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Caregiver perceptions of their experiences with early identification and support services for children with communication delay

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By

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Abstract

This study investigates caregivers' perceptions regarding early identification and support for children with communication delays, underscoring the significance of early interventions as prescribed by the Individuals With Disabilities Education Act (IDEA, 2004). Focusing on caregiver-service provider interactions and their impact on child development, the research reveals diverse demographics, predominantly female caregivers (67.50%) aged 36-45 (38.75%), most holding a high school diploma (33.75%). The majority are mothers (59.49%) of male children (51.90%) who exhibited speech delays between 13-24 months (33.75%). Findings indicate that 60.76% of caregivers effectively use simple words as an intervention strategy, with 90% observing enhanced communication in their children post-service engagement. Notably, 85% recognized communication issues before seeking professional help. Over half (56.96%) of the respondents reported positive influences on their parenting from provider training and coaching, emphasizing the value of daily conversations, digital/visual aids, and the role of patience in enhancing language development. Challenges include a need for more providers, scheduling conflicts, and high costs. More than 60% of participants rated their interactions with service providers as positive and professional. The study illuminates the essential role of caregivers' experiences in refining early intervention strategies and services, highlighting a demand for greater accessibility and support, thereby enriching the understanding of caregiver perspectives in enhancing early childhood language development strategies.

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Dedication

This thesis is dedicated to my beloved parents, Chief Emeka and Lolo Nkechinyere Kanu. Thank you so much for everything! Words cannot describe my thanks and appreciation to you. You have been my source of inspiration, support, and guidance. You have taught me to be exceptional, believe in myself, and be determined. I am truly thankful and honored to have you as my parents.

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Chapter I: Introduction

This study is design to examine parents perceptions of their experiences with early identification and support services for their child with communication delay. These support services include interventions and strategies recommended by service providers. This study will specifically explore caregiver's perceptions with respect to early interventions used by parents and the quality of interactions with service providers. This study will also attempt to engage the overall effectiveness of early identification interventions as perceived by parents of children with speech delay.

The relationship between parents and their children sets a crucial foundation in the early years of a child's development. Through daily communication and interactive activities, parents play a critical role in their children's language development (Landry et al., 2006). However, this relationship is strained when young children have disabilities impairing their communication skills (Blackwell et al., 2014). Speech and language are the most common areas of child development that can be delayed. About 20 percent of children learn to talk or use words later than other children their age (Moreno, 2015). Parents and families in this situation become overwhelmed with the inability to communicate with their children, understand the disability (Canary, 2008) or find help to support them in navigating parenting.

Early intervention (EI) is an important service offered to families of infants and toddlers diagnosed with disabilities and developmental delays. EI includes assistance provided to young children with disabilities and their families delivered through the Part C and Part B service provision for ages birth to six within the Individuals With Disabilities Education Act (IDEA, 2004), which may include related services such as speech and occupational therapy (Yell, 1998). These services are provided by early interventionists/ professionals or service providers.

According to Syamsuardi (2015), many parents become worried when they realize their child has a developmental delay, such as limited speaking ability between the ages of two to three years. Nonetheless, even when a child is not hitting language development milestones, some healthcare professionals advise parents to "wait" before seeking early intervention. It is crucial that if a child is not attaining milestones, doctors may recommend that they seek early intervention programs. It is imperative to understand these parental experiences and analyze their perceptions of seeking early intervention from service providers to support their children with communication delays. De Giacomo and Fombonne (1998) revealed that speech/language abnormalities were the most frequent causes of parental concerns. Therefore, this thesis research explores the importance of understanding parental experiences with communication delays, early identification of this disability, and intervention measures made available to parents by service providers.

Background of the Study

Most parents of children with signs of communication and language developmental delays do not understand the disability. Findings from Canary (2008) indicated that parents do not understand the nature of their children's disabilities but continue to try to understand them. When caregivers take the Family Outcomes survey, early interventionists (service providers) gain a better understanding of their child's disabilities. It is important to monitor early language development in children at risk for delays to create targeted interventions that best support the children's potential (Watters, 2021). Delay in recognizing a disability can occur because parents may lack knowledge about normal/typical development in young children, which may or may not be a result of their prior experiences of having already raised older children (De Giacomo & Fombonne, 1998). Parents of children with a disability may encounter a unique set of challenges

not faced by parents of a child without a disability (Shandra et al., 2008). These challenges experienced by parents and caregivers of children with disabilities may place additional pressure on the family (Reichman et al., 2007). Parents of children with a disability may have increased stress, impacting mental and physical health. Children with significant impairment in communication usually have difficulties with social skills and struggle when interacting with people in their environment (Blackwell et al., 2014). De Giacomo and Fombonne (1998) revealed that speech/language abnormalities were the most frequent causes of parental concern. The failure of parents to recognize young children who display signs and symptoms of communication delay can result in the inability to manage these children when they become disruptive or apprehensive at home or in a classroom because they cannot express their wants or needs. Young children with language delays frequently exhibit elevated rates of problem behaviors compared to same-age peers with typically developing language (Qi & Kaiser, 2004).

In the study by McCormack et al. (2012), parents and families describe feelings of guilt, isolation, fatigue, and distress with observing their children's struggles and occasional difficulty communicating with their children. A delay in speech and language development could be a sign of a developmental disorder associated with child development. It is vital for parents of young children to have the ability to recognize when their children are not meeting milestones for speech and language development. Language milestones represent the fundamental structure of language development, including speech, communication, and language. Visser-Bochane et al. (2020) identified clear and distinctive milestones that can be used as benchmarks to monitor and reflect language development in young children.

Every child develops at different rates, and some develop vital speech and language effortlessly within the first three years of life. At the same time, other children's developmental

milestones for communication are delayed and not achieved according to age expectations (Batshaw et al., 2019). DeKeyser and Larson-Hall (2005) noted that during the first three years of the child's life, the child gets exposed to the language in his/her environment. Language development in early childhood is a significant milestone in a child's development when language is acquired. Ben-Sasson et al. (2022) suggest that parents should be reminded to keep track of expressive and receptive language milestones because they are naturally less conscious of these developmental progress, specifically at younger ages. Language and speech delay is a common developmental challenge that affects as many as 10 percent of young toddlers. About 20 percent of young children learn to talk later than other children their age (Moreno, 2015).

Delay in recognizing the origin and nature of the developmental difficulties increases parental distress (Baron-Cohen & Bolton, 1993). Gwynne, Blick, and Duffy (2009) indicate that early intervention can improve children's quality of life by enhancing development and preventing additional developmental delays and disabling conditions. Hebbeler and Spiker (2016) stipulated that many studies have found that specific interventions or services can achieve specific outcomes for specific subgroups of children. Practices of services that support highly responsive and functional conversations in natural contexts, with peers and adults, have been shown to promote children's communication and cognitive skills (Kaiser & Trent, 2007). This is therefore, the foundational rationale for designing interventions throughout a child's everyday activities and routines. Early intervention is crucial for improved diagnosis and quality of life for young children who have developmental delays and disabilities (Graybill et al., 2016). Hence, parents realize early intervention is critical as children's verbal or nonverbal abilities are indicatives of later spoken vocabulary skills (McDuffie & Yoder, 2010).

