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Caregiver Engagement in Early Intervention for Deaf or Hard of Hearing Children: Does Provider Identity Matter?

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FONTBONNE UNIVERSITY

COLLEGE OF EDUCATION AND ALLIED HEALTH PROFESSIONS

CAREGIVER ENGAGEMENT IN EARLY INTERVENTION FOR DEAF OR HARD OF HEARING CHILDREN: DOES PROVIDER IDENTITY MATTER?

A Dissertation

SUBMITTED TO THE DOCTORAL FACULTY

In partial fulfillment of the requirements for the

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By

Cole Renn

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CAREGIVER ENGAGEMENT IN EARLY INTERVENTION FOR DEAF OR HARD OF HEARING CHILDREN: DOES PROVIDER IDENTITY MATTER?

A Dissertation APPROVED FOR THE
COLLEGE OF EDUCATION AND ALLIED HEALTH PROFESSIONS

BY

Committee Chair – Dr. Jamie Doronkin

Dr. Sarah Huisman

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Abstract

The central question for this mixed-method research study was to examine whether caregiver engagement in early intervention for deaf or hard of hearing children is influenced by provider identity. Provider identity, in this research study, specifically examined the following personal identity variables: race, ethnicity, income, marital/partnership status, having children, education level, and the providers' language. This mixed-methods research study examined if caregiver engagement is influenced by provider identity. This study utilized an electronic survey which included caregiver demographic information, provider demographic information based on the caregiver's perception, and the Scale of Parental Involvement and Self-Efficacy-Revised (SPISE-R) (Ambrose, Appenzeller, & DesJardin, 2019). The background demographic information for the caregiver and the provider offered context on identity variables. The SPISE-R was utilized as a proxy to measure perceived caregiver engagement. Data from the electronic demographic survey were connected to determine caregiver respondents to be interviewed for the qualitative portion of the research study. Data analysis confirmed engagement was impacted when there was a language mismatch between the caregiver and provider, but race and culture did not impact caregiver engagement in this study.

Keywords: early intervention, caregiver engagement, provider identity, deaf, hard of hearing

Chapter One: Context of Study

"Tell me, and I forget, teach me, and I may remember, involve me, and I will understand." – Chinese Proverb

Introduction

The intention of this research was to educate and inform early intervention in the deaf education field. It is vital to ensure that programs, states, and countries provide caregivers the necessary supports they are entitled to regardless of home language, race, ethnicity, socioeconomic status, or their ability to be engaged. These supports include ensuring caregivers receive adequate access to highly skilled, highly qualified early intervention practitioners and the ability to receive services in the caregiver's home language. The present study, titled "Caregiver Engagement in Early Intervention for Deaf or Hard of Hearing Children: Does Provider Identity Matter?" explored the potential variables that may impact caregiver engagement during early intervention services.

While enrolled in this doctorate program, I learned about inequity, my own privilege, and reflected on how provider identity may be an influencing factor for caregivers to engage in services. My dissertation and research are devoted to this topic. The purpose of this research was to determine whether or not provider identity influences caregiver engagement in early intervention in deaf education. Identity is a complex construct. Some forms of identity can change over time (religious beliefs, social groups household income, etc.) and others can remain continuous (sexual orientation, race, etc.) (Haslam et al., 2018). Provider identity, in this research study, specifically examined the following personal identity variables: race, ethnicity, income, marital/partnership status, having children, education level, and the providers' language.

Further, this research explored if caregivers of children who are deaf or hard of hearing from underrepresented identities feel supported by their early interventionist. “The US Department of Education has been collecting data on schools, teachers, and administrators through its Schools and Staffing Survey every four years since 1987” (Loewus, 2017, para. 3). The most recent data show that about 80% of teachers are white, and 77% are women (Loewus, 2017, para 12). However, the student body is becoming more racially diverse. In 2018, 24% of the students identified as Hispanic, 15% identified as Black, and 6% identified as Asian (https://educationdata.org/k12-enrollment-statistics). This chapter will define engagement and involvement as they pertain to this research. Additionally, this chapter will contextualize a national, personal, and situational perspective.

Caregiver Engagement

The National Association for Family, School, and Community Engagement (NAFSCE) defines family engagement as a “shared responsibility in which schools and other community agencies and organizations are committed to reaching out to engage families in meaningful ways and in which families are committed to actively supporting their children’s learning and development” (National Association for Family, School, and Community Engagement, 2010, para 2).

Caregiver Involvement

There are several definitions and interpretations for the term *caregiver involvement* and various components that make up *caregiver involvement*. Moeller (2000) defined family involvement as the “quality of family participation in early intervention program” (p. 4). Further, Desjardin (2005) defined *caregiver involvement* as the family perceptions of their carry-through with early intervention provider recommendations. Caregiver engagement will be further discussed in chapter two.

Caregiver Engagement Versus Caregiver Involvement

Although the terms are similar, it is essential to note the differences between involvement and engagement. Ferlazzo (2011) best explained it using dictionary definitions of involve and engage. "Involve is 'to enfold or envelope,' whereas one of the meanings of engage is 'to come together and interlock.' Thus, involvement implies doing to; in contrast, engagement implies doing with" (p. 12). The term *engagement* was selected for this study because it aligns with providers creating partnerships with caregivers, which is imperative for routines-based family-centered practice (McWilliam, 2010).

Barriers of Caregiver Engagement

Several factors have the potential to limit caregiver engagement. These factors include mental health and stress (Kelty & Wakabayashi, 2020). In addition to mental health and stress, researchers Hackworth et al. (2018) suggest that not only can individual factors influence caregiver engagement, but program factors can also impact engagement. Factors that limit family engagement will be further discussed in chapter two.

In my experience, building relationships with caregivers is the first step in establishing and promoting caregiver engagement. Relationship building takes time and vulnerability from the caregiver and provider. While working as an early intervention provider, I quickly learned the importance of building relationships to enhance family engagement. I had just earned my Master's degree and was eager to showcase some of my learning. One of the first families assigned to me was a family who spoke Spanish and had an Individualized Family Service Plan (IFSP) goal of having their child communicate with them using listening and spoken language.

One strategy I presented to help the family achieve this goal was incorporating singing into their daily routines (Putkinen et al., 2013). I enthusiastically began singing in Spanish and modeling an animal song to the tune of *The Farmer in the Dell* to go along with the child's favorite picture book sitting in front of us. I recall asking the mother, "would you like to sing about the next animal?" and expecting her to say "yes" in our session. I was confounded when her immediate response was "no."

I could tell the relationship was not yet established. The caregiver seemed uncomfortable taking risks (singing along with me). I needed to be more vulnerable, step out of my comfort zone, do a little more research about their culture and to show my dedication to help this family achieve their goal. To begin developing the relationship and establishing trust, I researched culturally relevant songs for this family, instead of translating an English song into Spanish. Radlinski & Le Beau (2020) reported that it is best to use culturally relevant songs since translated songs generally do not retain the same meaning after translation. Additionally, caregivers may be more focused on "remembering words, not on connecting with the child" (Slide 19). I spent time working with an interpreter and learned "La Vaca Lola," a song from Columbia about a cow named "Lola." "La Vaca Lola" was a great song to incorporate into the family's shared reading time. The mother would slowly sing parts of the song with me and overall began engaging more in sessions and teaching me other Spanish songs that were important and culturally relevant to them.

National Context

The Joint Committee on Infant Hearing provides minimal qualifications for early intervention service providers for the deaf and hard of hearing birth to three population. These qualifications include having training in auditory, speech, and language development. Addedly, they should be versed in all communication approaches for children with hearing loss and have a background in child development (Joint Committee on Infant Hearing, 2000).

Although there are similarities in provider expectations, The Conference of Educational Administrators of Schools and Programs for the Deaf also has specific qualifications for early intervention in deaf education providers. “Minimally, they must have education and experience with the 0-3 population and have a degree in Deaf Education.” They also advise that providers “should be skilled in working with families from diverse backgrounds” (2006, para 3).

When looking at how hearing loss impacts the birth of three population, according to the Centers for disease control and prevention (CDC) (2019) of the 90% of newborns screened for hearing loss about 6,000 newborns were identified with permanent hearing loss. Although The Individuals with Disabilities Education Act (IDEA) classifies a hearing impairment as “low incidence,” assuring there are copious amounts of competently trained professionals is pivotal to the overall development and success of these families and children.

As of 2019, there were just over 70 programs across the nation with the specific degree *Deaf/Hearing Impaired Education*, preparing educators to work with children ages three to 21. Of these programs, there are only a handful of programs that specifically train educators to work in early intervention in deaf education, ages birth to three. With some of the minimal recommended qualifications being educated and having experience working with the birth to three population, it is unnerving that there are not more university programs training professionals to work with this specific population (Atlas, 2019).

The Evolvement of Early Intervention

There has been a shift in how early intervention services are provided, specifically from child-focused to family-centered practices. Before the 1980s, services were center-based and child-focused (Groark, p. 39, 2007). A child-focused intervention involves the early interventionist providing services directly to the child with little to no involvement of other family members (Rush & Shelden, 2020). Contrastingly, family-centered practice (FCP) incorporates the family unit and believes they are team players in the child's intervention. “The continuum of roles for families has expanded from cheerleading to leadership” (Osher & Osher, 2002, p. 51).

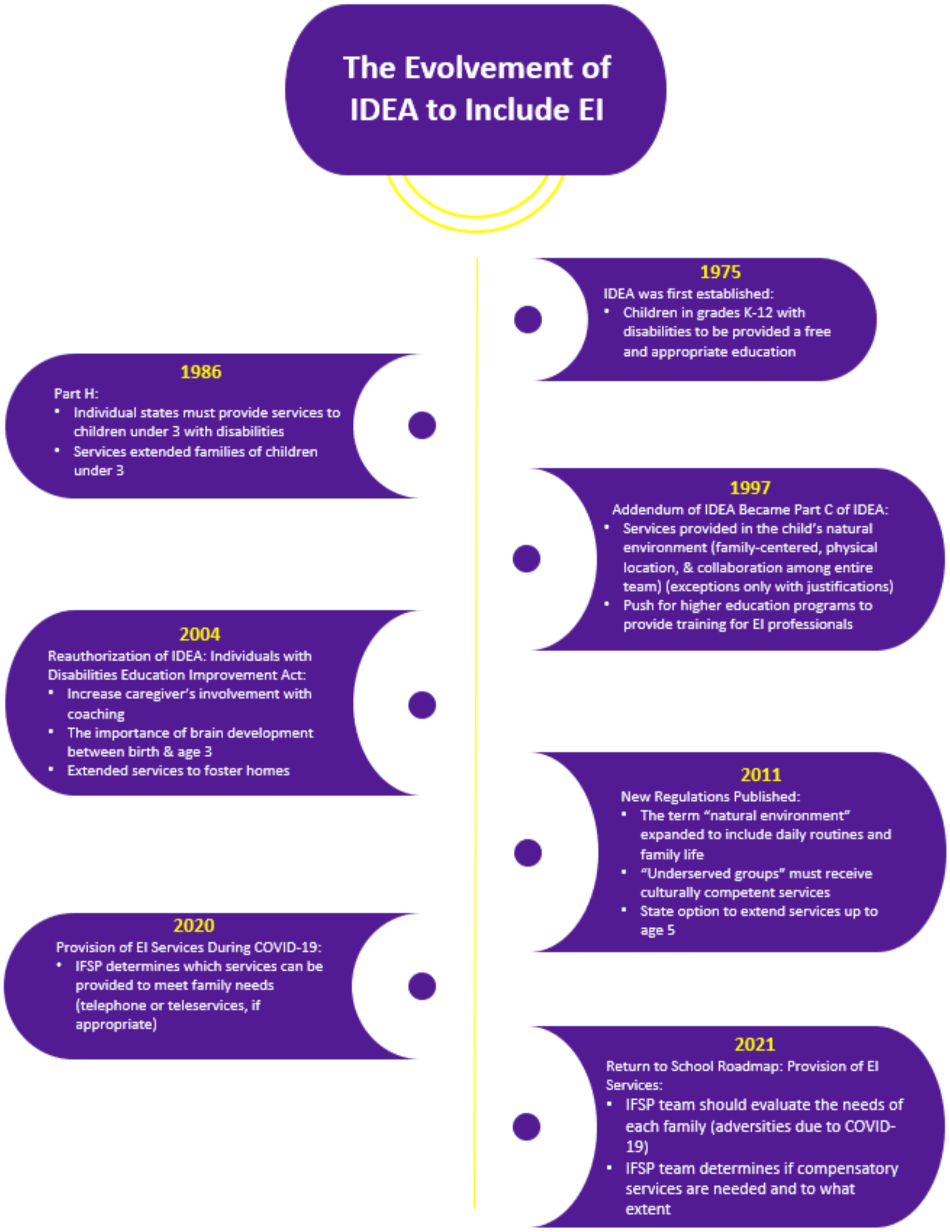
A study conducted by García-Ventura and colleagues (2020), specifically in Spain, found a slight discrepancy in how providers deliver services and how they would like to be delivering services. Their results propose not all providers are in adhering to the guidelines in FCP, which has also been a finding in other research studies (Bruder et al., 2019; Peterson et al., 2007; Salisbury & Cushing, 2013). Although EI providers may desire to follow recommended best-practices, there is an incongruity between desire and carry through. This discrepancy could reflect the lack of university teacher preparation programs available to aspiring early intervention deaf educators.

The Individuals with Disabilities Education Act (IDEA) is the federal law that supports special education and related service programming for children and youth with disabilities. IDEA was initially known as the Education of Handicapped Children Act, passed in 1975. Amendments to this law were passed in 1990, effectively changing the name to IDEA. In 1997 and again in 2004, additional amendments were passed to ensure equal access to education (https://www.washington.edu/doit/what-individuals-disabilities-education-act).

Part C of IDEA was first implemented in 1986 and was known as Part H of IDEA (see Figure 1.0). The purpose of Part C is to provide individual states in the US with financial assistance to deliver necessary early intervention supports to ensure the needs of children under three years of age and their families are met by the state in which they reside. Along with this, Part C promotes individual states to investigate children at risk (https://sites.ed.gov/idea/regs/c/a/303.1).

Figure 1.0

The Evolvement of Individuals with Disabilities Education Act (IDEA) to Include Early Intervention



The Evolvement of IDEA to Include EI

1975

IDEA was first established:

- Children in grades K-12 with disabilities to be provided a free and appropriate education

1986

Part H:

- Individual states must provide services to children under 3 with disabilities
- Services extended families of children under 3

1997

Addendum of IDEA Became Part C of IDEA:

- Services provided in the child's natural environment (family-centered, physical location, & collaboration among entire team) (exceptions only with justifications)
- Push for higher education programs to provide training for EI professionals

2004

Reauthorization of IDEA: Individuals with Disabilities Education Improvement Act:

- Increase caregiver's involvement with coaching
- The importance of brain development between birth & age 3
- Extended services to foster homes

2011

New Regulations Published:

- The term "natural environment" expanded to include daily routines and family life
- "Underserved groups" must receive culturally competent services
- State option to extend services up to age 5

2020

Provision of EI Services During COVID-19:

- IFSP determines which services can be provided to meet family needs (telephone or teleservices, if appropriate)

2021

Return to School Roadmap: Provision of EI Services:

- IFSP team should evaluate the needs of each family (adversities due to COVID-19)
- IFSP team determines if compensatory services are needed and to what extent

Sources

Part C provision of services in the COVID-19 environment Q&A document (Oct. 20, 2020). Individuals with Disabilities Education Act. (2020, November 24). Retrieved December 27, 2021, from https://sites.ed.gov/idea/idea-files/part-c-provision-services-covid-19-environment-qa-document-oct-21-2020/#Q3

The individuals with disabilities education act (IDEA), part C: Early intervention for infants and toddlers with disabilities. (2019, August 9). Retrieved April 29, 2022, from https://sgp.fas.org/crs/misc/R43631.pdf

Return to school roadmap: Provision of early intervention services (Oct. 29, 2021). Individuals with Disabilities Education Act. (2021, December 1). Retrieved April 21, 2022, from https://sites.ed.gov/idea/idea-files/return-to-school-roadmap-provision-of-early-intervention-services-oct-29-2021/#citem_f091-e955

McBride & Peterson (1997) found:

> Twenty-six percent of interactions involved home interventionists interacting alone with children whereas parents and home interventionists interacted with each other 21% of the time. Striking is the small amount of time that parents interacted with their child without joint involvement if the home interventionist (3%) (p. 222)

These data should be viewed cautiously as the sample size was small (15 home interventionists and 28 families). Further, respondents were only from Ohio, so the results may not generalize to other national regions. Although the legislation was created in 1986, providing services in the natural environment was always emphasized (Keilty, 2010). Providing services in the natural environment will be further discussed in chapter two.

The reauthorization in 2004 emphasized the importance of the birth to three population resulting in the development of Part C. These amendments in 1997 were "designed to honor the unique needs of infants and toddlers and their families through programmatic requirements that represent best practice in the field of early intervention" (Bruder & Dunst, 2005). Services have been required to take place "to the extent appropriate, early intervention takes place in settings in which children without disabilities participate" (Guard, 2001, p. 1). It was not until 1997 that a shift evolved into providing services in natural environments (Guard, 2001). It was at this time a pediatric physical therapist suggested that the early intervention provider be a "coach rather than a hands-on provider" (Campbell, 1997, p. 13). Coaching in early intervention is used to support and encourage family-centered practices by allowing the caregiver to take the lead role in early intervention services instead of the early intervention provider (DEC, 2014). Caregivers' participation in a session, or taking the lead role, is only one part of the equation for family centered intervention to be successful. A comprehensive review of the literature defining family-centered practice (Epley, Summers, & Turnbull, 2010) uncovered that family-professional relationship was cited in nearly all of the definitions. Special education is defined as "specially designed instruction, at no cost to a child's parents, that meets a child's unique needs in school. It consists of related services and supplementary aids and services" (p. 5).

Telepractice and COVID-19

Despite the benefits of telepractice and its ability to align with family engagement, the global pandemic caused unwarranted stress among caregivers and providers. Telepractice is a telecommunication technology that enables service providers to connect with clients (ASHA, n.d.). The American Speech-Language-Hearing Association (ASHA) proclaims, "Use of telepractice must be equivalent to the quality of services provided in person and consistent with adherence to the Code of Ethics" (ASHA, n.d., Telepractice, para. 4).

Inopportunely, the global pandemic forced some providers' hands in utilizing various platforms (e.g., Zoom, Google Meet). The Centers for Disease Control and Prevention (CDC) confirmed the first case of COVID-19 in the United States on January 20, 2020. Only 52 days later, Ohio became the first state in the US to announce a statewide closing, with all public schools in the US closed by March 25, 2020. schools across the country began shutting down and moving classrooms to virtual learning

(Education Week, 2021, February 8, The coronavirus spring: The historic closing of US Schools (a timeline).

Personal Context

Since I was in middle school, I have been drawn to deaf education. There was a self-contained classroom within my middle school, and I became friends with many deaf and hard-of-hearing students. My passion for deaf education continued as I entered my undergraduate program, where I earned a Bachelor of Arts in D/deaf education serving children PreK- age 21. It was not until my Master of Arts program where I truly understood the value of the family as a whole. Upon completing my Master's degree, I became an early intervention provider at a private, not-for-profit school serving caregivers of children who are deaf or hard of hearing.

As a previous birth to three provider in early intervention for children who are deaf or hard of hearing, I can relate to the importance of caregiver engagement. I am aware of how my identity yielded relationships and engagement and when it did not, especially in my first year in the field. For years I decided to blend in with heterosexual norms. I had shoulder-length hair, wore dresses or skirts with flowery patterns, and even dabbled with occasional makeup. During my Master's program, I had a mentor who empowered me to be my authentic self. I began expressing myself more, going against the gender binary, and yet, becoming more comfortable in my own skin. I had my hair cut to a super short pixie style and occasionally spiked it up; I donated my entire wardrobe that consisted of skirts, dresses, and flowing tops. Becoming my authentic self and embracing my identity meant I was wearing pants, button-up shirts with ties, with pops of rainbow to show pride, my pride in who I am. I was comfortable in my skin and my authentic identity.

I was fortunate to be employed for the first time by an organization that embraced equity, inclusion, and diversity among caregivers and staff. At this organization, early intervention (EI) providers delivered early intervention services in the caregiver and children's homes with the occasional teleservice offered for caregivers who desired (and was appropriate) before the global pandemic. One of the families I was assigned to resided about 30 minutes from the city. I pulled into the parking lot of their apartment complex and quickly noticed an exorbitant confederate flag proudly displayed on the front window of their home. There was not a single class during my graduate studies that prepared me for that moment.

I compared the apartment number a second time to my GPS in hopes that this could not possibly be the home I was about to enter. After confirming I was in fact at the correct location, my stomach dropped, I felt nervous, and began to sweat. I paused, sitting in my car, and realized my own biases and judgments in that moment. I was not being fair to this family that I had never even met. I took a deep breath, exited my vehicle and walked up the many steps to their apartment passing the window with the oversized confederate flag and approached their front door. I took another deep breath, smiled, and knocked on their door. When the door opened, the mother greeted me with a smile, I introduced myself, and she let me into her home. Her husband came out from the kitchen, turned the corner to my direction and immediately stopped walking. He began slowly looking me up and down with piercing eyes. I immediately sensed his disapproval. Maybe my appearance was unsettling for him. Could it be that he had never seen someone that looked like me? Whatever he was thinking about me at that moment made a profound impact. If this is how I felt entering a home, I could only imagine how some caregivers feel as I, or other providers enter their homes. Are they worried about being judged in their own homes?

Situational Context

A pilot study, *The Ways Early Intervention Programs Determine the Frequency of Services for Children Who are Deaf/Hard of Hearing and Their Families* (Bosas, 2020), uncovered provider bias in the ways early intervention providers work with Spanish-speaking caregivers and interpreters. For example, when a respondent was asked about working with interpreters, an early intervention provider stated, “But yeah, I mean for the most part I think it’s going well, but it is… I mean, it’s hard when… the answers you get back you feel like you need clarification and you have to like kind of keep going back and forth… sometimes I feel like I just drop it” (p. 18) And then added, “Like I don’t know… I didn’t really get that, and then I’m like, well, I needed that answer though” (p. 18). Given the findings of my pilot study and my own experiences as an early interventionist, I wanted to investigate further how caregivers perceive their interactions and engagement with providers and if of how provider identity influences caregiver engagement.

Problem of Practice

The problem of practice for this study was based on the notion that provider identity may influence caregiver engagement. There are many caregivers and children from various backgrounds receiving early intervention services, that providers must be aware of how they enter caregivers' homes and how their identity may impact caregiver engagement and the relationship.

Research Questions

The present study addressed the following six research questions:

Research Question One: How do caregivers of children who are D/deaf or hard of hearing from culturally, linguistically, and economically diverse backgrounds perceive their level of engagement during home visits as required in the Individual Family Service Plan (IFSP)?

Research Question Two: How do caregivers of children who are D/deaf or hard of hearing perceive their level of engagement during home visits as required in the Individual Family Service Plan (IFSP)?

Research Question Three: In what ways (if any) does provider identity of early interventionists serving caregivers with children ages birth to three who are D/deaf or hard of hearing influence family engagement during home visits as required in the Individual Family Service Plan (IFSP)?

Research Question Four: In what ways (if any) do caregivers from culturally, linguistically, and economically diverse backgrounds feel supported by their early interventionist while receiving early intervention services?

Research Question Five: How do caregivers from culturally, linguistically, and economically diverse backgrounds receiving EI services define support in early intervention?

Research Question Six: How do caregivers from culturally, linguistically, and economically diverse backgrounds envision support from their early interventionist?

Conclusion

In this chapter, information was provided that displayed how IDEA has evolved to better meet the needs of families and children under the age of three with varying abilities. Additional information was shared that explicated how the shift in the way early intervention providers delivered services for the children and families they serve into more family-centered practices and using coaching and modeling. Furthermore, I have shared a portion of my experiences as an early intervention provider and specifically discussed how I have taken the initiative to establish a trusting relationship with caregivers of deaf or hard of hearing from culturally, linguistically, and economically diverse backgrounds.

Chapter Two: Literature Review

Introduction

Chapter One provided the personal, national, and situational context for the present study, which was focused on caregiver engagement in early intervention for children who are d/Dhh. In this research study, d/Dhh will be used to represent the respondents in this study that identify as culturally Deaf as well as those who are deaf from an audiological status (Lucas & Valli 1990). See Table 2.0 for terms and their abbreviations used in this chapter. This literature review further explores the definition of caregiver engagement and how it relates to early intervention. Next, the Scale of Parental Involvement and Self-Efficacy-Revised (SPISE-R) (Ambrose, Appenzeller, & DesJardin, 2019), a questioner for caregivers that is broken into 5 sections, (beliefs, confidence, knowledge, actions and device use) will be defined and the relationship to caregiver engagement will be noted. Correspondingly, indicators of caregiver engagement- relationships, support, care, communication, and encouragement - will also be described. This literature review will construe provider identity and how implicit bias may impact relationship building between the caregiver and provider. Equally essential, the potential for provider and caregiver mismatch will be examined along with the potential ramifications of this mismatch for the caregivers.

Table 2.0

Abbreviations and Meanings

Acronym	Meaning
AVT/AVEd	Auditory-verbal Therapy/Auditory-Verbal Education
SPISE-R	The Scale of Parental Involvement and Self-Efficacy Revised
NAFSCE	National Association for Family, School, and Community Engagement
DEC	The Division of Early Childhood
d/Dhh	deaf/Deaf or Hard of Hearing
EI	Early Intervention
IFSP	Individualized Family Service Plan
LSL	Listening and Spoken Language

Early Intervention Services

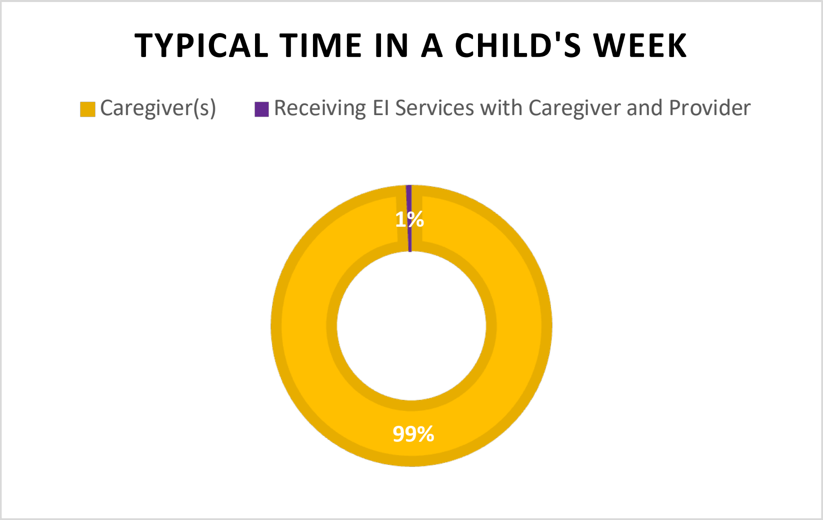
Research is unanimous in that early intervention services focusing on the caregivers' strengths and ability to help promote their child's development is more beneficial than providers taking the lead role in providing services. As a matter of fact, in 2012 a panel of caregivers of d/Dhh children, researchers, and professionals in the field of deaf education across the globe came together to establish "essential principles that guide family-centered early intervention with children who are deaf or hard of hearing" (Moeller et al., 2013, p. 429).

More specifically, children spend more time with their caregivers than with an early intervention provider. Typically, a child is seen once a week for approximately 60 minutes per visit (see Figure 2.0) in the child's natural environment (Wiggin et al., 2021).

It is most effective for the caregiver to be engaged in the session with the early intervention provider by learning new strategies, having the provider demonstrate these strategies if needed, encouraging the caregiver to practice strategies, and collaboratively exploring how to implement the new skills/strategies into other daily routines between visits and after services (Brown & Woods, 2015; Windsor, Woods, Kaiser, Snyder, & Salisbury, 2019). The caregiver has the most influence on the child's social development (Odom et al., 1992) and communication skills (Ganz et al., 2022; Shalev et al., 2020), not the early intervention provider, especially since the child's home is their first educational environment (Roostin, 2018). In addition, young children learn best throughout the day, in their natural environments (Ganz et al., 2022) during daily routines (play, bath time, diaper changing, etc.) (McWilliam, 2010; Sandbank et al.; 2020; Tiede & Walton, 2019).

Figure 2.0

Typical Time (in minutes) in a Child's Week



Note: This figure demonstrates that in one week there are 10,080 minutes. Typically, a family receives weekly services for approximately 60 minutes, resulting in the child being with the primary caregiver 10,020 minutes of that week.

Caregivers of children who are d/Dhh have choices in the way they desire to receive early intervention services regarding mode of communication. These choices include: American Sign Language (ASL) (see Table 2.1), auditory-verbal (AV), bilingual language (bi-bi), cued speech, (CS) and total communication (TC).

Table 2.1

Modes of Communication, Acronyms, and Meanings

Mode of Communication	Acronym	Meaning
American Sign Language	ASL	A complete visual language that has its own phonology, morphology, and syntax. ASL does not require the use of listening technology (Kelly & Benedict, n.d.).
Auditory-Verbal (Listening and Spoken Language)	AV LSL	Using the learners listening skills to learn language. Listening technology is used to enhance the individual's listening capacity and caregivers are seen as a critical component in the child's development. Signs and sign language are not used in this approach (Harrison & Hutsell, n.d.).
Bilingual-Bicultural	Bi-Bi	The communicator uses American Sign Language as their first language and English as their second language (Santos, 2017).
Cued Speech	CS	The communicator uses their mouth and hand to distinguish different phonemes of spoken language (Roffé, n.d.).
Total Communication	TC	Incorporates all methods of communication. Due to the needs of each individual d/Dhh individual, TC can look different for each individual (Hands & Voices, n.d.).

Note: Hands and Voices was used as a reference to define these modes of communication to help eliminate bias. Although the meaning of bilingual-bicultural is currently pending on Hands and Voices, there is not currently a definition available. However, BC Hands & Voices does provide a family experience using bilingual-bicultural education and a definition was created using that source.

Children up to age 36 months, with varying abilities, and their caregivers benefit from early intervention services that employs caregiver engagement and support (Ku et al., 2019). More than 90% of deaf children are born to hearing parents (Mitchell & Karchmer, 2004). More specifically, d/Dhh children that are not born to Deaf parents need early intervention services, regardless of the communication modality chosen by the caregiver, to develop language to effectively communicate with their caregiver, families, and peers (Dammeyer et al., 2019; Mohr et al., 2000). The earlier children begin receiving early intervention services, the more likely they will progress in their development (Çolak et al, 2020). Additionally, caregivers with children utilizing auditory verbal (AV), with the caregiver-centered approach, specifically improved in expressive language and auditory comprehension (Estabrooks, et al., 2020).

Caregiver Engagement

While there are tools and research that define caregiver engagement both from the professionals' point of view and/or that of the caregivers (Ambrose et. al., 2019; Epstein, 1995; Fantuzzo et al., 2000; Klatte, Harding & Roulstone, 2019; Moeller, 2000), little research discusses factors that influence caregiver engagement as reported by the caregiver (Alduhaim et. al., 2020; Schueler, McIntyre, & Gehlbach, 2017). There is not a clear definition of *engagement* that truly encompasses the meaning and the efforts caregivers take to support the development of their child, especially in early intervention. As mentioned in Chapter One, the NAFSCE (National Association for Family, School, and Community Engagement) defines family engagement as a "shared responsibility in which schools and other community agencies and organizations are committed to reaching out to engage families in meaningful ways and in which families are committed to actively supporting their children's learning and development" (2010, para. 2). Although some researchers use family engagement and family involvement interchangeably, there are slight, yet significant, differences in the terms utilized in the present study.

As discussed in Chapter One, there is a subtle, but distinguishable difference between caregiver engagement and caregiver involvement. The later of the two “implies doing to;” whereas” engagement implies doing with” (Ferlazzo, 2011p. 12.). Caregiver involvement in an early intervention session may present itself as the provider is the main focus for the child. For example, the provider may be holding the book and looking at it with the child. The caregiver is nearby, mostly observing. The provider will talk about the pictures with the child and may occasionally turn to the caregiver and ask questions along the lines of “how do you think your child is doing?” or “what would you like to work on next?” On the contrary, caregiver engagement will look very different with the caregiver holding the book and looking at it with the child. The EI provider will make comments to the caregiver along the lines of “I wonder what would happen if you turned the page and paused for a moment” and “what did you notice about your child when you said that in a sing song voice?” or “How do you think you could work on this strategy throughout your week?” Caregiver engagement is essential in early intervention as it has been proven to benefit child outcomes in various educational settings through research studies over the past thirty years. These outcomes include: higher academic outcomes, such as mathematics and attaining higher grade levels (Barnard, 2004; Comer, 1988; Dalun Zhang et al., 2011; Desimone, 1999; Hill & Craft, 2003; Schmitt & Kleine, 2010, eg.).

Erbasi, Scarinci, Hickson, & Ching (2018), in a qualitative research study, explored the nature of parental engagement in the intervention of children using hearing aids and cochlear implants. Their study's overarching theme of “Parents take the central role” (p. S18) emerged. Five additional themes became apparent: “Parents work behind the scenes, parents act as ‘case managers,’ parents always have their child’s language development in mind, parents’ role extends to advocacy for all children with hearing loss, and parents serve a number of roles, but at the end of the day, they are parents” (pp. S19-S20). These researchers determined that caregiver engagement during early intervention for d/Dhh children is more comprehensive than previous research.

Engagement in School-Aged Education

Caregiver engagement begins at the very early stages, and in this case, early intervention, when applicable. In fact, caregivers of successful Black adults were engaged in their child’s overall development since preschool (Seeberg, 2021). Caregiver engagement for school-aged children can be organized into three categories: home-based involvement, school-based involvement, and home-school collaboration. Home-based involvement includes tasks such as assisting the child with homework or taking trips to the library. School-based involvement involves activities such as volunteering as a room parent or attending a field trip with the class. Last, home-school collaboration involves relationship activities such as parent-teacher conferences and communication between the caregivers and school (Mautone, Marcelle, Tresco, & Power, 2015). However, there are some discrepancies in how to measure caregiver engagement, and what counts as engagement. Seeberg (2021) determined in their research, Black caregivers engaged with their children by spending quality time together, which strengthened the bond with their child. By doing so, the Black caregivers understood their child’s educational strengths, weaknesses and learning styles, which resulted in Black caregivers being able to acquire interventions when needed. Equivalently, caregiver advocacy was also a prominent theme in Black caregivers with children who attended a school where racism was prevalent (Seeberg, 2021).

Measuring Caregiver Engagement in School-Aged Children

There are tools used to measure engagement with school-aged children and caregivers. Some tools include the Parent-Teacher Involvement Questionnaire: Parent Version and the Parent and Teacher Involvement Measure – Teacher Version Conduct (Problems Prevention Research Group, 1995). Additionally, the Family Involvement Questioner- Home-based involvement Factor (FIQ) is targeted at younger school-aged children ranging from preschool through first grade (Fantuzzo et al., 2000). This questionnaire was collaboratively developed among parents and professionals. Further, it was based on Epstein's (1995) six types of involvement (parenting, communicating, volunteering, learning at home, decision making, and collaborating with community).

Measuring Caregiver Engagement in Early Intervention

The tools used to measure caregiver engagement generally use Likert scales and do not provide caregivers the opportunity to answer open ended questions about engagement. Although these individual tools examine various aspects of engagement, they are not comprehensive enough and usually do not ask for the caregivers' feedback.

