

Deaf Parents Supporting Hearing Children Language and Literacy Development: A Narrative Retrospective Study

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ABSTRACT

For most children, home is their first school, and their mother is the first teacher. The current research study, focusing on hearing Children of Deaf Adults (CODA), explored how Deaf parents support their hearing children's language and literacy development and how hearing children of Deaf parents experience language and literacy development within a sign language home environment. The research employed qualitative narrative research to collect data from Deaf parents and hearing children of Deaf parents. The study involved four whites (three female and one male) and two female African Americans ages 22-45. All the participants were from the Southern United States. The data was analyzed using a thematic analysis.

Keywords: Deaf parents, CODA, Language development, Literacy development, Family.

INTRODUCTION

Although the research in Deaf education has tended to focus on Deaf children with hearing parents or with Deaf parents, there is limited research on hearing children with Deaf parents; The term CODA refers to Children of Deaf Adults and is used to refer to explicitly hearing children (Bishop & Hicks, 2005; Mand et al., 2009). The limited research on CODA shows that Deaf parents may use American Sign Language as their primary language, while their hearing children are typically exposed to English in school and other social settings (Mallory et al., 1992; Moroe & de Andrade, 2018). With early exposure to two languages simultaneously because of exposure to American Sign Language from an early age, it is expected that CODA may have the advantage of developing strong language skills, making them grow up to become bimodal and bilingual (Singleton & Tittle, 2000). Also, research reports a few isolated cases where CODA experienced spoken language delays (Singleton & Tittle, 2000). All the same, their early ASL and English bilingual skills open opportunities for communication and socialization within the Deaf communities and for them to become language brokers interpreting for their Deaf parents at an early age (Buchino, 1993; Moroe & de Andrade, 2018).

Despite the advantages of growing up in a bilingual environment, there is no research on CODA's experience regarding language and literacy and if they face any distinctive challenges related to language and literacy due to language differences between them and their Deaf parents. Also, continuing research indicates that most Deaf graduate high school with fourth-grade level reading skills (Cawthon, 2004; Traxler, 2000), which could pose challenges in supporting their children's literacy skills resulting from delayed reading and writing.

Additionally, in mainstream educational settings, since CODAs do not receive special education services, many educators need to recognize the impact of being a CODA, which may impact their language and literacy development consequently impacting their academic performance. Hence, understanding the experiences of language and literacy development of CODA could assist in identifying strategies that Deaf parents and teachers in the mainstream could use to support CODAs language and literacy skill.

On the other hand, Deaf parents could face challenges in reading and writing in English since it is their second language, impacting their hearing children. Also, difficulties may arise for the Deaf parent to support their hearing children in literacy, especially if the hearing child is an auditory learner. Because this is an uncharted area of inquiry, the current study examines the experiences of both Deaf parents and CODAs on early language and literacy skills in a home environment where ASL is the primary language.

Deaf Parents with Hearing Children

Existing literature indicates that most Deaf parents have hearing children because only 10% of Deaf children have at least one Deaf parent (Caselli et al., 2021; Geeslin, 2007). Although this is the case, there is limited research on the experiences of most Deaf parents, in this case, 90-95 % who have hearing children. Language and culture have impact on literacy development. Deaf parents, as members of the Deaf community, have a distinct language and culture passed from one generation to the next through home interactions and in schools for the Deaf (Leigh et al., 2020; Humphries et al., 2012). The unique language and culture of the Deaf community have resulted in Deaf individuals being considered a linguistic minority language in society and in education as bilingual learners who use sign language and a spoken language. Although this is the case, there is limited research on the experiences of these Deaf parents and their hearing children, who, in this case, 90-95 % have hearing children.

Generally, language and communication are critical issues among Deaf individuals. There is extensive research on language and communication issues experienced by Deaf individuals (Moore, 2012; Pizzo & Chilvers, 2019; Scott & Dostal, 2019); hence, it is expected that deaf parents will encounter similar challenges whether they have deaf or hearing children. A review of the literature shows some Deaf parents raising hearing children use their children to navigate communication challenges in the dominant hearing community, an experience reported as one that could impact their hearing children's childhood experience (Banda & Nakstad, 2021; Gee et al., 2022; Moroe & de Andrade, 2018; Singleton & Tittle, 2000; Zaborniak-Sobczak & Perenc, 2017). Although there is research on child language brokering (CLB), a form of interpreting done by children for their immigrant families, and how it affects them and their families, the same is lacking for Deaf families with hearing children (Napier, 2021).

