



The fundamental framework for Deaf/Hard-of-Hearing children: a model from the child's perspective

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Abstract

Deaf and hard-of-hearing (DHH) children deserve to acquire functional language skills at the same rate as their hearing peers. Newborn hearing screenings assist in the early identification of decreased hearing levels in children at birth, leading stakeholders to make decisions about communication and language within the first weeks of the child's life. While trained and educated to present the most evidence-based information, the professionals involved in supporting parents, caregivers, and families with the care of their DHH child may influence the decision-making process by presenting information to families rather than engaging them in meaningful dialogue, explaining conceptual knowledge, and answering questions, with consideration given to the child's perspective.

This paper describes the Fundamental Framework, a model created to facilitate meaningful collaboration between families and professionals regarding preferred language choice. The Fundamental Framework is a theoretical model influenced by the International Classification of Functioning, Disability, and Health (ICF) model and the 'F-words' in Childhood Disability by Rosenbaum and Gorter in 2011 with the following specific aims: 1) to facilitate meaningful collaboration between professionals (e.g., pediatricians, speech-language pathologists, audiologists, etc.) and the families of DHH children 2) to assist in fostering a strong language foundation for DHH children, critical for their overall optimal development 3) to enhance client-centered assessment of preferred language options and 4) to de-emphasize the historical approach of "fixing" decreased hearing levels in children.

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The model intends to provide an understanding of service provision and facilitate dialogue surrounding the importance of rich language opportunities, which leads to foundational language development and acquisition. Clinically, medical professionals and families can use this framework to enhance inclusive efforts among all involved to ensure collaboration, comprehension, and understanding in the language decision-making process occurs for professionals, caregivers, and the DHH child.

Keywords: language, deaf, decision-making, Fundamental Framework, early intervention

1. Introduction

In the United States, between one and three babies per 1,000 are born with decreased hearing levels (Mehra, Eavey, & Keamy, 2009; Morton & Nance, 2006), and more than 90% of these children have parents with typical hearing (Mitchell & Karchmer, 2004). One of the first decisions parents of deaf and hard-of-hearing (DHH) children make is related to which language they want their child to use, and, for many parents, their DHH infant is the first person they have ever met with reduced hearing. Because of this, parents turn to professionals for expert advice and guidance to ensure their child acquires language. The current early intervention paradigm focuses on listening and oral language; thus, most professionals provide parents with a plethora of information on how to support their child's acquisition of oral language through listening devices and listening therapy. However, parents are rarely presented with information about other language opportunities, such as a signed language like American Sign Language (ASL).

Cagulada (2019) notes a societal push for parents of DHH children to choose to use speech *or* sign language for their child rather than the option to use both. Yet, parents are often not informed of both languages equally. A study by Decker and Vallotton (2016) found that parents of DHH children do not receive adequate or complete information about the use of a signed language. Many professionals in early intervention are trained in oral-only approaches and may not make recommendations for the use of a signed language (Clark, Cue, Delgado, Greene-Woods, & Wolsey, 2020; Sanzo, 2022). In fact, many parents are advised *against* using a signed language for their DHH child, and because they may not know otherwise, they often accept this advice. Eleweke and Rodda (2000) found that parents who chose an auditory-oral approach appeared misinformed about the benefits of a signed language.

Additionally, the information specialists provide may lead parents to have unrealistic expectations about the outcomes of listening devices (Eleweke & Rodda, 2000). For example, many parents are led to believe that listening technology "fixes" decreased hearing and guarantees oral language acquisition for a DHH child (Szarkowski, 2019). As a result, many parents, in hindsight wished they had been provided a broader range of information related to education and communication methods to support them in making more informed decisions about cochlear implants for their child (Hyde & Punch, 2011; Kite, 2019). Thus, it is clear that there is a need for providing parents of DHH infants with information about language in any modality, rather than information only on oral language (Decker & Vallotton, 2016). Indeed, Kecman



(2018) notes that professionals' attitudes towards deafness can greatly influence parents' decisions. All of this can lead to language decisions that are not appropriate for a particular child and ultimately negatively impacts both the cognitive and psychosocial health of DHH children. This includes decreased emotional sensitivity, decreased problem-solving skills, and increased impulsivity (Humphries, Kushalnagar, Mathur, Napoli, Rathmann, & Smith, 2019).