In particular, a more recent tool developed is The Scale of Parental Involvement and Self-Efficacy–Revised (SPISE-R) (Ambrose et. al., 2019). The SPISE-R looks at parental involvement and also "queries parents about their child's hearing device use and their perceptions of their own beliefs, knowledge, confidence, and actions pertaining to supporting their child's auditory access and language development" (Ambrose, Appenzeller, Mai, & DesJardin, 2020, p. 75). To the contrary, The Family Participation Rating Scale (Moeller, 2000) is a rating scale used by the professional working with the family and is based on a 1-5 rating (1 being limited participation and 5 being ideal participation).

There is ample research on the professional's perspectives on family engagement but little on the family's perspectives of their own engagement. More specifically, Klatte, Harding & Roulstone (2019) discovered four themes when looking at the therapists' view on caregivers' engagement. These themes include mutual understanding, creating a constructive relationship between the speech-language therapist and parent, parental empowerment, and barriers. Mutual understanding, in their study reflects the expectations of the provider and caregiver. This also includes the provider's ability to understand the caregiver's background and views. Creating a constructive relationship focuses on the provider's ability to be culturally competent and additionally the provider and caregiver working towards a common goal, the child's development. The third theme, parental empowerment, which focuses on involving caregivers in selecting strategies and encouraging caregivers to be a partner in sessions. As an example, a provider asking a caregiver to reflect on their interaction with the child allows to caregiver to see specific things the caregiver is doing and how the child benefits. More specifically, when the caregiver highlights the final sound in a word, the child is able to imitate the word, including the final sound. Finally, barriers were the last theme to emerge in this study. Barriers include accessibility to services, lack of time, travel distance and mental stress. However, this study lacked caregiver perspective. Schueler, McIntyre, & Gehlbach (2017) believe in order for providers to promote engagement, caregivers should be able to measure their own engagement as well as proving their perspectives on barriers to engagement. Early intervention providers can only make accusations on why a caregiver is engaged, what the perceived barriers of caregiver engagement are and what caregiver engagement means. The extent of this information is limiting, as the voices of caregivers need to be heard for their perspective.

Caregiver self-efficacy is a caregiver's belief on whether or not they are able to complete a task effectively (Bandura, 1977). The SPISE-R uses caregiver self-efficacy in how it measures caregiver engagement using four sections that caregivers complete based on their own beliefs, knowledge, confidence, and actions in assisting their child (self-efficacy) with auditory access and language development.

SPISE-R: Beliefs, Knowledge, Confidence, and Actions

The SPISE-R (Ambrose et al., 2019) comprises of five sections: beliefs, knowledge, confidence, actions, and device use. The next section of this literature review focuses on four sections: beliefs, knowledge, confidence, and actions. These four sections provide professionals with information regarding the caregiver's perceived strengths and areas caregivers may need more support.

Caregiver Beliefs While Enrolled in Early Intervention

For this research study, "belief" referred to the caregiver's own way of thinking regarding hearing loss and device use. Ambrose and her colleagues (2020) utilized the SPISE-R in their study, and two noteworthy findings emerged. First, fathers in their study felt more strongly than mothers that, "no matter what we do as a family, my child's development will be delayed compared to children with normal hearing" (p. 80). Next, some caregivers believe “that others judge the child or family when they see the child’s devices” (p. 81).

Another study examined parents’ beliefs regarding their stance on the fixedness of their child’s ability or intelligence. This study revealed that the more a parent believed their child’s ability in a specific area was inflexible, the less confident the parent felt they could assist their child in improving in that specific skill (Muenks et al., 2015). For instance, a caregiver that believes their child with gross motor delays will never walk is less likely to take actionable steps to incorporate what was learned during early intervention sessions into daily routines. On the other hand, a caregiver who believes their d/Dhh infant will acquire exemplary LSL skills and attend the same school as their hearing sibling will be more likely to continue utilizing strategies the caregiver learned.

Researchers believe a caregivers’ negative beliefs are only concerning if it impacts their behaviors (Ambrose et al., 2020). In conjunction with the data released by Ambrose and colleagues (2020), Ambrose et.al states, “when providers find that parents hold a belief, they should monitor how that belief affects how the parent supports their child’s auditory access and language development on a case-by-case basis” (p. 82). Additionally, caregiver beliefs vary from caregiver to caregiver, but more predominately, “parental beliefs are influenced by the social and cultural environment in which they are generated” (Ridao et al., 2021 p. 1).

Caregiver Knowledge While Enrolled in Early Intervention

Merriam-Webster defines knowledge as “the fact or condition of knowing something with familiarity gained through experience or association.” Moeller and colleagues, (2013) determined it is imperative for caregivers to be empowered with knowledge that demonstrates the important role a caregiver plays in the child's language development. A recent study (Alduhaim et al., 2020) discovered that the caregivers desired more information, specifically, written summaries to help carry over into their daily routine. A written summary would allow caregivers to reflect on what was covered during an early intervention session and then learn how to incorporate that strategy into their daily routine. This aligns with previous research, which found early intervention providers should *joint plan* with caregivers during early intervention sessions (Rush & Shelden, 2005) to educate caregivers how the strategies taught during a session could be applied to the family's daily routines (DEC, 2014; JCIH, 2007; Moeller et al., 2013; Yoshinaga-Itano, 2014). Additionally, when caregivers practice LSL strategies (wait time, acoustic highlighting, etc.) with the provider during sessions, this increases their knowledge, further promoting their confidence and resulting in their beliefs that they can do this.

Caregiver Confidence While Enrolled in Early Intervention

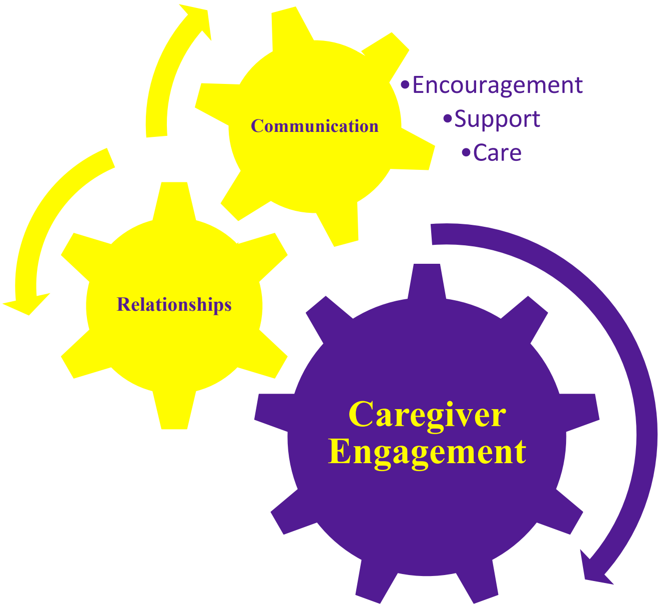
Confidence is how well one feels they can accomplish a task or explain a topic, or in this situation, caregivers' confidence using early intervention strategies are taught to them (Montigny & Lacharité, 2005). Confidence can increase over time with practice or as a caregiver becomes more familiar with a topic. Alduhaim and colleagues (2020) discovered that "Most parents 80% appreciated when planned session activities match the family's culture and daily routine…" (p. 5). In other words, caregivers felt more confident when the provider planned activities that matched the family's culture while focusing on language development at home. Ambrose et al., (2020) came to the conclusion that overall caregivers who were more knowledgeable were also likely to be more confident. Upon an individual basis some caregivers did not display a strong correlation between their knowledge and confidence scores.

Caregiver Actions While Enrolled in Early Intervention

Actions allude to specific things caregivers do to promote the language development of children who are d/Dhh. For instance, the SPISE-R (Ambrose et al., 2019) classifies actions specifically as “facilitating their child’s auditory access, supporting their child’s language development, and involvement in their child’s intervention services” (p. 78). Correspondingly, DEC recommended practices (2014) also draw attention to the paramountcy of caregiver participation during sessions and states coaching allows individuals the opportunity to “strengthen existing parenting knowledge and skills” (p. 10). Therefore, caregivers can utilize learning opportunities with their child, such as bath time, playing at the playground, walks, mealtimes, etc. Additionally, infants and toddlers learn best in natural interactions and daily routines throughout the day (McWilliam, 2015). Necessary components for caregiver engagement include relationships, support, care, encouragement, and communication (see Figure 2.1).

Figure 2.1

Necessary Components for Caregiver Engagement



Note: Indicators of caregiver engagement should not be viewed as hierarchal once a relationship has been established. Each caregiver may value one component over another. Indicators of caregiver engagement should be individualized based on the needs and wants of the caregiver.

Relationships Between the Caregiver, Child, and Early Intervention Provider

Merriam-Webster defines relationships as “the way in which two or more people, groups, countries, etc., talk to, behave toward, and deal with each other” (https://www.merriam-webster.com/dictionary/relationship). In reference to EI, relationships are first and foremost between the caregiver(s) and the child. A strong bond between the caregiver(s) and child has been shown to have a positive impact on the overall development of the child (Branjerdporn et al., 2016; Vedova et al., 2008). Grounded in this framework, focusing on caregiver engagement that enhances caregiver-child relationships may also align with other family outcomes.

When a child is diagnosed with a disability, caregivers may grieve their child's diagnosis. As a result, Heiman (2002) discovered most caregivers in their study had various emotional responses (denial, guilt, confusion, depression, anger, self-blame) to their child's diagnosis. Therefore, it is paramount that early intervention providers help foster the caregiver child relationship when necessary.

Other relationships are between the caregiver, early intervention provider, service coordinator, and other members of IFSP team. It is foreseeable that "The success of all interventions will rest on the quality of provider-family relationships, even when the relationship itself is not the focus of the intervention" (Kalmanson & Seligman, 1992, p. 48). In fact, Kohl et al. (1994) found that the quality of the parent-teacher relationship was more strongly associated with positive child outcomes than was the amount of involvement" (p. 10) (as cited by Kohl & Lengua, 2000).

This framework puts forth seven family engagement outcomes of early childhood programs family well-being, positive parent-child relationships, families as lifelong educators, families as learners, family engagement in transition, family connections to peers and communities, and families as advocates and leaders (US. Department of Health & Human Services, 2011). Although developed in the Head Start context, the parent, family, and community framework broadens our notions of family engagement and can apply to the more prominent early childhood community.

Employing a more expansive conceptualization of caregiver engagement creates opportunities to deepen relationships between programs and families and consider how early childhood programs can assist families in enhancing their parenting and day-to-day interactions with their young children. Simply stated, "coaching is a relationship-based process that is used to improve existing skills, and build the competence and confidence of the coachee to achieve desired or intended outcomes" (Rush & Shelden, 2011, p. 3).

Support

There are copious meanings for the word "support." In this context, support means "to give support," as in the support a provider offers a family they serve. Caregiver support is providing specific knowledge and strategies to assist with the overall development of the child (as cited by Abreu-Lima et al., 2010 in Sarmento, 2016). Caregiver support can be displayed in different ways. A research study specific to early intervention found providers and caregivers both desired "using conversation and mutual self-disclosure, avoiding formal measures of any kind, and proceeding at a pace that is unhurried and with an attitude that is non-judgmental, supportive, and caring" (Summers et al., 1990, p. 97).

Care

In this context, "care" is defined as "to be concerned or solicitous; have thought or regard" (https://www.dictionary.com/browse/care). Care can be shown throughout the duration a caregiver/family receives early intervention services. Roberts (2017) found that caregivers receiving services were more likely to remain in services if they felt the educators cared about them. One parent stated, "having caring staff working with us and building a relationship with our children, where there is trust and acceptance of our family circumstance'; and 'feeling a sense of being cared for and special, makes these early years a positive experience for us" (p. 9).

Encouragement

Encouragement means “to inspire with courage, spirit, or confidence” (https://www.dictionary.com/browse/encourage). An early intervention provider can encourage caregivers in multitudinous ways. For instance, a provider can send text messages with words of encouragement (Snell et al., 2018), use coaching strategies to encourage the overall development of the caregiver’s child (Ristovska, 2021), and performance feedback (Inbar-Furst et al., 2019).

Communication

Communication in this context means “the imparting or interchange of thoughts, opinions, or information by speech, writing, or signs” (https://www.dictionary.com/browse/communication). Kelty & Wakabayashi (2020) conducted qualitative research using existing data from focus group interviews with a group of parents, educators, or community members. Their findings revealed a parent sharing that despite the school having over 70% who spoke Arabic, the school sent home all communication in English. This parent used to pay out of pocket to translate all documents into Arabic. None of the parents in this focus group stated that communication was sent home in the parents’ home language. Kellar-Guenther et al. (2013) discovered through their 92 caregiver interviews that the communication is the best indicator of caregiver engagement during EI.

Provider Identity

Professional identity develops over time and can shift and change as one's experiences influence it. As a result, Flores (2020) believes evaluating teaching theories and practices in teacher education programs is imperative. Further, these programs should be evaluated on an ongoing process to ensure they are supportive of "professional learning of how to become and be a teacher in a given social, cultural and economic context" (Flores, 2020, p. 155).

Within early intervention and even education as a whole, the majority of professionals represent one primary identity (white, English-speaking, middle/upper-class women) (National Center for Education Statistics, 2017). As mentioned in chapter one, EI providers and educators serve more diverse families that include representation of culturally, linguistically, and economic diversity, resulting in a provider-caregiver cultural and identity mismatch.

Intersectionality

Kimberlé Crenshaw first introduced intersectionality in 1989. Crenshaw is an award-winning professor and scholar who focuses her research on intersectionality, civil rights, feminism, and law, to name a few. Although there are a few definitions for intersectionality, this literature review focuses on Crenshaw's concept of Intersectionality. In Crenshaw's 1989 publication, she states, "in race discrimination cases, discrimination tends to be viewed in terms of sex- or class-privileged Blacks; in sex discrimination cases, the focus is on race- and class-privileged women" (p. 140).

Early intervention providers must take into consideration how intersectionality contributes to the daily lives of the caregivers, families and children they provide services. More specifically, providers need to be aware of how each system of oppression impacts a specific caregiver. For example, a Black female caregiver who uses Somali as her first language will have a different experience and face different levels of oppression than a Black male caregiver who uses English as his first language. Although both caregivers are Black, the female caregiver will face different limitations and disadvantages because of her gender and language than the Black male caregiver.

It is noteworthy that more than half of the states in the US have Official English laws, despite there being over 350 languages spoken in the Unites States. These types of laws are a form of discrimination and oppression that dates back approximately 400 years ago when enslaved people were punished for not using English. More recently, educators in Texas were encouraged to punish children who spoke Spanish in educational setting up until 1973 (Ricento, 1998). Today, in a country consisting of citizens with outdated beliefs and these systemic forms of oppression and racism, early intervention providers must be aware of how they present themselves when they enter a caregiver's home.

Implicit Bias

"Implicit bias refers to the unconscious attitudes and stereotypes that shape our responses to specific groups, especially around race, class, and language. Implicit bias operates involuntarily, often without one's awareness or intentional control. Implicit bias is not implicit racism" (Hammond, 2015, p. 156). There is a gap in the literature regarding how provider implicit bias influences or factors into family-centered intervention. Though, implicit bias has been explored in the medical field though. Oliver and colleagues, (2014) discovered medical professionals exhibited a preference for whites over Blacks and further reported that medical professionals believed implicit biases could impact the way they treat patients. Additionally, in a 2011 study conducted by Mills et al. it was found that even though Blacks were more likely to report pain, they were less likely to be prescribed pain medication.

Based on research, a provider's implicit bias can impact the relationship between the caregiver and the provider and the level at which caregivers participate in family-centered intervention. Wa Wong & Hughes (2006) conducted a study incorporating educator and parent input. These researchers focused on white, Black, and Hispanic (English-speaking and Spanish-speaking) parents. Their results unveiled teachers rated white parents more involved than Black and Hispanic parents in their study. Further, this study revealed educators felt they had less mutual support with Black parents compared to white or Hispanic caregivers. Wa Wong and their colleague (2006) theorized this is a result of Black parents and white teachers not sharing a common culture, in other words, provider-caregiver mismatch. Wa Wong & Hughes (2006) suggest, based on their theory, school psychologists can take an active role within their schools and offer professional development that focuses on ways teachers can facilitate family involvement. It is worth noting, the results of this article did not take implicit bias into account.

Barriers of Engagement for Culturally, Linguistically and Economically Diverse Caregivers

There barriers exist, in part, because the people designing these systems do not represent these identities. There is an abundant amount of research that indicates families from culturally, linguistically, and economically diverse backgrounds are engaged in their learner's education, despite the misapprehension that these caregivers are not (Dalun Zhang et al., 2011; Hindman et al., 2011; Lee & Bowen, 2006; Lopez, 2001). There are distinctive explanations why caregivers from culturally, linguistically, and economically diverse backgrounds engage differently in their learners' education. According to Kelty & Wakabayashi (2020), a study that focused on caregivers, educators, and community members of preschool to grade 12 children determined through their research that relationships, communication, and inclusive activities were profound themes when it came to supporting caregiver engagement. Even though this research focused on school-aged children, these findings can be transferred into family-centered early intervention. For instance, early intervention providers can promote *inclusive activities* to the families they serve by using culturally relevant songs to the family instead of having a traditional American children's song translated into the caregiver's language. On the contrary, caregiver respondents in this study also expressed that being judged or *fear of judgment* and lack of communication between the caregivers and school were driving forces that abated caregiver engagement (Kelty & Wakabayashi, 2020). In this same research study, deplorably, "One educator participant stated that the school had used scare tactics on deportation of undocumented children and families, which kept parents and children away from the school" (p. 7). Based on this finding, a barrier to engagement can be seen as the school itself and systemic racism. Some educators seem to have obsolete concepts of what caregiver engagement means for the children that attend their schools. Children from culturally, linguistically, and economically diverse backgrounds attend schools with varying family structures and experiences (Sanders-Smith et al., 2020), thus professionals need preparation to serve and support the caregivers and children on their caseload. Simply stated, engagement is not the sole responsibility of the caregiver. Educators, therapists, and early intervention providers must have strategies to facilitate with caregiver engagement.

Culturally Responsive Practices for Caregiver Engagement

In order to understand culturally responsive practice (CRP), the meaning of "culture" must be explored. Grant & Ray (2019), defined culture as not being limited to race, ethnicity, language, age, socioeconomic status (SES), sexual orientation, disabilities or country of origin. Additionally, "culture can also include religious or spiritual practices and geographical locations" (Grant & Ray, 2019 p. 137). Culturally responsive practice is valuing the backgrounds and lived experiences of each individual family and more specifically, the individual themselves. When educators and early intervention providers use CRP, it is their responsibility not to stereotype the caregivers or child based on a group in which they belong (Hyter & Salas-Provance, 2019).

Researchers and experts in education, special education, and early intervention are taking steps to publish research and share tools to more effectively serve caregivers from culturally, linguistically, and economically diverse backgrounds. The Division of Early Childhood (DEC) has developed recommended practices for professionals that acknowledge and honor the diverse caregivers they serve.

These include:

F1. Practitioners build trusting and respectful partnerships with the family through interactions that are sensitive and responsive to cultural, linguistic, and socioeconomic diversity.

F2. Practitioners provide the family with up-to-date, comprehensive and unbiased information in a way that the family can understand and use to make informed choices and decisions.

F3. Practitioners are responsive to the family's concerns, priorities, and changing life circumstances.

F8. Practitioners provide the family of a young child who has or is at risk for developmental delay/disability, and who is a dual language learner, with information about the benefits of learning in multiple languages for the child's growth and development. (DEC, 2014, pp. 10-11, https://divisionearlychildhood.egnyte.com/dl/7urLPWCt5U).

Theoretical Frameworks

Theoretical frameworks are essential cornerstones in research. Grant & Osanloo (n.d.) define theoretical frameworks as the "blueprint" for the entire dissertation inquiry" (p. 13). This dissertation research was established with the interaction of theories and practice. These include Bandura's social learning theory (see Table 2.2), Bronfenbrenner's ecological systems theory and culturally responsive practice.

Table 2.2

Theoretical Frameworks and Meanings

Theoretical Framework	Meaning
Bandura's Social Cognitive Theory	States that learning occurs by interactions of personal factors, environmental factors, and the behavior itself (Bandura, 1986).
Bronfenbrenner's Ecological Systems Theory	How four systems (microsystem, mesosystems, exosystems, and macrosystems) are interwoven and can influence an individual's overall development (Bronfenbrenner, 1979).
Culturally Responsive Practices	"A pedagogy that empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes" (Ladson-Billings, 1994, pp. 17-18).

Bandura’s Social Cognitive Theory

Social cognitive theory is derived from his social learning theory (learning takes place from observing the actions of others around you). More comprehensive than Bandura’s social learning theory, the social cognitive theory considers all components of an individual and how those components interact with one another. More specifically, the triadic reciprocal relationships (environment, personal characteristics, and behavior). Self-efficacy is another component of social cognitive theory. Self-efficacy is one’s belief in their ability to complete a task (singing a song with their child). Self-efficacy can be influenced by things such as nervousness and encouragement.

Concerning early intervention, a caregiver with lower education levels with a child with hearing loss may believe they are not equipped with the skill set necessary to assist their child’s learning and overall development. A provider can assist in the caregiver’s self-efficacy by teaching these skills through modeling and further providing the caregiver with opportunities to practice the skill while encouraging the caregiver by pointing out how the child responds based on the caregiver’s actions.

Bronfenbrenner’s Ecological Systems Theory

Bronfenbrenner’s ecological systems theory (see Figure 2.2) was established in 1979. This systems theory considers the different internal and external factors that influence an individual (Bronfenbrenner, 1979). In Bronfenbrenner's ecological systems theory, the individual’s immediate environment makes up the microsystem (where you live, family members, job, etc.). The mesosystem is “the interrelations among two or more settings in which the developing person actively participates (such as, for a child, the relations among home, school, and neighborhood peer group; for an adult, among family, work, and social life) (Bronfenbrenner, 1979 p. 25). The exosystem refers to “a setting—or set of people engaged in social interaction—that does not include, but whose participants interact directly or indirectly with, the focal individual” (Neal & Neal, 2013 p. 728). Macrosystem refers to the cultural norms or the values of the family (Bronfenbrenner, 1979). The chronosystem was added to Bronfenbrenner’s ecological systems theory in 1986 and related to time and when events occur in the individual’s life (Eriksson et al., 2018).

Figure 2.2

Bronfenbrenner’s Ecological Model of Individual Development in Relation to Early Intervention- A Case Study

The main focus of the microsystem is the relationship between the DHH Spanish-speaking toddler and his Spanish-speaking father who the toddler lives with full time.

The family is enrolled in early intervention services where the father receives coaching from an early intervention provider. Through early intervention services, the father is learning new strategies to best facilitate language development for his son at home.

The exosystem looks at systems that impact the family. The toddler’s father is a single dad and works long hours. Often times the father comes home exhausted with little energy to engage with his child, which at times does result in a negative effect on the child’s development.

The EI provider that works with the family does not seem to understand the cultural norms or values of this family nor makes an effort to learn about the family’s culture or language. The current US war on immigration has also made the father feel a bit uneasy. Overall, these factors have impacted the caregiver provider relationship.

The child was born in 2020, not 1987, so being identified at age 2 is “late.” He began receiving services at age two and half. Unfortunately, the timing only allows for 6 months of services, before the child ages out on his third birthday.

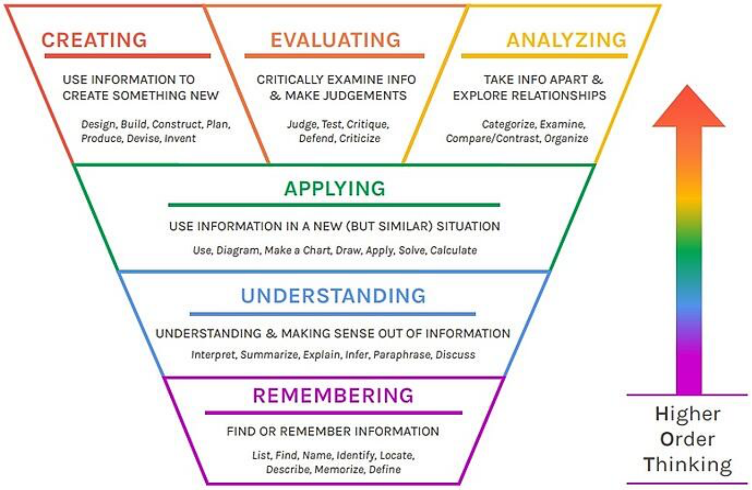
Note: A single caregiver from a culturally, linguistically, and economically diverse background is currently receiving early intervention services for his d/Dhh child. The EI provider does not speak Spanish, so an interpreter joins each session.

Culturally Responsive Practices

Historically, children of color and students from lower socioeconomic households receive a more repetitive education and less higher-order thinking skills (Allington & McGill-Franzen, 1989). Additionally, Black families feel their teachers have lower expectations of their children (Seeberg, 2021). Culturally responsive practice is the concept of moving caregivers and children from dependent learners to independent learners (see Figure 2.3).

Figure 2.3

Success, Higher Order Thinking Skills and Grit



Note: “Bloom’s Taxonomy is traditionally a pyramid, but in this rearranged version, creating, evaluating, and analyzing have been placed simultaneously at the top, because full inquiry in a next generation classroom requires simultaneous use of these skills” (Vigeant, 2016).

Regarding early intervention services and culturally responsive practices, it is vital to use higher-order thinking skills for caregivers from culturally and linguistically diverse backgrounds. Early intervention providers can incorporate higher-level thinking skills into their sessions by asking reflective questions and avoiding questions that elicit a yes or no response (Rush & Shelden, 2020). Reflective questioning refers to the ability to ask questions that requires an individual to think about past experiences or knowledge and apply it to a current situation. Interestingly, "A key finding on human learning is that all people can be taught to reflect-regardless of culture, intellectual ability, educational level, or mental health status (Bransford et al., 2000, as cited in Rush & Shelden, 2020, p. 64).

A recent publication from Rosenzweig & Voss (2022) set guidelines, based on their expertise and extensive experience, to assist providers working with caregivers from culturally, linguistically, and economically diverse backgrounds. One guideline includes: respecting that the caregiver's goals may differ from the provider's goal. Meaning, if developmentally the next step for the child is to answer simple questions by nodding or shaking their head, but the caregiver is more concerned about learning animal sounds, since they live on a farm, it is in the best interest of the family for the early intervention provider to support the caregiver in their goal. A second example of Rosenzweig & Voss' proposed guidelines includes, the professional not assuming that because the words and behaviors the caregiver's use are different than the early interventionist, they must be changed. As an example, a family has a goal for their child of detecting a sound before an object is presented to enhance listening skills. The caregiver does not have toys in the house and instead prefers to use things from nature to create toys. The provider would like to bring in toys to make this task easier, but these are beliefs of the family and does not need to be changed.

Through Bronfenbrenner’s theory, the importance of the child’s natural environments has been proven to have significant impacts on the overall development of the child (Bronfenbrenner, 1986). Additionally, Banduras social cognitive learning theory including self-efficacy, caregiver’s beliefs of their own parenting abilities has the potential to change the overall development and growth of the child. Knowing this, early intervention providers must take into consideration when entering the home, utilizing culturally responsive practices while coaching the caregiver.

Conclusion

To summarize, Chapter Two explored four different sections of the SPISE-R and established a correlation to those categories (beliefs, knowledge, confidence, and actions) and caregiver engagement. This literature further addressed potential barriers caregivers from CLED backgrounds may face and further explicated tools, strategies and ideas with a culturally responsive mindset, to promote engagement among caregivers.

Chapter Three will explain the methods used to analyze the qualitative and quantitative data for the present research study.

Chapter Three: Methodology

Introduction

In this mixed-methods study, the researcher surveyed caregivers of children who were deaf or hard of hearing (d/Dhh) and who were currently enrolled in early intervention (EI) or had in the past. The purpose of this study was to help determine if provider identity influences caregiver engagement. The research questions for this study included:

RQ1: How do caregivers of children who are deaf or hard of hearing from culturally, linguistically, and economically diverse backgrounds perceive their own level of engagement during home visits as required in the Individual Family Service Plan (IFSP)?

RQ2: How do caregivers of children who are deaf or hard of hearing perceive their own level of engagement during home visits as required in the Individual Family Service Plan (IFSP)?

RQ3: In what ways (if any) does provider identity of early interventionists serving families with birth-3 olds who are deaf or hard of hearing influence family engagement during home visits as required in the Individual Family Service Plan (IFSP)?

RQ4: In what ways (if any) do families from culturally, linguistically, and economically diverse backgrounds feel supported by their early interventionist while receiving early intervention services?

RQ5: How do families from culturally, linguistically, and economically diverse backgrounds receiving EI services define support in early intervention?

RQ6: How do families from culturally, linguistically, and economically diverse backgrounds envision support from their early interventionist?

The previous chapter synthesized the literature on family engagement, revealed gaps in the literature, and documented the need for the present research study. This chapter covers the study design, setting, respondents, and other demographic information. Further, the researcher describes instruments and tools used in the research study. The data collection procedures and data analysis are reviewed, and threats to validity and reliability are summarized.

Survey Setting and Respondents

The study occurred from November 2020 through July 2021. The electronic survey was active from November 2020 through July 2021. The first respondent submitted their responses on December 1st, 2020, and the last respondents completed the survey on May 28th, 2021. This study was open to any adult caregiver of a child who was d/Dhh and received early intervention services prior to the child's third birthday. A total of 118 caregivers responded to the English and the Spanish versions of the survey. The English survey was begun by 114 caregivers, but only 86 caregivers completed the survey in full. One additional criterion for the electronic survey was the child who is d/Dhh must have worn at least one hearing aid or cochlear implant during the time the child received early intervention services. One respondent was deleted from the English version of the survey data set for this reason, but was still eligible to be interviewed. Four caregivers completed the Spanish version of the survey in full and all caregivers indicated the child they cared for wore at least one hearing aid or cochlear implant during the time the child received early intervention services. A total of 89 respondents were eligible for quantitative data analysis. See Table 3.0- Table 3.3 for more information regarding respondent demographics.

Table 3.0

What is Your Race?

Race	N	%
White	75	84.3%
Nonwhite	14	15.7%

Table 3.1

What is Your Provider's Race?

Race	N	%
White	79	88.8%
Nonwhite	4	4.5%
Unknown	6	6.7%

Table 3.2

What is the Primary Language Utilized in Your Home?

Language	N	%
English	72	80.9%
Spanish	3	3.4%
American Sign Language	1	1.1%
Other	13	14.6%

Table 3.3

What is Your Provider's Primary Language?

Race	N	%
English	80	89.9%
Spanish	3	3.4%
American Sign Language	3	3.4%
Other	3	3.4%

The Spanish version of the survey had a 100% completion rate, with the average respondent completing the survey in 24 minutes and 50 seconds. The English version of the survey had a 75% completion rate, with the average respondent completing the survey in 8 minutes and 49 seconds.

A total of 21 interview emails (see Appendix A and Appendix B) were sent out to respondents who agreed to be contacted for a follow-up interview because they aligned with respondent criteria. Eighteen interview emails were sent to respondents who completed the English version of the survey, and three emails were sent in Spanish to respondents who completed the Spanish version of the survey. Each respondent was contacted no more than three times via the email address they provided to recruit for the follow-up interview. Of the interview emails sent out to respondents, one respondent from the Spanish version of the survey came back as a "Couldn't be delivered." Another survey respondent was selected from the Spanish version of the survey; however, they did not respond to the interview emails.

Selected interview respondents completed an additional informed consent (see Appendix C), where they selected their preference for a phone or a Zoom interview. Respondents also indicated if they wanted to utilize an interpreter and for which language on this informed consent. No respondents requested an interpreter. However, one respondent requested Zoom captions be utilized during the interview.

Data Collection Procedures

There were two components of data collection. First, an electronic survey in English (see Appendix D) and Spanish (see Appendix E) was distributed utilizing Survey Monkey. Eighty-six respondents completed the English version of the survey in full and of that total, 81 respondents were willing to be contacted for a follow up interview. Four respondents completed the Spanish version of the survey in full and were willing to be contacted for a follow up interview. This resulted in 85 total respondents eligible to participate in a follow-up interview.

Twenty-one respondents were contacted for a follow-up interview. These survey respondents were contacted based on their identity (race, languages spoken in the home and their responses on the survey). The final number of interviews conducted was 12 (12/21 = 57% interviewed). Sample integration was used in this research study since the same respondents who completed the interviews were selected from those who completed the electronic survey (Burkholder, et al., 2020). In addition, the two data sources (electronic survey and interviews) were connected (Burkholder, et al., 2020) since the results from the electronic survey (demographic information and responses on the SPISE-R) were used to establish the respondents for the follow-up interviews.

Purposive sampling was used to recruit a diverse sample which was important to the researcher as it allowed for a broader range of understanding on the specific topic of provider identity and caregiver engagement. More specifically, the researcher reviewed the email addresses of survey respondents entered into the electronic survey and selected caregivers with a masculine name. The researcher also looked at each caregiver's response and selected interview respondents based on a caregiver and provider identity mis-match (household race differences and household language differences) and caregivers who had some variation in the way they completed the electronic survey, as opposed to selecting all 1's or all 5's in their responses. This allowed for maximum variation and transferability of findings to other professions (Merriam & Tisdell, 2016).

The interview questions were not aligned with the questions from the survey. More specifically, the electronic survey asked questions regarding the caregivers' perceptions on five sections: beliefs, knowledge, confidence, actions, and device use. The interview questions focused more on the relationship of the caregiver and the early intervention provider. The interview questions were aligned with the qualitative research questions. Since the survey required the respondents to complete the survey in a structured manner, interview questions were not aligned to enable the caregivers to share their experiences in an open-ended manor. This allowed the researcher to explore the phenomenon more in depth and from the caregivers' personal experiences.

Approval from the Institutional Review Board (see Appendix F) was granted on November 5th, 2020 (IRB # FBUIRB110521-CB. An IRB extension was requested in October 2021 and granted (see Appendix G) through May 2022. The electronic survey was created using Survey Monkey and consisted of 66 questions. The questions were multiple-choice, 7-point Likert scale, and fill in the blank. The survey was created using the SPISE-R (Scale of Parental Involvement and Self-Efficacy-Revised) (Ambrose et al., 2019). Before completing the SPISE-R questions, respondents were asked to complete demographic questions included in Survey Monkey and created by the researcher (see Appendix H for English and Appendix I for Spanish). These demographic questions related to education level, race, primary language spoken in the home, annual household income. Caregivers answered about themselves and their primary early intervention provider "to the best of their ability."

Nonprobability sampling (purposive sampling) was used when the electronic survey was disseminated. First, the survey was distributed via email to approximately 30 educational programs and a similar program in Argentina. These programs used either American Sign Language or listening and spoken language with the families they serve. The recruitment email was also distributed through non-profit organizations serving the d/Dhh population, including AG Bell Association and Hands & Voices, to ensure caregivers of children who are d/Dhh came aware of this research opportunity. In addition, the electronic survey was distributed by snowballing on various social media platforms and word of mouth, which disseminates the survey from people who know people (Creswell & Poth, 2018). All electronic communication included both the English and Spanish versions of the survey. An electronic survey was used for several reasons. An electronic survey was cost effective, allowed the researcher to gather responses globally (Burkholder, 2020; Forister & Blessing, 2020), and was most appropriate given the need for social distancing during the global COVID-19 pandemic.