Despite the language and communication challenges Deaf parents experience, a recent study by Klimentová and Dočekal (2020) examined the experiences of Deaf parents raising hearing children and reported that Deaf parents do not perceive their parenthood as arduous or complex. According to the parents interviewed in the study, they have accepted their sensory disability and its consequences, employing social tools to overcome the challenges associated with deaf parenting. One of the issues addressed in Klimentová and Dočekal (2020) study is the impact of parents' school segregation, mainly through attendance at weekly boarding schools. Many Deaf children who later become Deaf parents experience separation from their families

and the daily life of the majority-hearing society, resulting in emotional deprivation and a communication gap between children and parents. This experience significantly influenced family dynamics and the roles assumed by the children. Klimentová and Dočekal (2020) emphasized the need for further research and social work interventions to support families of Deaf parents and hearing children. They argued that it is crucial to understand Deaf families' specific needs and address their challenges. Mallory and colleagues (2019) noted that due to a lack of resources targeting Deaf parents with hearing children, most deaf parents with hearing children turn to their hearing family members instead of professionals when they are experiencing problems with their hearing children.

Hearing Children with Deaf Parents

As earlier mentioned, hearing children with deaf parents are referred to as CODA (Bishop & Hicks, 2005; Mand et al., 2009). Most CODAs' first language is Sign language, which, in some cases, is the home language (Geeslin, 2007). There are cases in which Deaf parents are reluctant to use sign language with their hearing children (Preston, 1994; Singleton & Tittle, 2000). Regarding CODAs developing spoken language, the literature reviewed showed that due to other hearing family members, they could build speech and language typically (Schiff-Myers, 1988; Singleton & Tittle, 2000). Singleton & Tittle (2000) argued that in cases where spoken language is delayed, the Deaf parents, clinicians, and service providers must intentionally set up opportunities for the hearing child to be exposed to spoken language. Hence, language development among CODAs, like in the case of Deaf children, varies from that of hearing children with hearing parents (Hulsebosch & Myers, 2002; Zaborniak-Sobczak & Perenc, 2017). Limited research on how Deaf parents support their hearing children in developing language led to the need for the current study.

The authors delve into the distinct experiences faced by CODA, including bilingualism and biculturalism. CODA grew up immersed in deaf communication and culture while simultaneously navigating the world of hearing individuals. They acquire sign language from their Deaf parents and spoken language from various sources, such as grandparents, peers, and school. This bilingual and bicultural upbringing significantly shapes their identity. Despite the possible challenges mentioned in language development among CODA, they have a unique upbringing that involves navigating both the Deaf and hearing worlds (Malik & Jabeen, 2016; Moroe & de Andrade, 2018).

Due to their interaction in both worlds, some CODAs, as earlier mentioned, play a significant role in their families as interpreters and cultural mediators between the Deaf and hearing communities (Banda & Nakstad, 2021; Hadjidakou et al., 2009; Moroe & de Andrade, 2018; Singleton & Tittle, 2000; Zaborniak-Sobczak & Perenc, 2017). Despite their challenges, these children demonstrate resilience and resourcefulness and are not disproportionately affected by social, emotional, or educational problems (Singleton & Tittle, 2000, p. 227). They can participate in events and activities that may not be accessible to their hearing peers, accompanying their Deaf parents (Singleton & Tittle, 2000, p. 228).

Continuing research on bilingualism points to a bilingual advantage in cognitive and language development (Barac & Bialystok, 2012; Bialystok, 2017; van den Noort et al., 2019; Ware et al., 2020); hence, it is crucial to understand and nurture CODAs bilingual/bicultural identity by facilitating their interactions with both Deaf and hearing peers, ensuring a sense of security,

and acknowledging their dual languages and cultures are essential aspects of their upbringing. Additionally, providing appropriate communication accommodations, resources, and services to Deaf families, such as sign language interpreters and appropriate technologies, will reduce communication barriers and dependence on their hearing children and promote effective parent-child-provider relationships (Singleton & Tittle, 2000).

While the limited literature provides valuable insights into the experiences of Deaf parents with hearing children, there is a need for further research to fill the gaps and gain a more comprehensive understanding of this topic. In particular, there is a need to understand how Deaf parents support their hearing children in developing language, which supports literacy development. Also, with the existing literature on Deaf individuals' language and literacy issues and the gap in the literature for the same as it relates to CODA, it is vital to explore the experience of CODA developing language and literacy with the support of their deaf parents. This kind of research will significantly contribute to understanding the cultural and social experiences of hearing children in Deaf-parented families, their negotiation of identities between the Deaf and hearing worlds, and the development of interventions and strategies to support Deaf parents and their hearing children.