Longitudinal data suggest that untreated early language delays can have lasting effects on children's academic skills (Catts et al., 2002). Coneway et al. (2018) revealed that early childhood educational interventions can provide positive outcomes for students and their parents. Al-Onizat (2019) highlighted that increasing parents' knowledge of child growth indicators in young children (from birth to three years) would increase the parent's ability to identify indicators of developmental delay in their children. Studies on early intervention in children with language delays show that parent-implemented early language intervention programs are effective and positively affect children's receptive and expressive language skills (Roberts & Kaiser 2011, 2012, 2015, Gibbard et al., 2004).

It is essential for parents of young children with communication delay to be taught and acquire basic knowledge of child development and evidence-based practice intervention measures that can improve speech and language skills. Green et al. (2018) indicated that evidence-based practice intervention measures for children with speech and language delays allow for improving speech/language skills while encouraging family-centered practices that provide support to families of children with disabilities and strengthen the parents' current knowledge on child development. The study by McDuffie and Yoder (2010) revealed that the ability of parents to encourage conversation and engagement during play is a key factor in the development of children's language skills. A measure that promotes a capacity-building model in speech/language therapy is parent-implemented intervention (Green et al., 2018). Roberts and Kaiser (2011) found that parent-implemented language interventions significantly positively affected both the receptive and expressive language skills of children with and without disabilities.

The findings from Otaiba and Smartt (2003) suggest that children with speech/language delay improve their letter sounds production when their parents train them in phonological awareness. Results from Graybill et al. (2016) suggest that parents who received educational materials on milestones reported increased knowledge about child development. Therefore, parents of children with communication delays need to understand the importance of early identification and provide support that fosters language development through early intervention. Rush and Shelden (2011) state that coaching improves parents/caregiver competence with intervention implementation, increasing confidence in supporting their child's development and learning. In this context, coaching refers to a service that an early intervention practitioner provides to parents or caregivers to encourage the development of new abilities while enhancing current skills. (Rush & Shelden, 2011). Additionally, coaching helps parents/caregivers continue with early intervention goals and objectives when the service provider is absent, increasing the child's opportunity to practice and learn in their natural environment (Meadan et al., 2014; Meadan, et al., 2016). Hence, parents play a crucial role in ensuring the success of their children's potential.

Statement of the Problem

This proposed research seeks to understand parents' experiences and perceptions about identification and early intervention to help ease parents' concerns and provide more relevant and effective services for the child. The study further establishes that early identification and intervention are more effective if parents understand their importance. Hence, early intervention service providers, need to ensure parents/caregivers are provided with evidence-based intervention practices that support child development, and are clear and easy to implement. Consequently, parents' ability to facilitate intervention strategies, such as interactions with their

young children, encourages language development (McDuffie & Yoder, 2010). Therefore, the results of this study will assist both families and early childhood educators in determining best practices for providing services to these families of children with communication delays.

This study will use a non-experimental survey design to assess parent perceptions and knowledge regarding children with communication delays, early identification of this disability, and intervention measures available to these families. Participants will include parents and caregivers of young children from birth to five years old. Basic descriptive statistics will be used to organize and analyze data results. Data from selected early childhood education daycare centers will be gathered in the spring of 2023.

Purpose of the Study

It is vital to understand the concerns and positions parents find themselves in when they have children with disabilities that are difficult to perceive or recognize. Educators need to have core knowledge of early childhood development and the ability to identify children with developmental delays. When educators or caregivers recognize the signs and symptoms associated with developmental delays, such as speech delay, these teachers can bring their concerns to parents and initiate the process of early intervention. Similarly, parents also need in-depth knowledge of child development processes and to understand various developmental milestones. This paper will focus on speech and language development in young children and intervention strategies to support children's speech and language development.

When parents, teachers, or caregivers identify early signs and symptoms associated with speech delay in young children, they can promptly provide intervention measures to support them before their symptoms worsen. Early diagnosis is preferred because early identification and intervention programs can have overall positive outcomes for children with developmental delay,

minimizing the associated disability even further (Bryson et al., 2003). Hence, teachers, parents, and caregivers need to have basic knowledge of language development in young children. Identifying early signs would lead to early intervention strategies that encourage language acquisition.

The present study explores caregiver's most effective intervention strategies to support their children with speech delay. Early identification of children with speech and language development promotes a professional assessment of the child's unique circumstances. It creates a plan to implement intervention strategies that eventually lead to language acquisition. Coaching teachers, parents or caregivers to understand language milestones is essential in identifying speech delays in young children. The results from Rudolph and Leonard (2016) suggest that delayed milestones are associated with speech-language impairment; hence teachers and parents need to know how speech delay is identified.

Research Questions

This study will address three research questions:

1. Based on the experiences of parents/caregivers of children with communication and language delays, what are the intervention strategies and practices used by these parents?
2. What are the parents' experiences with their child's service provider?
    a. What are the quality of these interactions?
3. What are the perceived parenting experiences prior to and after engaging with service providers?

Objectives of the Study

The objectives of the study will describe what the researcher wants to achieve from these investigations.

1. Secure permission from the director of the early childhood education center to survey parents.
2. Secure approval from the Institutional Review Board
3. Develop survey questionnaire

Assumptions for the Study

This study assumes the following:

1. Children with communication and language delays will benefit more from early identification and intervention.
2. A normal distribution of respondents among families of children with communication delays receiving a questionnaire.
3. This study assumes only one caregiver per family will complete the survey. Despite several caregivers dropping and picking up children at the recruiting location.
4. Respondents are honest while participating in the survey.

Delimitation of the Study

The Delimitation of a Study is the characteristic that arises from the limitations of a study that controls the scope and defines the study's boundaries, thereby providing a controlled map of the research process. Delimitation results from specific conscious exclusion and inclusionary decisions made during the researcher's development of the study plan (Simon & Goes, 2013). These characteristics, such as geographical location or sample size, are included or excluded in the study to make the project manageable and focused on the research questions. Participants' selections were based on the following benchmarks:

1. This research study is limited to the state of Minnesota in the United States of America.
2. The location of the investigation is specific to the northern suburb of the Minneapolis area, the largest city in Anoka County, Minnesota, in the United States of America.
3. The research participants are parents and caregivers who reside in Hennepin County, Anoka County, downtown Minneapolis, or Minneapolis-St. Paul metropolitan areas in Minnesota.
4. This study will focus on parents and caregivers of young children aged birth to age five.
5. The parents of pre-teen/middle years, teenagers, and adult children are excluded from this study.
6. The study will only use parents/caregivers whose children have been diagnosed with speech and language impairment.
7. The study will only use parents whose children attend a private early childhood education school.

Human Subjects Approval

In efforts to ensure that the rights and welbeing of the human subjects participating in research are adequately protected, the St. Cloud State University's Institutional Review Board (IRB) reviewed this project and concluded that confidentiality was assured and the potential benefits through increased knowledge were appropriate. The study was conducted so that no emotional risks or risks to self-esteem were present. An informed consent to participants was assumed by the volunteers completing and returning the feedback instrument. The researcher

completed the IRB training on February 13, 2022 and received certification from IRB to ensure the protection of the human subjects rights in the study. See Appendix A.