Instruments

For this study, the researcher created an informed consent (see Appendix J for English and Appendix K for Spanish) for the electronic survey, survey questions, an informed consent to participate in the interview, and an interview guide (see Appendix L). With permission, (see Appendix M) the SPISE-R (Ambrose et al., 2019) was embedded into the electronic survey.

All respondents completed the survey via Survey Monkey. The survey included a total of 66 questions. From those questions, 45 (questions18-63; pages four through eight) were taken directly from the SPISE-R. More specifically, The SPISE-R questions caregivers "about their child's hearing device use and their perceptions of their own beliefs, knowledge, confidence, and actions pertaining to supporting their child's auditory access and language development" (Ambrose, Appenzeller, Mai, & DesJardin, 2020, p. 77).

An additional 11 questions asked the caregiver to answer demographic information about themselves and use their best guess to answer demographic information on their primary early intervention provider. At the end of the survey, three questions asked respondents if they would be willing to be contacted for a follow-up interview and their email to be entered into the $100.00 Amazon gift card drawing.

Permission was granted to use the SPISE-R (Ambrose et al., 2019) and was incorporated into the online survey. Further, the electronic survey was translated into Spanish to make it more accessible and reach more caregivers of children who are deaf or hard of hearing. As part of this adaptation, a translation of the SPISE-R was also completed. The survey was first translated by a native Spanish-speaking Certified

Listening and Spoken Language Specialist who is familiar with the field of deaf education and currently serves children who are d/Dhh and their caregivers. After the survey was translated, the researcher sent the electronic survey to a native Spanish-speaking certified Spanish translator who has previously worked in deaf education, more specifically, early intervention, to ensure accuracy. Both professionals received compensation for their time.

All survey respondents who completed the survey in full and entered a valid email address specifically for the Amazon gift card drawing (90 total) were eligible to receive the $100.00 Amazon gift card. The Amazon gift card recipient was selected using a Google random number generator with the minimum number being one and the maximum number being 118. To ensure fairness during the random number generator selection, a member of the research dissertation committee was present via Zoom utilizing screen share.

Survey Data Collection Procedures

The researcher began disseminating the surveys by emailing (see Appendix N) a link to the English version and Spanish version of the survey to educational programs and organizations across the United States and one program in South America serving children who are d/Dhh and their families. Both versions of the electronic survey were also sent to AG Bell and Hands and Voices. This recruitment included caregivers of children who use all modes of communication. Additionally, the English and Spanish versions of the survey were shared on Facebook (a social media platform) and through email with the researcher's colleagues.

Survey Data Analysis Procedures

As a result of having the same survey in two different languages on Survey Monkey, the data from the surveys needed to be manually combined using Microsoft Excel. To begin, the researcher downloaded the English version of the survey onto Microsoft Excel. The Excel document was saved using a specific name that indicated "raw data." On this Excel document, the researcher input data from the Spanish version of the survey. The two survey data sets were then combined using a Microsoft Excel formula to provide totals for all survey respondents.

The merged data set on Microsoft Excel was uploaded to SPSS. Values were established for each response for every question on the electronic survey. The researcher then deleted any respondent who did not complete the survey, in full, from the data set. To ensure the appropriate number of respondents were deleted from the SPSS data set, the researcher checked the number of respondents that completed the survey, in full, on Survey Monkey and how many respondents were remaining on the SPSS data set to ensure the number matched. One respondent was deleted from the data set because they indicated their child did not wear hearing devices. A total of 89 respondents remained in the merged Survey Monkey to SPSS data set.

The researcher recoded the questions, "What is your race?" "What is your husband/wife/spouse/unmarried partner's race?" and "What is your provider's race?" due to the small sample size. Race was recoded as "white" and "nonwhite," and "does not apply" when appropriate. More specifically, "does not apply" was used when a caregiver did not have a husband/wife/spouse or unmarried partner.

Since there was a small number of respondents who identified as a Person of Color, it made it necessary to collapse these individual racial codes for further analysis. A number "1" was assigned to respondents that were categorized as "white" and a number "2" was assigned respondents categorized as "nonwhite." In addition, the question "What is your husband/wife/spouse/unmarried partner's race?" also included three for "does not apply" and the question, "What is your provider's race?" had a three for "unknown."

The next step was to collapse some of the demographic variables due to small sample size. The question, "What is the highest level of education you have completed?" originally had eight possible answer choices: "Some high school," "GED," "high school," "some college," "Associates degree," "Bachelor's degree," "Master's degree," and "Professional degree." The responses to this question were collapsed into five categories including "high school," "some college/Associates degree," "Bachelor's degree," "Master's degree," and "professional degree."

The demographic question regarding family income, "What is your family's combined annual income?" was collapsed. On the electronic survey, the respondent could select one of the following six choices: "less than $15,000," "$15,000-$34,999," "$35,000-$49,999," $50,000-$74,999," "$75,000-$149,000," and "$150,000 or more." Categories were collapsed as follows for data analysis: "less than $15,000," "$15,000-$34,999," and "$35,000-$49,999" were collapsed and coded, "lower income." "$50,000-$74,999" was coded as "middle income." "$75,000-$149,000" was coded as "upper middle income" and "$150,000 or more" was coded as "upper income."

Variable names were edited for all SPISE-R questions. For instance, instead of the entire statement being used as the variable name, the author changed the variable based on the category and statement. More specifically, the first statement from the Actions section, was edited to AQ1. This allowed the researcher to visually see the sections and statements more easily.

Reverse scoring was done for the following statements in the Beliefs category: Belief question #3, belief question #5, belief question #6, and belief question #7. Reverse scoring was done for these four statements, since the original survey designer used reverse scoring for statistical analysis (Ambrose et al., 2020). For example, belief question #3 states, “No matter what we do as a family, my child’s development will be delayed compared to children with normal hearing.” The researcher recoded into a different variable to ensure accuracy. The new variables and names (BQ3 became BQ3R). This allowed the researcher to go back to the original variable and compare the numbers matched the new variables. Meaning, if the first value was “2” for BQ3 it should be “6” for BQ3R.

The researcher then calculated overall mean scores, similarly to the original research study (Ambrose et al., 2020) for the sections, “knowledge,” “confidence,” and “actions.” The Knowledge and Confidence sections also have two subsections “Auditory access subsection” and “Language development subsection.” Additional mean scores were calculated for the two subsections within Knowledge and Confidence. This resulted in a total of seven mean average scores (3 mean scores for knowledge, 3 mean scores for confidence and 1 mean score for actions.) Ambrose et. Al., 2020 did not include a mean score for “beliefs,” therefore the researcher of this study, felt that it was important not to create a mean score for “beliefs” to mirror the original study. After the researcher analyzed data, the researcher merged the two data sources since both data sources produced separate but related results regarding the research questions (Burkholder, 2020, p. 135).

Reliability and Correlations

Additional analyses were run to ensure reliability and further answer the research questions. Cronbach's alpha of the three sections (knowledge total, confidence total, and actions total) and four sub sections (knowledge auditory access, knowledge language development, confidence auditory access, and confidence language development). In order to determine correlations, a Pearson's product-moment correlation was run to assess the relationships between knowledge, confidence and actions sections and corresponding subsections.

Analysis Specific to Research Questions

Provider identity (demographics) were explored to determine whether the provider's identity could result in higher/lower knowledge, confidence and action scores. One-way ANOVAs were conducted (for the age range of providers and provider language) and Independent-samples t-tests (for the provider origin and provider race).

Additionally, each belief item was assessed to determine whether the different provider identity (demographic) variables result in a difference in the belief items. Non-parametric tests for the beliefs section were utilized because of each individual item (ordinal scale) and not with composite scores (continuous scale) as the knowledge, confidence and action sections. Kruskal-Wallis tests were conducted to determine if the level of agreement of each of the belief items were different across the race groups of providers, age range groups of providers, and primary language of providers. Mann-Whitney U tests were run to determine if there were differences in the level of agreement of each of the belief items based on provider origin, provider primary language and whether the provider had children or not.

Further, to explore the relationship between the caregiver and provider and its impact on knowledge, confidence and action, caregivers were classified into two groups; (1) shares the same demographic characteristic as their provider (matched) or (2) does not share the same demographic characteristic as their provider (mis-matched). Independent-samples t-tests were run to determine if there were differences in caregiver knowledge, confidence, actions and the subsections between the two groups (language match and language mis-match) and between providers with children and those who did not have children.

Additionally, research question three focuses specifically on caregivers from culturally, linguistically, and diverse backgrounds perceive their level of engagement. In order to answer this question, independent-samples t-tests were run to determine if there were differences in action scores based on caregiver race, caregivers being of Hispanic, Latino, or Spanish origin, caregiver language, and partner's race. A one-way ANOVA was conducted to determine if action scores were different across the different lengths of times of how long ago the caregivers received early intervention services, differences in income levels, and differences in caregiver age group.

Interview Data Collection Procedures

Interviews took place between the summer months of 2021. All interview respondents were contacted 24 hours before the scheduled interview to confirm the interview day and time. In addition, the confirmation email included some topics that would be discussed in the interview. This included the following:

1. I will ask you to talk about your family story
2. I will ask you questions regarding your experience with early intervention
3. We will talk about support and how you define it.

The interviews were conducted by the researcher remotely via a phone call or through Zoom and lasted between thirteen and thirty-nine minutes. The average interview lasted 27 minutes.

Five interviews were completed over the phone, and seven interviews were conducted using Zoom. The interviews were digitally recorded using TapeACall Pro or recorded through Zoom. All interviews were completed in one session. Interviews were transcribed verbatim using Scribie and then checked for accuracy by the researcher. Once the researcher approved transcribed interviews, they were electronically sent to interview respondents for member checking.

All interview respondents responded to the researcher's request to provide feedback on the transcripts. One respondent requested capital "D" be used in some instances to convey culture and not audiological status. Interview respondents were also asked to select their pseudonyms. It was essential to the researcher to use names in the research study that were respectful to the respondent's culture, background, and self-expression. Further, the researcher wanted to ensure the respondents' confidentiality and consider the importance and meaning of selecting a pseudonym. In fact, according to Allen and Wiles (2015), some respondents felt more connected to the research when choosing their pseudonyms and often selected names that were meaningful to them.

In the present study, all 12 interview respondents provided the researcher with a pseudonym. One respondent selected a name that was the same as the researcher.

Therefore, to avoid confusion, the respondent chose another pseudonym to use. Two respondents selected the same name, “Kate.” The researcher assigned one of the respondents who selected “Kate” with the last initial “E” to decipher between the two respondents’ experiences and stories. Throughout the interview process, two respondents did not attend the scheduled interview time. However, both were able to be rescheduled for a later date. Once respondents submitted their feedback via email to the researcher and provided the researcher with their preferred pseudonym, an electronic $25.00 Amazon gift card was delivered using the email provided on the electronic survey.

Interview Data Analysis Procedures

An electronic codebook on a password-protected MacBook Air was utilized during this research study. All phone interview recordings were sent to an audio transcription service (Scribie) to be manually transcribed. Albeit all Zoom interviews were audio and visually recorded, only the audio recordings were sent to be transcribed. To verify the accuracy of the transcription of all interviews, the researcher listened to each interview and read along with the transcription (Burkholder et al., 2020). After each respondent’s transcript was corrected of any errors, they were sent to the respondent to be approved and for the opportunity for the respondent to make corrections.

Once the researcher received the respondent’s approval or edits, all transcripts were read through in full. The researcher read through the interview transcripts again, scrubbing all identifying information from the transcripts, such as using the respondent’s preferred pseudonyms, removed any mentions of people’s or organization’s names and changing the specific location (state or country) to a broader location. Transcripts were read through in their entirety a third time. During the second and third transcription readthroughs, the use of memoing was applied (Burkholder et al., 2020). The researcher specifically paid particular attention to notable quotes, common topics that respondents discussed, and other interesting observations and details during interviews that were relevant to the research questions. After these processes were completed for each transcript, the document was saved to the researcher's password-protected computer. All transcripts were then numbered line by line and spacing was set to 1.5.

The next step in the interview data analysis procedures involved uploading the 12 interview transcripts to NVivo, a computer software program from QSR International used to manage, organize, and support analyses of qualitative data. Once all transcripts were uploaded, line by line coding was used with an integrated approach. The integrated approach included a deductive and inductive analysis approach (Creswell & Poth, 2018). First, four codes derived from the five sections from the SPISE-R: beliefs, knowledge, confidence, and actions were used to deductively analyze the interviews. These codes were used because they were included in the electronic survey and provide further insight into the quantitative data, allowing for triangulating data. Annotations were created for each code explaining why an item was coded in a particular way. After the transcripts were read through with the deductive codebook twice, inductive coding was used. Inductive coding allowed the researcher to remain open to emerging and unique themes that could come up among each caregiver. Each interview was read through an additional three times with an inductive approach to coding.

When appropriate, simultaneous coding was applied. More specifically, Autumn's quote, "So when I told early intervention that we are raising her bilingual with a non-bilingual team, there was this, "Well, go ahead and just teach her in English," and then...

And I got really anxious where I was like, ‘No, we're gonna start in Spanish.’ Even if I'm struggling or you're struggling, this is the exposure” was coded as “anxiety” under the theme “Emotional responses of caregivers” as well as “providers” under the theme “Factors contributing to the caregiver and provider relationship.”

Upon completion of the deductive and inductive coding, there were a total of 25 codes. The researcher merged codes, when appropriate, which resulted in more significant themes and resulted in a more meaningful claim (Burkholder et al., 2020). For example, the codes “provider actions” and “factors contributing to the caregiver and “provider relationship” were combined to create “Factors contributing to the caregiver and provider relationship.”

Codes that did not relate to the research questions were placed in an “Other” theme. Codes that seemed significant to the researcher, but did not fit anywhere else were placed in a theme labeled “Something interesting” (Braun & Clark, 2006). Upon completion of coding, there were a total of eight themes: Barriers caregivers face receiving early intervention services, Caregiver engagement while receiving early intervention services, cultural and linguistic diversity, emotional responses of caregivers, factors contributing to the caregiver and provider relationship, Location where the caregiver lives in relation to location of services, Navigating the early intervention system, and SPISE-R.

Threats to Reliability and Validity for Quantitative Research

Precautions were taken to enhance reliability and validity. The major threats to reliability and validity in this study included using a survey with an incentive and caregivers made assumptions of provider identity variables.

There was also the potential for respondents to provide inaccurate responses in the electronic survey as well as the interview to show they had a more positive experience with their early intervention provider. Even though the present research study included an electronic survey, it was, however, possible to ensure respondents did not complete the survey in full more than once with the unique IP address of each respondent, unless they used an additional email address. Further, a drawing for a $100.00 Amazon gift card was offered as an incentive to respondents who entered a valid email address at the end of the survey.

Validity and reliability were enhanced in this study by using the SPISE-R (Ambrose and colleagues, 2019), a survey tool that is a revision of the SPISE (DesJardin, 2005). The SPISE was utilized in a research study that yielded 54 mothers and children who are d/Dhh.

Enhancing the Trustworthiness of the Qualitative Data

As a previous early interventionist, the researcher is aware of their existing experiences working alongside caregivers and their children. The researcher has eight years of experience in deaf education and one year of experience in early intervention in deaf education and earned her Master's degree in early intervention in deaf education. Although it is unknown if any survey respondents personally knew the researcher, it is known that none of the interview respondents personally knew the researcher. The researcher did not directly disclose her background in deaf education to the respondents. In order to enhance credibility, the researcher set aside their experiences to allow the voices and stories of the interviewed caregivers to be shared, also called Bracketing (as cited by Moustakas, 1994 in Creswell & Poth, 2018).

Member checking was utilized by sending transcripts to the interview respondents as well as aligning the deductive codes with the four sections of the SPISE-R (beliefs, knowledge, confidence, and actions). Additionally, by including an inductive analysis divergent idea from the caregivers emerged, which included caregivers sharing how their providers identity manifested or did not manifest in their early intervention experience. Member checking in this research study was also employed during the interview when the researcher summarized what a respondent before asking another question.

Triangulating the data was also utilized in this study to increase rigor. More specifically, multiple theoretical frameworks were used when analyzing data, multiple sources (respondents) of data, and multiple methods (data collection, data analysis) (Merriam & Tisdell, 2016). Additionally, the researcher engaged in reflexivity, where she shared her background in deaf education and more specifically her experience in early intervention in deaf education working with caregivers from culturally, linguistically, and economically diverse backgrounds. Audit trails were kept as changes and shifts were made to coding (i.e., themes were collapsed). Further, two committee members reviewed two separate transcripts with the researcher.

Conclusion

This chapter discussed the methods used to analyze qualitative and quantitative data in the research study. The researcher further justified why specific methodologies were used to answer the research questions. Chapter four will confer the findings of this mixed methods research study.

Chapter Four: Analysis and Results

Chapter Introduction

Chapter Three reviewed the framework for this mixed methods research study explaining how both Spanish and English respondents were recruited to participate. This chapter will discuss the reliability of measures, procedures for analysis, results and additional factors impacting the results of the research study.

Data Analysis Introduction

Since this study utilized the SPISE-R(Ambrose et al., 2019), it was important to mirror most statistical analysis used in the original study. It is noteworthy to mention the inclusion criteria in the current research varied from the Ambrose et. al., 2020 research study, therefore, some statistical analysis varied slightly. More specifically, their respondents "required the participating adult to be the parent of a child who (a) was 36 months of age or younger, (b) wore at least one hearing aid or cochlear implant, (c) was learning spoken language, and (d) had no known conditions other than hearing loss that would affect language development. Additionally, all participants had to live in the United States" (p. 75). In the present study, inclusion criteria required participating adults to be currently enrolled, or have been enrolled in early intervention services for their child who is d/Dhh. The following sections will examine the analysis procedure, and data analysis results of the quantitative and qualitative data sources. Finally, the reliability of the quantitative and qualitative data sources will be reviewed.

Data Analysis Procedure for Quantitative Data

As previously stated, 118 respondents began the survey, but not everyone completed the survey in full. The four respondents who completed the Spanish version of the electronic survey completed the survey with a 100% completion rate. Out of the 114 respondents who began the English version of the survey, 90 completed the survey in full. Upon further investigation, all 114 respondents answered the first 11 questions, which asked specific demographic questions about their families. When the survey began asking question about the caregivers' provider's demographic information three respondents closed out of the survey (leaving 111 total).

Part two of the survey was the SPISE-R (Ambrose et al., 2019) which consisted of and additional 46 questions. 90 respondents answered part two of the survey in full. Part three of the survey had three statements (1) Are you willing to be contacted for a follow-up interview for a $25.00 gift card to Amazon? Not everyone will be contacted for an interview. (2) Please provide your email address or preferred contact for the researcher to set up an interview. Your email will not be used for any other purpose, except to be contacted for an interview. (3) Please provide your email address to be entered into the $100.00 Amazon gift card drawing. Your email will not be used for any other purposes, except to be entered into the drawing.

The data from Survey Monkey were exported to Excel so data from the Spanish and English versions could be merged together. Once the data from the Spanish and English version were merged, the excel document was exported to SPSS. The data were cleaned, coded and respondents who did not complete the survey in full, were deleted from the analysis. One respondent was excluded from the quantitative analysis, since the child did not wear a listening device, which was determined to be criteria for inclusion in the quantitative analysis. As a result, 89 respondents were included in the quantitative analysis. SPSS Statistics was used to run various statistical tests, synopsize descriptive statistics, and analyze quantitative data.

Similar to Ambrose and colleagues (2020), quantitative data were analyzed by creating mean scores for the knowledge, confidence, and actions section of the SPISE-R. Next, Cronbach's alpha was used to indicate sufficient levels of reliability (DeVellis, 2003) for knowledge, confidence, and actions (see Table 4.0).

Table 4.0

Cronbach's alpha Scores Between the Two Studies

Research Study	Knowledge	Confidence	Actions
Ambrose, et. al 2020	a = 0.89	a = 0.92	a = 0.92
Present Study	a = 0.83	a = 0.89	a = 0.83

A Pearson's product-moment correlation was run to assess the relationships between knowledge, confidence and actions sections and corresponding subsections. Table 4.1 provides the correlations between knowledge, confidence and actions sections and corresponding subsections. All of the constructs were strongly, significantly positively correlated with one another. For example, there was a statistically significant, strong, positive correlation between knowledge and actions, $r = .67$, $p < 0.001$.

Table 4.1

Correlation Matrix: Correlations Between Knowledge, Confidence and Actions Sections and Corresponding Subsections

	1	*2*	*3*	*4*	*5*	*6*	*7*
Knowledge Total	--						
Knowledge Auditory Access	.88**						
Knowledge Language Development	.91**	.59**					
Confidence Total	.83**	.72**	.75**				
Confidence Auditory Access	.73**	.69**	.62**	.93**			
Confidence Language Development	.80**	.64**	.78**	.92**	.70**		
Actions	.67**	.59**	.61**	.70**	.63**	.67**	--

*p<0.001

One-way ANOVAs were utilized to determine if the reported sections and subsections of the SPISE-R, knowledge, confidence, and actions had variance when exploring age and primary language of early intervention providers. Independent-sample t-tests were run to determine if there were differences in respondent knowledge, confidence, actions and the subsections based on provider origin and provider race.

Furthermore, to answer the unique research questions of the present study, additional data analyses were conducted. Independent-samples t-tests were run to determine if there were differences in respondent knowledge, confidence, actions and the subsections between the two groups: language match and language mis-match and parenthood match and mis-match.

Kruskal Wallis tests (Kruskal and Wallis 1952, 1953) were conducted to determine if there were differences in the level of agreement of each of the belief items based on the age range groups of providers and the primary language of providers.

Equally important, they were conducted to determine if the level of agreement of each of the belief items were different across the race groups of providers, age range groups of providers, and the primary language of providers.

Mann-Whitney U tests (Mann & Whitney, 1947) were run to determine if there were differences in the level of agreement of each of the belief items based on provider origin, provider primary language, and whether or not the provider had children.

To answer research question three independent-samples t-tests were run to determine if there were differences in action scores based on caregiver race, caregivers being of Hispanic, Latino, or Spanish origin, caregiver language, and partner's race. One-way ANOVAs were conducted to determine if action scores were different across the different lengths of times of how long ago the caregivers received early intervention services, differences in income levels, and differences in caregiver age group. The findings of the data analysis will be explained as they pertain to each research question.

Data Analysis Procedures for Qualitative Data

Line by line coding was done manually using deductive and inductive coding. Deductive coding was done first using codes directly from the SPISE-R (beliefs, knowledge, confidence, and actions). Inductive coding allowed the researcher to code for the unique themes that emerged from caregivers of children who are deaf or hard of hearing receiving early intervention services. Two committee members acted as auditors on two different transcripts, both assisting with deducing codes. Qualitative data were essential to add to the quantitative data as it allowed for the caregivers to share their experiences with their early intervention provider and early intervention experiences, which was not captured on the electronic survey.

The SPISE-R consists of a quantitative survey to determine a caregiver's perception of their involvement and self-efficacy (Ambrose et al., 2020) The present research study also included qualitative data sources including semi-structured open-ended interviews, annotations during coding, and memoing. As mentioned in chapter three, qualitative data were first collected via a recorded telephone interview or a recorded Zoom interview. The recorded audio was transcribed to Scribie to be manually transcribed. After the transcripts were checked for accuracy by the researcher and then sent to the interview respondents for member checking, respondents were given the opportunity to read and verify their transcript (Burkholder, 2020). The approved transcripts were uploaded to release1.6.2 of NVivo. The data were coded utilizing an integrated approach using both deductive and inductive codes. The deductive codes used were based on four of the SPISE-R sections (beliefs, knowledge, confidence, and actions). The researcher wanted to remain open to additional themes that would emerge from the unique stories of the caregivers.

An integrated approach allowed the researcher to approach coding with a general framework, but also allowing the researcher to remain open to other themes that may emerge, especially with the unique experiences of the interviewees. Since the researcher utilized the SPISE-R (Ambrose, et. al., 2019) the following deductive codes were used: beliefs, knowledge, confidence, and actions. The last section of the SPISE-R "device use" was eliminated, since this research study did not focus on device use and the child's wear time.

Caregivers. The present research study used a phenomenological approach which allowed the researcher to explore the phenomenon of caregiver and provider identity mismatch and how it changes caregiver engagement (Creswell & Poth, 2018). This phenomenon was explored through the voices and experiences of the twelve caregivers who were interviewed. A total of twenty-two codes were prominent which were organized into nine themes. Stratified sampling was comprised of 12 caregivers that brought unique perspectives.

Autumn. Autumn identifies as white and is a mother of two children one with hearing loss and one without hearing loss. Autumn is married to her husband (Mexican, Mexican American, Chicano) and together they are raising their children as trilingual (Spanish, English and then ASL). Autumn's child had just aged out of services at the time of the interview.

Avery. Avery identifies as white and is a mother of two children. Rose was born with hearing loss and their younger son was born without hearing loss. Avery and her husband, Alejo (Mexican, Mexican American, Chicano) are not currently receiving early intervention services for their child. Rose was diagnosed in the NICU. They are raising their children to be bilingual as a Spanish-English household.

Faith. Faith identifies as a Black or African American woman and is married to her husband (identifies as white) and together they have five children. One of their children has hearing loss and they are not currently receiving early intervention services.

Hanna. Hanna identifies as Japanese and resides in Asia with her husband who also identifies as "Japanese." Together they have one child who is deaf. This family received services about 6 years ago for approximately one year.

Jim. Jim identifies as a white male and is the father of two children, one who is deaf with an additional diagnosis of autism. Jim is married to his wife (who also identifies as white). They are not currently receiving early intervention services, but Jim reflects on his early intervention services he received previously.

Kate. Kate is a Deaf mother married to her Deaf husband. They both identify as white. Together they have four children (three who are Deaf). They are raising their children using American Sign Language. They are not currently receiving early intervention services.

Kate E. Kate E. identifies as a white woman and is hearing. She has a Deaf husband (identifies as white). Together they have two children, the older one has hearing and the younger one is deaf. Their son with hearing loss is being raised using Bi-Bi. They were currently receiving services at the time of the interview.

Melissa. Melissa identifies as white. She has a partner (identifies as "white") and is a mother of four children, one of which was diagnosed with hearing loss at four months old, due to an infection. At the time of the interview, the family was enrolled in early intervention services. Their services began with tele-visits as a result of COVID-19.

MoonRiver. MoonRiver identifies as Asian Indian and is from South Asia currently residing in the United States with her husband (identifies as Asian Indian). They use English and Bengali in their household and are currently receiving early intervention services for their daughter who was diagnosed with hearing loss. They sought out additional services from a private organization. This family feels they were positively impacted by COVID.

Olivia. Olivia identifies as white and is a mother of two children, one is deaf and one is hearing. She is married to her husband, who is Salvadoran and together they are raising their deaf child using both American Sign Language and spoken language, with exposure to Spanish. They had a difficult time finding an early intervention provider (SLP) that was knowledgeable in working with children who are deaf and use sign language.

Sara. Sara is a working mother and is married to her husband, who works part time. Sara and her husband identify as white. Together they have two children one who has typical hearing and one child with hearing loss. They use both Russian and English in their household. They were receiving early intervention services at the time of the interview.

Turner. Turner, who identifies as white and has a partner who identifies as Spanish. They have two children who are deaf. She is proud that her children are trilingual (English, Spanish and Greek), despite their deafness. During the time of the interview, she was receiving early intervention services for her younger child. Her older child aged out of EI a few years ago. Turners' experiences in early intervention varied depending on which part of the world she was living in. During her interviews she mentioned living in three different countries while her children were receiving early intervention.

Research Findings

The results section below will explain the results as they pertain to each research question. It is important to note research question one, research question two, and research question three are answered with quantitative data and qualitative data. Research questions four, five, and six are answered with qualitative data.

Research Question One Quantitative Procedures and Findings

Research Question One: How do caregivers of children who are deaf or hard of hearing from culturally, linguistically, and economically diverse backgrounds perceive their level of engagement during home visits as required in the Individual Family Service Plan (IFSP)?

As this question is written, it is not answerable by this research study, because there was not a way to quantify engagement specifically during home visits. The three questions that specifically talk about engagement in a session in the SPISE-R are limiting and do not encompass caregiver engagement. Instead, engagement (action items) overall is a better proxy for engagement than an hour a week with the early intervention provider. Therefore, all action items on the SPISE-R were used to determine the caregiver's perceived level of engagement.

Survey respondents reported demographic information was examined to assess whether respondents experienced different levels of action (level of engagement) based on their backgrounds. The following caregiver demographic characteristics were investigated; (1) Race, (2) Hispanic, Latino or Spanish origin, (3) Language, (4) Partner's Race, (5) How long ago the respondents received early intervention services, (6) Income, (7) Age and (8) Education.

Race. There were 75 white caregivers and 14 who were non-white. An independent-samples t-test was run to determine if there were differences in action scores based on caregiver race. There was homogeneity of variances as assessed by Levene's test of homogeneity ($p > 0.05$). There was no statistically significant difference in actions scores between the white and non-white caregivers, $t(87) = -0.60$, $p > 0.05$.

Hispanic, Latino or Spanish Origin? There were 10 caregivers who reported being of Hispanic, Latino or Spanish origin, and 79 who were not. An independent-samples t-test was run to determine if there were differences in action scores based on caregiver origin. There was homogeneity of variances as assessed by Levene's test of homogeneity ($p > 0.05$). There was no statistically significant difference in actions scores between the those who were of Hispanic, Latino or Spanish origin and those who were not, $t(87) = 0.69$, $p > 0.05$.

Language. Primary language was broken down into whether the caregiver spoke English as their primary language or not. There were 72 caregivers who reported English as being their primary language and 17 as non-English. An independent-samples t-test was run to determine if there were differences in action scores based on caregiver primary language. There was homogeneity of variances as assessed by Levene's test of homogeneity ($p > 0.05$). There was no statistically significant difference in actions scores between the those who spoke English as their primary language and those who did not, $t(87) = -0.20$.

Partner's Race. There were 75 caregivers whose husband/wife/spouse/unmarried partner's race was white and 11 who were non-white. Three respondents did not have a partner and were excluded from the analysis. An independent-samples t-test was run to determine if there were differences in action scores based on caregivers' partner's race. There was homogeneity of variances as assessed by Levene's test of homogeneity ($p > 0.05$). There was no statistically significant difference in actions scores between the race groups, $t(84) = -0.90$, $p > 0.05$.

How Long Ago the Caregivers Received Early Intervention Services. A one-way ANOVA was conducted to determine if action scores were different across the different lengths of times of how long ago the caregivers received early intervention services; currently receiving services (n = 30), 1-2 years ago (n = 19), 3-4 years ago (n = 13), 5-6 years ago (n = 7), 7-8 years ago (n = 8) and 9+ years ago (n = 12). There was homogeneity of variances, as assessed by Levene's test of homogeneity ($p > 0.05$). There was no statistically significant differences in actions scores between the groups, F(5, 83) = 1.00, $p > 0.05$.

Caregiver Household Income. A one-way ANOVA was conducted to determine if action scores were different across income bands; lower income \$0-\$49,999 (n = 8), middle income \$50,000-\$74,999 (n = 16), upper middle income 75,000-\$149,000 (n = 40), and upper Income \$150,000 or more (n = 25). There was homogeneity of variances, as assessed by Levene's test of homogeneity ($p > 0.05$). There was no statistically significant differences in actions scores between respondents in different income bands, F(3, 85) = 0.05, $p > 0.05$.

Caregiver Age. A one-way ANOVA was conducted to determine if action scores were different across respondent age groups; 18-34 years old (n = 24), 35-44 years old (n = 52), and 45+ years old (n = 13). There was homogeneity of variances, as assessed by Levene's test of homogeneity ($p>0.05$). There was no statistically significant differences in actions scores across the age groups, F(2, 86) = 0.88, $p > 0.05$.

To answer this research question, the theme discussed is culture and linguistic diversity. This theme encompasses language differences among caregivers and providers, race differences among caregivers and providers and cultural differences among caregivers and providers. These caregivers share unique experiences which align with other caregivers and other experiences are not related to others interviewed.

Cultural and Linguistic Diversity. This was an inductive theme that emerged as caregivers shared their experiences while receiving early intervention services. Within this theme there were two sub categories: Cultural/Race differences between the caregiver and provider and language differences between the caregiver and provider. The next sections present data related to three areas.

Cultural/Race Differences. The caregivers in this section expressed that they did not feel the cultural and race differences played a role in the quality of services they received. MoonRiver explained her thoughts regarding cultural differences and stated "She [my provider] was always culturally sensitive to the extent that there wasn't a whole lot of culture going on, we were very focused on objective evidence, language, talking." Noteworthy to mention, the caregiver felt the provider and caregiver had a common goal, which was helping the child develop listening and spoken language skills. Faith offered a similar perspective regarding the differences of race, "So if I reflect on my experiences, I'd say the majority of our early intervention providers did not look like me or my daughter. And did that impact my engagement? Not necessarily. What impacted my engagement, more was just the overall system, the process and feeling... I just didn't think that they were engaged enough or intensive enough with the program." While Faith did not have many, if any, providers that represented her and her daughter's race, it did not impact her engagement. Rather, she was disappointed in the quality of services she received for her family.

Avery acknowledged “I'm a white woman and I was working with all white women, I think. And so, I think that that probably influenced... And then I was... We're a bilingual family, but English is my native language. And so I recognize that those things really help. I don't know.” In this quote, Avery is aware that she does have white privilege and since she is white, it did likely influence the quality of services she received.

Language Differences. Within this section one caregiver felt that although there was a language difference between the caregiver and family, this did not impact services. Three caregivers did notice a language barrier and one caregiver felt it was the caregiver’s responsibility, rather than the provider. MoonRiver stated “we didn't have any issue because my husband and I, both of us are fluent English speakers. So, language was never a barrier with our provider. It is important to note that MoonRiver mentioned that since both her and her husband spoke fluent English, there was never a barrier. Since her family members are fluent English speakers, she was not able to share her perspective on language differences. MoonRiver also explained how her provider made flashcards for her which included vocabulary specific to South Asia. “We could use those and show it to our kids and use that as not only a language-building exercise but also a culturally enriching one.” Her connection to vocabulary and culture indicates that MoonRiver is aware of the importance of language and culture.

Other respondents shared a differing view about the language differences between the family and providers. Avery reflected on her experience raising her bi-lingual (speaking predominantly Spanish at the time). “She [my provider] knew the [Spanish] words like animal names. So, they can each talk about the "caballo" together and things like that, so... And then I was right there, and so then if there was an instruction that was confusing, I would translate that into Spanish for Rose and things like that." While the provider did know some Spanish words, the caregiver ultimately took on the burden of translating for the child. Autumn also expressed her appreciation for her provider making noticeable efforts to learn Spanish. "She [my provider] definitely put in an effort to learn a bit more [Spanish] because we had family in and out of the home when she was there and they would speak Spanish, so she was also integrated when she was with our family. It definitely seemed like she was in the process of actively learning and trying and finding various resources like books to bring." Although this is not aligned with family-centered intervention, the provider did take actionable steps to incorporate Spanish words into the home and session.