Shared decision-making between healthcare providers, patients, and their families is widely regarded as the gold standard for clinical care (Porter, Creed, Hood, & Ching, 2018), and yet this component is often missing from service provision with parents of DHH infants and toddlers (Clark et al., 2020). Because parents are usually charged with choosing the language they want to use with their child, professionals' influence on parents' decision-making can impact their child's rate of language acquisition and ultimately, their global language development. In many cases, decreased hearing levels occur prior to three years of age, which is considered within the critical time period for acquisition of a first language (Hernandez, Allen, & Morere, 2022). During this time, the brain exhibits high levels of neuroplasticity and absorbs language effortlessly when exposed to *accessible* stimuli (Humphries et al., 2019). By the age of five, a child has mastered a native language and begins to depend on their linguistic skills to support other domains of development (Hall, Hall, & Caselli, 2019). The brain does not discriminate, rather it absorbs all modalities of language input, as all babies babble both manually (signed phonemes) and auditorily (oral phonemes; Meier, 2005). Thus, early decisions related to a preferred language can facilitate or hinder both the establishment of a first language and the child's proficiency in that language. It can also have a substantial impact on a child's self and social identity as a DHH person.

An increase in the understanding of factors that influence parental decisions and the processes involved in parental decision-making would lead to improved effectiveness of family-centered intervention programs (Gavidia-Payne & Stoneman, 1997, as cited in Ching, 2018). Studies show that parents are overwhelmingly more likely to choose hearing technologies (i.e., hearing aids and cochlear implants) and oral language rather than signed languages such as ASL upon identification of decreased hearing in their children (Clark, Wimberly, Goyette, Metcalk, Willman, Greene & Norman, 2023; Humphries et al., 2019).

A recent study discussed the impact parental language decision-making has on child language acquisition. There are three language routes that parents typically choose from regarding language for their DHH child: 1) use of oral language 2) use of a signed language 3) a combination of both, frequently referred to in the literature as a bilingual-bimodal approach. Findings from recent studies support pre-existing research suggesting that children raised bilingual-bimodal demonstrate inconsistent mastery of language concepts due to disproportionate exposure to signed language and limited exposure to signing language models (Clark et al., 2023; Greene-Woods, 2020; Hernandez, Allen, & Morere, 2022). Findings also suggest that in early decision-making, parents choosing oral language should receive detailed information about other factors such as their child's degree of

decreased hearing and the potential use of listening devices, as these characteristics may help predict the ability of the child to thrive within a monolingual environment. The onset and consistency of the selected approach to language modality is vital for the trajectory of a deaf or hard-of-hearing child's language development and should be thoroughly described and discussed with parents in this process.

There is a current, critical need for the consistent use of a framework to guide the planning and delivery of services, especially for DHH children (Nguyen, Stewart, Rosenbaum, Baptiste, Kraus de Camargo, & Gorter, 2018). The Center for Disease Control (CDC) and Prevention's Decision Guide to Communication Choices for Parents of Children who are Deaf or Hard-of-Hearing (n.d.) provides three steps for language decisions: 1.) finding your starting point in the decision-making process; 2.) identifying and exploring your decision-making needs; and 3. planning the next steps based on your needs. This resource, like many others, supports parents in the decision-making process; however, these steps fail to consider the desires of the DHH child. The child is the one who will be using the selected language, and ultimately, the one who is directly affected by the language choice. Another framework, the World Health Organization (WHO)'s International Classification of Functioning, Health, and Disabilities (ICF) model (2001), provides a client-centered approach to involving a person in healthcare decision-making.

