teacher with a six-year experience in teaching children with hearing impairment at the PSERC had been conducting Dağhan's individual service sessions for three years. As part of her professional development, she had participated in seminars on sign language interpretation, Small Steps Early Intervention Program, and training children with language and speech disorders. The education coordinator of the focal institution was a 29-year-old man. He had a bachelor's degree from the psychology department of a university and a master's degree in family psychology. He had been working as the education coordinator for three years within his five-year PSERC experience.

### Setting: Focal PSERC and Dağhan's Home

In all PSERCs across Turkey, support service programs – approved by MoNE in accordance with the provisions of MoNE, SEIR (2012) – are implemented through individual and group sessions to individuals of all ages and all types of disabilities in line with the special education evaluation board report prepared by GRC. Compulsory education teachers appointed by the Ministry conduct individual sessions for a total of 8 hours and group sessions for 4 hours per month. Besides, teachers with a bachelor's degree from the

Department of Teaching for the Hearing Impaired are actively involved in support services for the children with hearing loss.

The focal PSERC was determined based on the following criteria; a) accessibility of the institution, b) the presence of a teacher for children with hearing impairment and a pre-school child with hearing loss in the institution, and c) the absence of any concomitant impairments. In line with these criteria, the research was carried out in a PSERC located in the central district of Eskişehir, Odunpazarı and at Dağhan's home located in the central district of Tepebaşı. The focal PSERC is a four-storey building, and Dağhan's individual education class (IEC) is on the first floor (1. Field note, 12.09.2017). Data were collected in Dağhan's grandparents' home where he was spending the weekdays. Since interaction took place in the living room and kitchen during the observations in the home environment, the data were collected within these environments (23rd Field note, 13.12.2017; Research diaries, 13.12.2017, p. 50; 25.12.2017 p. 57; 26.12.2017, p. 59).

### Data Collection Techniques

Multiple techniques were employed to each addressing multiple inquiries, to study the case in its context thoroughly. The opinions on caregiver involvement were collected through semi-structured interviews and a researcher's diary. The practices to support caregiver involvement and how they were carried out were collected through field notes, observations with audio and video recordings, semi-structured and unstructured interviews, document collection, and reflective research diary techniques (Bogdan & Biklen, 2007; Yin, 2009). Data were collected over a 5-month period in 2017/2018. Audio and video recordings were recorded via a voice recorder, a telephone, and a portable camera. Information regarding the data collected during the research process is presented in Table 1.

**Table 1.** The amount and duration of data collected during the research process

Research Data	Environment	Amount	Time	
Observation	Individual Education Session (IES) (Field Notes/Audio Recordings)	PSERC's Individual Education Class (IEC)	22	980'
	Caregiver Debriefing (Audio Recording)	The Corridor of PSERC's Entrance Floor	18	45'52"
	Interaction within the Home Environment (Video Recording)	Living Room/Kitchen	3	139'
Interview	Education Coordinator	PSERC's Coordinator Office	2	40'12"
	Individual Support Service	PSERC's Individual Education Class (IEC)	2	59'49"
Document	Grandfather	PSERC's Psychologist Office	1	33'44"
	Grandmother	House (Living room)	1	23'58"
	<i>Official</i>		2	At the Beginning of the Research
	<i>Personal</i>		4	During the Research
	Performance Tracking Chart		13	
	Caregiver-debriefing Notes		5	
	Activity Items/Material Copies		123	
	Photographs (Educational Materials)			
Researcher Diary		81 pages		During the Research

*Note.* Performance Tracking Chart (PTC): Documents prepared as a plan for the student at the end of each month at the focal PSERC

The first researcher observed how caregiver involvement in support services at the PSERC was achieved and whether the information presented to the caregiver was transferred into the home environment. Semi-structured interview and document collection techniques were employed both to verify the data obtained through observations and to obtain more in-depth information. Semi-structured interview questions were prepared separately for each participant, and interview forms were developed after collaborating with the second researcher about the interview questions. This process was repeated

when there was a need to obtain more detailed information about the goals of the observations. Besides, the researcher conducted unstructured short interviews with the teacher to verify the data obtained from the IES observations, and these interviews were audio-recorded and/or noted in the researcher diary. Observations made in the PSERC were carried out on the training days of the focal student (Tuesday-Friday, 14.00-14.45) while semi-structured interviews and observations in the home environment were carried out at the time and in the environment determined by the participants (Researcher diaries, 20.10.2017-31.02.2018, p. 31-67).