Parents' Role in Children's Language Development

Parents employ a variety of strategies in their role to support their children's literacy skills development, with key aspects of parenting playing a central role in children's early language and learning (Shah-Wundenberg et al., 2013; Tamis-LaMonda & Rodriguez, 2009; Wijaya et al., 2020). Wijaya and colleagues (2020) reported that parents can assist their children in developing literacy skills through creating a reading corner and engaging in storytelling or shared reading. Similarly, Tamis-LaMonda & Rodriguez (2009) emphasized crucial aspects, including the frequency of routine learning activities, such as shared book reading and storytelling, the quality of caregiver-child engagements involving cognitive stimulation and responsiveness, and the provision of age-appropriate learning materials like books and toys.

While parent comprehension of the target language significantly supports their children's reading, there are studies in which parents with limited to no proficiency in the target language can still support their children. For instance, Shah-Wundenberg and colleagues (2013) study of parents with little or no English language proficiency, they observed various mediation behaviors to enhance their children's English. Specifically, parents used paired reading and hearing readers to support children's comprehension. Moreover, most Deaf parents use sign language, which is not the target language in schools, to support literacy skills development with hearing children. Importantly noted "mere exposure" to television and limited contact with hearing children and adults is insufficient (Dabrowska, 2015; Sachs et al., 1981). Hence, the current study aims to explore how parents who are Deaf support their hearing children to develop literacy skills.

Parents play a critical role in supporting children's literacy development. For example, creating reading corners at home, as observed in the study by Wijaya et al. (2020), provides a print-rich environment that fosters children's interest in reading and improves their literacy skills. Interactions with children after storytelling or reading a book through discussions, questions, and feedback promote comprehension, print knowledge, and reading interest. As parents become aware of children's developmental stages, showing positive behavior and patience

contributes to a supportive learning environment. Community support, such as reading camps or clubs facilitated by community members or volunteers, enhances children's literacy by increasing parents' awareness and providing additional learning opportunities outside the home. However, challenges such as parents' low literacy competency, limited book availability in rural areas, and time constraints due to work or other responsibilities need to be addressed through interventions and support from the community and local authorities (Wijaya et al., 2020).

The role of Deaf parents in supporting language development is multifaceted. Although research on how Deaf parents aid hearing children in developing language and literacy skills is lacking, existing studies primarily focus on Deaf parents with Deaf children and how they support language and literacy development. Deaf children acquiring American Sign Language (ASL) from their Deaf parents learn the language naturally and conventionally, akin to a child learning a spoken language (Singleton & Tittle, 2000, p. 225). Additionally, hearing children of Deaf parents become bilingual, acquiring both ASL and the dominant spoken language of their environment (Singleton & Tittle, 2000, p. 225). However, concerns about spoken language delay in hearing children of Deaf parents are not strongly supported by evidence, as limited exposure to hearing speakers for a few hours per week appears sufficient for typical speech and language development (Singleton & Tittle, 2000, p. 225).

Informally, some professionals working with young hearing children and their Deaf parents express grave concern about potential spoken language delays, presuming that the child lacks adequate speech input in the home environment. However, upon reviewing the literature, only some studies support this notion. Schiff-Myers (as cited in Singleton & Tittle, 2000, p. 225) observed that many hearing children of Deaf parents develop speech and language generally if their family life is otherwise every day. They have some exposure to regular hearing speakers (approximately 5-10 hours a week seems sufficient). Moreover, no other obvious environmental factors differentiate children who experience delays or deviant speech and language patterns from those who usually develop (Singleton & Tittle, 2000, p. 225). If a hearing child of Deaf parents displays signs of spoken language delay, a culturally appropriate plan to enhance spoken language input can be implemented (Singleton & Tittle, 2000, p. 226). This could involve engaging in playgroups, preschool programs, or spending time with hearing grandparents, dramatically increasing the child's exposure to adequate linguistic input and supporting their language development (Singleton & Tittle, 2000, pp. 225-6).