This paper will outline a modified framework that couples the CDC recommendations with the ICF model to guide professionals in effective provision of services for DHH children with consideration to the DHH child's perspective and how language decisions will impact them across the lifespan.

2. The ICF Model

Developed to describe and organize information on health and health-related states, the ICF model emphasizes client-centered care. Client-centered care asserts that patients are more than just their disability and should be an active– not passive– participant in their care and the decision-making around their care (Ekman, Swedberg, Taft, Lindseth, Norberg, Brink, & Sunnerhagen, 2011). The components of the ICF model include Body Structure and Function, Activities, Participation, Environmental Factors, and Personal Factors. The first component, *Body Structure and Function*, explains the impact of disability on individual structures and function(s). *Activities and Participation* refer to the performance and capacity to which an individual can perform a specific task. *Environmental Factors* include the presence of barriers or facilitators due to disability. *Personal Factors* include patient age, income, occupation, and lifestyle. Each component addresses a specific area and its impact on disability.

The WHO's ICF model starts with a specific health condition and addresses how different interrelated components influence health and functioning. This framework provides a detailed classification of health that unifies many aspects of a person's life and how health may influence these aspects, as well as their ability to function, in a multidirectional manner (Rosenbaum & Gorter, 2011). The ICF model emphasizes patient-centered

care yet lacks collaboration and integrated services among professionals involved in the transition of patients across the lifespan (Nguyen et al., 2018).

3. ‘F-Words’ in Childhood Disability

In 2011, Rosenbaum and Gorter published an article titled “The F-words in Childhood Disability: I swear this is how we should think?” In this model, the authors created six ‘F-words’ that focus on critical areas of child development and are intended to apply to children with neurodisabilities. Similar to the ICF model, this framework has a variety of components. They include fitness, function, friends, family, fun, and future. *Function* refers to an action that one performs with decreased emphasis on *how* the action is performed. *Family* represents an essential environment for all children and youth. *Fitness* refers to physical and mental well-being. *Fun* includes activities that people enjoy. *Friends* refer to friendships established with others. *Future* encompasses the action of looking ahead and planning what is to come.

Both the ICF model and the ‘F-words’ model for children with neurodisabilities provide a holistic, positive view of participation in preferred activities. Figure 1 illustrates a cross-reference of the components represented across both models. Contrary to the ICF model, the ‘F-words’ in Childhood Disability utilizes a more comprehensive viewpoint and encourages professionals to consider all the factors that impact a child’s development, such as their participation in activities and within their environment. Additionally, the ‘F-words’ framework (Rosenbaum & Gorter, 2011) is presented in a parent-friendly manner that utilizes digestible and familiar language. The first author recognized the relevance of this framework to DHH children and adapted it to apply to this population specifically.