Definitions of Terms

1. *Caregiver:* is the primary-care taker(s) of a child as defined by the family, and this may include parents, grandparents, foster parents, guardians, etc. Shonkoff and Phillips (2000) define caregivers of young children as "adults who care for and interact with young children in their families, child care settings, or other early childhood programs, and who play an essential role in promoting children's healthy development."
2. *Communication delay***:** is the inability to produce speech through vocalization and language. Communication delays are most prevalent in children under the age of three years (Van der Linde et al., 2015). When a child falls noticeably behind his or her peers in acquiring speech and/or language skills, his or her communication is considered delayed.
3. *Early identification*: means discovering and providing adequate early support to young children who may have speech delays or are at risk. A successful outcome for language delay can be impacted by receiving an effective intervention. Haque et al. (2021) stated that early identification or diagnosis of symptoms helps care professionals make evidence-based decisions for intervention methods, which have both positive and long-term outcomes for improving individuals with disabilities. Hence, early intervention prevents challenges from increasing or managing them head-on when they happen before it worsen.
4. *Developmental delay*: When young children cannot attain milestones or reach them much later than children the same age, they can be referred to as having a developmental delay.

Developmental delay is a significant gap in attaining the typical childhood milestones in language, cognition, social, emotional, adaptive functioning, and motor development (Lestrud, 2013). When a child is not reaching certain milestones by the appropriate age, it could be the earliest sign or red flag that the child may be developmentally delayed.

5. *Developmental milestones*: Are behaviors or natural skills seen in infants and toddlers as they grow older and develop. In research from Huynh and Misirliyan (2022), Development milestones help determine if a child is undergoing typical development or is delayed in a given area or over multiple areas in the aging process. Sitting, crawling, standing, walking, and talking are deemed milestones. Milestones at each age range of development are different. An expected age range during which a child may achieve each milestone.
6. *Language development*: According to Law (2006), Language development is a dynamic process influenced by genetics, gender, temperament, the child's own skills in other developmental domains and a variety of biological and social risk and resilience factors. During the early years of childhood, children work on developing their linguistic abilities in order to learn and communicate with one another. Language development begins at birth and continues through the age of five years. Babies are not born with any language but can recognize human speech sounds. During pregnancy, the fetus starts to understand the sounds of its mother's voice, and it will be able to differentiate these sounds from other noises after birth.
7. *Language delay*: Occurs when young children don’t meet the age-appropriate milestone for developing language. The study by Law et al. (2000) indicated that

> "Children with language delays that incorporate both expressive and receptive skills present the clearest picture. These children are likely to find it difficult to process incoming language, to initiate communication with others and to formulate their responses appropriately." (p. 180)

8. *Language Intervention Strategy*: Intervention strategies are defined plans for individual actions that outline methods, techniques, cues, procedures, or tasks geared towards an activity that enables a child to complete a specific goal successfully. According to Law et al. (2017), Language intervention strategies are a variety of practices, steps, and processes (methods, approaches, programs) specifically created to encourage speech and/or language development.
9. *Language Development Milestones*: Are successes that indicate the various stages of language development. As reported by the National Institute on Deafness and Other Communication Disorder (NIDCD, 2022) language developmental milestones are the checklist of the natural progression for mastering the skills in the language of Children from infancy through age five. They are receptive (hearing and understanding) and expressive (speech). Language development milestones offer vital clues about a child's language developmental well-being. Achieving language milestones at the expected ages shows that a child is growing as anticipated.
10. *Service Provider*: The speech-language pathologist who provides unique clinical professional services in a child's natural environment with individualized intervention strategies to promote communication development. The service provider models the implementation of specific strategies with a child to provide concrete examples and then

steps back to allow for caregiver practice. With adequate clinician assistance and scaffolding, caregiver intervention is equally successful as a clinician-implemented intervention in achieving communicative outcomes. (Romski et al., 2010). Studies in which the service provider trains and coaches parents/ caregivers to implement supports have revealed positive effects on child language and communication outcomes (Roberts & Kaiser, 2011).

11. *Speech delay*: the incapacity of young children to acquire or employ speech-producing systems. Fan et al. (2021) describes Speech delay (SD) in early childhood as a condition in which a preschooler develops speech at a significantly slower rate than peers of the same gender and age. A child is considered to have a speech delay if he or she cannot develop vocabulary at the usual rate for children of the same age. Children with speech and language delays have greater problems with reading, writing, attention, and sociability (McLaughlin, 2011).

Chapter II: Review of the Literature

This literature review is intended to provide an in-depth understanding of the process of language development in early childhood as well as the various factors that contribute to speech and language delays. The primary focus will be on caregivers' perspectives about the early detection of language delay and their acceptance of support from service providers of intervention strategies made available to families of young children with communication challenges.

To best understand parental experiences and challenges with communication delays in young children, this literature review is divided into four main themes and twelve subthemes: background of language development, identifying speech and language delay, parenting concerns and challenges, and summary. This study used local and international resources. SCSU Library, ERIC, and Google Scholar were primarily used to access research journal articles and articles published by prominent experts advanced in biotechnology, health and diseases, such as the National Center for Biotechnology Information (NCBI). Research phrases, such as *language development, speech delay in young children, identifying speech and language delay, language intervention, early vocabulary delay, promoting language in young children, and early gesture and vocabulary,* were used to locate journal articles. Major journals accessed for this study include; the *American Journal of Speech-Language Pathology, the Journal of Language and Communication Disorder, the Journal of Early Intervention, and the Journal of Population Research.*

Additional search phrases, such as parent *communication, parents of children with speech delay, and supporting families and caregivers,* were added to gain more insight into parents' perspectives of communication delay.

This literature review identifies Marjorie Beeghly, James Law, and Megan Roberts as influential researchers in language development, speech and language delay, and family-centered early language delay intervention in early childhood, respectively. This study intends to build on the collective body of research done by Beeghly, Law, and Roberts to gain further insight into the need for early and precise identification and intervention that is age-appropriate for young children with difficulties developing their communication skills.

Background of Language Development

Language development in early childhood is a significant milestone in a child's development when language is acquired. Language development is a fundamental skill for all children and essential for participation in everyday life, specifically, a child's social and emotional development and educational success (Visser-Bochane et al., 2020). Influential experts in child language development such as Jean Piaget, Lev Vygotsky, B. F. Skinner, Noam Chomsky, and Michael Halliday have different theories about language development in young children.

Theories on Language Development

Piaget's cognitive process theory emphasizes language development to the basic principle of cognition, such as using the importance of the child's attention to detect patterns in language inputs. However, Vygotsky's sociocultural theory highlights that social interaction within the family and community plays a primary role in the child's language learning. Conversely, Skinner's theory of behaviorism illustrates that modeling, observation, and imitation of other speech results in language acquisition. The behaviorist also believes that reinforcement such as rewards or praises from parents when children use mature words also plays a role in language development. In contrast, Chomsky's theory of nativism proposes that young children have

inherited abilities that enable language development. In comparison, Halliday's theory of functionalism suggests that young children are encouraged to use language to meet their personal needs (McDevitt & Ormrod, 2020).

Language milestones

Language milestones in language acquisition represent the fundamental structure of language development, including speech, communication, and language. A recent study has identified clear and distinctive milestones reflecting young children's language development (Visser-Bochane et al., 2020). To adequately identify atypical language development, it is critical for parents, teachers, and caregivers to understand clear milestones of typical language development in young children. According to Surkan et al. (2013), acquiring milestones can put a child on a path toward further developmental achievements later in childhood and adulthood.