### Data Analysis and Credibility

Research data from various sources were simultaneously analyzed and handled holistically at the end of the process in accordance with inductive analysis approach (Bogdan & Biklen, 2007). After each observation made by the first researcher during the entire research process, observation records were described in detail. After each semi-structured interview, the interviews were transcribed, and the transcripts were coded by transferring them to the interview analysis form consisting of contextual information, descriptive index, line number, descriptive data, and researcher comments. Following the observations and interviews, the forms and the researcher's diary were regularly shared with the second researcher, and the data were verified through face-to-face interviews at regular intervals. The documents collected in the process were handled together with observations, interviews, and research diary. At the end of the process, the codes obtained from the observation form were listed, and the observation analysis form, which was in the same format with the interview analysis form, was filled in line with these codes. Reliability check was completed by the first and second researcher through consensus building (Miles et al., 2014). In addition, after all data sets were evaluated, the coded data sets were given to two field experts to support consistency, and the experts came together to reach a consensus. Then, the first researcher analyzed each coded data set independently to generate themes and sub-themes. After the second researcher reviewed the themes, both researchers evaluated the formulated themes and sub-themes separately for each data set through a holistic perspective and combined those that support each other (Bogdan & Biklen, 2007; Miles et al., 2014).

## Findings

This part presents findings obtained at the end of data analysis. Table 2 displays the findings.

**Table 2.** Theme and sub-themes

Main Themes	Sub-themes
Efforts to Achieve Caregiver Involvement	
Caregiver Debriefings	
Monitoring Interaction in the Home Environment	The Content of the Debriefings
Views on the Adequacy of the Debriefings	
Views on Caregiver Involvement	

### Efforts to Achieve Caregiver Involvement

To achieve caregiver involvement in support services at the focal PSERC, the caregivers were included in the sessions for a while, caregiver debriefing meetings were held at the end of the sessions, informational notes were shared with the caregivers, and the education coordinator held quarterly meetings. Accordingly, caregivers continued to join the sessions until the child was ready to work individually, and then onwards caregiver involvement was maintained through caregiver debriefings. This process was explained by the teacher as "When I feel like it's better to work individually, alone, I stop it [caregiver involvement]. Afterwards, I, for sure, keep debriefing the caregivers." (15/594-596). Similarly, Dağhan's caregiver (grandmother) explained that they received caregiver service until he was one and a half years old by the following remark; "We used to attend the sessions together until he was one and a half years old... She [teacher] told us 'You can do the same at home'. Later on, when the child became more conscious, he began to receive the service alone." (6/237-243).

As another caregiver involvement practice, the education coordinator held quarterly meetings

during which information was reciprocally shared about the performance of the students both at the institution and at home. He explained this process by saying; "I hold quarterly standard meetings... What kind of a plan we had, and how far we've come? Or is there anything that caught the family's attention? We negotiate them together" (7/224-226). On the other hand, while the teacher highlighted that not every caregiver was attending the meetings by saying "Some families do not attend... The socioeconomic status and lifestyle of the family is so critical..." (16/674-676), the caregiver (grandpa) emphasized that they were only informed at the end of sessions; "The teacher summarizes the daily lessons. It is provided orally and/or in writing... There is no extra information" (1-2/34-50). During the observations, caregiver debriefings were held regularly at the end of the sessions to achieve caregiver involvement (1st-18th Audio recording, 26.09.2017-18.12.2017; Researcher's diary, 12.09.2017-26.09.2017).