On the other hand, the role of parents in supporting children's literacy development is multidimensional and varies depending on specific circumstances. Understanding the experiences of different groups, such as Deaf parents with hearing children and hearing children with Deaf parents, can provide valuable insights into their unique needs and challenges. In the study by Klimentová and Dočekal (2020) on Deaf parents raising hearing children, it was found that Deaf parents have accepted their sensory disability and employ social tools to overcome the challenges associated with deaf parenting. They do not perceive their parenthood as arduous or complex. However, some adult-hearing children described a gradual reversal of traditional family roles, taking on the responsibility of guiding their parents in the hearing world. It is important to note that there is limited research in this area, with a lack of studies focusing on Deaf parents of hearing children, and the existing theoretical foundation is relatively weak.

Children of Deaf parents (CODA) have a distinct upbringing that involves navigating both the Deaf and hearing worlds. They play a significant role as interpreters and cultural mediators between the Deaf and hearing communities. Despite their challenges, such as bilingualism and biculturalism, these children demonstrate resilience and resourcefulness. They can participate in events and activities that may not be accessible to their hearing peers, accompanying their Deaf parents (Singleton & Tittle, 2000). To support hearing children with Deaf parents, it is crucial to understand and nurture their bicultural identity, facilitate interactions with both Deaf and hearing peers, and provide appropriate services such as reducing communication barriers and promoting effective parent-child-provider relationships.

Regarding language development, Deaf children acquiring sign language from their Deaf parents learn the language naturally and conventionally. Hearing CODA requires simultaneously acquiring sign language and the dominant spoken language. Concerns about spoken language delay in hearing children of Deaf parents are not strongly supported by evidence. Exposure to hearing speakers for a few hours per week seems sufficient for everyday speech and language development (Singleton & Tittle, 2000). If a hearing child of Deaf parents shows signs of spoken language delay, implementing a culturally appropriate plan to enhance spoken language input, such as playgroups, preschool, or time spent with hearing grandparents, can be beneficial.

Ultimately, parents' role in supporting children's literacy development is vital. To provide appropriate support, it is necessary to understand the unique needs and challenges faced by different groups, such as Deaf parents with hearing children and hearing children with Deaf parents. Further research is needed to explore these areas and develop interventions and strategies to support these families in their unique circumstances better.

Specific Research Questions in This Study Include:

1. How do Deaf parents support their hearing children's language and literacy skills in the home environment?
2. What is the experience of hearing children of Deaf parents in language and literacy development in the home environment?
3. Are there challenges that Deaf parents experience while supporting their hearing children's language and literacy skills in the home environment? If so, what are the specific challenges?
4. If challenges arise for Deaf parents supporting their hearing children's language and literacy skills in the home environment, how do they overcome them and become resilient?

METHODOLOGY

Research Design

The current research adopted A retrospective narrative inquiry approach that combines the elements of retrospective research and narrative inquiry methodologies. The researchers collected narratives or stories from participants about their past experiences and then analyzed them to understand the meaning and significance of those experiences (Squire and colleagues, 2008). It is also a retrospective study because the participants look backward and examine their past experiences. The current study adopted a narrative inquiry because, according to Squire and colleagues (2008), the narrative inquiry has the following characteristics:

- Narratives are sequential and meaningful
- Narratives are definitively human
- Narratives represent experience in the sense of reconstituting it and mirroring it.
- Narratives display transformation or change.

Therefore, the narrative inquiry method was not only the most suitable method for understanding the 'who, what, when, where, why, and how' of events, but it also played a crucial role in providing unique insights into complex social-cultural issues. The current study, for instance, sheds light on the language and literacy development events and the social-cultural issues faced by Deaf parents and their hearing within the Deaf and hearing community, thereby offering a fresh perspective and deepening our understanding.

Participants

Purposeful sampling was used to identify and select information-rich cases that meet set criteria (Creswell, 2005); Patton, 2002). The researchers employed a snowballing sampling procedure to increase the number of participants because participants are hard to locate (Creswell & Plano, 2017). Since there is no rule for the sample size for the narrative inquiry study (Creswell & Plano, 2017; Lincoln & Guba, 1985), the current study involved six participants comprising Deaf parents and CODAs.

Deaf Parents Characteristics: The sample included two Deaf mothers (Barbara. And Martha) and one Deaf father (Jacob). The Deaf parents spanned a wide age range, with one in the 36-45 age range and two above 45 years old. One Deaf parent identified as African American/black, and two as White. The Deaf parents' educational status varied from high school to doctoral degree, a testament to their resilience and determination.

CODAs Characteristics: The sample included three female CODAs named Tabitha, Agnes, and Christina anonymously. One CODA completed high school, while the other held bachelor's degrees. All three CODAs attended mainstream public schools during their K-12 education. Of the three CODAs, one identified themselves as African American, while the other two were White.