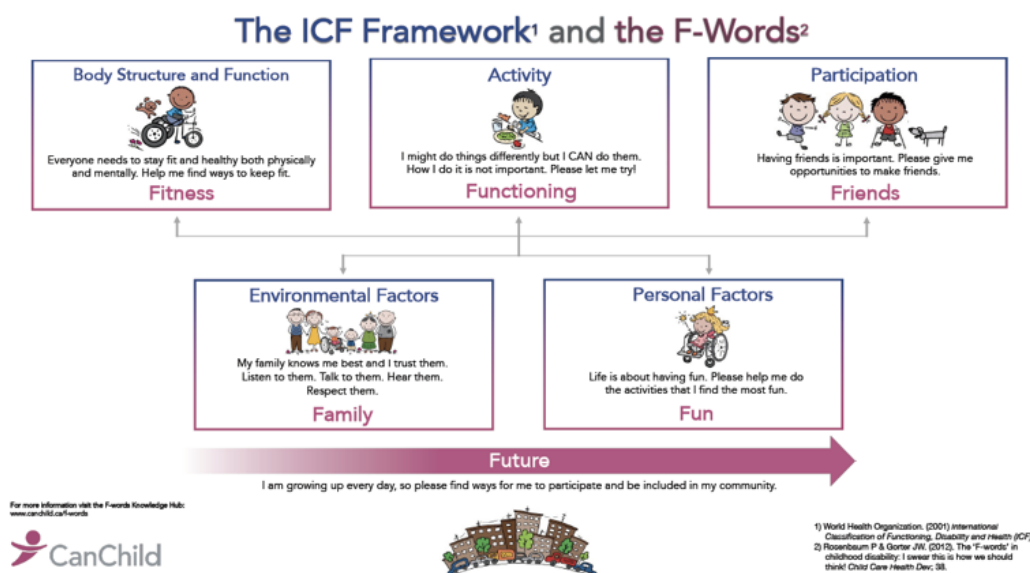


Figure 1. A visual representation of the ICF Framework and the ‘F-words’ (Rosenbaum and Gorter, 2011) which was modified to create The Fundamental Framework for DHH Children

4. The Fundamental Framework for DHH Children

The Fundamental Framework for DHH Children is modeled after Rosenbaum and Gorter (2011)'s 'F-words' in Childhood Disability. It specifically addresses the care of DHH children and aims to provide an understanding of health and communication from the child's perspective. The Fundamental Framework includes modified 'F-words' from Rosenbaum and Gorter (2011), renamed *keywords*, which summarize the components of a child's life impacted by language and communication (Figure 2).

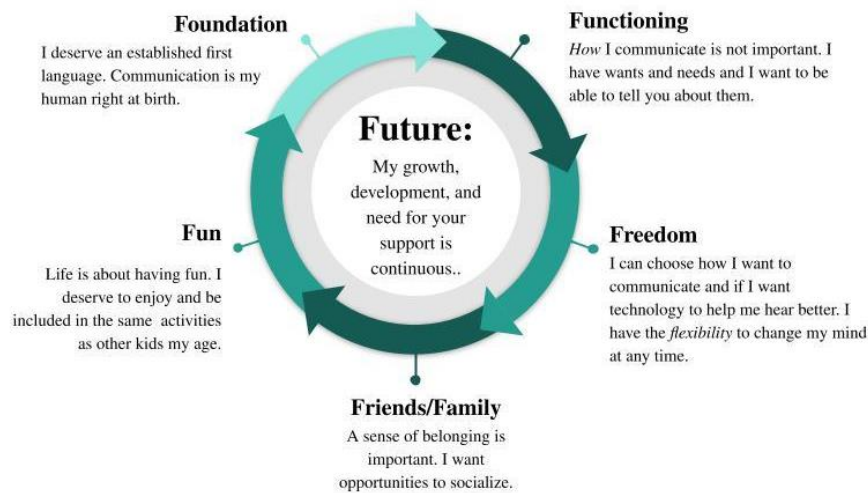


Figure 2. A visual representation of The Fundamental Framework for DHH Children

Descriptions of each keyword were modified to apply to explicitly to DHH children. To select the components of the current model, the first author compared previous models and analyzed the current literature to identify integral aspects of a child's life that are directly impacted by language and communication.

Additionally, a resource to supplement the visual representation of the framework was created to guide discussion between professionals and parents as a way to ensure the DHH child's perspective is considered (Table 1).



Table 1
The Fundamental Framework keywords, related perspective statements, and questions for the child, parents, and providers to consider during the communication decision-making process.