### Caregiver Debriefing

Post-session caregiver debriefings were mostly held on the ground floor of the institution for about two and four minutes on average (Researcher's diary, 15.09.2017, p. 5, 26.09.2017, p. 12-14; 1-18. Audio recording, 26.09.2017-08.12.2017). The aim of caregiver debriefings was to help Dağhan's language development by ensuring that the exercises studied at the institution were also practiced at home, and the reason behind keeping debriefing notes was to facilitate the retention of the information shared during these meetings. Accordingly, the teacher said "The aim is to expose him to spoken language...The caregivers can literally see what we are trying to do" (10-12/376-470). In line with this, the findings obtained from the debriefing meetings and the debriefing notes were gathered under the sub-theme "Content of the Debriefings".

#### *The content of the debriefings*

The content of the debriefings was information regarding the sessions, the plans for the following sessions, and the suggestions offered to support interaction in the home environment (1-18. Audio recording, 26.09.2017-08.12.2017).

**Information regarding the sessions.** In all of the debriefings, consistent with the observed sessions, the activities carried out in the session, the objectives, and the developmental progress of Dağhan were shared with the caregivers (5th-22nd Field note; 1st-18th Audio recording, 26.09.2017-08.12.2017; PTC, 1, 2, 3, 4). For instance, in an observed session, the teacher noted the objectives as "Distinguishing similarities and differences of sounds, expanding vocabulary, repeating three-word sentences", and accordingly the activities carried out in the session were "Looking for a single card about vehicles", "Vehicle repair game", and "Listen&show with vehicle cards" (20th Field note, 01.12.2017). In the follow-up caregiver debriefing, the teacher noted the words that had educational purposes in the vocabulary set "Today's vocabulary includes a police car, a tow truck, and a shopping trolley", and wrote down the activities; "Today, we did a single card look-up exercise about vehicles. Again, we created a game with them... Then, we did a listen&show activity like 'show the police car'." Besides, the teacher also commented about Dağhan's performance "Participation is very good, joint interest is high. I just want him to take turns a little more while talking because he doesn't wait. But overall it was very nice." (16th Audio recording, 01.12.2017). Consistent with the debriefings, all the notes shared with the caregivers included the names of the activities performed in the session, the developmental progress of Dağhan, and the intended vocabulary set of the session (5th-22nd Debriefing notes, 26.09.2017-08.12.2017).

**Plans for the following sessions.** The teacher shared the objectives to be focused on and the activities to be included in the following sessions (4th, 5th, 11th, 16th Audio recording), 6.10.2017, 10.10.2017, 10.11.2017, 1.12.2017). For instance, in one of the debriefings, the teacher stated that Dağhan's repetitions increased and therefore she would focus on clarity a little more to increase his intelligibility by this remark; "It will be better if we increase his intelligibility a little bit." (11th Audio recording, 10.11.2017; PTC, 1, 2, 3, 4). In another debriefing, the teacher arrayed the activities to be conducted in the following sessions as

"From now on, I will support him more with stories, single card activities, and sequencing drills." (9th Audio recording, 31.10.2017).

**Recommendations to support interaction in the home environment.** During the debriefings, the teacher shared information about the activities to be done at home to support Dağhan's language ability and about how to form interaction during those activities. Similar to the activities held during the observed sessions, the teacher suggested reading activities from a storybook, playing imaginary games (vehicle repair, doctor-patient, building a farm) and games related to daily life in the home environment (food-beverage preparation, dishwashing, baby feeding-sleeping) (5th-22nd Field note; 1st-18th Audio recording, 26.09.2017-08.12.2017). Besides, caregiver and student items (6th, 13th Audio recording, 17.10.2017, 17.11.2017) and material copies (4th, 5th, 9th Audio recording, 06.10.2017, 10.10.2017, 31.10.2017) were shared to continue what was practiced at the institution also in the home environment.