Table 1: Participants Demographics

Participants Demographics		
Item	CODA	Deaf Parent
Item	Female: 2 Male: 1	Female: 3 Male: 0
Gender	25-35 = 0 36-45 = 1 Above 45 = 2	18-24 = 2 25-35 = 0 36-45 = 1 Above 45 = 0
Age	African American/black: 1 White: 2	African American/black: 1 White: 2
Race/Ethnicity	Deaf: 3 HH: 0	Hearing: 3 Deaf: 0
Hearing Status	ASL School: 2 Mainstreamed: 1	Mainstreamed: 3
Type of K-12 school attended	H.S. = 1	H.S. = 1

	M.A. = 1 Ph.D. = 1	B.A. = 2 Ph.D. = 0
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Data Collection

To collect the data, the participants completed an informed consent form online before responding to a background questionnaire. Next, they used a Doodle link at the end of the background questionnaire to sign up and schedule an interview. A virtual semi-structured individual interview protocol was used to conduct online one-on-one narrative interviews with each participant.

Data Analysis

A six-step thematic analysis was followed, a rigorous method that Braun and Clarke (2006) advocated. The data was segmented into codes, categories, and themes, providing a detailed description and interpretation of the narrative. The thematic analysis started with open coding, where the researcher will carefully read the narrative transcript, underlining important phrases or sentences. Open coding was followed by axial coding, which grouped the codes to form conceptually linked categories. Finally, the researcher employed focused coding to determine the themes or patterns that the categories share.

FINDINGS

Eight main themes emerged from the current research. These themes are discussed below:

Theme #1: Early Simultaneous Bilingualism Context

The first theme illuminates the unique journey of the CODAs, who experienced a bilingual household from an early age. The research findings highlight the profound role played by Deaf parents in guiding their hearing children's journey to becoming bilingual individuals. It underscores the complexities and considerations surrounding language exposure within Deaf sign language families, emphasizing the need for informed decision-making and an inclusive home environment that celebrates diverse linguistic and cultural background. Barbara a Deaf mother shared her experience raising her hearing children in a bilingual context and supporting them in early simultaneous bilingual acquisition. She said,

"We lived on Deaf school campus and had a lot of support from children's deaf and hearing communities. This support included access to resources, language classes, and social events allowing our children to interact with deaf and hearing individuals."

I also offered language (ASL) from birth, so we never had difficulty communicating."

Another Deaf parent Martha shared,

"Both of my children are bilingual, as they were exposed to sign and spoken language from an early age. I used both sign language and my voice to support their development."

The third Deaf parents in the study, Jacob echoing the words of the two Deaf others in the study talked about the importance to embrace a bilingual balanced approach from an early age. He said,

"My wife and I signed everything to them (our hearing children) along with English. They learn English from my hearing wife, so my job is to teach them ASL and Deaf culture."

The hearing children, CODA, echoed their parents' voices by sharing how their early exposure to sign and spoken language occurred in early simultaneous bilingual home environments. Tabitha one of the CODAs shared that she had the opportunity to develop spoken and sign language,

"I was bilingual from a young age. I knew funny jokes, stories, and games in both English and ASL."

The CODA also provided insights into the advantages and challenges of growing up in a bilingual context. For instance, one of the CODA Agnes shed light on an advantage,

"One advantage of being bilingual is that I can easily communicate with deaf and hearing individuals. However, a disadvantage I can think of is processing words in English that don't exist in ASL, words like "the" "and" "or."

Comparably, Tabitha noted,

"My challenge was not in reading but in writing. I still have challenges in writing, especially when it comes to grammar and sentence structure."

The CODAs also shared the belief that it is important to have exposure to both sign language and spoken language from an early age.

Christina rationalized,

"I grew up bilingual, and that has been an advantage in my life with school, my future career, and all around."

Relatedly, Agnes concluded,

"I am pretty quick at thinking of several ways to explain one sentence, and I credit that to my bilingual experience."

Although the CODAs viewed growing bilingual as a gain, the parents concern about introducing sign language to their young children emerged as a central theme, reflecting their desire to make informed decisions about their children's linguistic journey. To address these concerns, the Deaf parents consciously adopted a balanced approach, incorporating sign and spoken language (English) in their home environment. This involved using sign language during everyday activities and conversations and encouraging their children to use spoken

language when interacting with hearing individuals. They also provided their hearing children with spoken language resources and digital tools to support their spoken language development. This deliberate choice was driven by their recognition of the importance of providing their children with exposure to both languages from an early age. They firmly believed that early language exposure, encompassing American Sign Language (ASL) and English, was instrumental in nurturing their children's linguistic proficiency and cognitive growth.