The use of interpreters was another common topic among the caregivers during the interviews. Avery shared the program did use interpreters when needed, but she felt "an interpreter really just kind of... It slows down the process, and it [interpreters] makes it [early intervention services] less personal. So, I wasn't aware that there was anybody who spoke Spanish in the program, for example. Fluent Spanish." When Avery was asked if she thought being a fluent English speaker influenced the quality of services she received, her immediate response was, "Yeah, I do." And added her husband is shy, "and at that point, his English wasn't as good as it is now. So, I think he certainly wouldn't have connected and felt as comfortable with them [the providers], I don't know how much that [language differences] would've affected from Claire or whoever it was to Rose, but in terms, I think, of how my husband would have felt, yeah, I do think, of course, that representation really makes a huge deal in how comfortable people feel, and the questions that people can ask, and things like that. So, I do think so." Although Claire knew some Spanish, Avery's husband was limited in his engagement due to the language barrier.

When Turner and her family moved to Western Europe, they did not speak the same language as most of the individuals residing in Western Europe. Although Turner did not use a trained interpreter, her team at the hospital acted as a translator for her family. "We [my family] had just moved there [Western Europe] and we spoke very little of their language, and people in Western Europe are not tolerant to that [a language difference]. But the people at the hospital and all the health care professionals, they supported us massively to the point where they filled out our applications to get into the system, to get into the speech therapy sessions. We had to go to a special kind of like school or center for some financial support. Again, they filled out all the applications for us pretty much from the social services. Yeah, again, we would have no clue what to write. Even when that application got rejected, they helped us write a letter to dispute it. So yeah, very supportive [chuckle]." Turner broached the language intolerance again that she felt with professionals in Western Europe. "They [professionals in Western Europe] wanted to start with that [sign language] at the end [of services]. They [professionals in Western Europe] were not supportive of the other languages [we spoke at home], where rather they thought that we should speak the language predominately spoken in Western Europe to the child, although we didn't even speak the language predominately spoken in Western Europe, really." Turner's family needs were not respected in regards to the language they spoke in their home and the mode of communication they used with their children.

A different perspective regarding language differences was expressed by Hanna. She felt there were barriers regarding access since her early intervention provider and her family did not share the same language. Hannah added that the language her family speaks and English are very different. “The grammar is different; the syntax is completely different. Nothing is linked. The sounds are quite different. I think the barrier would be the parent. If I wasn't able to speak English, it was a big barrier. But since I was a bilingual, I could communicate with them [the provider] directly.” This caregiver mentioned that the fact she did not speak fluent English was the barrier, instead of acknowledging the provider’s lack of fluency in the family’s language was the barrier.

Judgement was another prominent topic that was mentioned by the caregivers when it came to language differences among caregivers and providers. Avery shared that although she did not feel judged by the way she parented her children “I think like the way we parent is, kinda normal. We have a clean house, and we have age-appropriate toys around, so I didn't really feel like there was probably a lot of judgments. We don't spank our children.” Avery did at times feel judged by other professionals. Avery and her daughter, Rose, attended a school group and the group facilitator “did say some things that made me stressed about being bilingual with Rose. I can't remember now what she said, but some little side comments would make me uncomfortable.” Similarly, Autumn experienced some judgement from professionals outside of her EI provider. “When I told early intervention that we are raising her bilingual with a non-bilingual team, there was this, ‘Well, go ahead and just teach her in English,’ and then... And I got really anxious where I was like, ‘No, we're gonna start in Spanish.’ Even if I'm struggling or you're struggling, this is the exposure.” In order for Autumn’s early intervention team to accept her choice and become supportive of the family's decision, Autumn had to bring up that she is raising her daughter bi-lingual additional times with the team. "I think it got brought up once or twice from the whole team, just teach her in English. And when I pushed back on that, as long as I set that boundary of what I wanted for us, they actually jumped on board and they were looking into the research. And they were like, 'You know what, there's really nothing that says this is detrimental in any way, shape or form.' So as long as I made sure to set my own boundary and was firm in that, they turned around and were very helpful. As long as I let them know this is how we want to move forward, this is our decision, they were like, 'Okay, here's the information. No, nothing wrong with it.' These caregivers had to advocate for themselves in order for their decisions to be respected by members on their early intervention team. Kate shared that she did not feel judged from early intervention professionals she worked with, but felt judgement from herself. "I think any parent has that where you're not sure you're making the right choices sometimes, and you're still navigating that [communication options for children who are deaf]." It is important to note parents can be judgmental on themselves (Sidebotham, 2001), especially while making important decisions for their family, as shown in these interviews.

Although Hanna does not speak Spanish, she did share her perspective "In the States, in the States... Maybe the bilingual families would have judgments since learning one language is already a barrier, learning two languages is gonna be a challenge. I heard that even kids living in the States, the bilingual kids, do have a balance difference. A lot of parents told me that they don't speak Spanish well enough."

Research Question Two Procedures and Findings

Research Question Two: How do caregivers of children who are deaf or hard of hearing perceive their level of engagement during home visits as required in the Individual Family Service Plan (IFSP)?

Correspondingly to research questions one, this question is also not answerable by this research study, because there was not a way to quantify engagement specifically during home visits. Subsequently, engagement (action items) overall is a better representation of engagement than an hour a week with the early intervention provider. Accordingly, all action items on the SPISE-R were used to determine the caregiver's perceived level of engagement.

Quantitative data were used to answer this question were taken from the "Actions" section from the SPISE-R. The Actions section included a 7-point Likert-scale (1= Never, 4 = Sometimes, and 7 = Always) where the respondent indicated how often they are able to do the 15 tasks. Seven tasks were specific to auditory access (i.e., "Make sure I, or someone else, puts my child's hearing device(s) on immediately after he/she wakes up), five tasks were specific to facilitating their child's language development (i.e., "Use strategies during our daily activities to help my child learn to say new sounds, words, or sentences"), and three tasks that were related to the caregiver's engagement during early intervention services." (i.e., "Get my child to the audiologist as soon as a visit is needed"). Despite only three of the tasks in the "Actions" section representing engagement as reported by Ambrose and colleagues, 2019, engagement in this study is representative of more than what a caregiver does while in an early intervention session and what is listed under the "actions" section of the SPISE-R. For example, caregivers spend a significant amount of time with their child between sessions and that is truly where development and learning occur (McWilliam, 2010; Sandbank et al.; 2020; Tiede & Walton, 2019). A specific example from the SPISE-R, “Use strategies during our daily activities to help my child learn to say new sounds, words, or sentences” (Ambrose et. al., 2019) indicates caregiver engagement outside of an early intervention session and therefore aligns that caregiver engagement does occur outside of an early intervention session. Therefore, all tasks under the “actions” section were included to determine how caregivers perceive their level of engagement while receiving early intervention services.

Table 4.2 contains a summary of findings for the descriptive statistics of the composite scores of the knowledge total, knowledge auditory access, knowledge language development confidence total, confidence auditory access, confidence language development and actions. The average score for actions (M = 5.878, SD = 0.714). The item in the actions scale with the lowest score was the task “Daily listening checks on my child’s hearing device(s)” (M = 4.25, SD = 2) followed by “Daily check of my child’s listening with the Ling 6- Sound test (ah, ee, oo, m, sh, s)” (M = 4.36, SD = 1.9). On the contrary, the task with the highest score was “Get my child to the audiologist as soon as a visit is needed” (M = 6.74, SD = 0.7) followed by “Advocate for my child’s needs in intervention sessions and IFSP/IEP” (M = 6.53, SD = 0.89).

Table 4.2

Descriptive Statistics for the Knowledge, Confidence and Actions Sections and Sub-sections of the SPISE-R

Sections	M	SD	Min	Max
Knowledge Total	6.23	0.67	4.10	7.00
Knowledge Auditory Access	6.25	0.70	4.20	7.00
Knowledge Language Development	6.22	0.81	3.20	7.00
Confidence Total	6.30	0.71	3.90	7.00
Confidence Auditory Access	6.29	0.80	3.40	7.00
Confidence Language Development	6.32	0.75	4.20	7.00
Actions	5.88	0.71	3.92	7.00

Research question two was also answered by using the deductive codes from the SPISE-R: caregiver beliefs, caregiver knowledge, caregiver confidence, and caregiver actions. Table 4.3-Table 4.5 displays examples of the SPISE-R section item number and a caregiver quote that aligns with the SPISE-R item.

Table 4.3

Caregiver Beliefs SPISE-R Item and Correlating Caregiver Quote from Interview

Beliefs	SPISE-R Item Number	Caregiver Quote
	1. “If children are given the right supports, they can overcome the effects of hearing loss.”	“And so we're a bilingual Spanish-English household, and it's very important to us because so much of our family or his family is in Mexico, and a lot of his family doesn't speak English. And so actually when Rose was diagnosed with hearing loss, we were kind of like, "What are we gonna do about this?" And we decided to just kind of go full steam ahead and introduced her to both languages, and it's... And it worked out really well.”- Avery
	3. “No matter what we do as a family, my child’s development will be delayed compared to children with normal hearing.”	“Everybody and their stories with the, ‘Oh, I've got cochlears’ or ‘I'm deaf, and I've got hearing aids and now, I'm valedictorian of my high school,’ and we're closing in on four and a half, and he's non-verbal and he's clearly not going to be the star of school, so it's... I don't know.”-Jim
	4. “My child’s hearing device(s) will help him/her learn to communicate.”	“He [the doctor] just walks in, and he goes, ‘Oh, it looks like your son has a narrowing of these ear tubes, these balance tubes. I don't even know if I can do surgery now, so yeah, you're gonna have to get something else, but we may not be able to do it.’ And so I blew up on this guy 'cause I'm like, ‘You gotta be kidding me, you checked this two days before our giant surgery on our kid, and the only thing you can walk in and say is, ‘Hey, you guys might be screwed.’ Our hopes and dreams were on these cochlear implants, and that's how you're gonna deliver it?”-Jim
	5. “If people see my child wearing his/her hearing device(s), they will judge my child or family.”	“I never want her [my daughter] to feel other.”-Autumn “Her only family here is Mexican, right? They're all from Mexico, and there's a big stigma with hearing loss. In fact, they very much... Even though she has severe hearing loss, they very much don't like or want her to wear her hearing aids and will not use ASL with her even though they all know ASL.”-Autumn

Table 4.4

Caregiver Confidence SPISE-R Item and Correlating Caregiver Quote from Interview

Confidence	SPISE-R Item Number	Caregiver Quote
	4. Help my child hear and understand new speech sounds or sounds in his/her environment	“Our audiologist says she's got the cochlears turned up about as much as anybody she's ever known, and we definitely have hearing, but you combine that with the autism and it's... So we'll see”-Jim
	10: Do the things I learned in the early intervention session when the professional is not there to help me.	“My parent was in the medical field, and they were like, ‘Oh, that thing that Claire was doing today, that's a good thing for all parents to do.’ I forget what the thing was now. So I would really try and focus and try and do those things with Rose.”- Avery

Table 4.5

Caregiver Actions SPISE-R Item and Correlating Caregiver Quote from Interview

Actions	SPISE-R Item Number	Caregiver Quote
	7. Daily check of my child's listening with the Ling 6-sound test (ah, ee, oo, m, sh, s)	"Again, I'm like a perfectionist who wants to do well in everything, and I don't do like Ling checks every day or listen to her devices. And a large part of that is that I know she's in the school program. But over the summer, that's something I need to start doing. that's something I want to do better with this summer since we're [my husband and I] both working, we're [my husband and I] maybe less available than some other parents."-Sara
	8. Use strategies during our daily activities to help my child learn to say new sounds, words, or sentences	"Skylar's getting so much learning from her class, but I'm not a mom who's able to sit and observe so I've done it occasionally, but I don't always know how to best support her because I'm now not part of that. So I would appreciate the tips of like, 'Here's what you can do.' We asked her teacher the other day and she said, 'Oh, emphasize the last sound in the words.' So we do that, and Skylar's getting great at pronouncing the last sounds in the words, and so she's getting a reinforcement at home."- Sara
	12. Use the strategies I learned during intervention sessions to help my child learn to communicate.	"It's like they can tell I'm working on the different strategies throughout the weeks, 'cause we're all seeing progress, that kind of thing."-Melissa
	13. Advocate for my child's needs in early intervention sessions and IFSP/IEP	"I feel I had to advocate to get her more services because it felt like she wasn't progressing as well."- Faith
	14. Get my child to the audiologist as soon as a visit is needed	"We were also seeing an audiologist probably every three months for adjustments on the hearing aids."-Jim

Among the caregivers interviewed, they often mentioned advocating (action item number 13) for their child and their family. Another advocacy quote came from Hanna, "I requested, I asked them [my provider] if I could use our toys, which was a bit more difficult for... It made them [the sessions] difficult because they [my provider] can't plan [for the session]. They don't have time to prepare. I showed everything I had, and I showed them our play room, and I asked them what I need more. So, if... Yeah, so if the therapists are flexible, the more flexible they are, it's easier for us to work with."

The caregivers often felt their needs were not being met or their family decisions were not being respected. These qualitative data align with the quantitative data, which found the top two tasks with caregivers ranked the highest were "Get my child to the audiologist as soon as a visit is needed" and "Advocate for my child's needs in intervention sessions and IFSP/IEP."

Research Question Three Procedures and Findings

Research Question Three: In what ways (if any) does provider identity (age, whether they are of Hispanic origin, race, primary language, and parenthood) of early interventionists serving caregivers with children ages birth to three who are D/deaf or hard of hearing influence family engagement during home visits as required in the Individual Family Service Plan (IFSP)?

Age Range of Providers. One-way ANOVAs were conducted to determine if knowledge, confidence, actions and the subsections were different across the age range groups of providers; 20-30 years ($n = 11$), 30-40 years ($n = 29$), 40-50 years ($n = 20$) and 50 years + ($n = 17$). There were 12 respondents who reported their provider's age as unknown. These were excluded from the analyses. Homogeneity of variances was assessed by Levene's test of homogeneity, and where there was no homogeneity of variances, the modified one-way Welch ANOVA was used. No statistically significant differences in respondent knowledge, confidence, actions and their respective subsections were found across provider age groups.

Providers of Hispanic, Latino or Spanish Origin. There were five providers who were reported as being of Hispanic, Latino or Spanish origin by the caregivers, and 80 providers who were not reported as being of Hispanic, Latin or Spanish origin. There were four caregivers who reported their provider's origin as unknown. These were excluded from the analyses. Independent-samples t-tests were run to determine if there were differences in respondent knowledge, confidence, actions and the subsections based on provider origin for the 85 providers that were included in the analysis. There were four caregivers who reported their provider's origin as unknown. These were excluded from the analyses. Homogeneity of variances was assessed by Levene's test of homogeneity, and where there was no homogeneity of variances, the modified Welch's t-test was used. No statistically significant differences in caregiver knowledge, confidence, actions and their respective subsections were found across provider origin.

Provider Race. Independent-samples t-tests were run to determine if there were differences in respondent knowledge, confidence, actions and the subsections based on provider race; White (n = 79) and Nonwhite (n = 4). There were six providers whose race was reported as unknown by the caregivers. The six who were reported as unknown were excluded from the analyses. There was homogeneity of variances, as assessed by Levene's test of homogeneity (all $p>0.05$). No statistically significant differences in respondent knowledge, confidence, actions and their respective subsections were found across provider race.

Primary Language of Provider. One-way ANOVAs were conducted to determine if knowledge, confidence, actions and the subsections were different across the primary language of providers; English (n = 80), Spanish (n = 3), American Sign

Language (n = 3) and other (n = 3). Homogeneity of variances was assessed by Levene's test of homogeneity, and where there was no homogeneity of variances, the modified one-way Welch ANOVA was used. No statistically significant differences in respondent knowledge, confidence, actions and their respective subsections were found across provider primary language groups.

Caregiver Beliefs and Provider Demographics. Caregivers reported provider demographic information was examined to assess whether caregivers experienced different levels of agreement across the seven belief items based on their provider's demographic characteristics. The following provider demographic characteristics were investigated; (1) age, (2) whether they are of Hispanic origin, (3) race, (4) primary language, and (5) parenthood.

Providers of Hispanic, Latino or Spanish Origin. There were five providers who were reported as being of Hispanic, Latino or Spanish origin by the respondents, and 80 who were not. Mann-Whitney U tests were run to determine if there were differences in the level of agreement of each of the belief items based on provider origin. There were four respondents who reported their provider's origin as unknown. These were excluded from the analyses. No statistically significant differences in the levels of agreement were found across provider origin.

Provider's Age Range. Kruskal Wallis Tests were conducted to determine if there were differences in the level of agreement of each of the belief items based on the age range groups of providers; 20-30 years (n = 11), 30-40 years (n = 29), 40-50 years (n = 20) and 50 years + (n = 17). No statistically significant differences in the levels of agreement were found across provider age groups.

Provider's Primary Language. Kruskal Wallis Tests were conducted to determine if there were differences in the level of agreement of each of the belief items based on the primary language of providers; English (n = 80), Spanish (n = 3), American Sign Language (n = 3) and other (n = 3). No statistically significant differences in the levels of agreement were found across provider primary language groups.

Providers Who Had Children and Those Who Did Not. There were 49 providers who were reported by caregivers as having children and 22 who did not have children. Eighteen caregivers did not know whether their providers had children and were excluded from the analyses. Mann-Whitney U tests were run to determine if there were differences in the level of agreement of each of the belief items based on whether the provider had children or not. The level of agreement of the reverse scored belief item "No matter what we do as a family, my child's development will be delayed compared to children with normal hearing." was statistically significantly different between providers who had children (mean rank = 32.41) and those who did not (mean rank = 44.00), U = 715.00, p = 0.02. No statistically significant differences in agreement levels were found for the other six items. The results of the Mann-Whitney U tests are presented in Table 4.6.

Table 4.6

Mann-Whitney U Tests Comparing Item Responses across Providers having Children or Not

Belief	U	z	p
If children are given the right supports, they can overcome the effects of hearing loss.	476.50	-0.89	0.37
How my family talks to and interacts with my child will have a big impact on how my child develops.	569.50	0.79	0.43
No matter what we do as a family, my child's development will be delayed compared to children with normal hearing. (R)	715.00	2.26	0.02*
My child's hearing device(s) help him/her learn to communicate.	624.00	1.42	0.16
If people see my child wearing his/her hearing device(s), they will judge my child or family. (R)	550.00	0.14	0.89
If I keep my home too quiet, my child won't learn to listen in noise. (R)	602.00	0.80	0.42
If children wear their hearing device(s) all the time, they will become overly dependent on them. (R)	413.00	-1.95	0.05

$^*p<0.01$

Caregiver-Provider Match and Mis-Match. Previously, it was examined whether caregivers experienced different levels of knowledge, confidence, and actions based on their provider's demographic characteristics. However, this investigation was irrespective of the demographic profile of the caregiver. To further explore the relationship between caregiver and provider and its impact on knowledge, confidence and actions, caregivers were classified into two groups; (1) shares the same demographic characteristic as their provider (matched) or (2) does not share the same demographic characteristic as their provider (mis-matched).

Language Match and Mis-Match. There were 74 caregivers who shared the same primary language as their providers and 15 who did not. Independent-samples t-tests were run to determine if there were differences in respondent knowledge, confidence, actions and the subsections between the two groups. Homogeneity of variances was met for all constructs, as assessed by Levene's test of homogeneity (p>0.05). Caregivers who shared the same the same primary language as their providers had higher confidence auditory access scores (M = 6.36, SD = 0.73) than those who did not share the same primary language as their provider (M = 5.96, SD = 0.10), though this difference was not statistically significant t(87) = 1.78, p = 0.08. Caregivers who shared the same primary language as their providers had higher action scores (M = 5.94, SD = 0.67) than those who did not share the same primary language as their provider (M = 5.60, SD = 0.86), though this difference was not statistically significant t(87) = 1.67, p = 0.10. Additionally, no statistically significant differences in respondent knowledge, confidence, actions and their respective subsections were found between the two groups.

Parenthood Match and Mis-Match. There were 49 providers who were reported as having children and 22 who did not have children. Eighteen respondents did not know whether their providers had children and were excluded from the analyses. Independent-samples t-tests were run to determine if there were differences in respondent knowledge, confidence, actions and the subsections between providers with children and those who did not have children. Homogeneity of variances was met for all constructs, as assessed by Levene's test of homogeneity (p>0.05). Caregivers with providers who did not have children had higher knowledge auditory access scores (M = 6.52, SD = 0.54) than those whose providers had children (M = 6.18, SD = 0.75), though this difference was not statistically significant t(69) = -1.94, p = 0.06. Additionally, caregivers with providers who did not have children had higher action scores (M = 6.14, SD = 0.59) than those whose providers had children (M = 5.79, SD = 0.71), though this difference was not statistically significant t(69) = -1.98, p = 0.052. No statistically significant differences in respondent knowledge, confidence, actions and their respective subsections were found between the two groups.

Research Questions Four, Five, and Six

Research Question Four: In what ways (if any) do caregivers from culturally, linguistically, and economically diverse backgrounds feel supported by their early interventionist while receiving early intervention services?

Research Question Five: How do caregivers from culturally, linguistically, and economically diverse backgrounds receiving EI services describe support in early intervention?

Research Question Six: How do caregivers from culturally, linguistically, and economically diverse backgrounds envision support from their early interventionist?

These three research questions fall under the category *support*. The caregiver responses to these questions were not differentiable so therefore, data will be discussed together and the themes of “support” will be discussed. The themes that answer this research question include navigating the system and barriers to services.

Navigating the System. Within navigating the system theme, several categories were prominent. More specifically, newborn hearing screening, and support for caregivers. These caregivers talked about open lines of communication and some often felt they had little guidance throughout their early intervention services.

Autumn shared that there was a mis-match for her family in the way the services were provided and what her family hoped to receive. “I very much want Ana to have both resources [sign language and spoken language] and make her decision, and they're [the program] very much channeled towards one direction [spoken language]. So that kind of made it frustrating for me 'cause I didn't know really where to turn at that point.” Ana was not given guidance or support on additional options or other services to help bridge what she was not receiving from her early intervention program.

On the other hand, Avery felt the program she received early intervention services were very involved and “did a lot of hand holding and were just very helpful to us.” Specific things Claire, her provider did that were supportive to the family included bringing Avery a binder for all things early intervention. Faith was also provided a tool to assist with navigating this new process. “The hospital gave us a checklist of things and on that checklist was a number of things we had to do like we had to see the ophthalmologist the geneticist and cardiologist, of course, we saw the pediatrician a lot, and it was just a lot of appointments. One of the things on there as well was starting early intervention, so we did sign up to do that.” Although Faith was very busy with all of the appointments, the checklist acted as a guide in steps for her to take. Kate E. shared how impressed she was with how fast the school district contacted her after her child was officially diagnosed with hearing loss. “We [my husband and I] got a call from the school district, which kind of blew my mind because it was summer, it was July, and I just wasn't expecting anything that fast. And from that point, they have been communicating with us on the ball, above and beyond but I would have expected.” Additional services also reached out to Kate E. and her family, including Hands & Voices and the Deaf mentor program. “It was just pretty amazing how many people reached out right away willing to offer their support, which was incredible.” Kate E. felt communication has always been a huge component of her early intervention team. “That's [communication] number one, we hear from our school team all the time, they just send us emails, "Hey, checking in. How's everything going? Oh, I saw, there was an audiology report." There's just that communication within the team too, so our school district [proving early intervention] in communicating with the audiologist, who's communicating with the speech pathologist, and they're all working together with us as well and reaching out, we're always connecting. I connect with somebody at least once a month. Point number one is the communication that's been there, and I always feel comfortable reaching out as well, because they've always reached out to us, I've never had a hesitation to reach out to them. Because I know it's [the communication] there, I know that they're always willing and able to communicate. I think if they weren't that open communicating with us, I think it would be harder for me to reach out." Kate E. talks about communication being essential for her family, which also includes collaboration among the entire team. Mellissa also felt she had great communication with her provider. "Yeah, I have her personal cell phone number. she was always very much like, 'Please text me, call me.' She really opened up that communication. She loves when I send her a video of maybe a strategy we were working on and seeing Maddison execute that and stuff like that."

Caregivers also expressed a huge learning curve. Turner shared "We had no clue about what all this [hearing loss], what we started [the process of receiving a cochlear implant], so we were starting to learn, obviously." Turner took the initiative to begin self-teaching. Avery mentioned not knowing what an audiologist was before her daughter was diagnosed with a hearing loss. "I felt I had to learn a whole new language, and I was very confused by a lot of things. Even though I have a master's and English is my first language, it's still very confusing." It is apparent that she was overwhelmed by new terminology. Similarly, Faith expressed a learning curve as well. “This [hearing loss] was all new territory for me.” Although it was new territory for Faith, she knew she wanted her daughter to have access to all communication modalities and worked very hard to achieve this. Kate stated, “I knew nothing; it [early intervention] was all unexpected, for me. It was just a Godsend because I had no idea these services were even out there.” While reflecting on the possibility that Kate E.’s child could be born with hearing loss, since her husband is deaf, she felt they were slightly prepared. “His [my husband] experiences growing up are much different than what [services] was available to us today. So, it's been kind of a whole new wild ride for us.” MoonRiver expressed the value in her early intervention provider sharing knowledge with her and her husband. “Support just ended up…our TOD being able to navigate and make help us understand everything that goes on to figuring out what hearing loss is, how do we deal with that [the hearing loss], device use and just in terms of the developmental milestones and what is expected from a child at three months, at four months, at six months, so on and so forth. Understanding the whole experience, journey, situation, whatever you would call it. That's one of the dimensions of support to help us understand.” MoonRiver is a caregiver that desired knowledge, research and for best practices to be shared with her by her early intervention provider. Similarly, Avery mentioned, “I felt very overwhelmed, I didn't know anybody. I didn't really know anything about a hearing loss community. And so, the whole thing, which is very confusing, and then Rose had a traumatic birth as well.” Within this quote, Avery is expressing that her daughter’s birth also added to the strong feelings she was feeling. MoonRiver shared her appreciation of the coaching she received from her provider. It helped her family learn how to best communicate with their daughter. “Coaching us [my husband and I] about how to specifically talk in a particular way or maybe emphasize specific words or go over specific activities.” Autumn was grateful for her provider’s knowledge and felt her provider was supportive by sharing information with her. Avery defined support as “I think it's really about listening to the parents and kind of just kind of like hand-holding it, right? Like, ‘Oh, this parent seems to need this thing, let's try and do this thing for this parent,’ or ‘This parent needs this thing...’ Because parents are on such different steps in their journeys. And it can be... A new baby is overwhelming, and sometimes kids with hearing loss have other things going on, Rose did. I think just trying to figure out how to be supportive of what each parent needs, and I feel like our team really did that for us. We got lucky, or maybe not, maybe that happens.” Avery expressed throughout the interview the different things her early intervention did for her family to support them and meet the needs of the family. Kate E. felt she received support with the education her husband and her received from her early intervention provider. “Parent education, which has been the most important for us. Because a lot of it is he's living at home, we are his most daily input of anything. So, for me, that's been the biggest piece of that early intervention has actually been more of that family intervention or the family support versus the direct support to my son. Now of course, he's had the speech therapy, he's had audiology visits, but aside from that, it's more of that parent education that I think's think has been the most important.” Kate E. found value in a family centered approach to early intervention, especially with parent education and learning from their provider. Upon further reflection, Kate E. found value in communication among the daycare where her son attended, her early intervention provider and herself. “They've [EI provider] been able to do video visits with the daycare just to update them [the daycare] and get some ideas on what they can do to help support language, which has been awesome that they've [EI provider] kind of gone over us or around us and been able to communicate directly with the daycare, just to make sure that my child is really getting everything he needs." Communication and collaborating were important to Kate E.

Interestingly, MoonRiver discussed how she felt like she needed less services as her child became older and MoonRiver and her husband became more confident in their skills. "It [learning how to help their daughter] was pretty intense in the first part and then over time, we started meeting less frequently, because we reached a point where we felt that, my husband and I, we knew enough to be able to navigate the process of talking to our daughter and creating a language-rich environment in our home, so that we didn't have to reach out to our teacher of the deaf incessantly as we had done pre-implantation." MoonRiver and her husband felt confident in their ability to incorporate what they learned in early intervention services with their child.

MoonRiver mentioned the ambivalence they [her husband and herself] felt while making a decision on a communication approach for their daughter. "Our provider was very extensively involved. And we asked them, her about the pros and cons and... Or rather, it's not about the pros and cons, but the ramifications of each approach. She was very, very capable, and effectively walked us through the choices that we could have. Options available to us and the choices that we could, we... And to the choices that we have made at this point of time. And the way she, in a completely unbiased way, talked us through the way she helped us navigate it [communication approach]." This caregiver appreciated the way her provider shared information with her in an unbiased way. The provider did not push one communication modality on the family.

Not all caregivers interviewed experienced the same level of support as other caregivers interviewed in this research study. Olivia encountered many professionals that were not experienced working with children who are deaf. “I feel like what's hard with my son is that most people don't have much experience with deaf children. So, I find that's kind of the downside. Most of them [SLPs] aren't fluent in sign language and have had maybe, okay, one or two deaf students, a couple of hard-of-hearing-students. So I feel like there's that lack of knowledge that's there. That makes me feel like, as a parent, I need to have a huge knowledge base so I can not only monitor them, but, unfortunately, have to educate in certain areas.” It is apparent that the lack of expertise in working with children who are d/Dhh has an impact on the caregivers where they need to take on the responsibility of educating professionals. Several caregivers that were interviewed also felt they did not receive enough service time with their provider, and they wished they had more. Similarly, Faith did not feel supported in early intervention regarding the quantity and quality of early intervention services. “You already determined that the child has a diagnosis, so in Rose's case, she has hearing loss, and she needed speech and language developed. And everything that comes to developing speech and language, I feel like a very effective support for a family would be to provide those services with great intensity to help the child progress in those areas so that you can close the gap.” She further explained the purpose of early intervention is “to help close the gap, so by the time they start school, they weren't so significantly behind.” Faith mentioned that in order for that gap to be closed “there needs to be a lot more intensity from the professional rather than relying on the parent. I know that there's some hybrids where they try to teach the parent to be the one to do it every day, and that's good, fine, but also recognizing that the parent has a learning curve as well.” Faith added, “while you're [the professional] [is] waiting for a parent to kinda learn all the things that you [the professional] know, then I think there's a delay that's still gonna be incurred here.” Faith describes the need for her to be a parent rather than the EI professional relying on her. Faith describes this caregiver and professional distinction further “I think there's advantages to the programs that I see where the kids go and there's intense training. That type of early intervention, I think is valuable. It's more valuable than relying on a parent to become a teacher 'cause a parent is balancing with parent and everything else, and they're not a professional.” She further explained how she felt more supported. “I found my most valuable support to be where they knew what needed to be done, they weren't relying on me to be the... To act like the professional and to do all the driving to help. But we were partners in it, where I knew that they were just there and I just had a part too, for sure, 'cause the partnership, but that it was really intensive. I'd say being intensive, and being her immersed in it [early intervention services], and getting all of the specific things that she needs would have been the most beneficial.”

An interesting perspective came from Sara. “I'm the kind of person who always thinks there could be better, so that's not a reflection of her [my provider]. I think we have outstanding services. We feel incredibly supported, but that's a combination of her school classroom and the early intervention provider and everything the private school for children who are deaf or hard of hearing is doing.” Although she did not define what could have been better, Sara did mention that she thought something could have been better.

In regard to support, Turner experienced a very unique situation among the caregivers that were interviewed. Turner expressed her early intervention services provided support only in the way the professionals wanted to show support. While Turner reflected residing in Western Europe, “We were supported a lot, but not in the way [using listening and spoken language] that we wanted.” Turner was asked for clarification on what she did want for her family, Turner felt Western Europe pushed sign language and did not believe in AVT. “They [Western Europe] were not support... There was one individual at the hospital that was very supportive of us being trilingual of doing AVT, which actually when we left, the day where we were saying goodbye, it was said that we were also doing AVT and she was very happy about that [the family doing AVT].” Turner felt Western Europe supported her family in other ways. “When we were wondering if we should get and how we can get a radio aid for her, they [Western Europe] help us liaise with them. It's not a lot, but okay, they did that. They also connect with the hospital. We do feel that they're tracking her and they are on top of it. when you have an audiology appointment, she [EI provider from Western Europe] writes a little report about what we want the audiologist to check for. For example, we had a couple of appointments where they [audiologist] didn't check lower than 40 dB. And first appointment was okay, they wanted to establish a baseline. The second appointment, they said that they had told us that they were going to check below that, but then they said that they wanted to re-check that baseline. So, then we go back to the speech therapist to say, ‘Hey, can you also... " I mean, we can only push up to a point if we don't have a report to say that, ‘This other professional thinks that you should do something different.” Although her provider was not supportive regarding Turner’s choice for communication, her provider did help advocate for the family’s needs. Turner’s experience with support changed when she received services from North America. “Support from the teacher of the deaf that we have received is them being available for sessions. So, the one we had in North America was definitely coming once every two weeks, coming at home for an hour session. They [the EI provider] would sit down with him or with us. We were always there obviously. If the child was not cooperating, then we would make it our own session, then we'd discuss our own concerns or questions, or describe what the kid does other than misbehaving at that moment.” Turner seemed to appreciate the provider support in regards to utilizing time with the caregivers when the child was not “cooperating.”

Autumn mentioned the only things she wished she had more support from her early intervention provider was navigating behaviors from her child who is hard of hearing, especially compared to the sibling with normal hearing. Autumn often felt judged by both sets of grandparents with how lenient she was with Ana and how much more attention she gave Ana compared to her older sibling, Amora. “The first couple years have been rough in the sense that Ana often misunderstands how her big sister wants to play or will perceive that big sister is taking something from her, etc. When those moments happened and they did frequently between ages 1 and 2, Ana would scream, cry, etc at the drop of a hat. The attention I would give was centered around explaining ‘Amora wants xyz’ or to teach Amora how to speak directly to Ana. When a child acts out, I assume it's a communication issue but what I don't know is if the intervention for parents adjusts if the child has specific needs due to the hearing loss. My assumption is that because there is more effort involved in learning to listen for a hard pf hearing child and more opportunity to misinterpret or misunderstand others, they require more attention and time having things explained- at least in these earlier years. If EI had any instruction on what to expect. Child who is hard of hearing may act out when xyz occurs and the best intervention is xyz if they have difficulty explaining what's happening with them. Or how to best handle myself I would have appreciated the information. It's hard enough navigating the early years but when one is completely unfamiliar whether parental boundaries change or how they change based on this specific need. I've basically been responding to my children based on my own assumptions of what is right/best for them without a lot of input on best strategies for sibling, or even interpersonal or peer dynamics when one has normal hearing and one doesn't." Autumn did what she thought was best for her daughters, despite grandparents' judgements.