Keyword	DHH Child's Statement	Sample Questions for the Child, Parents, and Providers
Foundation	I deserve an established first language. Language is my human right at birth.	<p><i>Question for parents to ask their child:*</i></p> <ul style="list-style-type: none"> - Which language do you prefer to use? - Which language do you want me to use with you? <hr/> <p><i>Questions for parents to ask providers:</i></p> <ul style="list-style-type: none"> - How do we get connected to the Deaf community or a Deaf mentor? - Can you connect us to an ASL-English bilingual speech-language pathologist? - Can we take a tour of the closest residential school for the Deaf? - Where can we learn ASL? <hr/> <p><i>Questions for providers to ask parents:</i></p> <ul style="list-style-type: none"> - How is your child meeting their language milestones? - What concerns, if any, do you have about your child's language development?
Functioning	<i>How</i> I communicate is not important. I have wants and needs and I want to be able to tell you about them.	<p><i>Questions for parents to ask their child:*</i></p> <ul style="list-style-type: none"> - How do you feel about how you communicate what you want and need with me and others around you? - Do you want to learn sign language? - Do you want to use your voice? - Would you be interested in learning both? - What is hard about how you communicate right now? <hr/> <p><i>Questions for parents to ask providers:</i></p> <ul style="list-style-type: none"> - What are my child's hearing levels? - What are some examples of what sounds my child can detect? - What does bilingual-bimodal mean?

		<p>- How do we implement this approach at home/school? What does this look like?</p> <hr/> <p><i>Questions for providers to ask parents:</i></p> <ul style="list-style-type: none"> - How have you been able to communicate with your child daily? - Do you feel that your child is able to express themselves adequately?
Freedom	<p>I can choose how I want to communicate and if I want technology to help me hear better. I have the <i>flexibility</i> to change my mind at any time.</p>	<p><i>Questions for parents to ask their child:*</i></p> <ul style="list-style-type: none"> - How does your hearing aid or cochlear implant make you feel? - Do you like wearing your hearing aid or cochlear implant? - Do you want to use your voice to communicate? <hr/> <p><i>Questions for parents to ask providers:</i></p> <ul style="list-style-type: none"> - What do I do if my child doesn't want to wear their listening device(s)? <hr/> <p><i>Questions for providers to ask parents:</i></p> <ul style="list-style-type: none"> - How have you provided your child the autonomy to choose when they wear their devices?
Friends/ Family	<p>A sense of belonging is important. I want opportunities to socialize.</p>	<p><i>Questions for parents to ask their child:*</i></p> <ul style="list-style-type: none"> - Who is your best friend at school? How do you communicate with them? - How is the easiest way to communicate with people in your day-to-day routine? - Do you have DHH friends like you? <hr/> <p><i>Questions for parents to ask providers:</i></p> <ul style="list-style-type: none"> - Are there free ASL classes for parents of a DHH child? - How can I encourage my family to learn ASL? - Where can I find resources or programs where my DHH child can meet kids who are like them? <hr/> <p><i>Questions for providers to ask parents:</i></p> <ul style="list-style-type: none"> - When do you socialize the most as a family?



		<p>- What do you want to be able to communicate to our child?</p>
Fun	<p>Life is about having fun. I deserve to enjoy and be included in the same activities as other kids my age.</p>	<p><i>Questions for parents to ask their child:*</i></p> <ul style="list-style-type: none">- What is important to you to do with your friends and family?- What do you like to do for fun? How do you communicate during these activities?- Who is your favorite person to hang out with? How do you communicate with this person? <hr/> <p><i>Questions for parents to ask providers:</i></p> <ul style="list-style-type: none">- Do you have any recommendations for ways to positively socialize my child?- Do you know of any DHH friendly sport leagues, social outings, or play groups? <hr/> <p><i>Questions for providers to ask parents:</i></p> <ul style="list-style-type: none">- How do you ensure your child is not spending all of their time in therapies?- How do you ensure your child is having fun?
Future	<p>My growth, development, and need for your support is continuous.</p>	<p><i>Questions for parents to ask their child:*</i></p> <ul style="list-style-type: none">- What do you want to be when you grow up?- How do you think you will need to communicate with other people to do your job effectively?- What are your personal short-term goals? <hr/> <p><i>Questions for parents to ask providers:</i></p> <ul style="list-style-type: none">- What do we need to prioritize <u>right now</u> to positively influence my child's growth and development? <hr/> <p><i>Questions for providers to ask parents:</i></p> <ul style="list-style-type: none">- What do you see in your child's future?