The earliest communication indicators happen once an infant understands that crying will bring comfort, food, and a parent or caregiver. Infants also start to realize vital sounds in their surroundings, for instance, their mother's or caretaker's voice. It is vital for parents and caregivers to watch for developmental milestones like smiling, cooing, and babbling. Infants demonstrate various developmental milestones when they play, learn, speak, act, and move (Moreno, 2015). A child not meeting age-appropriate milestones indicated in Table 1 may be a warning sign of speech or language delay. Some examples of these milestones for speech and language are listed in Table 1.

Table 1

Speech & Language Developmental Milestone

Age-Range	Expected Milestone of Speech & Language Development
0 to 6 months	Turns head towards sounds When eating, starts or stops sucking in response to sound
1 year	Wave goodbye. Say "dada" and "mama."
1 to 2 years	Name simple objects and pictures if asked. Point to body parts when asked.
2 years	Say common 2-word phrases, such as “all gone” or “daddy go.” Be able to follow a 1-step instruction, such as "put your cup on the table."
3 years	Follows directions with 2 or 3 steps Engages in a conversation using 2 to 3 sentence
4 years	Tells stories Understands simple grammar rules, such as correctly using "he" or "she."
5 years	Speaks very clearly Uses future tense, for instance, "daddy will be here."

Notes. Adapted from *Speech and language delays in young children*, by Moreno, A. J, 2015, p.796.

Stages of Language Development

The stages of language development, in general, are the same among children. However, the age and the pace at which a child achieves each language development milestone differ considerably. As children develop, it is expected they understand and express the verbal language of their native tongue regarding their language development. In this area, language skills, therefore, are based on two categories: receptive language and expressive language. Receptive language is a child's ability to identify and understand spoken words. With receptive language, children can understand what a word represents when they hear a particular word. On

the other hand, Expressive language is the ability of a child to use their voice and words acquired through receptive language during social interactions with others (Ersan, 2020). As children gain control over the production of sounds and words, the more they develop their expressive language skills (Levey & Polirstok, 2011; Otto, 2010).

Speech Delay

Speech is defined as the verbal production of language. Speech is one means of conveying language through combined sound (O'Hare & Bremner, 2016). Hence speech is the vocal construction of language, whereas language is the conceptual processing of communication. Speech delay in young children is a common developmental disorder that affects five to eight percent of the population. Speech delay may be an isolated condition or be part of a broader condition such as global developmental delay (Jeong et al., 2016). Global developmental delay occurs when a young child takes longer to reach specific developmental milestones than other children. This delay results in the impairment of multiple developmental areas such as language, motor function, cognition, social interaction, and activities of daily living (Shevell et al., 2003).

Understanding Speech and Language Delay

Every child develops at different rates; some children develop faster in certain areas than others. Speech and language are the most common areas of child development that can be delayed. About 20 percent of children learn to talk or use words later than other children their age (Moreno, 2015). Language and speech delay occurs when a young child is not developing speech and language at the expected rate or milestone. The early emergence of consonant sounds during expressive language development sets the stage for emerging words and vocabulary for typically developing children and children with developmental disabilities (Fielding-Gebhardt &

Warren, 2019; Thal et al., 1995). Language and speech delay is a common developmental challenge that affects as many as 10 percent of young toddlers.

Jullien (2021) identified speech and language as two of the main areas of child development, along with gross and fine motor skills, social and personal skills, daily living activities, and cognition. Children with isolated speech and language delay represent a diverse group with neurocognitive and social functioning impairments in the receptive or expressive language domains (Jeong et al., 2016). A speech and language development delay could be a sign of a developmental disorder associated with child development. Hence it is vital for parents and caregivers of young children to have the ability to recognize when their children are not meeting milestones for speech and language development.

Reasons for the Delay in Speech

A recent study (Syamsuardi, 2015) has identified that child speech and language development delays can occur due to the child's physical condition and environmental factors. The findings from this study revealed that children's speech delay, when viewed from environmental factors, are, based on the role of parents or caregivers play in teaching the children's speech skills, including inadequate time parents or caregivers spend with the children, lack of understanding of a child's developmental potentials, and parents' speaking style following the child's speech style. As a result, children may spend their formative years without a language easily available. In such a scenario, the child is at risk of experiencing language deprivation, which can result in significant speech and language impairments and cognitive problems. (Mayberry et al., 2011; Ferjan et al., 2013; Lieberman et al., 2015).

Thompson (2014) identified that an adverse environment could create stress that alters a child's development. Subsequently, children who experience disruptive environments such as

poverty, family violence, or parental depression will develop a biological mechanism that helps them adapt to these harsh conditions. However, these adaptations mechanism also has immediate and prolonged consequence for healthy development, such as language acquisition.

Henrichs et al. (2013) identified three potential causes of early vocabulary delay with behavioral/emotional problems: genetic factors, slow brain maturation, and environmental factors such as maternal education, ethnicity, and parenting stress.

Identifying Speech and Language Delays

Parents of young children need to be able to identify warning signs of speech and language delay. Early identification of young children with speech and language delays or disorders would allow early interventions before these problems interfere with learning abilities (Wallace et al., 2015). Simple speech delays are sometimes temporary. They could disappear independently or with some assistance (Moreno, 2015). About 60 percent of children with speech delay do not require intervention because the problem resolves naturally by three years of age (Law et al., 1998). However, it is vital to undertake an individualized approach for each child in identifying delays and missed milestones. Speech and language delay may be an early presenting factor in children with developmental delay; hence it is essential to provide a crucial early opportunity to intervene and deliver multidisciplinary support (Wooles et al., 2018). Visser-Bochane et al. (2020) suggest that clear and distinctive milestones indicate language development and can be used as a benchmark for measuring language development.

Screening for Speech and Language Delay

Early identification of speech and language delay is a prerequisite for early and effective intervention. General screening aimed at young children is the best strategy for early

identification of children at risk of language delay (Westerlund et al., 2006). However, Westerlund et al., (2006) report that 18 months is too early to identify severe language disability.

Researchers have turned to parent reports and experiences as an efficient technique for assessing language in children under age three. Two such checklists used in research with toddlers are the MacArthur Communicative Development Inventory: Words and Sentences (Fenson et al., 1993) and the Language Development Survey (Rescorla, 1989). Ample literature supports the reliability and validity of these instruments for assessing language in children under age three. However, this study further supports the language development survey as a reliable, valid, inexpensive, and efficient screening tool for language delay in children under age three. According to a parent report on the language development survey, children in the 24–30 months range who appear to have an expressive language delay can then be seen for further assessment (Rescorla, 1989) and intervention strategies. Rescorla and Alley (2001) have identified that play-based behavioral assessments are a more ecologically valid method clinicians use to assess language skills in young children. This is because direct language testing with children under age three is expensive and time-consuming.

Intervention Strategies

Several intervention methods exist for children with speech and language delay and disorders, including speech-language therapy sessions and assistive technology (Siu, 2015). Speech and language development is enhanced when parents engage in a conversational and child-directed speech style, such as commenting on the child's actions and focusing on attention; (Chapman, 2000; Hart & Risley, 1995). Non-directive play techniques and following the child's lead may help to improve language skills in children with developmental delays (Koegel, Koegel, & Surratt, 1992). Parents need to have a thorough understanding of how to engage their

young children to encourage speech and language development. According to Kemp and Turnbull (2014), early intervention service providers can have a more significant impact on infants and toddlers if they collaborate and partner with the child's parents or caregivers in providing developmentally appropriate support. Early Intervention refers to services offered by service providers (interventionists) to families of infants and toddlers with disabilities (IDEA; 2004). These services may include speech and occupational therapy (Yell, 2016). Within the early intervention framework, which centers on the family as the primary care unit, family members are educated and trained to assist young children with disabilities better (Douglas et al., 2020).