Many caregivers that were interviewed discussed their frustrations with the newborn hearing screening process, the lack of knowledge among professionals, and the many appointments they attended before they received the official hearing loss diagnosis. Faith gave birth to her daughter via C-section, which ultimately played a role in the newborn hearing screening. After Faith's daughter was "referred" "They [professionals] were like, yeah, but her birth was as a result of the C-section, and usually the kids, because they didn't go through the birthing canal, they have a lot of fluid still in their ear so it's typical that you get a refer, so just don't worry about it, we'll just wait until her body naturally drains it and then we'll re-test." Professionals do not need to attempt to make caregivers feel better or tell them how to feel. It is the professional's responsibility to coach and guide the caregivers, even when the situation may be difficult. When Faith received a follow-up letter from the hospital she returned with Rose. “We did the exact same test that they did in the hospital and the result was the same. They said, Oh, we need to come back and do more testing to find out why it's saying refer.” Faith had to return again and finally received a diagnosis that she had severe to profound hearing loss at about two months old. Olivia and her husband had a similar experience with their son after her referred two newborn hearing screenings. “They [professionals at the hospital] kinda just kept saying, ‘It's probably fluid.’ We heard that a lot. ‘Oh, it's just fluid. It's gonna come out. It's just fluid.’ Olivia and her husband also had professionals try to reassure them that nothing was wrong. Olivia and her husband have a dog and noticed their son would not react to the dog barking behind him. “I even had doctors say, ‘Oh well, in the womb, he heard your dog, so that's why he's not reacting.’ After the two initial screeners at the hospital, they came back to the hospital to have another screener done. “He didn't pass. They [hospital professionals] kept saying he was so close to passing, which now looking back, I'm like, ‘Hey, hey, there's no way for that.’ Their son was officially diagnosed as deaf at approximately two months of age. Turner did not provide details when she shared, “So we were being told that maybe it's all sorts of other different issues, but pretty much everybody [professionals] was discarding deafness until maybe the third month we did another ABR. And then they were pretty certain and then at four months it was a yes. The levels that he was profoundly deaf.” When they had their second child and suspect she was deaf “This time around, we did not take any of the other possibilities like, ‘Yes, it could be many other things,’ but no, she is also profoundly deaf.” A common theme among these caregivers was that their concerns were discarded resulting in a later diagnosis.

Additional Supports for Caregivers Outside of the Provider. The caregivers interviewed discussed additional supports they received or were offered outside of their early intervention provider. This included: family members, playgroups, outside organizations from where they received services, friends, and therapy services for the caregivers.

Partner. Kate felt that her and her husband found support in one another. “My husband works in science and he would handle all of the genetic weird-looking language, complicated chromosomal things and explain what I needed to hear. I would handle all the day-to-day stuff and we would come together, and so in a really short period of time, we learned quickly.”

Extended family members. Hanna felt supportive by her family members, “My family was supportive with what we decided, the only thing they were worried was the surgery. Other things, they were supportive. They just trusted our judgments.” Even though her family members expressed their worries regarding a cochlear implant surgery, they still supported Hanna and her husband’s decision.

Playgroups for children who are d/Dhh. Avery utilized a playgroup for children who are d/Dhh. “Luckily, so in that school group, there was a white family, who actually is from our area that we're very good friends with, and there was an immigrant from Japan, who was bilingual with her daughter and an immigrant from Poland, who was bilingual with her daughter, and then another white family... I do remember being like, "I'm so glad there are other [laughter] multilingual families in the room." Avery felt pleased to see representation in a group she attended.

Caregiver to Caregiver Connections and Mentoring. Avery shared her provider, Claire, supported her by connecting Avery to other caregivers of d/Dhh children, especially with a caregiver of a slightly older d/Dhh child. “There's a mom in our area, whose youngest kid is deaf. Claire kind of organized for us to go to dinner at her [Claire’s] house, and then the three of us went to this talk. I thought that was really wonderful, too, because there's not a lot of parents in the area of kids with hearing loss. But that was one of the things that I appreciated more, again, because something that I was looking for was a personal connection with parents and finding a community for my daughter. That [making an effort to connect the caregivers together] was another really great thing that Claire did that was outside of her job.” Jim did not mention connecting with other caregivers experiencing similar things for mentorship for his wife and himself. However, Jim has connected with other caregivers to mentor them. “Any time I've ever talked to somebody now whose kid, they're starting the cochlear journey I do try to tell them like, with cochlears... You see the videos on Facebook of, ‘Oh, here's the very first sound.’ And the kid's like, ‘Oh my God,’ and Mom's crying. And this is such an amazing experience, I'm like, ‘There's a little bit of a lie there.’ Most of those kids probably had some hearing loss and it got worse and worse, but hearing aids worked for a while, and now they haven't been able to hear for a little... ‘Oh, now it's kind of back and I'm excited.’ Most kids, if they're profoundly deaf and they get cochlears, that first moment is terrifying. The normal activation for a kid was nowhere near what my child needed, so I bet the first six months with cochlears, he barely heard anything, and it wasn't till we turned him up quite a bit that we got kind of built, built, built, so we got to work our way into it, but I try to tell people like, you need to imagine your whole life it's been this, and all of a sudden there's voices in your head, it's probably not an immediate like, 'This is great!' I try to get people to understand for your kid, it's not... They don't know they're missing something. That's just their reality, and to change their reality drastically... And of course, hearing parents think this is the best thing, now you're more like me, but for that kid, that's gonna be a huge change type thing." Throughout the interview, Jim shared the disappointment he and his wife experienced with hearing technology. When talking with other caregivers in similar situations, he wanted to provide his truth.

Outside Organizations. Avery found great value in a program, Guide by your Side. "That was really phenomenal. That [Guide by your Side] was kind of like a bright, shining star for me. I would say that was more emotional supportive than the EI people, but the EI people were like, 'Avery, this would be a good thing for you to check out.' that's appropriate because no one service can provide everything, but connecting to other services to recognize, "I can't give this thing to these parents, let me connect somewhere else." The EI provider that served this family referred Avery and her family to additional supports that would be helpful to this family. Avery recognized this as well. "I'm glad that they [EI providers] were the ones who told me about that [Guide by your side]."

Friends. Hanna and her husband were deciding the best location to reside with their daughter. "I saw all my friends who have lived abroad supported me. 'You should go because the education here in East Asia is not well enough for kids with hearing loss. You should go to the States.' That's what my friends told me." Jim shared the lack of support he received from his friendships, but for a different reason. "Those [EI providers] are the adults we saw for a couple of years. We didn't get out to see our friends as much as we wanted to. They really were probably our support system because very few people could understand what we were going through." Jim felt a disconnect between most of his friendships because his friends were not able to relate to what his wife and Jim were going through. In this situation, Jim sought support from the early intervention providers that worked with his family. Melissa shared her friends SLP recommendation was a perfect fit for her needs. "A friend of mine had recommended our SLP, and it was like she knew me and she knew her, and she was like, 'I think you guys would get along really great. And she works in your county, so you could easily request her and stuff.' So, I did personally request her. I just kind of went off with my friend's recommendations." In this situation, Melissa's friend was supportive in recommending someone she knew to work with her. Olivia also benefited from a friends' recommendation. "I am in education so I'm just lucky in that regard that I have a big network of connections. So just automatically reached out to the speech pathologists that I know who then were able to connect me with a really great speech pathologist in our area. She [the SLP] came and spoke to me like on a friend doing a friend a favor capacity, and just kind of told us the avenues that we needed to go to get early intervention."

Therapy Services for the Caregivers. Hanna mentioned one form of support she desired, but did not receive. "If there is any therapy for parents that it'll be helpful." It sounds like she was not aware of therapy options available to her and her husband. Although Jim was aware of therapy services this was something his wife and I did not seek. "I think something we didn't act on but probably was good was they [EI providers] kept trying to suggest more [sigh] help for the parents, therapy for maybe for us to talk things out and just be able to... And we never really looked at it, because we were just already four to five nights a week and we just didn't know how to add something like that in on top when both of us are working and... But it probably would have been pretty helpful to just... I think my wife and I just put our heads down and just plowed through all of it. Probably not the healthiest for us, but really working hard for my kid, and... Yeah." Jim and his wife already had full plates and were not able to imagine adding anything more, especially if it was for them and not their child.

Barriers Caregivers Face While Receiving Early Intervention Services. Several caregivers talked about various barriers they faced when talking about support. These barriers include: disruption of early intervention services, therapy cost and expenses, and time constraints or time commitments.

Disruption of Early Intervention Services. Three caregivers specifically talked about their services being disrupted. Autumn talks about how her support stopped abruptly when her early intervention provider went on maternity leave, which also happened to be during the pandemic. Autumn mentions her frustrations and then defends her early intervention provider and team, "I had a little bit of reaction after she [my provider] went on maternity leave in March, because we were told that somebody would follow up with us and just kinda check in on Ana and nobody did. At the same time, I'm thinking that it's really because they [the early intervention team] kept saying how impressed they were with her progress and just where she is, so I'm assuming that it was just because she wasn't in desperate need like some other families were." Autumn accommodates the program's behavior of failing to follow up, by talking about how other families were more in need than hers. In a similar situation, Sara's early intervention provider also went on maternity leave during COVID, but the program had a temporary provider fill in and provide services. As a result, Sara appreciated and saw benefit having the perspective of a different early intervention provider. “So, we had a wonderful other early intervention provider during that time, and it was kind of cool to get a different perspective on things.” Sara did not express or share that her services dropped off, like Autumn experienced. Olivia’s provider left early intervention due to COVID-19 and had to switch to a new provider. “His [my son] SLP, love her so much, but because of COVID, she does work in another program and has very high caseloads and everything, and just felt like she couldn't do early intervention any longer and give those kids the attention that they needed.” Olivia was able to find another experienced provider and overall seems pleased.

Therapy Cost and Expenses. Therapy cost and expenses came up numerous times throughout interviews. Specific costs and expenses that were discussed include hearing aids, reaching insurance limits, private therapy services, taking advantage of additional free services and receiving grants or other funding.

Autumn had an opportunity to receive additional free services through a research study and took advantage of that opportunity. “I actually had quit work for about a year to make sure that she was making three to four appointments a week, getting all the services. Yeah, 'cause it was like it's free extra early intervention services, so I wanted her to take advantage of that, and that was amazing.” Avery mentioned utilizing early intervention services immediately to help cover the cost of her daughter’s hearing aids. “And so, I think by two and a half months, we were talking to EI, and then I think we enrolled in EI, I think right then to help cover the cost of her hearing aids.”

Faith was not satisfied with the services she received for her daughter from the state and as a result sought out additional services. “We were able to go outside of just what the state provided. So, we had to do that on our own. And of course, on our own dime and everything, so that was somewhat expensive to be trying to do all of that [additional services].” It was important for Faith to receive services that were considered “best practice.” “Just taking those best practices and those lessons [outcomes] learned from other places that are doing it well and just putting it in your state so that parents don't have to feel like they need to go someplace else to get services.”

Jim also sought out additional services to support the overall development of his son. He shares the expenses and limitations of seeking out additional services. “As you know, insurance only pays for so much and the grants that we've gotten. And so, I feel like he's missed a lot of therapy this summer, but just what we can afford in insurance and the group that's given us the money. So, we're just kind of waiting it out before we can get back in to some of these other people.” Unfortunately, Jim and his wife had to make the decision to step back from services due to limited resources. Jim shared his friends’ experience as well. “I've got friends who have kids with different disabilities and watching some of the things they've done, I've applauded them, and that's awesome, but I've also watched them put themselves into some financial problems trying to do some of that stuff.” When Jim was asked if he felt he received the best services possible, he responded, “I think overall it was pretty darn good, especially for a program that we weren't paying for. I have to believe if we had unlimited amounts of money, and the time to be able to travel to wherever, then yes, probably there is somebody out there who would have been perfect person who deals with kids like my son. We're not rich, we're not... Do whatever we can. Everything wasn't perfect, probably, but we [my wife and I] felt very good about what we got, we were very happy with what we received, especially for not breaking the bank for it." Jim had a therapist he paid out of pocket for, and felt discouraged by them as this provider would refer him to someone else. "They [private pay providers] were the ones that were more like, 'Well, you're coming in once a week, you should do twice a week, that would help more.' 'Oh yeah, your 200 bucks a session. Even one is pretty tough.' 'Okay, I just... I don't know that we're gonna make the progress.' Jim later disclosed that he felt this provider did not genuinely care and was more interested in a paycheck.

Similarly, to Jim, Turner mentioned receiving financial assistance within a private program outside of the services provided to her. "We do the family-centered Auditory Verbal Service program. Which is paid. I mean we pay for it, but it's... Depending on the income, you get a embursery [reimbursement] for it. So, it's somewhat subsidized, but you still have to pay quite a lot." Fortunately, Turner knew of resources to access additional services.

Time Constraints and Time Commitments. Time commitment came up among interviews with caregivers. Some caregivers realized they were fortunate and could do more with their child based on their circumstances. Hanna said, "I think there are many parents who don't know what to do, I mean, how to work with the therapists. I try to create my way, but I only have Hailey, so I can just focus on one thing. But if the family has four kids, I don't think they have enough time to focus [on EI sessions and carryover into daily routines] and if... It was hard for me to imagine how it is to live in a world without hearing, so I had to clear up my head. I have to be creative. It takes a lot of energy. I need a lot of energy for that. I'm pretty used to it now, but I still have to struggle sometimes. Maybe there are a lot of parents who can't go out from that... maze." Hanna also touches upon the mental energy that she has to give. On the contrary, Sara and her husband are both working parents and felt they were not able to be actively engaged with their daughter's early intervention services as much as they would like. "I'm not a mom who's able to sit and observe so I've done it occasionally, but I don't always know how to best support her because I'm now not part of that. I don't know if they see me as complacent or too busy or something like that for not doing those things [daily Ling checks]. They [EI team] probably don't. They [EI team] probably aren't judging that, but that's something I want to do better with this summer. Since we're [my husband and I] both working, we're maybe less available than some other parents." Autumn also felt the barrier of her and her husband "constantly working," but was able to take time off work so her daughter could attend additional services. Jim talked about attending services practically every week, 48 weeks to be exact. He mentioned his time commitments frequently throughout his interview, especially with his child being delayed in other areas outside of language development. "It was four to five nights a week of different therapies that he [my son] was doing, for a variety of things." Jim also discussed declining services for him and his wife because they did not have the time. "I think something we didn't act on but probably was good was they [providers] kept trying to suggest more [sigh] help for the parents, therapy for maybe for us to talk things out and just be able to... And we never really looked at it, because we were just already four to five nights a week and we just didn't know how to add something like that in on top when both of us are working and... But it probably would have been pretty helpful to just... I think my wife and I just put our heads down and just plowed through all of it. Probably not the healthiest for us, but really working hard for my kid, and... Yeah." Jim realized his limitations based on his family’s current schedule and put his child’s needs before his and his wife’s needs. Jim often felt the providers he worked with became frustrated with him because he was not doing enough. “I think the therapist sometimes got frustrated with us [my wife and I] 'cause again, every day we were at work, we came home, therapy from 4:30 to 5:30 or 5:00 to 6:00 we fed our child and by late 6 o'clock, 7 o'clock, he's in bed. So, the idea of being able to do all the, let's call it homework, the time just wasn't there when you had... As a teacher and a husband to a teacher, I liken it to the fact of, you went to four classes today, you got homework in four classes, and each teacher is thinking, ‘You need to do my stuff,’ and it's... So, I don't know, it felt like sometimes they'd come in, they'd [our providers] be like, ‘Hey, did you work on this?’ ‘No, we didn't.’ ‘Okay, well, you're still great parents.’ Okay, cool. But I could tell they were...[wish] We were doing more to push their therapy.” This speaks to providers lack of knowledge on family-centered early intervention. Jim feels the burden of not having time to do the providers “homework.”

Jim switched therapists at times as a result of the provider’s lack of knowledge in both autism and hearing loss. “I have to believe if we had unlimited amounts of money, and the time to be able to travel to wherever, then yes, probably there is somebody out there who would have been perfect person who deals with kids like my son.”

Reliability of Quantitative Data

Reliability refers to the accuracy of an instrument (Ambrose & DesJardin, 2019) or in this case, the SPISE-R. The SPISE-R is a relatively new instrument and since it is specific to caregivers who receive early intervention services for children who are deaf or hard of hearing using listening and spoken language, it is not yet a widely used instrument. With that being said, the present study has similar internal levels of reliability as the SPISE-R did.

Composite scores of knowledge total, knowledge auditory access, knowledge language development, confidence total, confidence auditory access, confidence language development and action were calculated by taking the average of the items in each section and subsection. Table 4.7 contains a summary for the internal reliability (Cronbach's alpha) of the constructs. It is important to note, a Cronbach's alpha of .70 and above is good, .80 and above is better, and .90 and above is best (Nunnally, 1978).

Table 4.7

Internal Reliability for the Knowledge, Confidence and Actions Sections and Corresponding Subsections

Section	No. of Items	α
Knowledge Total	10	0.83
Knowledge Auditory Access	5	0.61
Knowledge Language Development	5	0.85
Confidence Total	10	0.89
Confidence Auditory Access	5	0.81
Confidence Language Development	5	0.85
Actions	15	0.83

Trustworthiness of Qualitative Data

The researcher is aware of their subjectivity as an experienced deaf educator. The researcher set aside their personal experiences working with caregivers and children. Anecdotal notes were also kept by researcher for each item coded. Member checking was employed by sending the transcripts to each caregiver (to ensure accuracy), as well as using deductive codes (beliefs, knowledge, confidence, and actions) that aligned with the tool used for quantitative data. Triangulation was used when multiple theoretical frameworks were used when analyzing data, multiple sources (respondents) of data, and multiple methods (data collection, data analysis) (Merriam and Tisdell, 2016).

Lack of Representation

It was of great importance to the researcher to attain perspectives of caregivers from culturally, linguistically, and economically diverse backgrounds, especially when there was a caregiver-provider mis-match of identity. The majority of caregivers who participated in the online survey this research study, did not report having an identity mis-match with their provider. Reasoning from this fact, eight of the twelve interview respondents did identify as coming from a culturally, linguistically, and/or economically diverse background. All information considered, this was a relatively small sample size with a lack of representation from various perspectives of culturally, linguistically, and economically diverse populations.

Conclusion

To conclude, Chapter Four covered the findings of this mixed-methods research study. The quantitative data (electronic survey) were summarized as it pertained to each research question. Qualitative data (interviews) were also summarized as it related to each research question, sharing the deductive and inductive codes. Chapter Five will share the implications of the research findings as well as introduce an organizational improvement plan based on the interpretations of the data.

Chapter Five: Discussion

Introduction

This chapter will explore the interpretations of the data from this mixed-methods research study. Additionally, an organizational improvement plan (OIP) will be presented with detailed suggestions based on the results, interpretations and supporting research. Furthermore, the limitations of this study will be discussed.

Family centered early intervention requires participation (engagement) from the caregiver(s) as well as a relationship among the early intervention provider and the caregiver (Epley, Summers, & Turnbull, 2010). Engagement can be quantified per the SPISE-R tool (Ambrose et al., 2019) as participating during early intervention sessions, advocating for the child and family needs, practicing strategies that were learned during an early intervention visit or engaging in shared reading with the child. Relationships between the caregiver and early intervention provider are essential as they display vulnerability, trust, and care between the caregiver and the early intervention provider. Both participation and the relationship are essential components for family centered early intervention to be successful and when one component is missing, family-centered early intervention is not achieved.

Study Overview

This study utilized a mixed-methods approach in which 89 caregiver respondents completed the electronic survey consisting of their demographic information, their best understanding of their provider's demographic information, and the SPISE-R tool were included in the data analysis. Twelve caregivers of children who are d/Dhh shared their emotional experiences while enrolled in early intervention through semi structured, open-ended interviews. The survey information, caregiver interviews, annotations and memoing provided significant insights to variables that contribute to caregiver engagement in early intervention.

Study Research Questions

The predominant research question guiding this study regarding caregiver engagement was: How do caregivers of children who are D/deaf or hard of hearing from culturally, linguistically, and economically diverse backgrounds perceive their level of engagement during home visits as required in the Individual Family Service Plan (IFSP)? Additionally, five other questions further directed this research study:

Research Question Two: How do caregivers of children who are D/deaf or hard of hearing perceive their level of engagement during home visits as required in the Individual Family Service Plan (IFSP)?

Research Question Three: In what ways (if any) does provider identity of early interventionists serving caregivers with children ages birth to three who are D/deaf or hard of hearing influence family engagement during home visits as required in the Individual Family Service Plan (IFSP)?

Research Question Four: In what ways (if any) do caregivers from culturally, linguistically, and economically diverse backgrounds feel supported by their early interventionist while receiving early intervention services?

Research Question Five: How do caregivers from culturally, linguistically, and economically diverse backgrounds receiving EI services define support in early intervention?

Research Question Six: How do caregivers from culturally, linguistically, and economically diverse backgrounds envision support from their early interventionist?

Study Research Findings and Discussion

Research Question One: How do caregivers of children who are D/deaf or hard of hearing from culturally, linguistically, and economically diverse backgrounds perceive their level of engagement during home visits as required in the Individual Family Service Plan (IFSP)?

Comparative analyses were examined between caregivers from culturally, linguistically, and economically backgrounds, the mean averages were calculated for caregivers who were white vs non-white, caregivers not Hispanic, Latino, or Spanish origin and caregivers who are Hispanic, Latino, or Spanish origin, English and non-English speaking caregivers, partner's race, and caregiver income. Within these category comparisons, there were no statistically significant differences in actions scores. Similar to Alduhaim and colleagues, (2020) results indicate that communication is essential for caregiver engagement within education and in this case, caregiver engagement in early intervention. Furthermore, engagement was impacted when there was a language mismatch in caregivers and providers dyad. Avery shared using an interpreter "slows down the process, and it makes it less personal." Avery added, her Spanish-speaking husband did not participate in sessions and felt he would not have connected or felt as comfortable in sessions if there was an interpreter. Based on 2014-2015 data, Spanish was the most commonly spoken language among English learners in most states.

When looking at caregivers who are of a different race than their early intervention provider, it did not seem to impact the caregiver's engagement according to the two caregivers that were interviewed. Faith recalled that the majority of her providers did not look like her or her daughter. Additionally, Faith did not feel that impacted her engagement. However, Faith did mention that she felt the services she received were not intense enough. Unfortunately, Faith's feelings of not having intense enough services does align with previous research findings that Black caregivers and students feel their educators expect less from them and do not hold Black students to the same standards as white students (Seeberg, 2021). Culture, in this study, did not seem to be a barrier regarding caregiver engagement. MoonRiver felt her provider was respectful of her culture, but more importantly, MoonRiver felt that her and her husband, and her provider were focused on the family "objective, evidence, language, talking."

Research Question Two: How do caregivers of children who are D/deaf or hard of hearing perceive their level of engagement during home visits as required in the Individual Family Service Plan (IFSP)?

The original intention of this study was to investigate caregiver engagement during early intervention sessions. However, this research question was not answerable as written as caregiver engagement encompasses a variety of things that are outside of the time spent with the early intervention provider (McWilliam, 2010; Sandbank et al.; 2020; Tiede & Walton, 2019).

The descriptive statistics data (see Table 5.0) displays average scores of each section from the SPISE-R, (knowledge, confidence, and actions) and the subsections (auditory access and language development). As mentioned previously, all items under "actions" were used to determine caregiver engagement. Although slightly higher averages, similarly to the Ambrose et. al, 2020 study, all section and subsection scores were above the midpoint (4) of the Likert Scale. The actions section of the SPISE-R had the lowest average score (M = 5.88, SD = 0.71). These data could show that knowledge and confidence do not always carry over to the actions caregivers take to promote listening and spoken language development. Furthermore, a caregiver may feel knowledgeable and confident, but perhaps there are additional barriers that prevent them from taking actionable steps to promote the listening and spoken language development of the child.

Table 5.0

Descriptive Statistics for the Knowledge, Confidence and Actions Sections

Section	M	SD	Min	Max
Knowledge Total	6.23	0.67	4.10	7.00
Knowledge Auditory Access	6.25	0.70	4.20	7.00
Knowledge Language Development	6.22	0.81	3.20	7.00
Confidence Total	6.30	0.71	3.90	7.00
Confidence Auditory Access	6.29	0.80	3.40	7.00
Confidence Language Development	6.32	0.75	4.20	7.00
Actions	5.88	0.71	3.92	7.00

Research Question Three: In what ways (if any) does provider identity of early interventionists serving caregivers with children ages birth to three who are D/deaf or hard of hearing influence family engagement during home visits as required in the Individual Family Service Plan (IFSP)?

The provider identity variables that were explored in this analysis included: provider age, provider being of Hispanic, Latino, or Spanish Origin, provider race, provider primary language, and whether or not the provider had children within the knowledge, confidence, actions, and the subsections of the SPISE-R. No statistically significant differences in respondent knowledge, confidence, actions and their respective subsections were found across provider age, provider being of Hispanic, Latino, or Spanish Origin, provider race, provider primary language, and whether or not the provider had children. This is possibly an artifact of the sample size. Furthermore, provider information was examined to assess if respondents experienced different level of belief items based on their providers identity variables. (1) age, (2) whether they are of Hispanic origin, (3) race, (4) primary language and (5) parenthood. No statistically significant differences in the levels of agreement were found across provider origin, provider age groups, or provider primary language groups. However, when it came to providers that had children and providers who did not have children, the reversed scored belief item, “No matter what we do as a family, my child’s development will be delayed compared to children with normal hearing.” was statistically significantly different between providers who had children (mean rank = 32.41) and those who did not (mean rank = 44.00), U = 715.00.

Caregiver interviews revealed that caregivers and providers with children often exchanged parenting stories. Avery mentioned “I think another nice thing from Claire is that I felt like I was getting general parenting or kind of advice.” Sara commented, “Yeah, it's a little bit awkward. I don't know what the right word is, but yeah, so we talk about our personal lives and Skylar's eating habits and just lots of stuff. And our provider has kids, and so she'll give examples of stuff with her kids, and so sometimes we talk like friends, but we're not." This mutual exchange of sharing stories may have contributed to this significant finding. Melissa shared she felt like she had a personal relationship with her provider. "I have her personal cell phone number, but she was always very much like, 'Please text me, call me.' She really opened up that communication. Of course, I never abused that in any way, but she loves when I send her a video of maybe a strategy we were working on and seeing Maddison execute that and stuff like that. So, it feels like a very personal relationship."

There were too few caregivers that participated in this research study with a caregiver provider identity mis-match to adequately determine if provider identity influences caregiver engagement from both quantitative and qualitative data. However, with the caregiver and provider match and mis-match dyads that were analyzed, caregivers who shared the same the same primary language as their providers had higher confidence auditory access scores (M = 6.36, SD = 0.73) and higher action scores (M = 5.94, SD = 0.67) than those who did not share the same primary language as their provider, though this difference was not statistically significant.

Research Question Four: In what ways (if any) do caregivers from culturally, linguistically, and economically diverse backgrounds feel supported by their early interventionist while receiving early intervention services?

Research Question Five: How do caregivers from culturally, linguistically, and economically diverse backgrounds receiving EI services define support in early intervention?

Research Question Six: How do caregivers from culturally, linguistically, and economically diverse backgrounds envision support from their early interventionist?

As mentioned in Chapter Four, these three research questions fell under the category "support" and therefore will be discussed together. A common theme that arose was how the provider's (or program) actions and knowledge fostered caregiver support, or hindered it. Caregivers felt supported by their providers when they were communicative and shared information such as research or strategies (Park & Yoon, 2018) and child development (Unger et al., 2004) which aligns with the results of past research.

Additionally, providers (or programs) that were able to determine that caregivers needed to connect with other caregivers of d/Dhh children and made efforts to connect caregivers to other caregivers, felt more supported as they were navigating early intervention. Similar to Flaherty, 2015; Hardonk et al., 2011; Park & Yoon, 2018, the results of this study indicate caregivers desire to connect with other caregivers who are experiencing or have experienced similar things, and in the case, a child who is d/Dhh.

Complementarity of Quantitative and Qualitative Data

This mixed-methods research study first utilized an electronic survey which included caregiver demographic information, provider demographic information, and the Scale of Parental Involvement and Self-Efficacy-Revised (SPISE-R). The background demographic information provides context for caregivers and the caregivers perceived demographic information of their provider. Triangulation of data was used with multiple methods of data collection (quantitative and qualitative) and data analysis (quantitative and qualitative) (Merriam and Tisdell, 2016). Additionally, after the caregivers completed the SPISE-R and answered the structured tool, the semi-structured open-ended interviews allowed the caregivers to share their stories and experiences (relating to the research questions) more openly.

Relationship to Theoretical Frameworks

The problem of practice for this research study focused on whether or not provider identity changes caregiver engagement in early intervention in deaf education. Prior to the current study, there were no studies that focused on the impact of provider identity. There were studies, however, that focused on barriers of engagement.

Three theoretical frameworks guided this research study. Bandura's social learning theory (Bandura, 1986), which explains that learning takes place from observing and also includes self-efficacy. Within this study, Bandura's social learning theory was investigated by the use of the SPISE-R, a tool that evaluated caregivers perceived self-efficacy as well as supporting family-centered early intervention, which promotes caregivers taking the lead in their child's development. Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1979) looks at the individual's (caregiver) environment and how that will influence their development and lived experiences. Throughout caregiver interviews, they shared their experiences and how environmental factors impacted the decisions caregivers made and the early intervention services the caregivers received. Additionally, culturally responsive practice (Ladson-Billings, 1994, pp. 17-18) was the last theoretical framework this study utilized. Culturally responsive practice, or lack thereof, was apparent in caregiver interviews and supported the notion that provider and program actions have the ability to positively change the caregiver and provider relationship or hinder the caregiver and provider relationship, which in turn, ultimately can encumber caregiver engagement in early intervention.

Organizational Improvement Plan

This mixed-methods phenomenological research study presented data from 89 survey respondents as well as the unique experiences of twelve caregivers through interviews, as mentioned in Chapter 3. The results suggest that overall, caregivers of children who are d/Dhh perceive themselves between sometimes and always doing the action items (engagement) on the SPISE-R. Further, some provider identity variables influence caregiver engagement, such as the provider's primary language, if it does not match the caregiver's primary language. Although the parenthood status of the provider did not appear to influence caregiver engagement directly, it did in fact, shift the caregiver's belief in one statement on the SPISE-R, "No matter what we do as a family, my child's development will be delayed compared to children with normal hearing." An organizational improvement plan (OIP) has been recommended based on the problem of practice and the results of the present research study. The OIP is split up into two sections that specify recommendations for caregivers and recommendations for providers, programs and educational institutions providing services for caregivers of d/Dhh children or preparing future EI providers.

Recommendations for Caregivers of d/Dhh children Receiving EI Services:

The following sections directly address caregivers of children receiving early intervention services. For that reason, "you" is directed to caregivers. The research findings regarding caregiver support and barriers to caregiver engagement within early intervention services suggest that caregivers should trust their intuition when it comes to their child, their family needs and the services that are being provided. More specifically, the OIP is broken down into additional supports and caregiver advocacy.

Additional Supports. There are additional supports that are available to families. The service coordinator plays a critical role while you are enrolled in early intervention services and can provide you with information in how to access additional resources or supports (financial assistance or grants, additional services such as family therapy or couples therapy, connecting with other caregivers experience similar things as you).

Advocacy. Too often, caregivers' concerns are dismissed by professionals and instead, sometimes professionals offer caregivers a false sense of hope as shared by the caregivers in the interviews. Unfortunately, valuable time is lost when the caregiver could have received a needed diagnosis or access more services. It is highly recommended that you trust your intuition in what feels right to you. For example, if you suspect something feels off, voice your concerns. If you do not feel heard by any early intervention provider or medical professional, get a second opinion, if you are able.

Caregivers have found success in advocating for their needs when the services that were being provided did not align with what the caregiver needed. More specifically, if an EI provider is bringing their own items or toys into your home to demonstrate a strategy and you are unsure how to incorporate the strategy into your daily routines, require the provider use items from your own home.

Access to information is critical for caregivers of children who are d/Dhh. If your provider does not share the same language as you, require the provider use an interpreter. This also includes if you receive documents that are not in the primary language spoken in your home. This reminds me of a time when I provided services for a Spanish speaking family. They had received their audiological reports, in English, from an outside hospital. Although I did have an interpreter, it was important to the mom, to have the physical document in Spanish, understandably. During our session, the mom called the hospital and was placed on hold for a significant time, while the hospital waited to provide an interpreter. The mother was becoming visibly upset, so I offered to call for her, since I had an interpreter. The caregiver had to feel some level of trust and comfort with me in order to allow me to make that phone call for her. Although the mom and I had joint-planned last week for our session that focused on allowing the child wait time during shared reading, it was important to the mom that I assist with this phone call. We pushed that plan back another week, while we handled the phone call together. I wonder what happens to the caregiver who do not have established relationships with providers and cannot access information or resources that are needed. If caregivers who speak (Spanish) the most commonly spoken language among English learners where interpreters are somewhat accessible, I can only imagine the difficulties caregiver who speak the more than 225 unique languages throughout the country. In fact, I recall working with a family who spoke Somali and unfortunately it was difficult to schedule an interpreter that was available when needed. When the interpreter was able to schedule, if she had to cancel, the message would not be delivered to the caregiver immediately.

Recommendations for Programs, Providers and Educational Institutions Serving Caregivers of d/Dhh Children Receiving EI Services or Preparing Future EI Providers of d/Dhh children:

Although the present research study was unable to identify challenges of racial identity mismatches among caregivers and providers due to the small sample size, there is research that shows white educators have a bias towards Black learners (Seeberg, 2021). The recommendations for the OIP are broken down into the following sections: understanding your [the professional] own bias, learn about the family, building relationships with the family unit, and understanding the meaning of engagement.

Understanding your Own Bias. First and foremost, professionals must identify their own biases or implicit biases. As mentioned in Chapter Two, an implicit bias is an unconscious bias that a person has towards a group of people, race, sexuality, ability, and gender, to name a few. Everyone has implicit biases. The Implicit Association Test (IAT) is a test used to determine your implicit bias towards groups of people. (https://implicit.harvard.edu/implicit/takeatest.html). With this information, you can begin to learn about your implicit biases and only then begin to deconstruct your thoughts and beliefs regarding specific groups of people.

There are other actionable steps that should be taken, such as changing the language we use as it has an impact on various groups of people. More specifically, avoiding terms like, “minority,” “poverty,” “multicultural,” and “cultural competence.” Hyter, (2020) raises interesting points that “minority” suggests being small or irrelevant. The term “poverty” allows for individuals to blame someone who is in that economical state. Multicultural tends to be a code word for people who are not white and people who are members of the LGBTQIA+ community. Just as importantly, “cultural competence” assumes that once you have a skill, you will always have that skill. When the fact is, learning cultural differences is a continuous process and requires cultural humility (Murray-García & Tervalon, 2014).

Alternatively, the following concepts should be used instead of “minority,” “poverty,” “multicultural,” and “cultural competence,” as suggested by Hyter (2021). There are several terms to use instead of “minority.” These include: people of color, people of the global majority, or global majority. Most importantly, it is imperative that professionals learn and respect how caregivers self-identify. As an alternative for “multicultural” or “diversity,” it is more appropriate to “use the name of the social, cultural, racialized, ethnic, identity group” (Hyter, 2021, p.75). Use “impoverishment” verses “poverty,” as proposed by Hyter (2021). The term “impoverishment reveals that there are more often than not, economic, political, and social processes, social injustice, and inequities that maintain and reproduce impoverishment” (Crane et al., 2020; Hyter & Salas-Provance, 2020, as cited in Hyter, 2021, p. 76). Additionally, use culturally responsive or culturally sustaining practices in place of “cultural competence” as the latter two acknowledge the individual’s growth mindset.

Learn About the Global Majority on Your Caseload. There are multiple steps that can be taken to learn about the global majority that are on your caseload. To begin, do your own research. It is not the responsibility of the family to educate you directly on their culture (Tochluk, 2010). It is also critical to understand that words spoken in the family’s home are valuable and therefore, family goals on the IFSP should be respected so it is not assumed by the provider that the caregiver wants to change the language used in their home (Rosenzweig & Voss, 2022).