Considering Dağhan's developmental level, the teacher's suggestions for caregivers to help speaking and listening skills at home were as follows; using words in sentences, forming two/three-word sentences, drawing attention to sounds and imitating sounds, making activities tangible by using three-dimensional materials during activities, saying words and sentences that Dağhan pointed out or tried to express, speaking within his focus of interest, giving enough time to express himself during interaction, accepting interaction that are not suitable for the context for a short time and returning to the activity (1st-18th Audio recording, 26.09.2017-08.12.2017).

For example, in one of the debriefings, the teacher suggested looking at a storybook at home in line with the activities done in the session and explained how these activities should be carried out; "When looking at a storybook about any subject like vehicles, animals... If you see a horse, let him have a three-dimensional horse, too... That will allow him to portray it." (8th Audio recording, 27.10. 2017). In another debriefing, the teacher requested the caregiver to use the words "Doctor, bandage, ambulance" at home for language repetition, and accordingly she suggested the caregiver to play doctor-patient game and use the target words in sentences; "While playing doctor-patient game, it will be more useful if you use sentences such as 'let's put a bandage', 'Look! The ambulance is here'... Let's try to focus on three-word sentence repetition as much as possible." (14th Audio recording, 21.11.2017). In another debriefing, she recommended them to be a model by using the words that Dağhan could not express in sentences; "Let's say, he says dough and then points to a roller. When you see something like that, it will be useful if you use it in a natural way like 'Do you want the roller?'" (18th Audio recording, 08.12.2017). When we look at the content of the debriefing notes, we see that though some notes include suggestions for the activities to be carried out at home, explanations about how to carry them out are not reflected in the notes (Field notes, 17.10.2017; 20.10.2017; 27.10.2017; 31.10.2017).

### **Monitoring Interaction in the Home Environment**

During the observations conducted at home, the caregiver (grandmother) carried out activities with Dağhan such as preparing food and repairing vehicles, playing doctor-patient game, and building a farm – consistent with the content shared during caregiver debriefing. As for the activities, the caregiver (grandmother) followed Dağhan's interests and provided language input by speaking in line with his interests, and became a model by making sound imitations and forming two/three-word sentences (1st & 3rd Video observation; 13.12.2017; 25.12.2017). For example, during the vehicle repair game, Dağhan said "Look, it crashed!" by pointing at the plane. The caregiver offered meaningful language input by saying "The plane crashed", then imitated the ambulance sound and said "Shall we take the ambulance there to help?" to draw Dağhan's attention to the sound and to continue the game in line with his interest (1st Video observation, 13.12.2017).

The teacher checked homework activities with the caregivers by personally asking them during the debriefings, and sometimes the caregivers gave information even before they were asked; "I'm asking the family one on one. Sometimes they share it directly with me before I even ask them." (10/393). Despite the statement of the teacher, no questions were asked to the caregivers regarding the activities carried out in the home environment (1st-18th Audio recording, 26.09.2017-08.12.2017). In this regard, the caregiver

(grandfather) said "The teacher does not ask us what is done at home, she does not ask for information. She just says 'You should continue the activities at home.'" (5/199-200). In addition, the caregiver gave information about the activities carried out at home without being asked by the teacher, supporting the teacher's statement (For instance, 4th,16th, 18th Audio recording, 06.10.2017, 01.12.2017, 08.12.2017). For example, the teacher suggested the activity "rolling the dough" as a home exercise, and the caregiver (grandfather) said that the activity was already done at home; "They made it with together with his grandmother, they already rolled the dough". Besides, in a home observation, the caregiver (grandmother) did "pastry making" activity with Dağhan (2nd Video observation, 25.12.2017).