Parent-Child Interactive Therapy (PCIT) is a parent-training intervention for a child's behavioral challenges that can serve as a cost-efficient treatment method for children with and at risk for developmental delay in speech and language acquisition by focusing on the child's language and behavior. For families getting PCIT, Garcia et al. (2015) suggested that parents who use predicated words encourage their children to produce more words. Hence, PCIT can also help improve child language development using parenting skills, indicating that parent-training interventions targeting child behavior problems can foster child language production.

Rogers and Vismara (2008) provided a review of evidence-based, comprehensive treatment programs for children with autism, focusing on interventions that addressed language development using ABA therapy and highlighted the positive impact of ABA therapy on language development.

Leech and Cress (2011) investigated the effectiveness of an intervention method using two low-tech Augmentation and Alternative Communication (AAC) strategies. By encouraging non-spoken language production, tools like pictorial symbols and sign language can help

children with expressive language delays produce speech. AAC interventions are implemented to increase language and communication skills through a variety of modalities and to provide direct access to language and the expression of intended messages. Leech and Cress (2011) revealed that AAC intervention had a clear and rapid effect on a child's spoken word production. Therefore, AAC can be a viable intervention tool to address improved speech in children with expressive delays. Romski and Sevcik (1996) suggest that AAC interventions may help children with expressive disabilities bypass speech production's motor and cognitive demands and focus on building communication and language skills.

Cheslock and Kahn (2011) identified evidence-based strategies for training parents, families, or caregivers on embedding learning prospects in a child's daily routine. When speech and language pathologists (SLP) collaborate with parents and families by sharing their specialized knowledge and expertise in child development, such as giving practical ideas, discovering communication possibilities, and instructing appropriate tactics in the child's natural surroundings. Using this approach SLP/interventionist/service provider will model the implementation of specific strategies with a child, providing examples to parents and then stepping back to allow parents to practice the strategy. This process empowers parents and families to implement the intervention methods themselves, allowing more practice and eventually providing more frequent and genuine learning opportunities for the child. Children learn more target words and make developmental gains with repeated learning opportunities in meaningful daily activities (Rapport et al., 2004).

Parenting Experiences and Challenges

Sahu et al., (2018) revealed that when children are diagnosed with a disability, their parents' attitudes and reactions to the diagnosis are negative, such as outright rejection, denial,

and loss of hope. In this case, most parents now perceive caregiving as a physical, emotional, and financial burden. Since most parents are reluctant to the idea that their children may require assistance with development, the question still needs to be answered is how families can recognize the early signs of speech delay, understand the significance of early intervention, and be open to intervention strategies. Whereas some parents are eager to assist and ensure their children meet milestones. Salvago et al. (2019) state that parental anxieties about their children's speech abilities, communication difficulties, and unmet language milestones are frequently the primary reasons for referrals to speech and language therapists. A family history of stuttering and language impairment, in conjunction with delay in other language milestones, can signal language delay and cause parental concerns about children's developmental and speech therapy needs (Salvago et al., 2019). Marshall et al. (2017) stated,

> "Other parents described more distressed reactions to a realization that a problem may exist with their child. For some parents, as comparisons are made and realizations begin to surface, the awareness process can be emotional, confusing, and even jolting." (p.186)

Marshall et al. (2016) highlighted that parents of children with signs of developmental problems shared their fears and the challenges their children experience with academic, receptive language, and self-help skills.

Hence, it is essential to understand the concerns and experiences held by families of children who struggle with communication while service providers offer evidence-based information that supports intervention practices that assist families.

Challenges of Parenting

Parenting can be a demanding and challenging experience for parents, and raising children with speech and language difficulties can be much more difficult, frustrating, overwhelming, and stressful. Butler et al. (2020) stated parents' descriptions of various difficulties, including difficulties managing their child's behavior, difficulties in their relationship with their child, frequent distressing interactions with them, and feelings of isolation. Parents frequently expressed helplessness, desperation, and being overwhelmed or out of control. Parenting is difficult, especially during the early years; thus, educators and other trained professionals can deliver child development classes to help parents. The ultimate objective of this instruction is to enhance children's developmental outcomes (McDermott, 2006) by increasing the caregiver's competence and confidence.

Parenting Programs

Gilmer et al. (2016) revealed that when parents are provided with essential information about parenting and childcare, the cycle of uncertainty and distress in parenthood is reduced. Marshall et al. (2016) highlighted that sharing knowledge and information regarding typical and atypical child development behaviors could benefit parents and caregivers of young children. Programs for parenting education provide encouragement and information that raises parents' understanding of when children should reach developmental milestones. Parent education involves sharing knowledge, skills, and attitudes concerning the development of parents and children and their relationships (Campbell & Palm, 2004). Thus, parent education programs provides various activities designed and focus on specific learning areas that encourage the child's well-being, growth, and development.

Parenting programs include instruction on the four domains of child development: cognitive, physical, language, and social-emotional. Through these programs, parents are taught to recognize missing developmental milestones in all areas of child development, including language development. Douglas et al. (2020) indicated that caregivers or parents benefit from professional coaching and can learn new strategies to help them feel empowered to support their child's development. Consequently, parenting programs provide parents with evidence-based information on young children's speech and language milestones.

Supporting Parents/Caregivers

Supporting parents and caregivers throughout their daily routines is a dynamic process in which service providers share their unique expertise and skills, identify communication opportunities, make practical suggestions, and teach appropriate practices. This support comprises capitalizing on the parent's and caregiver's strengths, providing constructive ideas, and resolving problems with the family and team (Cheslock & Kahn 2011). Early intervention services are family centered. These services address each family's specific strengths, needs, priorities, and concerns, which vary based on the culture and circumstances of each family. Early intervention services focus on the needs of the entire family, not just the child. Implicit in this principle is the belief that families and caregivers have a significant role in promoting their children's development, given the right support and resources. Studies involving the training and coaching of parents/caregivers to implement supports have shown positive benefits on children's language and communication outcomes (Roberts & Kaiser, 2011). These services are intended to assist families in enhancing their child's development.

The practice of coaching is an act by early interventionists offering services such as demonstrating specific intervention techniques to families to improve the parents'/caregivers

present abilities and support the development of new abilities (Rush & Shelden, 2011). Coaching has been found to increase caregiver abilities, which results in better outcomes for children (Meadan et al., 2016; Trivette et al., 2009). Caregiver coaching is a field-recommended practice (Division for Early Childhood, 2014). Additionally, coaching enables caregivers to carry out early intervention objectives and intervention methods even when the service provider is not present, which increases the chance for the child to practice and learn in realistic environments. (Meadan, et al., 2014; Meadan, et al., 2016).

Literature Review Summary

The Center for Disease Control and Prevention (CDC) defines Language and speech disorders in children on their website and provides a virtual checklist for parents to track their children's current developmental milestones. CDC also promotes observation of children by their parents relating to the developmental milestones and provides suggestions on what should be done for children with speech or language concerns. For instance, the CDC advises parents with concerns to tell their child's doctor or nurse if they notice any signs of possible that indicate risk of developmental delay and ask for a developmental screening or assessment.