Building Relationships with the Family Unit. Building relationships with the family entire family unit generally takes time and includes showing a genuine interest in the family, opening the line of communication with the family, advocating for the family, especially when they are not able to, and allowing yourself to be vulnerable. Showing a genuine interest in the family includes asking how the caregivers are doing as well as the child. It is important to know how the caregivers are doing and if there are specific things they need. A program called Facilitating Attuned Interactions (FAN) (Gilkerson et al., 2012) allows early intervention providers to determine where the caregiver is emotionally. Although providers have a plan before walking into the caregiver's home, it is important to respect where the caregiver is emotionally. For instance, I can recall a time when I walked in a home and the caregiver seemed emotionally disengaged. The plan the caregiver and I created the previous week was no longer relevant in that moment. I needed to quickly adjust and see how to navigate where this caregiver currently was.

Quantifying Caregiver Engagement. Engagement is such a broad term and it is truly difficult to quantify specific things caregivers do that equate to engagement. In this study, I had hoped to use the SPISE-R as a proxy for engagement, but it remains insufficient. Providers can make judgements about a caregiver's participation in a session, however, that session is only one hour of the family's 168 hours that week. Often times in educational settings, engagement is quantified by how often caregivers attend events held at the school, which is problematic. Relating this to early intervention, frequency of attending or canceling sessions should not be a measurement of caregiver engagement. Caregivers cancel sessions for a multitude of valid reasons.

Stakeholders

Within research, a stakeholder encompasses individuals or organizations in which the research applies and who have an interest in the results (Deverka et al., 2012). Although this study focused specifically on caregivers of d/Dhh children receiving early intervention services, pivotal stakeholders for this problem of practice include all caregivers of children receiving early intervention services (educational facilities that prepare future educators to work with children and families ages birth to three, all organizations that provide early intervention services for children with varying abilities, especially those programs that provider services in the natural environment). More specifically, within these organizations, stakeholders include: service coordinators, teachers of the deaf, speech language pathologists, occupational therapists and other members of the caregiver's early intervention team.

Study Limitations

The results of this research study must be viewed with the limitations of the study. First and foremost, the sample size was relatively small (N = 89), despite having more respondents than Ambrose, et, al. (2020). As a result of the small sample size, the sample was demographically limited in terms of caregiver and provider identity mismatch. Further research should include more caregiver and provider mismatch dyads to fully understand how and if caregiver engagement changes based on a provider identity match or mismatch. Additionally, an electronic survey was used to collect respondent data. Not everyone has internet access, a computer or an email address to access the electronic survey. According to the 2016-2020 US Census 91.9% of households have a computer and of that 91.9%, 85.2% of households have a broadband internet subscription. Moreover, non-respondent bias was high, which could account for the number of respondents that did not complete the survey in full. The survey length should also be considered as not all caregivers, especially those receiving early intervention services are able to take time out of their lives and daily responsibilities to complete the survey, especially single parent households. Also, the demographic portion of the electronic survey failed to respect caregiver and child identity, which became evident when a respondent that identified as white mentioned it in the survey, “Husband is white but my son is adopted and Asian. You didn’t ask that and it’s important.” A final limitation of this study, was the survey requested caregiver to use their “best guess” regarding their provider demographic information, which may not have always been accurate. It is recommended that future research on this topic include the perspectives of both members of the caregiver and early intervention provider dyad.

Additional Considerations

Throughout this research process, additional topics and themes did emerge that did not fit specifically within the research questions, but are worth mentioning. First, the SPISE-R tool does include beliefs, knowledge, confidence, and action statements related to multilingual families and the SPISE-R tool does not include an understanding of common terminology/following along in an audiology appointment. A second topic that could further be explored is the lack of family-centered intervention being provided to caregivers.

SPISE-R

The SPISE-R is a scale for caregivers of d/Dhh children. Throughout the caregiver interviews, it became evident the SPISE-R does not encompass a variety of caregiver backgrounds and experiences. Content that could be further explored or added to the SPISE-R includes, understanding common terminology/following along in an audiology appointment, navigating sibling relationships, and caregivers that are raising multilingual children.

Understanding Common Terminology/Following Along in an Audiology Appointment. The SPISE-R consists of five sections with a total of 46 statements and questions (see Table 5.1 - Table 5.5). Of the 46 statements and questions, 18 mention device(s) or an audiology appointment. Of the 18 questions or statements on device use or audiology appointments, none of the questions or statements ask about the caregiver's understanding of terminology used or the information presented to them.

Table 5.1

Breakdown of the Beliefs Section of the SPISE-R

Section: Beliefs	Total No. of Items	No. of Items regarding device use/audiology
4. "My child's hearing device(s) help him/her learn to communicate." 5. "If people see my child wearing his/her hearing device(s), they will judge my child or family." 7. "If children wear their hearing device(s) all the time, they will become overly dependent on them."	7	3

Table 5.2

Breakdown of the Knowledge Section of the SPISE-R

Section: Knowledge	Total No. of Items	No. of Items regarding device use/audiology
1. How to manage my child's hearing device(s) 2. Strategies to keep my child's hearing devices on him/her 3. What my child can and cannot hear without his/her hearing device(s) 4. What my child can and cannot hear with his/her hearing device(s)	10	4

Table 5.3

Breakdown of the Confidence Section of the SPISE-R

Section: Confidence	Total No. of Items	No. of Items regarding device use/audiology
1. Determine if my child's hearing device(s) are working okay 2. Put and keep my child's hearing device(s) on him/her	10	2

Table 5.4

Breakdown of the Actions Section of the SPISE-R

Section: Actions	Total No. of Items	No. of Items regarding device use/audiology
1. Daily listening checks on my child's hearing device(s)	15	6
2. Make sure other people caring for my child know how to manage my child's hearing device(s)		
3. Make sure I, or someone else, puts my child's hearing device(s) on immediately after he/she wakes up		
4. Make sure I, or someone else, puts my child's hearing device(s) on immediately if they fall off or my child takes them off		
7. Daily check of my child's listening with the Ling 6-Sound test (ah, ee, oo, m, sh, s)		
14. Get my child to the audiologist as soon as a visit is needed		

Table 5.5

Breakdown of the Device Use Section of the SPISE-R

Section: Device Use	Total No. of Items	No. of Items regarding device use/audiology
2. How many hours a day does your child usually wear his/her hearing device(s) while awake? 3. If your child ever wears his/her hearing devices (turned on) while sleeping, please indicate the average number of hours per day this occurs. 4. How often does your child usually wear his/her hearing device(s) when he/she is awake in these situations? a) At home b)In the car c) In daycare or school d) When cared for by family or friends outside the home e) Playing outside f) On outings (e.g., store, zoo, children's museum)	4	3

Engagement requires a caregiver to understand terminology used in deaf education, specifically audiology. In addition, while in an audiology appointment and the audiologist is reviewing test data, are caregivers nodding heads or asking questions for clarification, if they do not understand something? Autumn, a fluent English speaker stated, “I felt I had to learn a whole new language, and I was very confused by a lot of things. Even though I have a master's and English is my first language, it's still very confusing.” Other caregivers felt the audiologist appointments were “rushed.” Avery commented “I think breaking down information and just taking time to answer my questions, I think was really important. The audiologist, like most doctor visits, felt very rushed, and I had lots of questions because it's a huge learning curve. So having them explain things to me, having them explain things over again was helpful. The audiologist doing the ABR, I didn't realize... I don't know that I knew what an audiologist was, which seems like a crazy thing to say now." Sara felt very comfortable with her audiologist. "I had a wonderful audiologist who worked with us and explained what her hearing loss was and that she would need hearing aids."

Avery and Sara identify as white women. A question remained as to if there are varying levels of confidence in asking questions to gain an understanding among the different identity variables in caregivers. Turner, who identifies as a white woman, but was not fluent in the prominent language of the country she resided expressed difficulty advocating for her child's need in audiology appointment. "We had a couple of appointments where they [the audiologist] didn't check lower than 40 dB. And first appointment was okay, they [the audiologist] wanted to establish a baseline. The second appointment, they [the audiologist] said that they [the audiologist] had told us that they [the audiologist] were going to check below that, but then they [the audiologist] said that they wanted to re-check that baseline. So, then we go back to the speech therapist to say, 'Hey, can you also... 'I mean, we can only push up to a point if we don't have a report to say that [lower than 40dB needs to checked], 'This other professional [the SLP] thinks that you [the audiologist] should do something different.' It helps. I think, if it was just us going to the audiology sessions, it wouldn't be sufficient. I think we would... As much as we fight and we ask for things, you always need something more [someone advocating for you]." Turner's needs were not met in the audiologist appointments until another professional advocated for her. With the combination of the task caregivers have of understanding everything the audiologist is saying and appointments feeling rushed, are caregivers truly retaining the information presented to them? It would be interesting to see if caregivers felt confident explaining their child's hearing loss to family members, daycares, or other important people in the family's life.

Navigating Sibling Relationships. Siblings are a part of the family system and therefore should be considered throughout early intervention services. To give an instance, in this study, a caregiver with multiple children sometimes felt they were unsure how to facilitate sibling interactions, especially when there was a communication breakdown. Autumn explained how both sets of grandparents felt she was favoring Ana, her child with hearing loss, over Amora, her child with normal hearing. "Ana often misunderstands how her big sister wants to play or will perceive that big sister is taking something from her. Ana would scream, cry at the drop of a hat. If my mom was around for those moments, she often made comments about how Ana deserved some time out, to be reprimanded, or something to the effect of how I was more quick to give Ana attention for such behavior compared with my first. The attention I would give was centered around explaining 'Amora wants xyz' or to teach Amora how to speak directly too Ana. Both sets of grandparents have continuously commented about how much more lenient I've been towards Ana overall. When a child acts out I assume it's a communication issue but what I don't know is if the intervention for parents adjusts if the child has specific needs due to the hearing loss. My assumption is that because there is more effort involved in learning to listen for a hard of hearing child and more opportunity to misinterpret or misunderstand others, they require more attention or time having things explained- at least in these earlier years. If E.I. had any instruction on what to expect…child who are hard of hearing may act out when xyz occurs and…or the best intervention is xyz if they have difficulty explaining what's happening with them… or how to best handle myself I would have appreciated the information. It's hard enough navigating the early years but when one is completely unfamiliar whether parental boundaries change or how they change based on this specific need. I've basically been responding to my children based on my own assumptions of what is right/best for them without a lot of input on best strategies for sibling, or even interpersonal or peer dynamics when one has normal hearing and one doesn't."

Caregivers Raising Multilingual Children. It became evident that some caregivers in this study had anxiety with raising their children multilingual and perceived judgements from professionals and providers the caregivers interacted with. Two caregivers in this study experienced pushback from professionals when it came to raising multilingual children. Autumn discussed her experience when she shared with the early intervention providers her desire to raise her children bilingual. "So when I told early intervention that we are raising her bilingual with a non-bilingual team [early intervention team], there was this, 'Well, go ahead and just teach her [your daughter] in English,' and then... And I got really anxious where I was like, 'No, we're gonna start in Spanish.' Even if I'm struggling or you're struggling, this is the exposure." Autumn did receive more pushback, but kept advocating and standing firm in her goals, the early intervention team changed their stance. "They [the early intervention team] were like, 'You know what, there's really nothing that says this is detrimental in any way, shape or form.' 'Okay, here's the information. No, nothing wrong with it."

On the contrary, Turner, a mother who identified as being trilingual with a Spanish partner residing in a new country kept their language choices and mode of communication a secret from providers that worked with her children and did what she wanted on the side. The country where her family resided believed in using sign language and using the language from the country where services were being provided. “At some [one] point they [the providers in Western Europe] wanted to start with that [sign language] at the end [of our services]. And they [the providers in Western Europe] were not supportive of the other languages [we spoke], where rather they thought that we should speak [the prominent language of Western Europe] to the child, although we didn't even speak [the prominent language of Western Europe], really.” Interestingly, the women who identified as “white” who resided in a place they were familiar with advocated for themselves and their family goals whereas, Turner a woman who resided in a new country did not advocate, set boundaries or push back with her early intervention providers.

Family Centered Early Intervention

As revealed through the caregiver interviews, some providers were missing the mark when it came to family-centered early intervention (FCEI), as it became clear that FCEI is not always occurring. There were multiple components of FCEI that came up during the interviews which included: providers bringing their own materials into the family’s home, the lack of relationship building among the entire family unit, the use of flashcards, and providers missing opportunities to validate parenting as a positive impact for the child (no need to spend extra time doing flashcards or special exercises).

Caregiver Knowledge on Parenthood Status of their Provider

Caregivers and providers tend to spend a lot of time together, especially if the child begins services as an infant and remains in services until their third birthday. It is interesting that eighteen of the caregivers were unsure if their provider had children. I wonder what this says about the relationship between the caregiver and provider. Some caregivers that were interviewed expressed they felt they had a personal relationship with their provider and were unsure of where the boundaries were. This could also be a result of what providers are willing to share with caregivers, especially in such an intimate relationship. There were many times I was uncomfortable sharing my identity as a lesbian woman with my caregivers. These types of conversations come up organically, especially when a caregiver is trying to get to know who you are. The simple question I have been asked numerous times over the years is “do you have a boyfriend?” When a caregiver asks this question, and they do, I have to immediately determine if I will “out” myself and say, “No, I have a wife” or decide if I will be ingenuine to who I am and simply say, “No.” Which also has backfired when a parent attempted to connect me with her brother to date. The boundaries are a fine line and it was apparent that some caregivers felt that while receiving early intervention services and personally, as a provider, I know I have felt that too.

Another interesting finding that emerged in this research was many caregivers interviewed reported their early intervention provider often compared the caregiver to other caregivers on their caseload. The caregivers were not asked about this, instead these conversations came up naturally when answering other questions. MoonRiver shares a story, “We were told that we are extremely committed and on top of our game and detailoriented when it came to asking for services and asking questions and things like that. And we [my husband and I] just thought we were doing what was required, and so it's always nice to hear people say good things about you.” This compliment was followed by a comparison from her provider. “And they did say that we wish all parents were like you guys. And I'm like ‘oh, we didn't realize we were some special or something.” Jim began to share a comparison his provider made regarding him and other families, “They did nothing but be encouraging and tell us we were doing a great job. ‘Oh wow, I've seen so many parents and you guys are... ‘I guess, maybe my own personal opinion, I didn't always believe that, I always felt like that's something you do, is you go in and you build them up, and you really make them feel special.” Jim had an interesting perspective on his disbelief with some of those comparisons. Hanna also shared, “Our therapists mentioned was that I was kind of unique as a mother, not... I was using everything that I learned from the therapists. But they told me that all the families are not like that, they're dependent to the therapist and they do nothing the rest of the hours. I did not wanna do it that way, I wanted to [cuts out] everything, I wanted to do the best I can to support my daughter.” Though none of the caregivers seemed bothered by this during the interviews, this finding speaks to the early intervention provider’s professionalism, or their comfort with the caregiver.

Conclusion

The main research question in this study was *How do caregivers of children who are D/deaf or hard of hearing from culturally, linguistically, and economically diverse backgrounds perceive their level of engagement during home visits as required in the Individual Family Service Plan (IFSP)?* The results indicate that overall caregivers perceive themselves as engaged. Upon further investigation through caregiver interviews, positive light was shed on specific things some early intervention providers and programs were doing. It also became apparent, that there is more work to be done within the system (providers and programs) to ensure caregivers are being supported and are receiving the best services possible.

This experience has allowed me to grow as a researcher and an early intervention provider. This experience has been invaluable and I intend to continue taking actionable steps, as outlined in my OIP, to acknowledge my own implicit biases and with that information, learn about those biases to dismantle them. By doing this, I will work alongside caregivers and professionals to provide equitable services with a growth mindset and a culturally responsive practice lens.

References

Alduhaim, A., Purcell, A., Cumming, S., & Doble, M. (2020). Parents' views about factors facilitating their involvement in the oral early intervention services provided for their children with hearing loss in Kuwait. International Journal of Pediatric Otorhinolaryngology, 128, 109717. https://doi.org/10.1016/j.ijporl.2019.109717

Allington, R. L., & McGill-Franzen, A. (1989). School response to reading failure: Instruction for Chapter 1 and Special Education students in grades two, four, and eight. The Elementary School Journal, 89(5), 529–542. https://doi.org/10.1086/461590

Ambrose, S. E., Appenzeller, M., Mai, A., & DesJardin, J. L. (2020). Beliefs and Self-Efficacy of Parents of Young Children with Hearing Loss. Journal of Early Hearing Detection and Intervention, 5(1), 73–85.

Ambrose, S.E., Appenzeller, M., & DesJardin, J.L. (2019). Scale of Parental Involvement and Self-Efficacy- Revised [Assessment Instrument]. Omaha, NE: Boys Town National Research Hospital.

American Speech-Language-Hearing Association. (n.d.). Telepractice. American Speech-Language-Hearing Association. Retrieved December 27, 2021, from https://www.asha.org/practice-portal/professional-issues/telepractice/

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory Prentice-Hall, Inc, Englewood Cliffs, NJ.

Barnard, W. (2004). Parent involvement in elementary school and educational attainment. Children and Youth Services Review, 26(1), 39-62. doi:10.1016/j.childyouth.2003.11.002

Bosas, N. (2020). The Ways Early Intervention Programs Determine the Frequency of Services for Children Who are Deaf/Hard of Hearing and Their Families. Unpublished.

Braun, V., Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3, 77–101. doi:10.1191/1478088706qp063oa

Bronfenbrenner, U. (1979). The Ecology of human development: Experiments by nature and Design. Harvard University Press.

Brown, J. A., & Woods, J. J. (2015). Effects of a triadic parent-implemented home-based communication intervention for toddlers. Journal of Early Intervention, 37(1), 44–68. https://doi.org/10.1177/1053815115589350

Bruder, M. B., & Dunst, C. J. (2005). Personnel Preparation in Recommended Early Intervention Practices: Degree of Emphasis Across Disciplines. Topics in Early Childhood Special Education, 25(1), 25–33. https://doi.org/10.1177/02711214050250010301

Bruder, M. B., Dunst, C., Maude, S. P., Schnurr, M., Van Polen, A., Frolek Clark, G., Winslow, A., & Gethmann, D. (2019). Practitioner appraisals of their desired and current use of the 2014 Division for Early Childhood Recommended Practices. Journal of Early Intervention, 42(3), 259–274. https://doi.org/10.1177/1053815119886105

Burkholder, G. J. (2020). Research design and methods: An applied guide for the scholar-practitioner. SAGE.

Conduct Problems Prevention Research Group. (1995). Technical reports for the construct development for the measures for Year 2 outcome analyses. Unpublished technical report.

Conference of Educational Administrators of Schools and Programs for the Deaf. (2006). Position on Early Intervention Programs for Children with Hearing Loss. www.ceasd.org

Crenshaw, Kimberle (1989) "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics," University of Chicago Legal Forum: Vol. 1989: Iss. 1, Article 8. Available at: http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8

Data and Statistics About Hearing Loss in Children. (2020, June 08). Retrieved December 28, 2020, from https://www.cdc.gov/ncbddd/hearingloss/data.html.

Dammeyer, J., Hansen, A. T., Crowe, K., & Marschark, M. (2019). Childhood hearing loss: Impact on parents and family life. International Journal of Pediatric Otorhinolaryngology, 120, 140–145. https://doi.org/10.1016/j.ijporl.2019.02.027

Deaf education programs: College atlas. CollegeAtlas. (2019, April 26). Retrieved December 29, 2021, from https://www.collegeatlas.org/deaf-education-colleges.html

Desimone, L. (1999). Linking parent involvement with student achievement: Do race and income matter? Journal of Educational Research, 93(1), 11.

DeVellis, R.F. (2003). Scale development: Theory and applications (2nd ed., Vol.26). Sage Publications.

Division for Early Childhood. (2014). DEC recommended practices in early intervention/early childhood special education 2014. http://www.dec-sped.org/recommendedpractices

Desjardin, J. L. (2005). Maternal perceptions of self-efficacy and involvement in the auditory development of young children with prelingual deafness. Journal of Early Intervention, 27(3), 193–209.

Dunst, C. J., Hamby, D., Trivette, C. M., Raab, M., & Bruder, M. B. (2000). Everyday Family and Community Life and Children's Naturally Occurring Learning Opportunities. Journal of Early Intervention, 23(3), 151–164.

Education Week. (2021, February 8). The coronavirus spring: The historic closinUS U.S. Schools (a timeline). Education Week. Retrieved December 27, 2021, from https://www.edweek.org/leadership/the-coronavirus-spring-the-historic-closing-of-u-s-schools-a-timeline/2020/07

Epley, P., Summers, J. A., & Turnbull, A. (2010). Characteristics and trends in family-centered conceptualizations. Journal of Family Social Work, 13(3), 269–285. https://doi.org/10.1080/10522150903514017

Erbasi, E., Scarinci, N., Hickson, L., & Ching, T. Y. C. (2018). Parental involvement in the care and intervention of children with hearing loss. International Journal of Audiology, 57(Suppl 2), S15–S26.

Eriksson, M., Ghazinour, M. & Hammarström, A. Different uses of Bronfenbrenner's ecological theory in public mental health research: what is their value for guiding public mental health policy and practice?. Soc Theory Health 16, 414–433 (2018). https://doi.org/10.1057/s41285-018-0065-6

Estabrooks, W., Morrison, H. M. C., & MacIver-Lux, K. (2020). Auditory-verbal therapy: science, research, and practice. Plural.

Family Engagement Defined. https://nafsce.org/page/definition.

Flaherty, M. (2015). What we can learn from hearing parents of deaf children. Australasian Journal of Special Education, 39(1), 67–84. https://doi.org/10.1017/jse.2014.19

Forister, J. G., & Blessing, J. D. (2020). Introduction to research and Medical Literature for Health Professionals. Jones et Bartlett Learning.

Ganz, J. B., Liew, J., Yllades, V., Liao, C.-Y., Luo, W., Hong, E. R., Yoro, A. J., Rodriguez, D., Clark, S., Stein, K., & Ura, S. K. (2022). Communication and affective synchrony between parents and their children with autism during a multimodal communication parent-coaching intervention. Child & Family Behavior Therapy, 1–22. https://doi.org/10.1080/07317107.2022.2043683

García-Ventura, S., Mas, J. M., Balcells-Balcells, A., & Giné, C. (2020). Family-centered early intervention: Comparing practitioners' actual and desired practices. Child: Care, Health and Development. https://doi.org/10.1111/cch.12834

Gilkerson, L., Hofherr, J., steier, A., Cook, A., Arbel, A., Heffron, M. C., Sims, J. M., Jalowiec, B., Bromberg, S. R., & Paul, J. J. (2012). Implementing the Fussy Baby Network Approach 2012-L.pdf. Zero to Three.

Grant, K. B., & Ray, J. (2019). Family Engagement and the Responsive Educator. In Home, school, and community collaboration: culturally responsive family engagement. SAGE.

Groark, C. J. (2007). Evidence-based practices and programs for early childhood care and education. Corwin Press.

Guard, P. J. (2001, June 4). United States Department of Education: Office of Special Education and Rehabilitative Services. Retrieved December 29, 2021, from https://sites.ed.gov/idea/files/idea/policy/speced/guid/idea/letters/2001-2/skelton061401natenviron.pdf

Hackworth, N. J., Matthews, J., Westrupp, E. M., Nguyen, C., Phan, T., Scicluna, A., Cann, W., Bethelsen, D., Bennetts, S. K., & Nicholson, J. M. (2018). What Influences Parental Engagement in Early Intervention? Parent, Program and Community Predictors of Enrolment, Retention and Involvement. Prevention Science, 19(7), 880–893. https://doi.org/10.1007/s11121-018-0897-2

Hardonk, S., Daniels, S., Desnerck, G., Loots, G., Van Hove, G., Van Kerschaver, E., Sigurjónsdóttir, H. B., Vanroelen, C., & Louckx, F. (2011). Deaf parents and pediatric cochlear implantation: An exploration of the decision-making process. American Annals of the Deaf, 156(3), 290–304. https://doi.org/10.1353/aad.2011.0027

Harrison, J., & Hutsell, G. (n.d.). Auditory-verbal therapy? Hands & Voices: Communication Considerations. Retrieved April 17, 2022, from https://www.handsandvoices.org/comcon/articles/aud_verbal_therapy.htm

Haslam, C., Steffens, N. K., Branscombe, N. R., Haslam, S. A., Cruwys, T., Lam, B. C., Pachana, N. A., & Yang, J. (2018). The importance of social groups for retirement adjustment: Evidence, application, and policy implications of the social identity model of Identity Change. Social Issues and Policy Review, 13(1), 93–124. https://doi.org/10.1111/sipr.12049

Hammond, Z. (2015). Culturally responsive teaching and the brain: promoting authentic engagement and rigor among culturally and linguistically diverse students. Corwin.

Hill, N. E., & Craft, S. A. (2003). Parent-school involvement and school performance: Mediated pathways among socioeconomically comparable African American and Euro-American families. Journal of Educational Psychology, 95(1), 74.

Hindman, A. H., & Morrison, F. J. (2011). Family involvement and educator outreach in head start: Nature, extent, and contributions to early literacy skills. The Elementary School Journal, 111(3), 359–386. https://doi.org/10.1086/657651

Hyter, Y. D. (2021). The power of words: a preliminary critical analysis of concepts used in speech, language, and hearing sciences. In Critical perspectives on social justice in Speech Language Pathology. essay, Business Science Reference.

Hyter, Y. D., & Salas-Provance, M. B. (2019). Culturally responsive practices in speech, language and hearing sciences. Plural Publishing, Inc.

Inbar-Furst, H., Douglas, S. N., & Meadan, H. (2019). Promoting caregiver coaching practices within early intervention: Reflection and feedback. Early Childhood Education Journal, 48(1), 21–27. https://doi.org/10.1007/s10643-019-00980-2

Joint Committee on Infant Hearing. (2000). Year 2000 Position statement: Principles and guidelines for early hearing detection and intervention programs. Pediatrics, Vol. 106 No. 4 October 2000. www.jcih.org

Joint Committee on Infant Hearing. (2007). Year 2007 Position statement: Principles and guidelines for early hearing detection and intervention programs. Pediatrics, 120, 898-921. doi:10.1542/peds.2007-2333

Kalmanson, B., & Seligman, S. (1992). Family-provider relationships: The basis of all interventions. Inf Young Children, 4(4): 46-52.

Keilty, B. (2010). The early intervention guidebook for families and professionals: partnering for success. Teachers College Press.

Kellar-Guenther, Y., Rosenberg, S. A., Block, S. R., & Robinson, C. C. (2013). Parent involvement in early intervention: What role does setting play? Early Years, 34(1), 81–93. https://doi.org/10.1080/09575146.2013.823382

Kelly, A., & Benedict, B. (n.d.). American sign language - ASL. Hands & Voices: Communication Considerations. Retrieved April 17, 2022, from https://www.handsandvoices.org/comcon/articles/asl.htm

Kelty, N. E., & Wakabayashi, T. (2020). Family engagement in schools: Parent, educator, and community perspectives. SAGE Open, 10(4), 215824402097302. https://doi.org/10.1177/2158244020973024

Klatte, I. S., Harding, S., & Roulstone, S. (2019). Speech and language therapists' views on parents' engagement in Parent–Child Interaction Therapy (PCIT). International Journal of Language & Communication Disorders, 54(4), 553–564.

Kohl, G. O., Lengua, L. J., & McMahon, R. J. (2000). Parent involvement in school conceptualizing multiple dimensions and their relations with family and demographic risk factors. Journal of School Psychology, 38(6), 501–523. https://doi.org/10.1016/s0022-4405(00)00050-9

Kruskal, W. H., & Wallis, W. A. (1952). Use of ranks in one-Criterion Variance Analysis. Journal of the American Statistical Association, 47(260), 583–621. https://doi.org/10.1080/01621459.1952.10483441

Ladson-Billings, G. (1994). The Dreamkeepers: Successful teaching for African-American students. San Francisco: Jossey-Bass.

Lee, J.-S., & Bowen, N. K. (2006). Parent involvement, cultural capital, and the Achievement Gap Among Elementary School Children. American Educational Research Journal, 43(2), 193–218. https://doi.org/10.3102/00028312043002193

Loewus, L. (2017, August 15). The Nation's Teaching Force Is Still Mostly White and Female. Retrieved February 27, 2020, from https://www.edweek.org/ew/articles/2017/08/15/the-nations-teaching-force-is-still-mostly.html

Lopez, G. (2001). The value of hard work: Lessons on parent involvement from an (im)migrant household. Harvard Educational Review, 71(3), 416–438. https://doi.org/10.17763/haer.71.3.43x7k542x023767u

Lucas, C., & Valli, C. (1990). *ASL, English and contact signing*, Gallaudet University.

Mann, H. B., & Whitney, D. R. (1947). On a test of whether one of two random variables is stochastically larger than the other. The Annals of Mathematical Statistics, 18(1), 50–60. https://doi.org/10.1214/aoms/1177730491

Mautone, J. A., Marcelle, E., Tresco, K. E., & Power, T. J. (2015). Assessing the quality of parent-teacher relationships for students with Adhd. Psychology in the Schools, 52(2), 196–207. https://doi.org/10.1002/pits.21817

Merriam, S. B., & Tisdell, E. J. (2016). Qualitative research: A guide to design and implementation. Jossey-Bass.

McBride, S. L., & Peterson, C. (1997). Home-based early intervention with families of children with disabilities: Who is doing what? Topics in Early Childhood Special Education, 17(2), 209. https://doi.org/10.1177/027112149701700206

McWilliam, R. A. (2010). Routines-based early intervention: supporting young children and their families. P.H. Brookes.

Moeller, M. P., Carr, G., Seaver, L., Stredler-Brown, A., & Holzinger, D. (2013). Best practices in family-centered early intervention for children who are deaf or hard of hearing: An international consensus statement. Journal of Deaf Studies and Deaf Education, 18(4), 429–445. https://doi.org/10.1093/deafed/ent034

Moeller, M. P. (2000). Early intervention and language development in children who are deaf and hard of hearing. Pediatrics, 106(3), E43.

Mohr, P. E., Feldman, J. J., Dunbar, J. L., McConkey-Robbins, A., Niparko, J. K., Rittenhouse, R. K., & Skinner, M. W. (2000). The societal costs of severe to profound hearing loss in the United States. International Journal on Technology Assessment in Health Care, 16(4), 1120–1135. https://doi.org/ 10.1017/S0266462300103162

Montigny, F.; Lacharité, C. (2005). Perceived Parental Efficacy: Concept Analysis. J. Adv. Nurs. 2005, 49, 387–396.

Muenks, K., Miele, D. B., Ramani, G. B., Stapleton, L. M., & Rowe, M. L. (2015). Parental beliefs about the fixedness of ability. Journal of Applied Developmental Psychology, 41, 78–89. https://doi.org/10.1016/j.appdev.2015.08.002

Murray-García, J., & Tervalon, M. (2014). The concept of cultural humility. Health Affairs, 33(7), 1303–1303. https://doi.org/10.1377/hlthaff.2014.0564

Neal, J. W., & Neal, Z. P. (2013). Nested or networked? future directions for ecological systems theory. Social Development. https://doi.org/10.1111/sode.12018

Nunnally, J. C. (1978). *Psychometric theory.* McGraw-Hill.

Odom, S. L., McConnell, S. R., & McEvoy, M. (1992). Social competence of young children with disabilities: Issues and Strategies for intervention. Baltimore: Brookes.

Oliver, M. N., Wells, K. M., Joy-Gaba, J. A., Hawkins, C. B., & Nosek, B. A. (2014). Do physicians' implicit views of African Americans affect clinical decision making? The Journal of the American Board of Family Medicine, 27(2), 177–188. https://doi.org/10.3122/jabfm.2014.02.120314

Osher, T. W., & Osher, D. M. (2002). The Paradigm Shift to True Collaboration with Families. Journal of Child & Family Studies, 11(1), 47–60. https://doi.org/10.1023/A:1014715527823

Park, J., & Yoon, J. (2018). A phenomenological study of parenting stress among Korean mothers of deaf children. American Annals of the Deaf, 163(4), 440–462. https://doi.org/10.1353/aad.2018.0028

Part C provision of services in the COVID-19 environment Q&A document (Oct. 20, 2020). Individuals with Disabilities Education Act. (2020, November 24).

Retrieved December 27, 2021, from https://sites.ed.gov/idea/idea-files/part-c-provision-services-covid-19-environment-qa-document-oct-21-2020/#Q3

ProjectImplicit. Take a Test. https://implicit.harvard.edu/implicit/takeatest.html.

Putkinen, V., Saarikivi, K., & Tervaniemi, M. (2013). Do informal musical activities shape auditory skill development in preschool-age children? Frontiers in Psychology, 4, Articles 572, 1-6.

Radlinski, S., Le Beau, V. (2020, March 10). Culturally relevant songs, rhymes, and music in early intervention for Spanish-speaking families. EHDI Annual Meeting, Kansas City, MO.

Return to school roadmap: Provision of early intervention services (Oct. 29, 2021). Individuals with Disabilities Education Act. (2021, December 1). Retrieved April 21, 2022, from https://sites.ed.gov/idea/idea-files/return-to-school-roadmap-provision-of-early-intervention-services-oct-29-2021/#citem_f091-e955

Ricento, T. (1998). (rep.). eric.ed.gov. Retrieved April 15, 2022, from https://files.eric.ed.gov/fulltext/ED426599.pdf.

Ristovska, A. K., (2021). Early intervention and early childhood special education: How to establish good practices? In Ş. Koca (Ed.), Research and reviews in educational sciences-I. essay, Yaşar Hız.

Roberts, W. (2017). Trust, empathy and time: Relationship building with families experiencing vulnerability and disadvantage in early childhood education and care services. Australasian Journal of Early Childhood, 42(4), 4–12. https://doi.org/10.23965/AJEC.42.4.01

Roffé , S. (n.d.). Cued speech. Hands & Voices: Communication Considerations. Retrieved April 17, 2022, from https://www.handsandvoices.org/comcon/articles/cuedspeech.htm

Roostin, E. (2018). Family influence on the development of children. PrimaryEdu - Journal of Primary Education, 2(1), 1. https://doi.org/10.22460/pej.v1i1.654

Rosenzweig, E. A., & Voss, J. (2022). Their words, their world: A paradigm for culturally relevant family-centered intervention. Perspectives of the ASHA Special Interest Groups, 7(2), 553–559. https://doi.org/10.1044/2021_persp-21-00074

Rush, D. D., & Shelden, M. L. (2005). Evidence-based definition of coaching practices. CASEinPoint, 1(6). https://fipp.org/static/media/uploads/ caseinpoint/caseinpoint_vol1_no6.pdf

Rush, D. D., & Shelden, M. L. (2020). The early childhood coaching handbook. Brookes Publishing.

Rush, D. D., Shelden, M. L. (2011). The early childhood coaching handbook. Paul H. Brookes Pub. Co.

Sandbank, M., Bottema-Beutel, K., Crowley, S., Cassidy, M., Dunham, K., Feldman, J. I., Crank, J., Albarran, S. A., Raj, S., Mahbub, P., & Woynaroski, T. G. (2020). Project AIM: Autism intervention meta-analysis for studies of young children. Psychological Bulletin, 146(1), 1–29. https://doi.org/10.1037/bul0000215

Sanders-Smith, S. C., Smith-Bonahue, T. M., & Soutullo, O. R. (2020). “The parents are locked out”: policies, practices, and perspectives undermining family engagement. International Studies in Sociology of Education, 29(3), 250–273. https://doi.org/10.1080/09620214.2020.1768881

Santos, J. (2017). Our family's experience of the bilingual-bicultural educational approach. BC Hands & Voices. Retrieved April 17, 2022, from https://www.bchandsandvoices.com/post/our-familys-experience-of-the-bilingual-bicultural-educational-approach/

Sarmento, T. (2016). Families and education in Portugal: Summary' Characterization. Advances in Social Sciences Research Journal, 3(3). https://doi.org/10.14738/assrj.33.1856

Schmitt, M., & Kleine, L. (2010). The Influence of Family-School Relations on Academic Success. Journal for Educational Research Online, 2(1), 145–167.