*Note: If the child is too young to answer these questions, they can be used as considerations for parents.

This resource contains each keyword, a statement from the DHH child directly correlated to each keyword, and potential questions for the child, parent(s), and provider(s) to consider. Each of the keywords can be modified and paired with a statement written in the first person from the perspective of the DHH child.

It is important to note that all terminology within the Fundamental Framework work together to support language acquisition, development, and proficiency, and no individual keyword should be held at a higher importance than another. Each of the keywords address a component of life that should be considered when making decisions regarding a young DHH child's language. The child's statements in the table are also represented within the model and are shown in the visual representation of the model (Figure 2).

Finally, the reflective questions included in Table 1 represent the child's perspective for the parents and other members of the team (i.e., audiologists, physicians, speech-language pathologists) to consider, and do not necessarily require a direct response from the child. The questions are meant to help guide parents in their thoughts when their DHH child is too young to respond and can assist in facilitating conversation among professionals, the child (when applicable), and the family.

4.1. *Foundation*

The framework begins with *foundation*. This component relates to the Environmental Factors in the 2001 ICF model and Yosso's (2005) research on community cultural wealth. Foundation asserts that DHH children need and deserve a strong first language foundation. It emphasizes early exposure to a fully accessible language in order to establish a first language during the critical period, namely from birth to age five (Hernandez, Allen, & Morere, 2022). Linguistic capital describes the intellectual and social skills attained through communication experiences in more than one language after having access to language from birth (Johnson, Stapleton, & Berrett, 2020). For DHH children, the discrepancy between their perceptual abilities and their home language environment often results in a lack of accessible language input. In other words, signed languages like ASL are the most accessible to DHH children (Hall et al., 2019), but most parents speak an oral language, which may not be fully accessible to their child. This exposure to an inaccessible language can impair the child's acquisition of and proficiency in a first language, with subsequent adverse consequences in other developmental domains that depend on language, such as cognition, social-emotional skills, school readiness, and academic outcomes (Hall et al., 2019). A strong language foundation is necessary for catapulting the child's growth and development for the rest of their life. The foundation component of the Fundamental Framework aims to promote families as active participants in their child's life during early language exposure and empower them in language learning by providing them with resources to learn signed languages such as American Sign Language, connecting them to community resources (i.e. the local Deaf community), and supporting them in beginning to establish high expectations for their deaf or hard-of-hearing child's growth and development.



4.2. *Functioning*

Functioning was adapted from the Body Structure/Function component of the ICF model. In the Fundamental Framework, functioning directly relates to language use. The ability to use language to communicate functionally increases DHH children's participation in social exchange. This includes skills such as asking and answering questions and communicating basic wants and needs. The focus of this component embraces the child's *effectiveness* in communicating a message rather than the *accuracy* of language expression. While a family may have goals for listening and oral language, this component aims to emphasize listening devices as tools to support language acquisition. In other words, listening technology such as cochlear implants (CIs) and hearing aids may provide increased access to auditory input, but they do not guarantee any specific outcome (Szarkowski, 2019). Additionally, the auditory information received through these devices may not ensure language access (Szarkowski, 2019). As mentioned, the critical period of language acquisition serves as a vital timeframe for a child's growth and development, requiring consistent exposure to a fully accessible language. Functioning directly results from the importance of accessible linguistic input and an early language foundation for a DHH child.

4.3. *Freedom*

Freedom corresponds to the Personal Factors in the 2001 ICF model. Freedom asserts that DHH children have the right and autonomy to choose their language and technology use, with the opportunity to change their mind at any time. The combination of the medical model of disability with technological advances such as digital hearing aids and cochlear implants complicates language decisions (Li, Bain, & Steinberg, 2003), and decisions related to the utilization of listening devices often come from parents and professionals. DHH children should be given the flexibility to choose their own preferred language and use of assistive hearing technology. Of course, other factors (e.g., degree of hearing levels, age of the child) may impact the child's independence in decision making, but professionals should consider the decision's impact on how the DHH child curates their own cultural identity as a deaf or hard-of-hearing individual. There are two models of health: the social model and the medical model. While the medical model of health emphasizes an expectation of "fixing" a person to fit in with societal norms, the social model puts the expectation on society to adapt to persons with a disability. Service provision for deaf and hard-of-hearing children should advance from the historical approach to "fix" reduced hearing in a child to a more patient-centered, social model of deafness (Leigh, Andrews, Harris, & Ávila, 2022).