In early childhood, vocabulary is essential when children develop language, literacy, and communication. Yang et al. (2021) revealed that classroom management and instructional support were positive predictors of children's vocabulary competency in preschools. Garcia et al. (2015) found that parents' use of child-directed skills played an important role in developing and improving a child's language. Rogers and Vismara (2008) revealed that interventions based on applied behavior analysis have the most extensive empirical support for improving the language development of young children with autism. Thompson (2014) suggested that early experience instructs the brain about the language environment the child has been born.

Visser-Bochane et al. (2020) identified a set of 26 milestones in vocabulary, grammar, and communication belonging to one scale that reflects language development in children aged one to six. The 26 clear and distinctive milestones reveal language development in young children and can be used to screen language development (Visser-Bochane et al., 2020). However, Rudolph and Leonard (2016) suggest that delayed milestone achievement is associated with specific language impairment (SLI); however, the type of delay matters when making clinical decisions.

Anderson et al. (2012) revealed ten complex short words that can be used as a screening tool for a general assessment of speech sound production that differentiates between children typically developing speech from those with delayed or disordered speech patterns. Thereby creating evaluated children's speech sound development by analyzing speech production with the average speech sound development based on a child's age and developmental profile.

Henrichs et al. (2013) illustrated an association between vocabulary delay and behavioral or emotional problems, all detectable from 18 months onward. Additionally, children with speech and language delays usually exhibit behavioral challenges, such as temper tantrums, because they get frustrated when they cannot express what they need or want (Moreno 2015). Jeong et al. (2016) provide new insights for distinguishing speech and language delay from other developmental disorders.

Hsu and Iyer (2016) indicated that intervention methods promoting children to gesture at very early ages and their early vocabularies could reduce the risk for language impairment, even for those from disadvantaged backgrounds. Leech and Cress (2011) suggest that augmentation and alternative communication (AAC) can be a viable intervention tool to address and improve speech in children with expressive delays. Walters et al. (2021) investigated the argument that

AAC intervention augmented language intervention might delay or impair speech development. Therefore, AAC intervention results in significantly more spoken target vocabulary words. Wolfe and Heilmann (2010) researched the power of focused stimulation and discovered that children with expressive language delay acquire new vocabulary when they repeatedly hear several target words in a simplified naturalistic condition. Eighty-two percent of speech and language pathologists reported using telegraphic input (simplified language) while interacting with children with speech and language delays (Venker et al., 2019).

Evidence that a simple infant sign intervention effectively promotes bidirectional communication and positive interactions between preverbal children and their parents (Vallotton 2012). However, Nelson et al. (2012) revealed that there is no credible research evidence to support the frequent claims on certain websites that teaching sign language to young children with normal hearing will improve language development or earlier communication.

Nicastri et al. (2021) investigated the effects of parent training (P.T.) on enhancing children's communication development and revealed that parents seemed to benefit from parent training which focused on strategies to empower and promote communication skills in children. Additionally, Rajesh and Venkatesh (2019) highlighted that a low-intensity training program for parents, supported by intervention measures focusing on developmentally appropriate play and speech-language stimulation, will result in increased verbal interaction and changes in language input of children. Moreover, Moore et al. (2014) revealed children with expressive communication delays can improve their expressive language skills after their parents participated in a parent education program focused on coaching parents to embed naturalistic language-enhancing strategies within daily routines in Language and Play Everyday (LAPE). Akamoglu and Meadan (2019) indicated that participants (mothers of children with

communication delays) who were trained and coached in techniques and evidence-based naturalistic communication teaching strategies, led to improvements in their children's communication skills. It was also discovered that experts such as teachers, therapists, and physicians provide informational assistance to parents. This support assists parents in overcoming obstacles and managing the resources available to them.

Cheslock and Kahn (2011) state that services of intervention strategies should be focused on the whole family, not just on the child's basic needs. This notion is based on the idea that families and caregivers play an essential role in enhancing their children's development with appropriate support and resources.

Moreover, the CDC has given an in-depth definition of speech and language delay in young children and strongly recommends that parents and caregivers have basic knowledge of early childhood development. Yang et al. (2021) and Garcia et al. (2015) have elaborated on language production in young children. Rogers and Vismara (2008) highlight the positive impact of ABA therapy on language development. In comparison, Visser-Bochane et al. (2020) reveal young children's various language development milestones. The outcome from Rudolph and Leonard (2016) indicates that missed or delayed milestones are associated with specific language impairment. Anderson et al. (2012) identified certain short words that can be used as a screening tool to assess speech delay. However, Henrichs et al. (2013) indicated an association between vocabulary (speech) delay and behavioral and emotional problems. A detailed analysis of Moreno (2015) revealed the various behavioral challenges presented by children with speech delay. Jeong et al. (2016) provide insights into differentiating speech and language delays from other developmental delays. For speech promotion in young children, multiple intervention methods were studied and presented by (Hus & Iyer 2016, Leech & Cress 2011, Walters et al.,

2021, Wolfe & Heilmann 2010, and Venker et al., 2019). However, teaching infants sign language to promote language development was critically analyzed by Vallotton 2012 and Nelson et al., 2012. Nicastro et al., 2012, Rajesh and Venkatesh 2019, Moore et al., 2014; and Akamoglu and Meadan 2019, revealed that parent programs in specific intervention measures would encourage language acquisition in young children. Marshall et al. (2020), Cheslock and Kahn (2011), and Douglas et al. (2020) indicate that collaborative teamwork supports both teachers and parents and empowers caregivers to support their children's development.

Conclusively, the articles above provide robust information on the research topic. The articles define speech delay and provide information on signs and symptoms and what to do to identify language developmental milestones. Various evidence-based intervention strategies available for improving language development have also been stated. Additionally, article research findings have revealed the benefits of encouraging parent programs on the language developmental process in young children.

Chapter III: Methodology

The literature review in Chapter Two identified a limited number of studies that explored language development and impairment in young children from the perspective of parents and caregivers. To further contribute to this body of research, this study aims to understand parental experiences with speech and language delays in their young children. Specifically, this study will focus on parental and caregiver perceptions of the most efficient intervention strategies and practices, parental interactions with service providers, and parental understanding of child development. This study will gather self-reported data from caregivers of young children with signs of speech impairment or diagnosis.

Purpose of the Study

This study aims to fill in the gaps in the research on the experiences of parents/caregivers of young children with language impairment. Therefore, the purpose of the study is to:

1. Understand parent's experiences of supporting their young children with communication delays.
2. Emphasize the significance of parental comprehensive understanding of child developmental milestones.
3. Identify the most effective intervention strategies and practices.
4. Assist parents in understanding the significance of starting the early intervention process.

The organization of Chapter three includes: research questions, research design, study respondents, securing participation for the study, protection of study participants, context for the study, data collection procedures, instrumentation, variables, treatment of data, validity /

reliability of the study, pilot study of the instrument, organization of data, data security, and the questionnaire.

Research Questions

This study will address three research questions:

1. Based on the experiences of parents/caregivers of children with communication and language delays, what are the intervention strategies and practices used by these parents?
2. What are the parents' experiences with their child's service provider?
    a. What are the quality of these interactions?
3. What are the perceived parenting experiences prior to, and after, engaging with service providers?