Schueler, B. E., McIntyre, J. C., & Gehlbach, H. (2017). Measuring Parent Perceptions of Family-School Engagement: The Development of New Survey Tools. School Community Journal, 27(2), 275–301

Shalev, R. A., Lavine, C., & Di Martino, A. (2020). A systematic review of the role of parent characteristics in parent-mediated interventions for children with autism spectrum dis- order. Journal of Developmental and Physical Disabilities, 32(1), 1–21. https://doi.org/10. 1007/s10882-018-9641-x

Sidebotham, P. (2001). Culture, stress and the parent-child relationship: A qualitative study of parents' perceptions of parenting. Child: Care, Health and Development, 27(6), 469–485. https://doi.org/10.1046/j.1365-2214.2001.00229.x

Snell, E. K., Hindman, A. H., & Wasik, B. A. (2018). Exploring the use of texting to support family-school engagement in early childhood settings: Teacher and

Family Perspectives. Early Child Development and Care, 190(4), 447–460. https://doi.org/10.1080/03004430.2018.1479401

Summers, J. A., Dell'Oliver, C., Turnbull, A. P., Benson, H. A., Santelli, E., Campbell, M., & Siegel-Causey, E. (1990). Examining the Individualized Family Service Plan process. Examining the Individualized Family Service Plan Process: What Are Family and Practitioner Preferences?, 10(1), 78–99. https://doi.org/10.1177/027112149001000107

The individuals with disabilities education act (IDEA), part C: Early intervention for infants and toddlers with disabilities. (2019, August 9). Retrieved April 29, 2022, from https://sgp.fas.org/crs/misc/R43631.pdf

Tiede, G., & Walton, K. M. (2019). Meta-analysis of naturalistic developmental behavioral interventions for young children with autism spectrum disorder. Autism, 23(8), 2080–2095. https://doi.org/10.1177/1362361319836371

Tochluk, S. (2010). Witnessing whiteness: The need to talk about race and how to do it. Rowman & Littlefield Education.

Total communication. Hands & Voices: Communication Considerations. (n.d.). Retrieved April 17, 2022, from https://www.handsandvoices.org/comcon/articles/totalcom.htm

Unger, D. G., Tressell, P. A., Jones, C. W., & Park, E. (2004). Involvement of low-income single caregivers in child-focused early intervention services: Implications for caregiver-child interaction. Family Relations, 53(2), 210–218.

Vigeant, F. (2016, November 1). Success, higher order thinking skills and grit [web log]. Retrieved February 6, 2022, from https://www.knowatom.com/blog/success-higher-order-thinking-skills-and-grit.

What is the Individuals with Disabilities Education Act? (2019, April 30). Retrieved November 25, 2020, from https://www.washington.edu/doit/what-individuals-disabilities-education-act.

Wiggin, M., Sedey, A. L., Yoshinaga-Itano, C., Mason, C. A., Gaffney, M., & Chung, W. (2021). Frequency of early intervention sessions and vocabulary skills in children with hearing loss. Journal of Clinical Medicine, 10(21), 5025. https://doi.org/10.3390/jcm10215025

What is listening and spoken language (LSL)? https://www.hearingfirst.org/lsl/what-is-lsl.

Yoshinaga-Itano, C. (2014). Principles and guidelines for early intervention after confirmation that a child is deaf or hard of hearing. Journal of Deaf Studies and Deaf Education, 19, 143-175. doi:10.1093/deafed/ent043

APPENDIX A: Interview Email- English Version

Hello,

Thank you for completing the survey titled, “Family Engagement: Does Provider Identity Matter?” (IRB approval FBIRB110521-CB). You have been selected to participate in an interview that should last no more than 30 minutes. If needed, an interpreter will be available.

Please respond to this email and sign the attached document by Monday, April 19th if you are still willing to participate in an interview. If you participate in the interview, you will receive a $25.00 gift card to Amazon after you review the transcript of the interview.

Thank you for your time and consideration.
I look forward to hearing from you,

Nichole Bosas, MA, LSLS Cert. AVEd.
Doctoral Candidate - Collaborative High-Impact Instruction (EdD)
Fontbonne University

APPENDIX B: Interview Email- Spanish Version

Hola,

Gracias por completar la encuesta titulada "Participación familiar: ¿Importa la identidad del proveedor?" (IRB Aprobación FBIRB110521-CB). Ha sido seleccionado para participar en una entrevista que no durará más de 30 minutos. Si es necesario, tendremos un intérprete disponible.

Si está dispuesto a participar en una entrevista, por favor responda a este correo electrónico y firme el documento adjunto a más tardar el lunes, 19 de abril. Si participa en esta investigación, recibirá una tarjeta de regalo de $25.00 para Amazon después que revisemos la transcripción de la entrevista.

Gracias por tu tiempo y consideración.

Espero escuchar su respuesta,

Nichole Bosas, MA, LSLS Cert. AVEd.
Candidato a doctorado - Instrucción colaborativa de alto impacto (EdD)
Universidad de Fontbonne

APPENDIX C: Interview Informed Consent Form

You are invited to participate in a study of “Family Engagement: Does Provider Identity Matter?” (IRB approval FBIRB110521-CB). I hope to learn what factors, if any, influence family engagement. You were selected as a possible interview participant in this study because you previously participated in my initial study survey, as a parent or a caregiver of a child who is deaf or hard of hearing, and because you have a child who is currently receiving early intervention services or has in the past ten years.

If you decide to participate, we will determine an agreed upon time that is convenient for both of us. The interview should take approximately 30 minutes and will be audio recorded. All data collected will be stored on a password protected phone and computer.

There are certain potential benefits and risks associated with your participation in this research. The benefits are contributing to emerging research and allowing your voice to be shared. The risks may include being inconvenienced or feeling uncomfortable answering questions.

Any information obtained in connection with this study that can be identified with you will remain confidential and will be disclosed only with your permission. In any written reports or publications, you will not be identified or identifiable.

For your participation you will receive a $25.00 gift card to Amazon once you review the interview transcripts. This will be sent to you electronically through email.

Your decision whether to participate will not affect your future relations with Fontbonne University or the researcher in any way. If you decide to participate, you are free to discontinue participation at any time without affecting such relationships.

If you have any questions, please ask me. If you have any additional questions later, please contact Nichole Bosas at nbosas00618@fontbonne.edu or Jamie Doronkin at JDoronkin@fontbonn.edu and we will be happy to answer them.

++

You are making a decision whether or not to participate. Your typed name and date indicates that you have read the information provided above, have had your questions answered, and you have decided to participate. Please indicate whether you prefer a Zoom interview, a phone interview or if you have no preference. Also indicate if an interpreter is needed. You may withdraw at any time without prejudice after signing this form should you choose to discontinue participation in this study.

____ Phone Interview

____ Zoom Interview

____ No Preference

Please obtain an interpreter for ___________ language.

____

____

Signature

Date

__Nichole Bosas____ ___4/4/21__

Signature of Principal Investigator Date

Revised October, 2019

Note: Questions and Concerns can also be referred to the IRB Committee Chair at: jfish@fontbonne.edu

APPENDIX D: Electronic Survey in English

*The SPISE-R Likert Scale from 1 to 7 (1: Not at all; Never, 4: Somewhat; Sometimes 7: A great deal; Always)

1. Informed Consent Form

You are invited to participate in a study of “Family Engagement: Does Provider Identity Matter?” The study will examine what factors, if any, influence family engagement. You were selected as a possible participant in this study because you are a parent or a caregiver of a child who is deaf or hard of hearing and have a child who is currently receiving early intervention services or have in the past ten years.

The survey will take approximately 20-25 minutes to complete. In addition to completing the survey, you may be chosen to participate in a phone interview. We will come up with an agreed upon time that is convenient for both of us. The interview should take approximately 30 minutes. The interview will be audio recorded. All data collected will be stored on a password-protected computer and phone.

If you decide to participate in the survey, you will be entered into a drawing for a $100.00 gift card to Amazon. If you are chosen to also participate in an interview, you will receive a $25.00 gift card to Amazon.

There are certain potential benefits and risks associated with your participation in this research. The benefits are contributing to emerging research and allowing your voice to be shared. The risks might include being inconvenienced or feeling uncomfortable answering questions.

Any information obtained in connection with this study that can be identified with you will remain confidential and will be disclosed only with your permission. All data will be reported as aggregate (as a group). In any written reports or publications, you will not be identified or identifiable.

Your decision whether to participate will not affect your future relations with Fontbonne University or the researcher in any way. If you decide to participate, you are free to discontinue participation at any time without affecting such relationships.

If you have any questions, please ask me. If you have any additional questions later, please contact Nichole Bosas at nbosas00618@fontbonne.edu or Jamie Doronkin at JDoronkin@Fontbonne.edu and we will be happy to answer them. Questions relating to IRB approval of this study should be directed to Dr. Joanne Fish, IRB Chair at jfish@fontbonne.edu. IRB approval # FBUIRB110521-CB.

By clicking on "Next", you are hereby confirming that you have read the above information, agree to the terms of consent, and have decided to participate.

2. Demographic Information

In this section, please answer questions about you and your family's demographic information.

*1. How long ago did you receive early intervention services?

○ Currently receiving services

○ 1-2 years ago

○ 3-4 years ago

○ 5-6 years ago

○ 7-8 years ago

○ 9+ years ago

*2. What is the highest level of education you have completed?

○ Some high school

○ GED

○ High school

○ Some college

○ Associate's degree (AA)

○ Bachelor's degree (BS, BA)

○ Master's degree (MA)

○ Professional degree (JD, PhD, EdD, MD)

*3. What is your age?

○ 18 to 24

○ 25 to 34

○ 35 to 44

○ 45 to 54

○ 55 or older

○ Prefer not to say

*4. Are you of Hispanic, Latino, or Spanish origin?

○ No, not of Hispanic, Latino, or Spanish origin

○ Yes, Mexican, Mexican American, Chicano

○ Yes, Puerto Rican

○ Yes, Cuban

○ Yes, another Hispanic, Latino, or Spanish origin

Enter, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc.

*5. What is your race?

○ White

○ Black or African American

○ American Indian or Alaska Native

○ Chinese

○ Filipino

○ Asian Indian

○ Vietnamese

○ Korean

○ Japanese

○ Other Asian

○ Native Hawaiian

○ Samoan

○ Chamorro

○ Other Pacific Islander

○ Some other race

☐

*6. Do you have a husband/wife/spouse/unmarried partner?

○ Yes

○ No

*7. Is your husband/wife/spouse/unmarried partner of Hispanic, Latino or Spanish origin?

○ No, not of Hispanic, Latino or Spanish origin

○ Yes, Mexican, Mexican American, Chicano

○ Yes, Puerto Rican

○ Yes, Cuban

○ Does not apply

○ Yes, another Hispanic, Latino, or Spanish origin

Enter, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc.

*8. What is your husband/wife/spouse/unmarried partner's race?

○ White

○ Black or African American

○ American Indian or Alaska Native

○ Chinese

○ Filipino

○ Asian Indian

○ Vietnamese

○ Korean

○ Japanese

○ Other Asian

○ Native Hawaiian

○ Samoan

○ Chamorro

○ Other Pacific Islander

○ Does not apply

○ Some other race

☐

*9. What is the primary language utilized in your home? If you are a bilingual home, check all that apply.

○ English

○ Spanish

○ American Sign Language

○ Other (please describe)

☐

*10. When thinking about your family's language, indicate how the early intervention sessions were primarily conducted.

○ With an interpreter

○ Without an interpreter. No interpreter was needed

○ Without an interpreter. An interpreter was needed

*11. What is your family's combined annual income?

○ Less than $15,000

○ $15,000-$34,999

○ $35,000-$49,999

○ $50,000-$74,999

○ $75,000-$149,000

○ $150,000 or more

3. Provider Demographics

The next questions are about your primary early intervention provider. Please use your best guess to answer the following questions.

*1. Is your provider of Hispanic, Latino or Spanish origin?

○ No, not of Hispanic, Latino or Spanish origin

○ Yes, Mexican, Mexican American, Chicano

○ Yes, Puerto Rican

○ Yes, Cuban

○ Unknown

○ Yes, another Hispanic, Latino, or Spanish origin

Enter, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc.

*2. What is your provider's race?

○ White

○ Black or African American

○ American Indian or Alaska Native

○ Chinese

○ Filipino

○ Asian Indian

○ Vietnamese

○ Korean

○ Japanese

○ Other Asian

○ Native Hawaiian

○ Samoan

○ Chamorro

○ Other Pacific Islander

○ Unknown

○ Some other race

*3. What is the primary language of your provider?

○ English

○ Spanish

○ American Sign Language

○ Other (please describe)

☐

*4. What is the marital status of your provider?

○ Single

○ Married

○ Unknown

*5. Does your provider have any children?

○ Yes

○ No

○ Unknown

*6. What is your provider's age?

○ 20-30 years

○ 30-40 years

○ 40-50 years

○ 50 years +

○ Unknown

SPISE-R (Ambrose, et al., 2019)

Directions: Click to answer each question. The phrase “hearing devices” is used to refer to both hearing aids and cochlear implants. “Parents” is used to refer to children’s main caregivers.

A. BELIEFS: These items describe things that some parents of children with hearing loss may believe or be concerned about. Please indicate how much YOU share these beliefs or concerns.

*1. “If children are given the right supports, they can overcome the effects of hearing loss.”

*2. “How my family talks to and interacts with my child will have a big impact on how my child develops.”

*3. “No matter what we do as a family, my child’s development will be delayed compared to children with normal hearing.”

*4. “My child’s hearing device(s) help him/her learn to communicate.”

*5. “If people see my child wearing his/her hearing device(s), they will judge my child or family.”

*6. “If I keep my home too quiet, my child won’t learn to listen in noise.”

*7. "If children wear their hearing device(s) all the time, they will become overly dependent on them.”

B. KNOWLEDGE: Parents must learn a lot of new information and skills when their child has a hearing loss. This process takes time. We are interested in how much you currently <u>**know**</u> about each topic.

*1. How to manage my child’s hearing device(s)

*2. Strategies to use to keep my child’s hearing device(s) on him/her

*3. What my child can and cannot hear <u>without</u> his/her hearing device(s)

*4. What my child can and cannot hear <u>with</u> his/her hearing device(s)

*5. How to do the Ling 6-Sound test (ah, ee, oo, m, sh, s)

*6. The sounds, words, or sentence types my child should be learning to say

*7. How to help my child learn to communicate

*8. How my child’s learning is affected by his/her hearing loss

*9. How to share a book with my child in a way that helps him/her learn to communicate

*10. Strategies the interventionist recommends using to help my child learn to communicate

C. CONFIDENCE: Knowledge alone doesn’t always make us confident or comfortable doing something. We may need more time or practice to build confidence. Please indicate how **confident** you are in your ability to do each thing.

*1. Determine if my child’s hearing device(s) are working okay

*2. Put and keep my child’s hearing device(s) on him/her

*3. Help my child hear by making changes in his/her environment

*4. Help my child hear and understand new speech sounds or sounds in his/her environment

*5. Find out if my child is hearing okay by using the Ling 6-Sound test (ah, ee, oo, m, sh, s)

*6. Help my child learn to say new sounds, words, or sentences

*7. Help my child communicate what he/she wants and needs

*8. Communicate with my child in a way that is appropriate to address his/her hearing needs

*9. Share books with my child in a way that helps him/her learn to communicate

*10. Do the things I learned during intervention sessions when the professional is not there to help me
NEW QUESTION

7. SCALE OF PARENTAL INVOLVEMENT AND SELF-EFFICACY-REVISED (SPISE-R)

D. ACTIONS: We know daily lives are busy. There are many responsibilities that parents have. It is not possible to always do everything we would like to do each day. Given other responsibilities, we are interested in how often you are able to **do** the following things.
*1. Daily listening checks on my child's hearing device(s)

*2. Make sure other people caring for my child know how to manage my child's hearing device(s)

*3. Make sure I, or someone else, puts my child's hearing device(s) on immediately after he/she wakes up

*4. Make sure I, or someone else, puts my child's hearing device(s) on immediately if they fall off or my child takes them off

*5. Make sure my child's environment makes it as easy as possible for him/her to hear

*6. Draw my child's attention to sounds in speech or the environment that he/she is still learning or might not have heard

*7. Daily check of my child's listening with the Ling 6-Sound test (ah, ee, oo, m, sh, s)

*8. Use strategies during our daily activities to help my child learn to say new sounds, words, or sentences

*9. Use strategies to help my child communicate his/her wants and needs

*10. Make sure other people caring for my child know how to help my child learn to communicate

*11. Share books with my child at least one time a day

*12. Use the strategies I learned during intervention sessions to help my child learn to communicate.

*13. Advocate for my child’s needs in intervention sessions and IFSP/IEP

*14. Get my child to the audiologist as soon as a visit is needed

*15. Attend and be involved in my child’s intervention sessions (instead of having to do other things during that time, such as prepare meals or take care of siblings)

E. DEVICE USE: We are interested in how much your child wears his/her hearing device(s) when he/she is awake on an average day. If your child has one hearing aid and one cochlear implant and there are differences in how you would answer the questions for each device, please answer separately for each device. (In the table, please use “CI” and “HA” if needed.)

*1. How many hours a day is your child usually awake?

*2. How many hours a day does your child usually wear his/hear hearing device(s) while awake?

*3. If your child ever wears his/her hearing devices (turned on) while sleeping, please indicate the average number of hours per day this occurs. Mark 0 if the child never wears devices while sleeping.

*4. How often does your child usually wear his/her hearing device(s) when he/she is awake in these situations?

*1. Are you willing to be contacted for a follow-up interview for a $25.00 gift card to Amazon. Not everyone will be contacted for an interview.

○ Yes

○ No

*2. Please provide your email address or preferred contact for the researcher to set up an interview. Your email will not be used for any other purpose, except to be contacted for an interview.

*3. Please provide your email address to be entered into the $100.00 Amazon gift card drawing. Your email will not be used for any other purposes, except to be entered into the drawing.

APPENDIX E: Electronic Survey in Spanish

1. Formulario de consentimiento informado IT

Está invitado a participar en un estudio de "Participación familiar: ¿Importa la identidad del proveedor?" El estudio examinará qué factores, si los hay, influyen en el compromiso familiar. Usted fue seleccionado como posible participante en este estudio porque es padre o cuidador de un niño sordo o con pérdida auditiva, y tiene un niño que actualmente está recibiendo servicios de intervención temprana o lo ha hecho en los últimos diez años.

La encuesta durará aproximadamente de 20 a 25 minutos en completarse. Además de completar la encuesta, puede ser elegido para participar en una entrevista telefónica. Estableceremos un horario acordado que sea conveniente para ambos. La entrevista debería durar aproximadamente 30 minutos. El audio de la entrevista se grabará. Todos los datos recopilados se almacenarán en una computadora y teléfono protegidos con contraseña.

Si decide participar en la encuesta, se le inscribirá en un sorteo de una tarjeta por el valor de $100.00 para Amazon. Si es elegido para participar también en la entrevista, recibirá una tarjeta de Amazon por el valor de $25.00.

Existen ciertos beneficios y riesgos potenciales asociados con su participación en esta investigación. Los beneficios contribuyen a la investigación emergente y permiten que su voz sea compartida. Los riesgos pueden incluir: sentirse incómodo al participar o al responder preguntas.

Cualquier información obtenida en relación con este estudio, que pueda identificarse con usted permanecerá confidencial y se divulgará solo con su permiso. Todos los datos se informarán como conglomerados (como grupo). En cualquier informe escrito o publicación, no será identificado ni identificable.

Su decisión de participar no afectará de ninguna manera sus relaciones futuras con la Universidad de Fontbonne o con el investigador. Si decide participar, puede interrumpir su participación en cualquier momento, sin afectar dichas relaciones.

Si tiene alguna pregunta, por favor hagamela. Si tiene preguntas más adelante, comuníquese con Nichole Bosas a través de este correo electrónico: nbosas00618@fontbonne.edu o Jamie Doronkin: JDoronkin@Fontbonne.edu. Estaremos encantados de responderlas. Las preguntas relacionadas con la aprobación de este estudio por el IRB deben dirigirse a la Dra. Joanne Fish, Presidenta del IRB: jfish@fontbonne.edu. Aprobación del IRB # FBUIRB110521-CB.

Al seleccionar "Siguiente", confirma que ha leído la información anterior, que acepta los términos de consentimiento y que ha decidido participar.

2. Información demográfica

En esta sección, responda preguntas sobre la información demográfica de usted y de su familia.

* 1. ¿Hace cuánto tiempo recibió los servicios de intervención temprana? Actualmente recibiendo servicios

hace 1-2 años

hace 3-4 años

hace 5-6 años

hace 7-8 años

hace 9+ años

*2. ¿Cuál es el nivel más alto de educación que ha completado?

Algo de nivel secundario

GED

Nivel secundario

Algo de universidad

Título terciario

Título universitario

Magister

Doctorado

*3. ¿Cuál es su edad?

18 a 24

25 a 34

35 a 44

45 a 54

55 o mas

Prefiero no responder

*4. ¿Eres de origen hispano, latino o español?

No es de origen hispano, latino o español

Si, mexicano, méxico-americano, chicano

Yes, de Puerto Rico

Yes, cubano

Sí, de otro origen hispano, latino o español

Ingrese, por ejemplo, salvadoreño, dominicano, colombiano, guatemalteco, español, ecuatoriano, etc.

*5. ¿Cuál es su raza? Blanco

Afro-americano

Indio americano o nativo de Alaska Chino

Filipino

Indio asiático

Vietnamita

Koreano

Japones

Otra raza asiatica

Nativo de Hawaii

Samoano

Chamorro

Otro isleño del pacífico

Alguna otra raza

*6. ¿Tiene esposo / esposa / cónyuge / pareja (no casados)?

Si

No

*7. ¿Es su esposo / esposa / cónyuge / pareja de origen hispano, latino o español?

No es de origen hispano, latino o español

Si, mexicano, méxico-americano, chicano

Yes, de Puerto Rico

Yes, cubano No aplica

Sí, de otro origen hispano, latino o español

Ingrese, por ejemplo, salvadoreño, dominicano, colombiano, guatemalteco, español, ecuatoriano, etc.

*8. ¿Cuál es la raza de su esposo / esposa / cónyuge / pareja (no casados)?

Blanco

Afro-americano

Indio americano o nativo de Alaska Chino

Filipino

Indio asiático

Vietnamita

Koreano

Japones

Otra raza asiatica Nativo de Hawaii Samoano

Chamorro

Otro isleño del pacífico

No aplica

Alguna otra raza

*9. ¿Cuál es el idioma principal que se utiliza en su hogar? Si es un hogar bilingüe, marque todo lo que corresponda.

ingles

español

lengua de señas americana

Otro (por favor, describa)

*10. Pensando en el idioma de su familia, indique cómo se llevaron a cabo, principalmente, las sesiones de intervención temprana.

Con un interprete

Sin un intérprete. No fue necesario.

Sin un intérprete. Un intérprete hubiese sido necesario.

*11. ¿Cuál es el ingreso anual combinado de su familia?

Menos de $15,000

$15,000-$34,999

$35,000-$49,999

$50,000-$74,999

$75,000-$149,000

$150,000 or more

3. Demografía del proveedor

Las siguientes preguntas son sobre su proveedor primario de intervención temprana.

Utilice su mejor estimación para responder las siguientes preguntas.

*1. ¿Su proveedor es de origen hispano, latino o español?

No es de origen hispano, latino o español

Si, mexicano, méxico-americano, chicano Yes, de Puerto Rico

Yes, cubano

No aplica

Sí, de otro origen hispano, latino o español

Ingrese, por ejemplo, salvadoreño, dominicano, colombiano, guatemalteco, español, ecuatoriano, etc.

*2. ¿Cuál es la raza de su proveedor?

Blanco

Afro-americano

Indio americano o nativo de Alaska Chino

Filipino

Indio asiático

Vietnamita Koreano Japones

Otra raza asiatica Nativo de Hawaii Samoano Chamorro

Otro isleño del pacífico Desconocida

Alguna otra raza

*3. ¿Cuál es el idioma principal de su proveedor?

ingles

español

lengua de señas americana

Otro (por favor, describa)

☐

*4. ¿Cuál es el estado civil de su proveedor?

Soltero

Casado

Desconocido

*5. ¿Su proveedor tiene hijos?

Si

No

Desconocido

*6. ¿Cuál es la edad de su proveedor?

20-30 años

30-40 años

40-50 años

50+ años

Desconocido

ESCALA DE PARTICIPACIÓN DE LOS PADRES Y AUTOEFICACIA - REVISADA (SPISE-R)

Instrucciones: Seleccione el número para responder a cada pregunta. La frase "dispositivos auditivos" se utiliza para referirse tanto a los audífonos como a los implantes cocleares. "Padres" se utiliza para referirse a los principales cuidadores de los niños.

A. CREENCIAS: Estas declaraciones describen cosas en las que creer o preocupan a algunos padres de niños con pérdida auditiva. Por favor indique cuánto comparte USTED estas creencias o preocupaciones.

* 1. "Si los niños reciben los apoyos adecuados, pueden superar los efectos de la pérdida auditiva."

* 2. "La forma en que mi familia habla e interactúa con mi hijo tendrá un gran impacto en cómo se desarrolla mi hijo."

* 3. "No importa lo que hagamos como familia, el desarrollo de mi hijo se retrasará en comparación con los niños con audición normal." 0

* 4. "Los dispositivos auditivos de mi hijo le ayudan a aprender a comunicarse."

* 5. "Si la gente ve a mi hijo usando su(s) dispositivo(s) auditivo(s), juzgarán a mi hijo o a mi familia."

* 6. "Si mantengo mi casa demasiado silenciosa, mi hijo no aprenderá a escuchar con ruido de fondo."

* 7. "Si los niños usan su(s) dispositivo(s) auditivo(s) todo el tiempo, se volverán demasiado dependientes de ellos."

P5: ESCALA DE PARTICIPACIÓN DE LOS PADRES Y AUTOEFICACIA - REVISADA (SPISE-R)

ESCALA DE PARTICIPACIÓN DE LOS PADRES Y AUTOEFICACIA - REVISADA (SPISE-R)

B. CONOCIMIENTO: Los padres deben aprender mucha información y habilidades nuevas cuando su hijo tiene una pérdida auditiva. Este proceso lleva tiempo. Estamos interesados en saber cuánto ustedes saben actualmente sobre cada tema.

* 1. Cómo manejar los dispositivos auditivos de mi hijo

* 2. Estrategias para mantener los dispositivos auditivos en el niño

* 3. Lo que mi hijo puede y no puede oír <u>sin</u> su(s) dispositivo(s) auditivo(s)
* 4. Lo que mi hijo puede y no puede escuchar <u>con</u> su(s) dispositivo(s) auditivo(s)

* 5. Cómo hacer la prueba de los 6 sonidos de Ling (/a/, /i/, /u/, /m/, /sh/, /s/)

* 6. Los sonidos, palabras u oraciones que mi hijo debería estar aprendiendo a decir

* 7. Cómo ayudar a que mi hijo a aprenda a comunicarse

* 8. Cómo se va afectado el aprendizaje de mi hijo por su pérdida auditiva

* 9. Cómo compartir un libro con mi hijo de una manera que le ayude a aprender a comunicarse

* 10. Estrategias que el profecional recomienda usar para ayudar a mi hijo a aprender a comunicarse

P6: ESCALA DE PARTICIPACIÓN DE LOS PADRES Y AUTOEFICACIA - REVISADA (SPISE-R)

ESCALA DE PARTICIPACIÓN DE LOS PADRES Y AUTOEFICACIA - REVISADA (SPISE-R)

C. CONFIANZA: El conocimiento por sí solo no siempre nos hace sentir seguros o cómodos al hacer algo. Es posible que necesitemos más tiempo o práctica para **sentirnos mas comodos o seguros**. Indique cuánto confía en su capacidad para hacer cada cosa.

* 1. Determinar si los dispositivos auditivos de mi hijo funcionan bien

* 2. Poner y mantener los dispositivos auditivos del niño puestos

* 3. Ayudar a mi hijo a escuchar haciendo cambios en su entorno

* 4. Ayudar a mi hijo a escuchar y comprender nuevos sonidos del habla o sonidos en su entorno

* 5. Determinar si mi hijo está escuchando bien usando la prueba de los 6 sonidos de Ling (/a/, /i/, /u/, /m/, /sh/, /s/)

* 6. Ayudar a mi hijo a aprender a decir nuevos sonidos, palabras u oraciones

* 7. Ayudar a mi hijo a comunicar lo que quiere y necesita

* 8. Comunicarme con mi hijo de una manera que sea apropiada para abordar sus necesidades auditivas

* 9. Compartir libros con mi hijo de una manera que le ayude a aprender a comunicarse

* 10. Aplicar las cosas que aprendí durante las sesiones de intervención cuando el profesional no está allí para ayudarme

P7: ESCALA DE PARTICIPACIÓN DE LOS PADRES Y AUTOEFICACIA - REVISADA (SPISE-R)

ESCALA DE PARTICIPACIÓN DE LOS PADRES Y AUTOEFICACIA - REVISADA (SPISE-R)

D. ACCIONES: Sabemos que la vida diaria es ocupada. Son muchas las responsabilidades que tienen los padres. No es posible siempre hacer todo lo que nos gustaría hacer. Considerando otras responsabilidades, nos interesa saber con qué frecuencia puede hacer las siguientes cosas.

* 1. Chequear diariamente el funcionamiento de los dispositivos auditivos de mi hijo/a

* 2. Asegurar que otras personas que cuidan a mi hijo/a sepan cómo manejar sus dispositivos auditivos

* 3. Asegurarme que yo, o alguien más, coloque los dispositivos auditivos de mi hijo/a inmediatamente después de que se despierte

* 4. Asegurarme que yo, o alguien más, coloque los dispositivos auditivos de mi hijo/a inmediatamente, si se caen o si mi hijo/a se los quita

* 5. Asegurarme que el entorno de mi hijo/a le facilite oír lo más posible

* 6. Llamar la atención de mi hijo/a a los sonidos del habla o del entorno, que todavía está aprendiendo o que tal vez no haya escuchado

* 7. Comprobar diariamente el acceso al sonido de mi hijo/a con la prueba de los 6 sonidos de Ling (/a/, /i/, /u/, /m/, /sh/, /s/)

* 8. Utilizar estrategias durante nuestras actividades diarias para ayudar a mi hijo/a a aprender a decir nuevos sonidos, palabras u oraciones

* 9. Utilizar estrategias para ayudar a mi hijo/a a comunicar sus deseos y necesidades
* 10. Asegurar que otras personas que cuidan a mi hijo/a sepan cómo ayudarlo/a a aprender a comunicarse

* 11. Compartir libros con mi hijo/a al menos una vez al día

* 12. Utilizar las estrategias que aprendí durante las sesiones de intervención para ayudar a mi hijo/a a aprender a comunicarse

* 13. Abogar por las necesidades de mi hijo/a en las sesiones de intervención y en el IFSP / IEP

* 14. Llevar a mi hijo/a al audiólogo tan pronto como se necesite una visita

* 15. Asistir y participar en las sesiones de intervención de mi hijo/a (en lugar de tener que hacer otras cosas durante ese tiempo, como preparar comidas o cuidar a sus hermanos)

P8: ESCALA DE PARTICIPACIÓN DE LOS PADRES Y AUTOEFICACIA - REVISADA (SPISE-R)

ESCALA DE PARTICIPACIÓN DE LOS PADRES Y AUTOEFICACIA - REVISADA (SPISE-R)

E. USO DEL DISPOSITIVO: Estamos interesados en cuánto utiliza su hijo/a su(s) dispositivo(s) auditivo(s) cuando está despierto/a en un día normal. Si su hijo/a tiene un audífono y un implante coclear y existen diferencias en cómo respondería las preguntas para cada dispositivo, responda por separado para cada dispositivo. (En el recuadro, utilice "IC" y "DA" correspondientemente.)

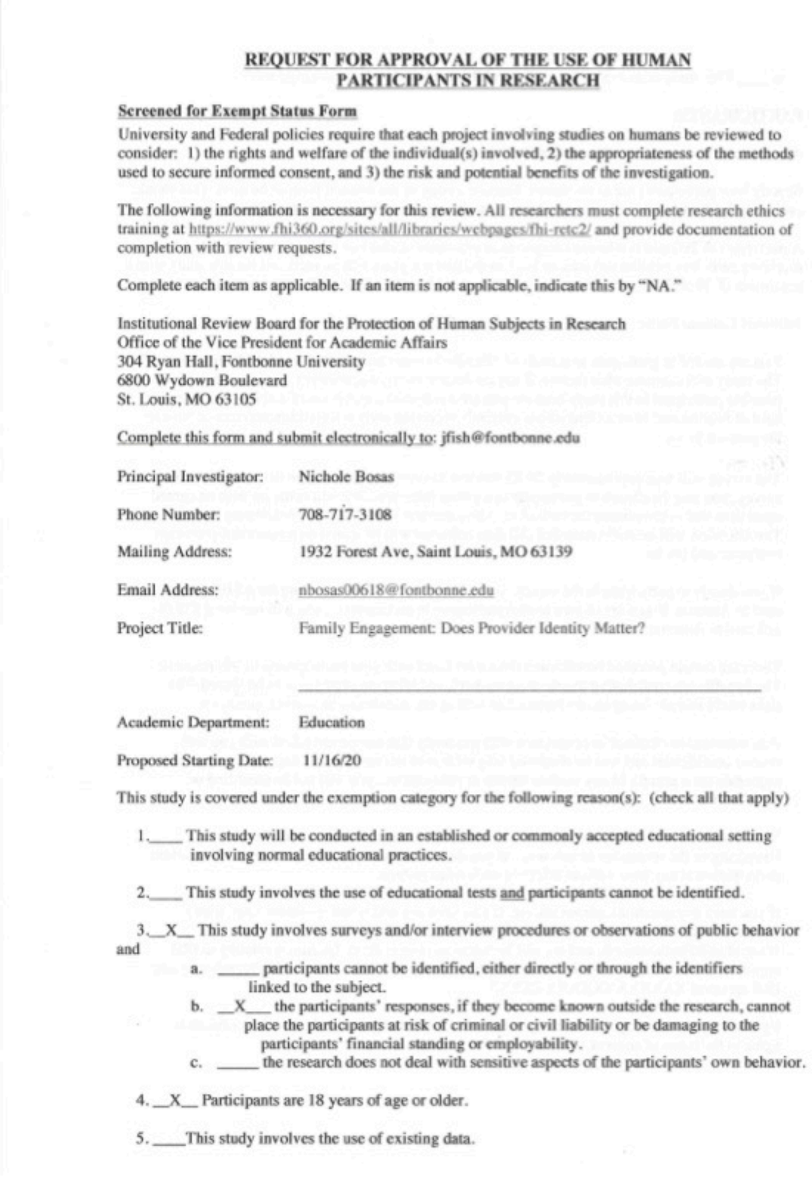
* 1. ¿Cuántas horas al día suele estar despierto su hijo?