### **Views on the Adequacy of the Debriefings**

The caregivers stated that the debriefings were sufficient both to understand what was done in the sessions and to get information on the desired topics. For instance, the caregiver (grandfather) noted that the debriefings were adequate to understand what the teacher wanted to do; "You understand the activity, you understand what she [the teacher] wants to do." (3/98). The caregiver (grandmother), similarly, noted that she wanted to get information about Dağhan's performance and his level of adjustment in the session, and the teacher shared relevant information; "Is he adjusted? Can he repeat what you say? These are very important to me, and when I ask about them, I get an answer." (3/99-103).

Apart from the positive aspects mentioned above, various informational needs of the caregivers were noted during the interviews. In this regard, the caregiver (grandmother) highlighted that she needed information about behavior management and maintaining Dağhan's interest to promote interaction at home; "He is over-aggressive at home, we can't do anything. I don't know what to do..." (3-4/113-125). In the observations conducted at home, the caregiver (grandmother) had difficulty maintaining Dağhan's interest, he was not interested in the games or activities or he quickly got bored, and he took offense at his grandmother to make her do what he wanted (1st and 3rd Video observation; 13.12.2017; 25.12.2017). Additionally, the caregiver shared her needs for further information with the teacher. For example, in one of the debriefings, the caregiver said "But he doesn't listen to us at home as much as he listens to you.". Based on this, the teacher stated that there may be a difference in the home environment; "The boy sees me as the authority figure here. At home, the situation is definitely different...", and explained what it means to have a conversation compatible with the context; "If you are playing doctor-patient game, the fact that he is giving injections and/or medicine at that moment shows that the child is acting in accordance with the context..." (17th Audio recording, 05.12.2017).

In addition, the main problem about the debriefings was the time limit, and therefore the debriefings were not sufficient. Accordingly, the teacher said "We have a 15-minute break. We give information, we share the activities, and when I check the time, there is only 5 minutes left. We need some time... We enter the next class without any rest." (11/433-447). Moreover, she explained that the debriefings could be insufficient due to the rush, which caused her to forget to share some of the information; "...We are preparing for the session, we are bustling around. I realize afterwards that I forgot to mention something." (11/398-399). Similarly, the education coordinator stated that 15-minute session breaks were not enough and that the teachers should use breaks for the preparation of the following session, meeting their personal needs, and also resting, apart from the debriefings; "I wish teachers could give more detailed information, but in reality, that is impossible... At some point, I want the teachers to have their own time..." (11/428-437).

### **Views on Caregiver Involvement**

The education coordinator and the teacher underlined that caregiver involvement in support services is necessary, but also made explanations about the stages at which involvement should be provided. Accordingly, they highlighted that caregivers should not be involved in the planning process of the service, but they should be involved during the implementation process and the evaluation of development. For instance, the teacher noted that caregivers should not be involved in the planning process; "Planning should be left entirely to the teacher... The one providing the service should decide on the goals." (15-16/628-631), and she justified this by the following remark; "Sometimes, we don't have a



common view with the families. They can come with different requests, or rather, requests that do not make sense... If we include them, then it will be very difficult to maintain proper language use.” Besides, the teacher said that it would be appropriate for caregivers to involvement in the training process by practicing the training conducted at the institution in the home environment, and to involvement in the evaluation process by giving information about the developmental progress of the student; “The family becomes a part of the training process if they do the activities I have mentioned at home. We also talk in the evaluation process, I get feedback from the family... I think this is the healthiest way.” (16/646-652). Similar to the teacher, the education coordinator also exemplified involvement in the training and evaluation process; “Let’s say the concept of ‘red’ is practiced in the classroom. If he doesn't bring the red ball at home when he is asked to, it doesn't make any sense. That's when we see his real performance” (9/346-347).

Among his views on caregiver involvement, the education coordinator said that caregiver involvement was achieved in the focal PSERC as much as possible; “We work with a system enabling caregiver involvement as much as possible. This is one of the goals in the establishment of this institution...”, and he suggested that the caregivers be provided with psychological support and training after their child is diagnosed with hearing loss to promote active caregiver involvement: “First, the families can be psychologically supported to reduce the stress they experience regarding the process. Secondly, they can be trained about active involvement.” (10/359-361). The teacher, on the other hand, noted that the institution could hold meetings to achieve active involvement of caregivers, and that it was not a field they can intervene much; “The institution may organize family meetings, which is what they already do anyway. Not every family attends the meetings... This is the best they can do. Apart from that, it is not an area we can intervene much.” (16/671-673).