4.4. *Friends/Family*

The *friends/family* component is directly related to Participation in the ICF model. Friends refers to the child's ability to establish friendships and companionship with others, which equips them with lifelong socialization skills. Family represents the essential environment and support system that children need for growth and development. Given that social and emotional well-being directly correlates with quality of life (Cagulada & Koller, 2019), this

component of the model aims to decrease isolation of the DHH child and increase their sense of belonging. Furthermore, this component considers Deaf community cultural wealth and various types of capital that allow minoritized groups to thrive within their environment, specifically familial and social capital (Johnson et al., 2020; Yosso, 2005). Familial capital is the cultural knowledge nurtured within family units that carry a sense of community history, memory, and cultural intuition (Yosso, 2005). Social capital refers to support of people not identified as family, a sense of belonging in a community (i.e. the Deaf community) and highlights the importance of information and resource sharing from mentors, friends, teachers, interpreters, and anyone else supportive of the DHH child's success (Johnson et al., 2020).

As other research has shown, students' home culture also has an influence on their educational experiences (Gaitan, 2012). Alegre de la Rosa and Villar Angulo (2021) found that parents perceived that teachers, peers, and society at large lacked an understanding of their children's reduced hearing. Possessing that type of knowledge can positively influence children's relationships with adults, peers, and especially parents.

Findings from Calderon and Greenberg (2012) support this claim, indicating that parents reported reduced socialization opportunities between them and their children due to expressive and receptive language barriers. Therefore, it is essential to empower parents to find value in their contribution to the discussion of language options and emphasizes the importance of connection through communication. This component is directly related to the components *foundation* and *functioning*, as it can increase the number of opportunities for bidirectional language in a child's everyday life through the consistent use of an accessible and preferred language system.

4.5. *Fun*

Fun represents the Activities component of the ICF model. This component relates to the DHH child's ability and opportunity to participate in the same activities that hearing children enjoy. It emphasizes the importance for DHH children to feel included and supports the idea that children with and without reduced hearing levels can and should coexist in a variety of environments. The fun component supports strength-based practices by heightening awareness of DHH children's abilities rather than their disabilities and highlights the importance of possessing positive perceptions of DHH children. Alegre de la Rosa and Villar Angulo (2021) and Cagulada and Koller (2019) found that as a way of coping with difficult social situations, DHH children often choose hobbies and activities that do not rely heavily on communication. Choosing single sports such as bike riding, swimming, ballet, and gymnastics demonstrates their adaptive response to exclusion and isolation (Cagulada & Koller, 2019). Additionally, DHH children may be isolated from their peers by virtue of the amount of time they spend in therapy. Too often, DHH children's time commitments to speech, listening, and other therapies reduce their opportunities to play as often as their hearing peers. The Fun component aims to decrease the exclusion and isolation of DHH children by increasing opportunities for them to be a kid and enjoy the simplicity of the early years of their lives.