Research Design

This study entails a cross-sectional, non-experimental survey design drawn from a predetermined population sample. The information collected will reflect one point in time. This study uses a 28-item questionnaire with a four-point rating scale including eight demographic items. Qualitative methods will be used to analyze the open-ended items on the questionnaire. The questionnaire contains both open and closed-ended items; and because participants will all be asked the same questions and given the same response possibilities, standardized data will be provided as results.

Descriptive statistics will be used to analyze the information from Likert-type items gathered for this study. Aggregate data will be collected from the raw scores. Hence, no individual scores will be revealed. All data from the survey will be reported in table format. The instrument will be discussed in the next section.

Study Respondents

The study respondents are Minnesota parents and caregivers of young children aged birth to five who reside in Minneapolis-St. Paul metropolitan area. The respondents for this study are parents and caregivers of young children diagnosed with speech or language impairment who attend an Early Childhood Education school. Their experience in supporting their children will answer the problems posed in this study. They will respond to the questionnaire, which will supply the necessary data. The expected population size is 120 Minnesota families.

According to Lohr (2021), a Self-selected sample design method "consists entirely of volunteers/persons who select themselves to be in the sample" (p. 6). A self-selected sample of volunteered and qualified potential respondents in the target population was used in recruiting participants in this study. This study does not include families whose young children attend district-owned early childhood education centers. Only families of young children diagnosed with speech impairment who attend a private-owned early childhood education school are expected to participate in the study. This study assumes a normal distribution of respondents among families of children with communication delays receiving a questionnaire.

Securing Participation for the Study

A QR code was created and printed on a flyer soliciting participation in the survey. QR (quick response) codes are two dimensional images that when scanned by a smartphone's camera, prompt the smartphone to open a web-page or display an image, video, or text (Coleman, 2011). The flyer with the QR code was placed at all nine locations of the early childhood education schools. The early childhood education school is dedicated to nurturing and guiding young children as they learn and discover the world around them. The organization operates nine schools in the Minneapolis-St. Paul area in Minnesota. At each school, a dedicated

director is responsible for daily activities, ensuring the children receive the attention and support they need to grow and thrive. The Vice President of Operations oversees the smooth functioning of all the schools. The Vice President of Operations also helps to develop the organization's overall strategies and plans, ensuring that the early childhood education schools continue to be a valuable resource for young children and families in the community.

Permission was obtained from the Vice President and from the Director, of its satellite location, to use the schools as a participant recruiting location (Appendix C & Appendix D). If interested, the respondent was required to scan the QR code on the flyer with their smartphones; once scanned, they will be routed to the survey. The first page of the survey affords participants with implied consent, which states that their completion of the survey indicates that they are at least 18 years of age and consent to participate in the study.

The participants were also provided with detailed information and an explanation of confidentiality, survey procedures, researcher's contact information, study background information and purpose, and option to opt out of participation in the study at any time.

Protection of Study Participants

The participant protection and anonymity standards of the IRB shall be rigorously adhered to. To preserve the confidentiality of study participants, the researcher encrypts all computer-based data, stores paperwork in a locked file cabinet, and removes any identifying information from study records. Data results will be aggregated for analysis by grouping.

Context for the Study

This study's context highlights the importance of early identification of young children with communication impairment. In providing support to children with speech and language developmental delays, parents, and caregivers need to understand that early detection of

delays triggers early intervention. Parents, caregivers, and service providers should collaborate to ensure every child gets the necessary support. However, this collaboration can only be successful when parents and caregivers understand that early identification of language delay is crucial and eventually leads to strategic intervention measures to encourage language acquisition.

The challenges parents and caregivers face when raising children with speech delays are phycological, emotionally draining, frustrating, and sometimes grief. When children cannot express themselves verbally, they tend to throw temper tantrums which could be mild or severe, because they cannot communicate their wants or needs.

Hence, when parents and caregivers can identify children who may have speech delay or are at risk of having speech delay with support from service providers, they can utilize evidence-based intervention strategies that encourage speech/language development.

Data Collection Procedures

The Institutional Review Board (IRB) will provide approval prior to data collection. To protect the confidentiality of survey respondents, all data will be collected and processed electronically through the Qualtrics system. The survey will be distributed to the selected nine locations of the early childhood education schools on June 6th, 2023. A QR code was created and printed on a flyer soliciting participation in the survey. The QR code will be linked to the survey using a web-based tool called Qualtrics. The flyer soliciting participation in the study will be emailed to the early childhood education school director for distribution to all its locations within the Minneapolis-St. Paul metropolitan area in Minnesota. The initial email to the early childhood education school director will include the survey instrument cover letter. The cover letter requesting permission to participate in the survey also included a brief explanation of why

the respondents are invited to participate in the survey, a recruiting flyer, background information and the purpose of the survey, survey procedures, risks, confidentiality, statements of volunteerism, how to obtain research results, survey questionnaire and the primary investigator's and supporting advisor's contact information.

Participants need to scan the QR code with their smartphones; once scanned, they will be routed to the survey questions. Once participants have accessed the survey, the first page will include a brief description of the study, highlighting the ten-minutes time frame for taking the survey, appreciation for their time, responses are voluntary, anonymity, and access to study findings at the conclusion.

The participants will be required to answer all 28-item questionnaires, including 17-items with a four-point rating scale, eight demographic items, and three open-ended questions. The study uses an implied consent format. Participants will be informed that completing the survey indicates they are at least 18 years of age and consent to participate in the investigation. Data will be stored online using a password-protected account in Qualtrics. At this moment, it is uncertain how many parents or caregivers will choose to participate in the study. The survey will close at 10:00 p.m. on June 29th, 2023, three weeks after the participant's recruiting flyers are placed in the early childhood education locations.

Instrumentation

The survey instrument for this study is a twenty-eight-item questionnaire developed by the principal investigator to explore caregivers' experiences and perspectives on early identification and intervention practices for young children with communication delay. The survey instruments are divided and organized into three components. Part one focuses on the demographics items, part two are quantitative closed-ended Likert type scale items and part three

are qualitative open-ended questions. Three separate Likert-type scales were used in the survey. There are eight demographic and twenty items survey. To maintain anonymity, the questionnaire includes eight demographic questions related to general information about the respondent and their relationship to the child. The order of the eight demographic items at the beginning of the survey will be gender, age, level of education, marital status, child's age when speech delay was first identified, child's gender, child's current age and respondent relationship to the child. These demographic items aims to establish an insight into variables to be analyzed, such as individual experiences that influence participant's perceptions of early intervention and relationship with their service provider. These demographic questions are placed at the beginning of the questionnaire following the recommendations made by educational research (Lodico et al., 2010). As mentioned prior, the survey will be linked to a web-based tool called Qualtrics and accessed through a QR code.

The remaining survey items are organized into two components. The first part focuses on respondent identification of strategies or practices used to support their young children with communication delays. This section also explores the experiences and perceptions of the respondents' collaboration and interactions with service providers in implementing intervention strategies to enhance language development of their young children with speech impairment. A Likert-type scale measures participant responses, and basic descriptive statistics are used to analyze the data. Three separate Likert-type scales were used in this study. Likert-scaled responses were developed using recommended anchors with numerical values ranging from one to four (Weng, 2004). The second part comprises of three open-ended items and requires respondents to write the intervention practice that has been most effective to them, their experiences with service providers and general comments on any information they believe is

relevant and beneficial to the study. Responding to the items on the instrument will be made mandatory, and participants must respond before moving to the next part of the survey. However, the final open-ended question is optional and respondents can chose not to make a general comment. These qualitative responses will be coded and examined to identify any similarity in response or make suggestions for future research.