Theme 2: Sign Language Acquisition & Development

The second theme discusses the natural development of sign language, influenced by the Deaf community and parental support. All the participants, who are Children of Deaf Adults (CODAs), discussed the natural development of sign language. For instance, Agnes reminisces,

"I remember it was just natural to sign because that is how we all communicated."

Christina echoed this sentiment, recalling how her mother would seamlessly sign as she voiced things to her. This natural development and acquisition of sign language was not just a product of parental support, but also the result of the significant influence of extended family members, the deaf community, the church family, friends, and parents. Agnes emphasizes this, stating,

"My grandparents and the church family were large assets helping us acquire language. My parents employed various strategies to acquire sign language naturally, such as engaging in activities like signing stories and fingerspelling games."

Similarly, Tabitha remembered,

"My mother supported me in developing sign language skills at home through signing stories and short, own-created poems."

The strategies shared by the CODAS facilitated language acquisition and fostered a deeper connection with the Deaf community. All the CODAS shared learning Deaf culture-related narratives, such as handshape and ABC stories, that encapsulated CODAs acquiring sign language natively, a process influenced by constant exposure to sign language and Deaf culture at home. The interviews with parents shed light on the pivotal role of Deaf friends in sign language development, the natural evolution of sign language in Deaf-parent homes, and the unique language development of their hearing children.

All three Deaf parents had robust support systems within the Deaf community, enabling their hearing children to interact with Deaf peers and acquire sign language naturally. Barbara's observation of her children's constant signing and talking, thanks to the support from a group of CODAs and Deaf parents, underscores this. The Deaf-parent homes fostered a rich and diverse bilingual environment, with sign language as the primary mode of communication, leading to the hearing children's fluency and ease in using both sign and spoken language. This emphasis on the bilingual environment evokes a sense of the richness and diversity of language use in Deaf-parent homes.

Theme 3: Spoken Language Acquisition and Development

CODAs (Children of Deaf Adults) emphasize the role of grandparents and extended family in supporting their spoken language development. Agnes recalls,

"Most of my spoken language knowledge came from my grandparents."

According to Agnes, grandparents are central to acquiring spoken language and fostering a bilingual environment. Tabatha said,

"My parents hired a hearing babysitter in class or at work. My mother used the babysitter to support me in developing my spoken language."

Per Tabitha, her Deaf parents utilized resources like babysitters and friends from both Deaf and hearing communities to expose her to sign and spoken language.

Although all the CODAs appreciated their bilingual upbringing, one expressed how she still faced challenges in writing due to her primary exposure to sign language and limited exposure to the practice of writing. Hence, supportive bilingual environments and early exposure to both languages were reported to be vital to CODA's language and literacy skills. The Deaf parents echoed their children on the importance of a supportive bilingual environment where both sign and spoken language were used. Barbara felt that Deaf parents should expose their hearing children to both sign and spoken language from a young age, and one way to enhance their spoken language skills is by using visual and audio aids like ABCs on the wall and incorporating books and TV programs. Barbara stated,

"Make sure the kids have signs and speech very early, and they will progress fine."

Martha expressed concerns about her children learning sign and spoken language simultaneously but still tried to provide a supportive bilingual environment at home. Martha clarified,

"Initially, I was worried that they would not develop spoken English on time since I was Deaf, and they were learning both at once."

Jacob, another Deaf parent, described the challenges of language conflicts between the Deaf and hearing worlds, suggesting how other CODAs could assist in helping young CODAs understand the balance between the two languages. He also mentioned that his hearing spouse supported their hearing children's spoken language development. He explains,

"The biggest support in developing my children's language skills comes from my wife. She is hearing, but is also fluent in ASL, so the children hear her talking and see her signing, bilingualism from birth."

Theme 4: Biliteracy Development Support

Biliteracy development support is vital for CODAs as they acquire reading and writing skills in both sign and spoken language. Several factors contribute to their successful biliteracy development. Firstly, they receive support from their Deaf parents, sign language users and

their immediate or extended hearing family members who use spoken language. This diverse linguistic environment enriched the CODAs' biliteracy skills. For instance, CODAs reported benefiting from activities such as engaging in extended discourse, both sign and spoken language, after book reading. These extended discourse activities help them compare reading experiences in sign and spoken language, fostering a deeper understanding of language structures. Christina affirms,

"With learning to read, my mom would read with me and use her voice, which helped me comprehend it both verbally (English) and in signed language since she signed along with it."