4.6. *Future*

Finally, *future* is represented in the center of The Fundamental Framework. This component reminds professionals and families that language development occurs continuously and is not a linear experience. Embedded within this component is the idea of Aspirational capital which is the ability for Deaf and hard-of-hearing individuals to maintain hopes and dreams despite the barriers in life they may face (Yosso, 2005). The entire Fundamental Framework works together and towards the future, encouraging healthcare professionals, teachers, family members, and the child to view themselves as “having potential to thrive” as opposed to being “at risk” (Hammond, 2010, p. 4). The future component ensures that the goal for everyone involved in the language decision-making process relates to the child’s success, a promising future in which they can positively contribute to society. This helps remind professionals that DHH children may require more or less support, and that their needs may change, depending on their current stage of life. The stage of life may reflect the age of the child (e.g., toddler, adolescent, teenager) or the level of education (e.g., early childhood, primary, secondary, high school, higher education, vocational, etc.). Regardless, the incorporation of considering the child’s future encourages service providers to be flexible when considering how the child’s and the parents’ needs may change over time and especially when expected outcomes of an approach is not achieved (Hyde & Punch, 2011).

5. Discussion

The Fundamental Framework for DHH Children is a novel concept in the current DHH literature that intends to empower parents to incorporate the perspective of their DHH child in decision-making related to language. In addition, its adaptability and digestible use of language within the model allows for its implementation with multidisciplinary providers and across settings, such as outpatient clinics, hospitals, or within public-school systems.

While there are advantages to using this framework, the authors understand the implementation barriers for both families and for professionals. The authors intend for the framework to be applicable to DHH children across their lifespan; however, children in the prelingual stage will be unable to understand each component and will have a decreased capacity to make decisions and express their desires.

According to the CDC (2012), the ICF model has been used across broad sectors, including health, disability, rehabilitation, and education. The Fundamental Framework for DHH Children correlates to each of these in that it identifies the potential impact reduced hearing may have on multiple areas of the child’s life and suggests ways to support the child in their overall growth and development. There are a variety of critical professionals that support the growth and development of DHH children in each of these sectors and across settings. One of which is a speech-language pathologist (SLP). SLPs are experts in language acquisition, development, and use (ASHA, 2016) and assist families in making decisions related to language. As critical members of the interdisciplinary and rehabilitation team, SLPs support DHH children

as they grow and develop into adults by supporting them in making connections through language and more clearly understanding and experiencing the world around them. Teachers, audiologists, physicians, and families may also incorporate The Fundamental Framework to foster more inclusive and collaborative language decision-making that focuses on centering the DHH children for a more accurate representation of their experience.

It is our hope that the Fundamental Framework for DHH Children will enhance client-centered assessment of preferred language options (e.g., American Sign Language, oral English, or ASL-English bilingualism) by using the questions attached to each keyword to determine which language opportunities may best fit the child's needs. Clinical use of the model is anticipated during assessments, language screenings, re-evaluations, or in creating or adapting goals for Individualized Education Plans (IEPs) within school systems. The continuous nature of the model further supports its use with a DHH child as they grow and develop and as their desires and needs change.

The Fundamental Framework serves as a tool to empower families during the language planning and decision-making processes. It equips parents with a more in-depth understanding of their child's needs, which may increase their confidence in making educated language decisions. The use of this model has the potential to directly address the gap in the knowledge of individuals within the DHH child's environment to help strengthen relationships at all levels (i.e., peer, parental, and professional) and re-center the to ensure decisions are being made in the best interest of the child.

6. Conclusion

The Fundamental Framework for DHH Children aims to support a collaborative language decision-making process by including professionals, families, and the DHH child equally in this process. The model strives to raise awareness of the varying components of a child's life and considers how language decisions will impact the child's overall development, functioning, socialization, and future. Professionals and families of DHH children should consider a DHH child's growth and development beyond just their hearing levels. This framework aligns parental beliefs and aspirations and the medical scope of practice and expertise with the inclusion of the perspective of the DHH child. The goal of the interprofessional use of the model is to highlight the interconnectedness between each component and reframe our thinking to include the child's perspective. This shift to client-centered care may positively impact the outcomes of communication and language development, as well as overall functional language abilities in DHH children. Language is a human right, and it is the responsibility of professionals, parents, caregivers, and families, to work collaboratively in a way that promotes complete consideration, education, and discussion of all available language options while ensuring that the DHH child is at the center of what drives the preferred language decision.



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