### Conclusion and Discussion

In this study, the aim is to examine how caregiver involvement is achieved in support services for a pre-school child with hearing loss. Accordingly, the summary of the findings distilled from the analysis of the data during the research process is given in Figure 1.

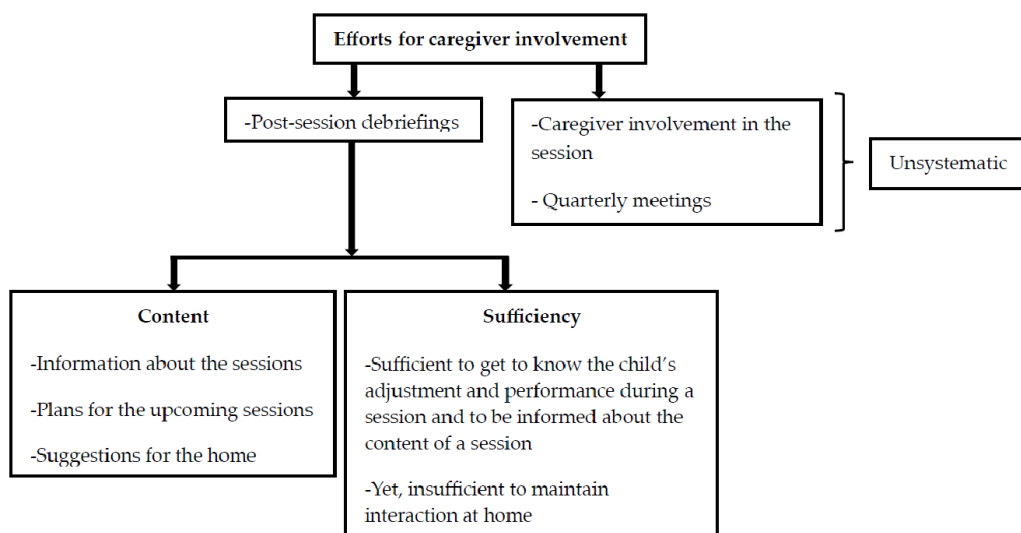


Figure 1. Efforts for caregiver involvement

Figure 1 shows that the practices for caregiver involvement in the focal PSERC consist of involving the caregivers in the sessions, holding quarterly caregiver meetings, and debriefing the caregivers. It has been found that caregivers usually stop attending sessions when the child reaches around 18 months, and families do not consistently participate in the quarterly family meetings. Accordingly, the consistently implemented practice in the focal PSERC is the caregiver debriefings provided at the end of the sessions. This practice is consistent with previous research in the national literature (Antmen, 2010; Sarı et al., 2017;

Bekar et al., 2021). Based on these findings, the teacher and the education coordinator are aware of the importance that caregiver involvement has for the development of a child with hearing loss, and they work towards caregiver involvement in this context, but despite these efforts it is limited to post-session debriefings.

Caregiver debriefings aim to help caregivers continue what is practiced at the institution at home in order to support language development, and hence, the content of these debriefings include what happens in a session, plans for the following sessions, and suggestions to enhance interaction in the home environment. One of the participating caregivers states that he needs to know about Dağhan's performance and adjustability in the session. In this sense, the debriefings serve to meet this need of caregivers.