Due to early exposure to two languages, they acquire literacy skills rapidly without significant delays. Agnes upholds this claim,

"I don't remember any delay in learning to read and write. I seemed to pick it up pretty quickly."

Tabitha defends the idea that active involvement and support from Deaf parents facilitate biliteracy development by stating,

"My parents, particularly my mother, did various activities with me to support my reading and writing, such as nursery rhymes, playing audiobooks, or reading/signing aloud."

Tabitha further shared.

"My mother loved to walk in the neighborhood and talked with me about several things we saw. She loved to give me the sign names or fingerspell."

Using both languages during literacy activities strengthened their competence. Ultimately, biliteracy empowered them to confidently navigate both the Deaf and hearing worlds while embracing their dual cultural identities in literacy development. From the narratives of the Deaf parents, it was evident that they have unique experiences and perspectives on supporting their hearing children's language and literacy development. Two of the three Deaf parents emphasized the importance of exposing their hearing children to sign language (ASL) storytelling early and encouraging their involvement in the Deaf community to gain exposure to biliteracy material. One parent Barbara stated,

"When reading with my children, I read the English format and change it to ASL and pair it with acting the story out using classifiers."

The Deaf parents utilized various educational resources, including books, videos, and online materials, to support their children's literacy development in ASL and spoken language. Martha says,

"Good sources are writing handbooks, ebooks, videos, educational shows, and sitting and taking the time to work with them."

Hence, the Deaf parents encouraged early English and ASL literacy to their hearing children through active participation in Deaf communities and utilization of online resources. The participants narrative revealed the Deaf parents' satisfaction with their parenting approaches as their children grew up to be biliterate and thrive academically.

Theme. 5: Bilingual Advantage

The narratives of our unique participants, who are Children of Deaf Adults (CODAs), provide a fascinating insight into the advantages of bilingualism in sign language (ASL) and English. Their upbringing in households where both sign and spoken language were used has uniquely shaped their experiences. For instance, Christina's bilingualism has not only enriched her academics but also propelled her career. Agnes, on the other hand, shares,

"Now I can be more open-minded and offer multiple ways to understand during interpreting for my students."

Also, the CODAs shared how being bilingual and engaging in bilingual activities demanded crosslinguistic transfers, which enhanced their cognitive abilities and more communication options, benefiting them in education, career, and social interactions. Barbara said,

"Their use of sign language at home and spoken language from hearing families and caregivers enabled me to engage in metalinguistic and crosslinguistic awareness activities."

Furthermore, all the participants appreciated their ability to communicate with Deaf and hearing individuals, enriching their cultural experiences. The participants expressed that they seamlessly communicated with their Deaf parents using sign language, and their bilingualism allowed effortless switching between sign and spoken language for more effective communication. Agnes, a CODA, highlights her role in bridging the gap, saying,

"Aside from interpreting at work, I also at church and attend Deaf events with my parents."

All the CODAs expressed that being bilingual has provided them with a unique perspective on language and literacy. Their narratives reveal significant advantages of bilingualism, impacting their communication abilities, personal growth, and cultural connections. Despite challenges, their bilingual upbringing has equipped them with valuable skills and insights for their lives and careers. For instance, their bilingualism has enhanced their communication skills and enriched their cultural experiences, enabling them to connect more deeply with Deaf and hearing communities in their careers as interpreters. This broader perspective has also significantly contributed to their personal and career growth, making them more open-minded and adaptable.

Theme 6: Challenges of Simultaneous Bilingual Acquisition & Development

However, acquiring sign and spoken language from birth or early childhood presents sometimes challenges. CODAs reported relying on fingerspelling and experiencing confusion when codeswitching, code blending, or codemixing between languages when interpreting for

their parents. Christina faced challenges remembering sign language signs, while Agnes experienced difficulties processing certain English words due to ASL's unique structure. Furthermore, some felt overwhelmed by interpreting for their Deaf parents and reported the interpreting situation sometimes impacted their own learning and social interactions. Tabatha shares,

"I didn't always enjoy interpreting because I wanted to go out and play but had to stay indoors to interpret for maintenance people."

Some CODAs shared the burden of handling interpreting responsibility and transitioning between languages within their families. They stressed the importance of their hearing family members learning sign language to facilitate effective communication within the family. Christina expressed,

"I often have to interpret for family, and I think they should be willing to learn my mom's language for her sake."