* 2. ¿Cuántas horas al día suele utilizar su hijo/a su(s) dispositivo(s) auditivo(s) cuando está despierto?

* 3. Si su hijo alguna vez utiliza sus dispositivos auditivos (encendidos) mientras duerme, indique el número promedio de horas por día que esto ocurre. Marque 0 si el niño nunca utiliza dispositivos mientras duerme

* 4. ¿Con qué frecuencia utiliza su hijo su(s) dispositivo(s) auditivo(s) cuando está despierto en las siguientes situaciones?

APPENDIX F: IRB Approval



REQUEST FOR APPROVAL OF THE USE OF HUMAN PARTICIPANTS IN RESEARCH

Screened for Exempt Status Form

University and Federal policies require that each project involving studies on humans be reviewed to consider: 1) the rights and welfare of the individual(s) involved, 2) the appropriateness of the methods used to secure informed consent, and 3) the risk and potential benefits of the investigation.

The following information is necessary for this review. All researchers must complete research ethics training at https://www.fhi360.org/sites/all/libraries/webpages/fhi-retc2/ and provide documentation of completion with review requests.

Complete each item as applicable. If an item is not applicable, indicate this by "NA."

Institutional Review Board for the Protection of Human Subjects in Research
Office of the Vice President for Academic Affairs
304 Ryan Hall, Fontbonne University
6800 Wydown Boulevard
St. Louis, MO 63105

Complete this form and submit electronically to: jfish@fontbonne.edu

Principal Investigator: Nichole Bosas

Phone Number: 708-717-3108

Mailing Address: 1932 Forest Ave, Saint Louis, MO 63139

Email Address: nbosas00618@fontbonne.edu

Project Title: Family Engagement: Does Provider Identity Matter?

Academic Department: Education

Proposed Starting Date: 11/16/20

This study is covered under the exemption category for the following reason(s): (check all that apply)

1.____ This study will be conducted in an established or commonly accepted educational setting involving normal educational practices.

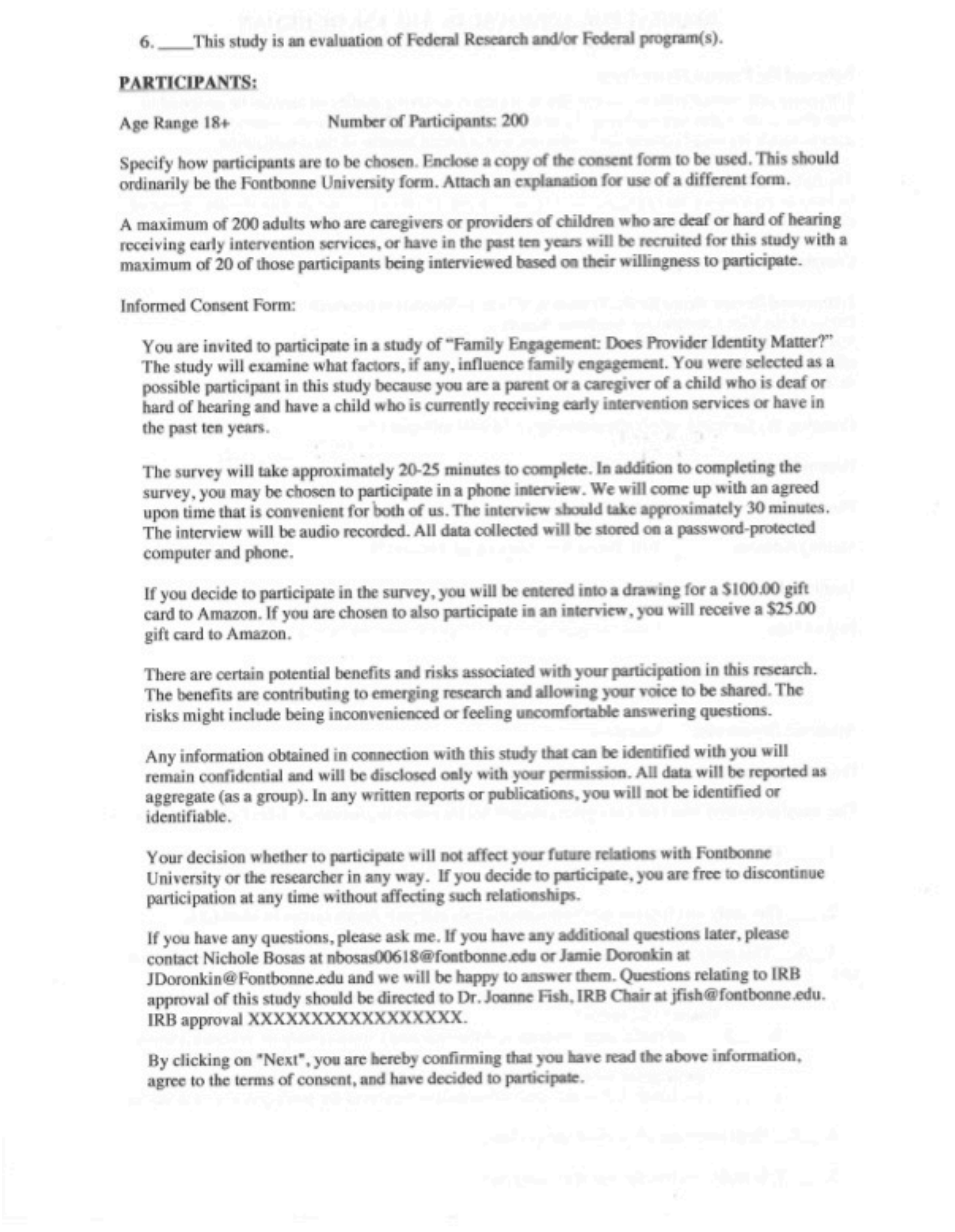
2.____ This study involves the use of educational tests and participants cannot be identified.

3.__X__ This study involves surveys and/or interview procedures or observations of public behavior and

- a. _____ participants cannot be identified, either directly or through the identifiers linked to the subject.
- b. __X___ the participants' responses, if they become known outside the research, cannot place the participants at risk of criminal or civil liability or be damaging to the participants' financial standing or employability.
- c. _____ the research does not deal with sensitive aspects of the participants' own behavior.

4. __X__ Participants are 18 years of age or older.

5. ____This study involves the use of existing data.



6. ____This study is an evaluation of Federal Research and/or Federal program(s).

PARTICIPANTS:

Age Range 18+ Number of Participants: 200

Specify how participants are to be chosen. Enclose a copy of the consent form to be used. This should ordinarily be the Fontbonne University form. Attach an explanation for use of a different form.

A maximum of 200 adults who are caregivers or providers of children who are deaf or hard of hearing receiving early intervention services, or have in the past ten years will be recruited for this study with a maximum of 20 of those participants being interviewed based on their willingness to participate.

Informed Consent Form:

You are invited to participate in a study of "Family Engagement: Does Provider Identity Matter?" The study will examine what factors, if any, influence family engagement. You were selected as a possible participant in this study because you are a parent or a caregiver of a child who is deaf or hard of hearing and have a child who is currently receiving early intervention services or have in the past ten years.

The survey will take approximately 20-25 minutes to complete. In addition to completing the survey, you may be chosen to participate in a phone interview. We will come up with an agreed upon time that is convenient for both of us. The interview should take approximately 30 minutes. The interview will be audio recorded. All data collected will be stored on a password-protected computer and phone.

If you decide to participate in the survey, you will be entered into a drawing for a $100.00 gift card to Amazon. If you are chosen to also participate in an interview, you will receive a $25.00 gift card to Amazon.

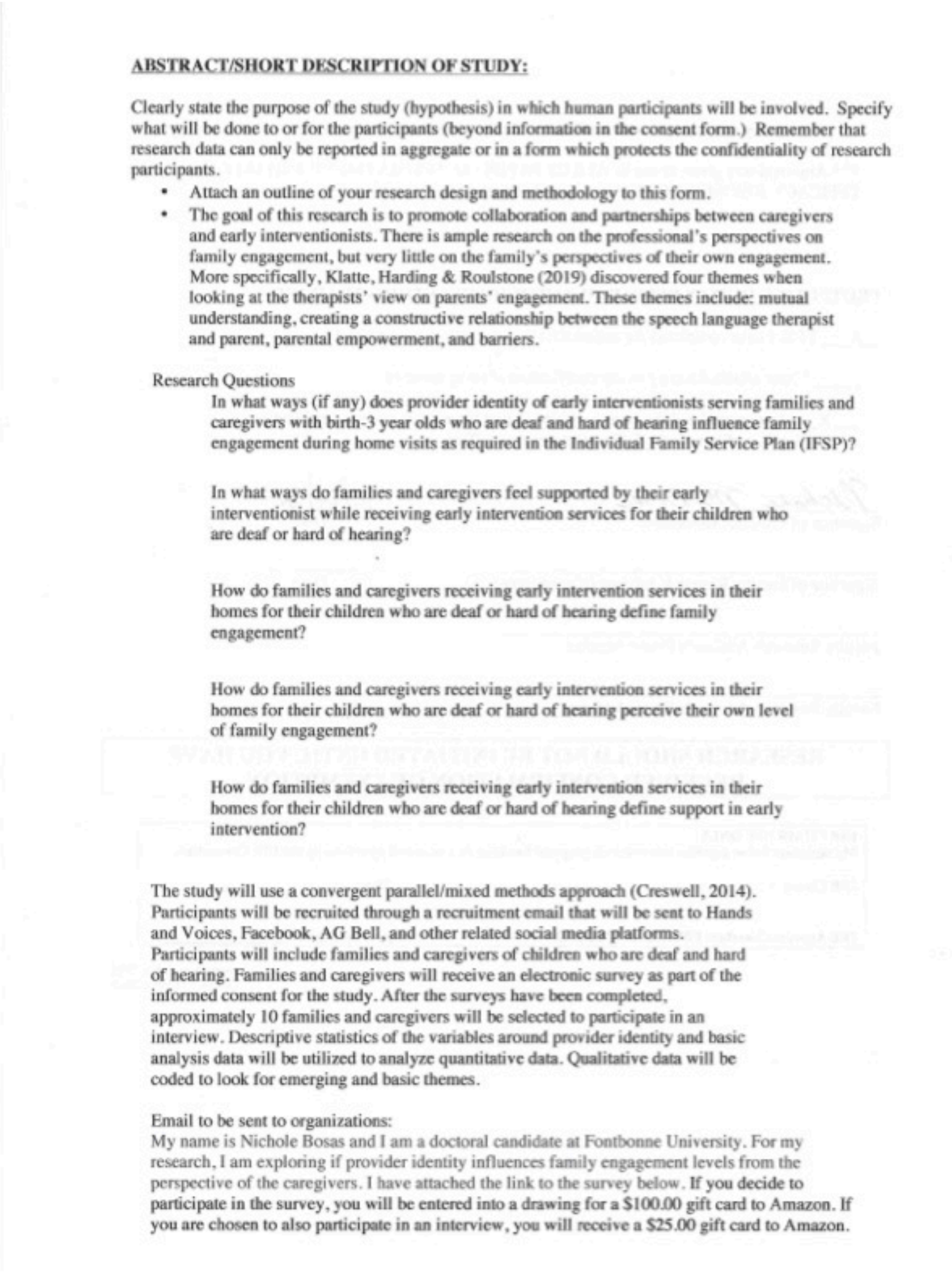
There are certain potential benefits and risks associated with your participation in this research. The benefits are contributing to emerging research and allowing your voice to be shared. The risks might include being inconvenienced or feeling uncomfortable answering questions.

Any information obtained in connection with this study that can be identified with you will remain confidential and will be disclosed only with your permission. All data will be reported as aggregate (as a group). In any written reports or publications, you will not be identified or identifiable.

Your decision whether to participate will not affect your future relations with Fontbonne University or the researcher in any way. If you decide to participate, you are free to discontinue participation at any time without affecting such relationships.

If you have any questions, please ask me. If you have any additional questions later, please contact Nichole Bosas at nbosas00618@fontbonne.edu or Jamie Doronkin at JDoronkin@Fontbonne.edu and we will be happy to answer them. Questions relating to IRB approval of this study should be directed to Dr. Joanne Fish, IRB Chair at jfish@fontbonne.edu. IRB approval XXXXXXXXXXXXXXXX.

By clicking on "Next", you are hereby confirming that you have read the above information, agree to the terms of consent, and have decided to participate.



ABSTRACT/SHORT DESCRIPTION OF STUDY:

Clearly state the purpose of the study (hypothesis) in which human participants will be involved. Specify what will be done to or for the participants (beyond information in the consent form.) Remember that research data can only be reported in aggregate or in a form which protects the confidentiality of research participants.

- Attach an outline of your research design and methodology to this form.
- The goal of this research is to promote collaboration and partnerships between caregivers and early interventionists. There is ample research on the professional's perspectives on family engagement, but very little on the family's perspectives of their own engagement. More specifically, Klatte, Harding & Roulstone (2019) discovered four themes when looking at the therapists' view on parents' engagement. These themes include: mutual understanding, creating a constructive relationship between the speech language therapist and parent, parental empowerment, and barriers.

Research Questions

In what ways (if any) does provider identity of early interventionists serving families and caregivers with birth-3 year olds who are deaf and hard of hearing influence family engagement during home visits as required in the Individual Family Service Plan (IFSP)?

In what ways do families and caregivers feel supported by their early interventionist while receiving early intervention services for their children who are deaf or hard of hearing?

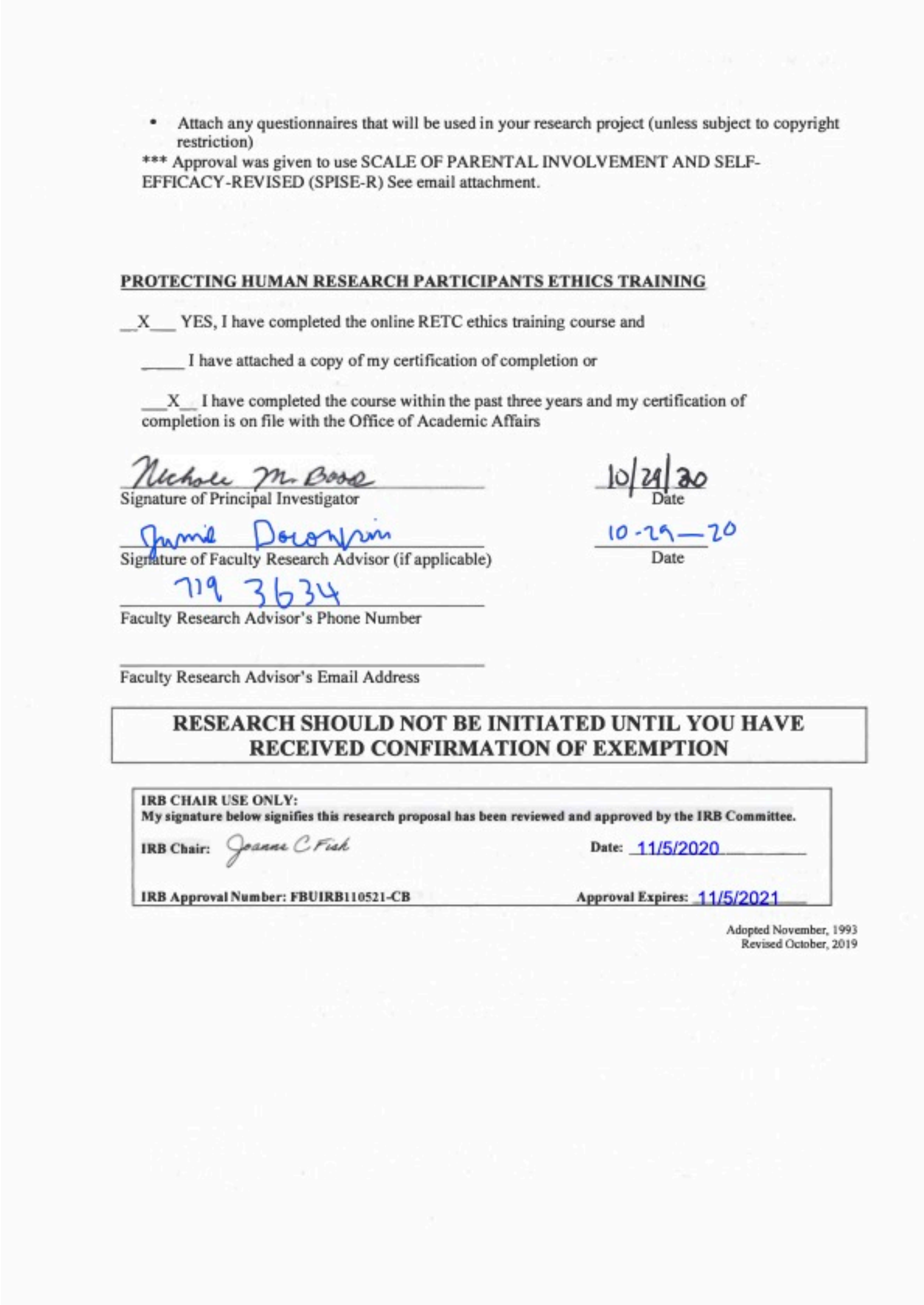
How do families and caregivers receiving early intervention services in their homes for their children who are deaf or hard of hearing define family engagement?

How do families and caregivers receiving early intervention services in their homes for their children who are deaf or hard of hearing perceive their own level of family engagement?

How do families and caregivers receiving early intervention services in their homes for their children who are deaf or hard of hearing define support in early intervention?

The study will use a convergent parallel/mixed methods approach (Creswell, 2014). Participants will be recruited through a recruitment email that will be sent to Hands and Voices, Facebook, AG Bell, and other related social media platforms. Participants will include families and caregivers of children who are deaf and hard of hearing. Families and caregivers will receive an electronic survey as part of the informed consent for the study. After the surveys have been completed, approximately 10 families and caregivers will be selected to participate in an interview. Descriptive statistics of the variables around provider identity and basic analysis data will be utilized to analyze quantitative data. Qualitative data will be coded to look for emerging and basic themes.

Email to be sent to organizations:
My name is Nichole Bosas and I am a doctoral candidate at Fontbonne University. For my research, I am exploring if provider identity influences family engagement levels from the perspective of the caregivers. I have attached the link to the survey below. **If you decide to participate in the survey, you will be entered into a drawing for a $100.00 gift card to Amazon. If you are chosen to also participate in an interview, you will receive a $25.00 gift card to Amazon.**



- Attach any questionnaires that will be used in your research project (unless subject to copyright restriction)

*** Approval was given to use SCALE OF PARENTAL INVOLVEMENT AND SELF-EFFICACY-REVISED (SPISE-R) See email attachment.

PROTECTING HUMAN RESEARCH PARTICIPANTS ETHICS TRAINING

__X___ YES, I have completed the online RETC ethics training course and

_____ I have attached a copy of my certification of completion or

___X__ I have completed the course within the past three years and my certification of completion is on file with the Office of Academic Affairs

Nichole M. Boose
Signature of Principal Investigator

10/29/20
Date

Jamie Doronkin
Signature of Faculty Research Advisor (if applicable)

10-29-20
Date

719 3634
Faculty Research Advisor's Phone Number

Faculty Research Advisor's Email Address

RESEARCH SHOULD NOT BE INITIATED UNTIL YOU HAVE RECEIVED CONFIRMATION OF EXEMPTION

IRB CHAIR USE ONLY:
My signature below signifies this research proposal has been reviewed and approved by the IRB Committee.

IRB Chair: Joanne C Fish
Date: 11/5/2020

IRB Approval Number: FBUIRB110521-CB
Approval Expires: 11/5/2021

Adopted November, 1993
Revised October, 2019

APPENDIX G: IRB Extension

Request to Extend Approval for or Amend IRB-Approved Study

Please allow two weeks for a response from the IRB committee.

Principal Investigator: Nichole M. Bosas

Approval Number: FBUIRB110521-CB

Title of Proposal: "Family Engagement: Does provider Identity Matter?"

Extension Request

My IRB proposal expires on (Date)11/5/21 .

I am requesting an extension Until (Date- not to exceed a year) 5/5/22

The purpose for extension request: The purpose for this extension is to allow me to continue to gather qualitative data from respondents as needed.

Signature of Principle Investigator ____________________

Signature of Faculty Advisor (if applicable) ____________________

Your request to extend / amend the proposal with approval number of FBUIRB110521-CB

has been ✓ approved ____ denied.

Signature of Chair: Joanne C Fish Date: 10/27/2021

Implemented: August, 2018

APPENDIX H: Demographic Information (English Version of the Survey)

In this section, please answer questions about you and your family's demographic information.

*1. How long ago did you receive early intervention services?

○ Currently receiving services

○ 1-2 years ago

○ 3-4 years ago

○ 5-6 years ago

○ 7-8 years ago

○ 9+ years ago

*2. What is the highest level of education you have completed?

○ Some high school

○ GED

○ High school

○ Some college

○ Associate's degree (AA)

○ Bachelor's degree (BS, BA)

○ Master's degree (MA)

○ Professional degree (JD, PhD, EdD, MD)

*3. What is your age?

○ 18 to 24

○ 25 to 34

○ 35 to 44

○ 45 to 54

○ 55 or older

○ Prefer not to say

*4. Are you of Hispanic, Latino, or Spanish origin?

○ No, not of Hispanic, Latino, or Spanish origin

○ Yes, Mexican, Mexican American, Chicano

○ Yes, Puerto Rican

○ Yes, Cuban

○ Yes, another Hispanic, Latino, or Spanish origin

Enter, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc.

*5. What is your race?

○ White

○ Black or African American

○ American Indian or Alaska Native

○ Chinese

○ Filipino

○ Asian Indian

○ Vietnamese

○ Korean

○ Japanese

○ Other Asian

○ Native Hawaiian

○ Samoan

○ Chamorro

○ Other Pacific Islander

○ Some other race

☐

*6. Do you have a husband/wife/spouse/unmarried partner?

○ Yes

○ No

*7. Is your husband/wife/spouse/unmarried partner of Hispanic, Latino or Spanish origin?

○ No, not of Hispanic, Latino or Spanish origin

○ Yes, Mexican, Mexican American, Chicano

○ Yes, Puerto Rican

○ Yes, Cuban

○ Does not apply

○ Yes, another Hispanic, Latino, or Spanish origin

Enter, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc.

*8. What is your husband/wife/spouse/unmarried partner's race?

○ White

○ Black or African American

○ American Indian or Alaska Native

○ Chinese

○ Filipino

○ Asian Indian

○ Vietnamese

○ Korean

○ Japanese

○ Other Asian

○ Native Hawaiian

○ Samoan

○ Chamorro

○ Other Pacific Islander

○ Does not apply

○ Some other race

☐

*9. What is the primary language utilized in your home? If you are a bilingual home, check all that apply.

○ English

○ Spanish

○ American Sign Language

○ Other (please describe)

☐

*10. When thinking about your family's language, indicate how the early intervention sessions were primarily conducted.

○ With an interpreter

○ Without an interpreter. No interpreter was needed

○ Without an interpreter. An interpreter was needed

*11. What is your family’s combined annual income?

○ Less than $15,000

○ $15,000-$34,999

○ $35,000-$49,999

○ $50,000-$74,999

○ $75,000-$149,000

○ $150,000 or more

3. Provider Demographics

The next questions are about your primary early intervention provider. Please use your best guess to answer the following questions.

*1. Is your provider of Hispanic, Latino or Spanish origin?

○ No, not of Hispanic, Latino or Spanish origin

○ Yes, Mexican, Mexican American, Chicano

○ Yes, Puerto Rican

○ Yes, Cuban

○ Unknown

○ Yes, another Hispanic, Latino, or Spanish origin

Enter, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc.

*2. What is your provider's race?

○ White

○ Black or African American

○ American Indian or Alaska Native

○ Chinese

○ Filipino

○ Asian Indian

○ Vietnamese

○ Korean

○ Japanese

○ Other Asian

○ Native Hawaiian

○ Samoan

○ Chamorro

○ Other Pacific Islander

○ Unknown

○ Some other race

☐

*3. What is the primary language of your provider?

○ English

○ Spanish

○ American Sign Language

○ Other (please describe)

☐

*4. What is the marital status of your provider?

○ Single

○ Married

○ Unknown

*5. Does your provider have any children?

○ Yes

○ No

○ Unknown

*6. What is your provider’s age?

○ 20-30 years

○ 30-40 years

○ 40-50 years

○ 50 years +

○ Unknown

APPENDIX I: Demographic Information (Spanish Version of the Survey)

2. Información demográfica

En esta sección, responda preguntas sobre la información demográfica de usted y de su familia.

* 1. ¿Hace cuánto tiempo recibió los servicios de intervención temprana? Actualmente recibiendo servicios

hace 1-2 años

hace 3-4 años

hace 5-6 años

hace 7-8 años

hace 9+ años

*2. ¿Cuál es el nivel más alto de educación que ha completado?

Algo de nivel secundario

GED

Nivel secundario

Algo de universidad

Título terciario

Título universitario

Magister

Doctorado

*3. ¿Cuál es su edad?

18 a 24

25 a 34

35 a 44

45 a 54

55 o mas

Prefiero no responder

*4. ¿Eres de origen hispano, latino o español?

No es de origen hispano, latino o español

Si, mexicano, méxico-americano, chicano

Yes, de Puerto Rico

Yes, cubano

Sí, de otro origen hispano, latino o español

Ingrese, por ejemplo, salvadoreño, dominicano, colombiano, guatemalteco, español, ecuatoriano, etc.

*5. ¿Cuál es su raza? Blanco

Afro-americano

Indio americano o nativo de Alaska Chino

Filipino

Indio asiático

Vietnamita

Koreano

Japones

Otra raza asiatica

Nativo de Hawaii

Samoano

Chamorro

Otro isleño del pacífico

Alguna otra raza

*6. ¿Tiene esposo / esposa / cónyuge / pareja (no casados)?

Si

No

*7. ¿Es su esposo / esposa / cónyuge / pareja de origen hispano, latino o español?

No es de origen hispano, latino o español

Si, mexicano, méxico-americano, chicano

Yes, de Puerto Rico

Yes, cubano No aplica

Sí, de otro origen hispano, latino o español

Ingrese, por ejemplo, salvadoreño, dominicano, colombiano, guatemalteco, español, ecuatoriano, etc.

*8. ¿Cuál es la raza de su esposo / esposa / cónyuge / pareja (no casados)? Blanco

Afro-americano

Indio americano o nativo de Alaska Chino

Filipino

Indio asiático

Vietnamita

Koreano

Japones

Otra raza asiatica Nativo de Hawaii Samoano

Chamorro

Otro isleño del pacífico

No aplica

Alguna otra raza

*9. ¿Cuál es el idioma principal que se utiliza en su hogar? Si es un hogar bilingüe, marque todo lo que corresponda.

ingles

español

lengua de señas americana

Otro (por favor, describa)

*10. Pensando en el idioma de su familia, indique cómo se llevaron a cabo, principalmente, las sesiones de intervención temprana.

Con un interprete

Sin un intérprete. No fue necesario.

Sin un intérprete. Un intérprete hubiese sido necesario.

*11. ¿Cuál es el ingreso anual combinado de su familia?

Menos de $15,000

$15,000-$34,999

$35,000-$49,999

$50,000-$74,999

$75,000-$149,000

$150,000 or more

---

3. Demografía del proveedor

Las siguientes preguntas son sobre su proveedor primario de intervención temprana.

Utilice su mejor estimación para responder las siguientes preguntas.

*1. ¿Su proveedor es de origen hispano, latino o español?

No es de origen hispano, latino o español

Si, mexicano, méxico-americano, chicano Yes, de Puerto Rico

Yes, cubano

No aplica

Sí, de otro origen hispano, latino o español

Ingrese, por ejemplo, salvadoreño, dominicano, colombiano, guatemalteco, español, ecuatoriano, etc.

*2. ¿Cuál es la raza de su proveedor?

Blanco

Afro-americano

Indio americano o nativo de Alaska Chino

Filipino

Indio asiático

Vietnamita Koreano Japones

Otra raza asiatica Nativo de Hawaii Samoano Chamorro

Otro isleño del pacífico Desconocida

Alguna otra raza

*3. ¿Cuál es el idioma principal de su proveedor?

ingles

español

lengua de señas americana

Otro (por favor, describa)

*4. ¿Cuál es el estado civil de su proveedor?

Soltero

Casado

Desconocido

*5. ¿Su proveedor tiene hijos?

Si

No

Desconocido

*6. ¿Cuál es la edad de su proveedor?

20-30 años

30-40 años

40-50 años

50+ años

Desconocido

APPENDIX J: Electronic Survey Informed Consent- English Version

You are invited to participate in a study of “Family Engagement: Does Provider Identity Matter?” The study will examine what factors, if any, influence family engagement. You were selected as a possible participant in this study because you are a parent or a caregiver of a child who is deaf or hard of hearing and have a child who is currently receiving early intervention services or have in the past ten years.
The survey will take approximately 20-25 minutes to complete. In addition to completing the survey, you may be chosen to participate in a phone interview. We will come up with an agreed upon time that is convenient for both of us. The interview should take approximately 30 minutes. The interview will be audio recorded. All data collected will be stored on a password-protected computer and phone.

If you decide to participate in the survey, you will be entered into a drawing for a $100.00 gift card to Amazon. If you are chosen to also participate in an interview, you will receive a $25.00 gift card to Amazon.

There are certain potential benefits and risks associated with your participation in this research. The benefits are contributing to emerging research and allowing your voice to be shared. The risks might include being inconvenienced or feeling uncomfortable answering questions.

Any information obtained in connection with this study that can be identified with you will remain confidential and will be disclosed only with your permission. All data will be reported as aggregate (as a group). In any written reports or publications, you will not be identified or identifiable.

Your decision whether to participate will not affect your future relations with Fontbonne University or the researcher in any way. If you decide to participate, you are free to discontinue participation at any time without affecting such relationships.

If you have any questions, please ask me. If you have any additional questions later, please contact Nichole Bosas at nbosas00618@fontbonne.edu or Jamie Doronkin at JDoronkin@Fontbonne.edu and we will be happy to answer them. Questions relating to IRB approval of this study should be directed to Dr. Joanne Fish, IRB Chair at jfish@fontbonne.edu. IRB approval # FBUIRB110521-CB.

By clicking on "Next", you are hereby confirming that you have read the above information, agree to the terms of consent, and have decided to participate.

APPENDIX K: Electronic Survey Informed Consent- Spanish Version

Está invitado a participar en un estudio de "Participación familiar: ¿Importa la identidad del proveedor?" El estudio examinará qué factores, si los hay, influyen en el compromiso familiar. Usted fue seleccionado como posible participante en este estudio porque es padre o cuidador de un niño sordo o con pérdida auditiva, y tiene un niño que actualmente está recibiendo servicios de intervención temprana o lo ha hecho en los últimos diez años.

La encuesta durará aproximadamente de 20 a 25 minutos en completarse. Además de completar la encuesta, puede ser elegido para participar en una entrevista telefónica. Estableceremos un horario acordado que sea conveniente para ambos. La entrevista debería durar aproximadamente 30 minutos. El audio de la entrevista se grabará. Todos los datos recopilados se almacenarán en una computadora y teléfono protegidos con contraseña.

Si decide participar en la encuesta, se le inscribirá en un sorteo de una tarjeta por el valor de $100.00 para Amazon. Si es elegido para participar también en la entrevista, recibirá una tarjeta de Amazon por el valor de $25.00.

Existen ciertos beneficios y riesgos potenciales asociados con su participación en esta investigación. Los beneficios contribuyen a la investigación emergente y permiten que su voz sea compartida. Los riesgos pueden incluir: sentirse incómodo al participar o al responder preguntas.

Cualquier información obtenida en relación con este estudio, que pueda identificarse con usted permanecerá confidencial y se divulgará solo con su permiso. Todos los datos se informarán como conglomerados (como grupo). En cualquier informe escrito o publicación, no será identificado ni identificable.

Su decisión de participar no afectará de ninguna manera sus relaciones futuras con la Universidad de Fontbonne o con el investigador. Si decide participar, puede interrumpir su participación en cualquier momento, sin afectar dichas relaciones.

Si tiene alguna pregunta, por favor hagamela. Si tiene preguntas más adelante, comuníquese con Nichole Bosas a través de este correo electrónico: nbosas00618@fontbonne.edu o Jamie Doronkin: JDoronkin@Fontbonne.edu. Estaremos encantados de responderlas. Las preguntas relacionadas con la aprobación de este estudio por el IRB deben dirigirse a la Dra. Joanne Fish, Presidenta del IRB: jfish@fontbonne.edu. Aprobación del IRB # FBUIRB110521-CB.

Al seleccionar "Siguiente", confirma que ha leído la información anterior, que acepta los términos de consentimiento y que ha decidido participar.

Appendix L: Interview Guide

Hi. My name is Nichole Bosas. I know how valuable your time is, so I can’t thank you enough for taking the time to meet with me. I wanted to remind you that this interview will be recorded for accuracy. Is that still okay with you? I have about ten or so questions for you today. If I need to repeat a question just let me know.

1. What is your relationship to the child receiving services?
2. Can you tell me about your family?
3. Can you tell me about your early intervention services?
4. How long have you been with your current provider?
    a. Is this the only early intervention provider you have had?
5. How do you define support in early intervention?
6. How do you envision support?
7. Did you feel supported by your early interventionist?
    a. How could they have supported you?
8. Did you connect on a personal level with your provider?
9. Do you feel you got the best services possible?
    -What could have been better?
    -Why did you receive such good services?
10. How do you feel you were perceived as a parent?
11. Do you feel there were any judgments made about a parenting choice you made?
12. Is there anything I missed, that you would like to share?

APPENDIX M: Permission to Use the SPISE-R

From: DesJardin, Jean <desjardinj@moravian.edu>

Sent: Monday, September 14, 2020 11:40 AM

To: Bosas, Nichole <NBosas00618@Fontbonne.edu>

Cc: Ambrose, Sophie E. <Sophie.Ambrose@boystown.org>

Subject: Re: SPISE-R Interest

[EXTERNAL EMAIL]: This email originated from outside of the organization. DO NOT CLICK links or open attachments unless you trust the sender and know the content is safe.

Dear Cole,

Thank you for your interest in the SPISE-R. You have our permission to use the SPISE-R for your research.
Please cite all authors when appropriate. It is not transcribed into any other languages at this time. If you choose
to have it transcribed, please let us know.

Good luck with your research!
Take care,
Dr. DesJardin and Dr. Ambrose

APPENDIX N: Email to Educational Programs and Organizations

Hello,

My name is Nichole Bosas and I am a doctoral candidate at Fontbonne University. For my dissertation research (approved by Fontbonne FBUIRB110521-CB), I am exploring if provider identity influences family engagement levels from the perspective of the caregivers. I have included below two links to the survey (one in Spanish and one in English), which also includes the informed consent. If the caregivers you serve complete the survey, they will be entered into a drawing for a $100.00 gift card to Amazon. If they are chosen to participate in an interview, they will receive a $25.00 gift card to Amazon. Any family who has received early intervention services in the past or is currently receiving early intervention services and who has a child who is deaf or hard of hearing may participate in this study. If you have any questions, please feel free to email me at nbosas00618@fontbonne.edu.

Thank you for your time,

Nichole Bosas

Spanish Version: https://www.surveymonkey.com/r/WHRKBZ3

English Version: https://www.surveymonkey.com/r/WHB5Y33