Considering the suggestions made for the home environment during debriefings, various activities and strategies are offered to the caregivers to improve Dağhan's spoken language at home. Suggested activities are incorporating activities into Dağhan's daily routines and using similar imaginary games and daily tasks as the context of interaction in the home environment. This finding seems to be compatible with the principle of family-centered practices to provide learning opportunities based on the daily routines of the child and the caregiver (Brown & Nott, 2005; Moeller et al., 2013). In addition to recognizing and using daily routines and activities as the context of interaction, caregivers are expected to be informed about language strategies necessary to provide rich language input to their children during interaction (Cole & Flexer, 2020; Esterbrooks, 2006). Throughout the debriefings, the teacher informs the caregivers about strategies to increase the quantity of language by including various lexical items appropriate with Dağhan's linguistic level or by forming two/three-word sentences and to improve the quality of language by steering the conversations towards Dağhan's interests or by verbally interpreting what Dağhan wants to express. Additionally, the teacher makes suggestions about drawing attention to sounds and making sound imitations while playing games, looking at a storybook, or during other daily tasks. This finding regarding the shared content is compatible with the literature emphasizing strategies that facilitate language for children with hearing loss (Clark, 2007; Cole & Flexer, 2020). In fact, it is widely accepted that a series of interaction behaviors, such as following the child's interest, providing language appropriate to the child's interest, and interpreting and expanding the child's communication attempts, contribute to the language development of children with hearing loss (Curtin et al., 2021).

Though the shared content seems to support caregivers' communication skills, sharing it in a short period of time like 2-4 minutes and the way information is presented lead to questioning how much caregivers can benefit from the debriefings. As a matter of fact, the debriefings are insufficient to meet more specific informational needs necessary to maintain interaction in the home environment. In the literature, family-centered practices mean performing flexible and individualized practices to strengthen adult-child interaction in daily life by considering the unique needs, priorities and learning styles of each caregiver (Clark, 2007; Moeller et al., 2013). It is highlighted that approaches that assign caregivers a passive receiver role (homework, standard recommendations, etc.) may not provide the generalization of these skills into daily life environments, and furthermore, they may hinder the recognition of caregivers' existing knowledge and skills to improve their communication skills (Bricker et al., 2018; Clark, 2007; Ertmer et al., 2002; McWilliam, 2015). Findings compatible with the literature pinpoint that the caregiver (grandmother) needs support to maintain Dağhan's interest in the activity and manage his behaviors during the activity, which are beyond the suggestions offered by the teacher. Moreover, monitoring interaction at home is limited to the activities expressed by the caregivers, and they do not receive sufficient information regarding the needs they mention. These findings seem to be compatible with the research findings underlying that caregivers need more detailed information to support their children's language development (Decker & Vallotton 2016) and that experts do not consider caregiver needs in the presentation of interventions (Ingber & Dromi, 2009).

In the literature, busy working schedules of PSERCs stand out as one of the main problems expressed by teachers (Atmaca & Uzuner, 2020). Consistent with the literature, the finding that teachers have only a 15-minute break to meet their personal needs and to prepare for the next session can explain why time

limitation is generally noted as the main reason behind being unable to provide detailed information to caregivers. On the other hand, the main reason for the information content to be inadequate within this context might be the educator's own perspective regarding her own role. Thus, service providers should offer counseling/guidance to caregivers by using adult learning strategies to support their daily life capabilities (Clark, 2007; Espe-Sherwindt, 2008; Moeller et al., 2013). In this sense, service providers working with caregivers of children with hearing loss are expected to coach them by modeling them, observing caregiver-child interaction, and providing supportive feedback so that they can improve their existing competencies and acquire new skills (Clark, 2007; Estabrooks, 2006; Holzinger et al., 2022; Noll et al., 2021).