DISCUSSION, IMPLICATIONS & RECOMMENDATION

Language is critical in education; hence, supporting early access, acquisition, and development of language is a solid basis for literacy development. The findings in the current study underscore the significant role of Deaf parents and caregivers in facilitating early simultaneous bilingualism through consistent language exposure (Genesee, 2019; Macleod et al., 2013; Nicoladis, 2018). By understanding the needs of CODAs and implementing effective strategies for language support, Deaf parents and caregivers can play a pivotal role in inspiring bilingualism, cognitive development, and cultural identity among CODAs.

Like previous research on early simultaneous bilingualism, deaf parents, like other bilingual parents, employed various strategies to support early simultaneous bilingualism in their homes (Garau & Vidal, 2001; Lee et al., 2015; Rodríguez, 2015). The Deaf parents provided opportunities for their hearing children to engage with the spoken/written language through various media and interactions within and outside the home (Lee et al., 2015; Rodríguez, 2015). Additionally, the current study impressed the importance of community engagement, which provides bilingual children with practical language use and cultural immersion opportunities (Paradowski & Bator, 2016). In the current study, involvement in both Deaf and hearing communities through community events, social groups, and cultural activities reinforced the hearing child's early bilingual skills. Hence, unlike in the case of Deaf children who often face early language deprivation, the findings from the study showed that Deaf parents can support hearing children with language, particularly sign language; hence, CODAS do not have language deprivation.

CODAs are expected to be exposed to sign and spoken language from an early age, often acquiring both languages simultaneously. Their acquisition and development of either spoken or sign language can be influenced by various factors, including the Deaf parent's beliefs and attitudes, preferred mode of communication, the hearing parent's proficiency in sign /spoken language, involvement of extended family's communication dynamics, access to language resources, and participation in both hearing and Deaf community. Previous research has demonstrated that parents' beliefs and attitudes can significantly influence their practices

supporting bilingual development in their children (De Houwer, 1999; Hwang et al., 2022; Lee et al., 2015). In the current study, the Deaf parents' attitudes towards spoken and sign language were found to be of paramount importance. They considered both languages equally crucial for their hearing children and actively sought opportunities to support their hearing children in spoken and sign language development. This underscores the crucial role of Deaf parents' positive attitudes towards sign and spoken language in fostering CODAs' bilingualism and cultural identity.

The research findings revealed two critical issues raised by CODAs: the need to improve literacy skills related to writing and the challenges faced by CODAs as child language brokers. Research on biliteracy among Deaf individuals has pointed out the challenges they experience in writing due to the linguistic nature of language and writing (Arfé & Perondi, 2021; Hermans et al., 2010; Marschark et al., 2014). It was interesting to see how the CODA shared similar challenges with writing that have affected them since childhood. Also, the finding concurs with previous research on the writing skills of CODA (Blumenthal-Kelly, 2013; Hall & Mertens, 2014; Jones & Quigley, 2015)

The second issue of Child language brokers is not new in the Deaf community with CODA (Buchino, 1993; Monroe, 2018; Napier, 2021). It appears to be a continuing problem, just as it is in the research among immigrant families where children translate and interpret for family members or others who do not speak the local language (Kam & Lazarevic, 2014; Morales & Hanson, 2005; Napier, 2021; Trickett & Jones, 2007). Like hearing bilinguals, the responsibilities of CODAs as child language brokers can sometimes impact their academic performance due to time and energy constraints (Kam & Lazarevic, 2014; Morales & Hanson, 2005). It can also affect their social life, as they might need more time for friends and extracurricular activities (Buriel et al., 2006; Jabeen & Muazzam, 2016). In some situations, using child language brokers may not be appropriate, and professional interpreters are recommended.

In conclusion, the findings from the study showed that Deaf parents can support hearing children with language, particularly sign language; hence, CODAS do not have language deprivation. For spoken language, deaf parents benefit from hearing family members, baby sisters, and daycare staff. General findings related to literacy development reading did not express any challenge, but some participants expressed challenges in developing writing skills. Hence, there is a need for CODAS programs that target spoken language and literacy skills, mainly writing skills. Enforcement of the ADA law related to providing communication access to Deaf individuals to avoid hearing children being used as interpreters for parents. Mainstream teachers need professional development to create awareness of CODAs in the classroom, their language and literacy needs, and how to support them. Additionally, professional development needs to focus on how to actively and meaningfully engage Deaf parents in their children's literacy development.

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