At this point, it seems plausible to discuss the reasons in line with the literature as to why the current services in the focal PSERC do not meet the recommended family-centered practices. Inability to implement family-centered practices may be due to various reasons such as attitudes, values, and lack of education (Bruder, 2000). One of the important steps to be taken in implementing family-centered practices is to adopt the role of a counselor/guide (Espe-Sherwindt, 2008; Moeller et al., 2013). Based on the findings of the current study, the role attributed to caregivers in support services is to apply the practices – planned and carried out under the control of teachers – in the home environment and to share information about their children's developmental progress with the teacher. Moreover, it is a noteworthy finding of the current research that the participating teacher does not consider caregiver involvement as an area they can influence. Based on these findings, it may be concluded that the educator's attitude towards the expert role is maintained in the focal PSERC (Dunst & Espe-Sherwindt, 2016). Additionally, while family-centered practices mandate service providers have some new competencies to train children with hearing loss and their caregivers (Moeller et al., 2013; Yoshinaga-Itano, 2014), some experts who are knowledgeable about the education of children with hearing loss do not receive adequate vocational training on these competencies (Anderson, 2011; Rice & Lenihan, 2005). In order for service providers addressing caregivers of children with hearing impairment to adopt and employ family-centered practices, teacher training programs should re-evaluate their curricula in line with the trends in the education of children with hearing loss (Proctor et al., 2005; Lenihan, 2010), and in-service training opportunities should be offered at the level of coaching and mentoring (Yoshinaga-Itano, 2014).

In Turkey, early education of children with hearing loss is conducted by teachers specialized as classroom teachers for children with hearing impairment. On the other hand, the philosophy of early intervention is a unique field different from school age with its aims and practices (Odom & Wolery, 2003). As a matter of fact, the national literature draws attention to the need for professional support for teachers of young children with hearing loss and to the need for educators specialized in early intervention (Kılıç, 2020; Turan, 2019). Therefore, considering pre-service training of the participating teacher, who is directly involved in the provision of support services, one can conclude that the problems in practice may arise from the lack of education regarding family-centered practices, together with the attitudes towards the changing role of the educator.

As a result, in the context of this research, the structure carried out to support caregiver involvement and interaction in the home environment does not reflect the philosophy of family centeredness. Although family-centered practices are accepted as the best practices in the early intervention process of children with hearing loss, this research presents an example of the inconsistency experienced across practices in Turkey, as in many countries (Alliston, 2007; Espe-Sherwindt, 2008; Ingber & Dromi, 2009). Desired implementation of family-centered practices is closely related to the countries' perspectives on early intervention and the steps they have taken to train and employ competent personnel in this field (Bruder, 2000).

### **Suggestions Regarding Implementation**

As for developing active caregiver involvement, it is important to systematize the trainings that take place with the involvement of caregivers in classroom practices and to organize the content of these trainings according to caregiver needs. In this context, the educational practices presented in the focal

PSERC need to be organized in line with the recommended practices so that caregivers can internalize the information to support their children's language development and generalize these skills to their daily life environments. To meet this need, teachers working at PSERCs can be given in-service trainings on caregiver involvement to expand their level of knowledge and perspectives on caregiver involvement. Besides, in undergraduate education programs, arrangements can be made to provide pre-service teachers with practical competence along with theoretical knowledge about the importance of caregiver involvement and how it can be achieved, especially in early childhood.

### **Suggestions for Further Research and Limitations**

In this study, limited number of observations were made in the home environment due to the health concerns of the caregivers. Thus, to examine the reflections of the information presented at the institution to the home environment more holistically, studies in which long-term observations are carried out in the home context can be conducted. In the current research, caregiver involvement in support services is explored in depth based on the qualitative paradigm. Therefore, studies with higher ecological value can be conducted to reveal caregiver involvement practices and the variables that affect involvement throughout Turkey. The researchers of the current study conclude that the expert-centered attitude is maintained in the early intervention process of the child with hearing loss. Prospectively, examining how teachers working in PSERCs conceptualize family-centered practices and their perceptions of their own roles may help unravel the needs for developing family-centered practices in detail. Moreover, action research studies to be designed on the suggested topics may navigate the creation of functional guides to support the knowledge and skills of teachers in PSERCs in terms of performing family-centered practices. Finally, international collaborative research can be carried out for policy development regarding the dissemination of practical standards in family-centered early intervention.

### **Declarations**

#### *Authors' Declarations*

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