Variables

Burkholder et al. (2020) identify variables such as gender or age as an attribute or independent variables since they reflect the study population's inherent characteristics and cannot be changed, altered, or controlled. As such, the independent variables for this study include gender, child's age, child language development. The dependent variables in this study are parental experiences, parental perceptions, parental learning style, parental support system, intervention strategies used, and parent retention (retained or not). The responses from participants will reveal perceptions of the most effective intervention strategy based on their attributes. Consequently, the results of this study will be computed as the dependent variable. The next sections will go over the study's variables.

Independent Variables

Gender Participants in the study will be asked if their child is male, female or other. Male and female choices align with the AASA 2020 study that had two choices available for gender demographic information (Tienken, 2021). In this study, gender is a categorical independent variable having three categories (male, female or others) with no underlying ordering to the categories. The findings of this study will also include an investigation into the window of time during which it becomes apparent that children of a given gender start showing signs of language delay and acquisition.

Child's Age Andrade (2017) highlights that age is an example of a discrete variable because it is usually written as an integer in units of years, with no decimal to indicate days and, presumably, hours, minutes, and seconds. Cosic and Steuerle (2018) stated that "control for age" in a study means considering the effect of age, when looking at the effect of some other variable. Participants in this study will be asked to provide information on their children's ages when they first showed signs of language delay to determine the age at which language delay is detected.

Table 2

Options for Child's Age Question

Question	Option 1	Option 2	Option 3	Option 4
My child first showed signs of language delay at age	12 months or earlier	13-24 months old	24-36 months old	36-48 months old

Dependent Variables

The dependent variable in this study is the participant's perception/experience with their child's language delay and service providers. Participant responses to the 17 items that reflect participant's perceptions of child language delay and experiences with their service providers will result in a numerical outcome. Due to the quantitative nature of the outcome variable, this investigation will use participant responses as the dependent variable.

Language Delay as an outcome variable, happens when young children do not reach the age-appropriate milestone for developing language. The study by Law et al. (2000) indicated that children with language delays that incorporate both expressive and receptive skills will likely have difficulty processing incoming language, initiating conversation with others, and formulating appropriate replies. When children have substantial difficulties with communication, it can increase the stress experienced by parents raising children with disabilities (Smith et al.,

2014). This study will use caregiver opinions (responses) regarding perceptions of their child's speech or language delay.

Caregivers' Experience With Service Providers Speech-language pathologists provide unique clinical professional services in the child's natural environment with individualized intervention strategies to enhance communication development. With the right support and scaffolding from the clinician, caregiver intervention is just as effective as a clinician-implemented intervention at improving communication (Romski et al., 2007). Studies have shown that training and coaching parents and caregivers to provide supports has a favorable impact on children's language and communication results (Roberts & Kaiser, 2011). This study will use caregiver opinions (responses) regarding perceptions of their overall experiences with their speech or language pathologist service providers.

Treatment of Data

The quantitative data analysis approach uses statistical methods to present descriptive data collected through surveys and interpret it. Basic descriptive statistics will be used to summarize the data. "Descriptive statistics reduce the complexity of a data set by summarizing them into two sets of statistics: (1) central tendency (i.e., a measure of the center: mean, median and mode) and (2) variation (i.e., a measure of how the data is spread around the center" (Burkholder et al., 2020, p. 74). The measures of central tendency included in the data analysis are mean and standard deviation, along with frequency counts and percentages. Each item will be ranked in descending order by mean and standard deviation from highest to lowest aggregate score. Combined items grouped under the four constructs that entail (1) the intervention strategies and practices, (2) interactions with service providers, (3) parenting challenges and

experiences and (4) child's language skills will be summarized by a single aggregate mean score and compared across all data.

Validity and Reliability of the Study

Reliability and validity are core aspects of measurement (Hammersley, 1987). Reliability and validity are both about how well a method measures something: Reliability refers to the consistency of a measure, and validity refers to the accuracy of a measure. Carmines and Zeller, (1979) define *reliability* as the degree to which an experiment, test, or any measurement procedure generates identical results across numerous attempts, and *validity* as the extent to which an indicator captures what it intends to measure.

To test for the validity of this study, the survey items have been designed to gather as many responses from diverse groups as possible to ensure that whatever data is collected is valid and reliable across all demographics. In addition, all items have been identified from the review of the literature, cited, and aligned to the proposed research questions.

To test for reliability of the instrument, a Cronbach alpha Test of Reliability will be manually computed using SPSS, a statistical software suite developed by IBM for data management and advanced analytics, and statistical computations. A coefficient correlation value of .75 or higher is considered moderate to high reliability.

In addition, validity and reliability will be established through a small pilot study of the instrument. This is discussed in more detail in the following section.

Pilot study of the instrument

A pilot test was conducted to assess participant recruitment procedures, the survey questionnaire's usability, and data collection processes. Fraser et al. (2018) define a pilot study as a researcher's description of the pilot testing process, the specific feasibility issues explored, and

modifications made to prepare for the main study. This pilot process comprised two phases. The first phase involved peers' ability to assess the survey through a QR code, and the second phase involved a series of adjustments and corrections made on the questionnaires to check for design issues, grammar, and clarity by the researcher's thesis committee members and academic advisor prior to the administration of the instrument.

Data Organization

Data will be displayed in table format. Tables containing the frequency and percentages of the eight demographic items questions will be displayed and disaggregated by subgroup for comparison within the groups. Additional Tables containing frequency, percentages, mean, and standard deviation of the four-item Likert-type rating scale for each of the 17-item questions will be displayed by each construct and aggregated by item. Other tables containing frequency and description of themes for the open-ended questions will be displayed and disaggregated by subgroup for comparison within the groups.

Data Security

The results of this study will be published and made public at the conclusion. Data and any documentation used in this study are confidential and will be kept in a locked and protected location for the duration of the study. Data will be stored on an encrypted laptop with password protection. The laptop will be in the researcher's possession when not in a locked filing cabinet inside a locked apartment. Data will be stored online using a password-protected account in Qualtrics. Access to Qualtrics account will be available on a password-protected laptop computer in a locked location. All research documentation will be stored in a locked filling cabinet in the locked apartment of the researcher. Upon awarding the degree, all data and documentation will be deleted and destroyed.

Chapter IV: Results

This study is designed to access caregiver's perceptions and knowledge regarding children with communication delays, early identification of this disability, and intervention measures available to support families. The problem of the study is to understand parental and caregiver experiences with speech and language delays in their young children. This study also focuses on parental perceptions of the most efficient intervention strategies.

Basic descriptive statistics were used to analyze results, which will be reported and organized according to the structure of the survey. It will include sections on demographic information, intervention strategies and practices, caregiver's interactions with service providers, and parental experiences before and after engaging service providers.

The study used a descriptive survey of a 28-item questionnaire including eight demographic items with a four-point rating scale to measure respondents' perceptions, observations, and experiences regarding supporting young children with communication delays. This study employed three variations of a four-point, Likert-type rating scale to quantitatively measure experiences, beliefs, and values. Response choices included:

Scale 1: Strongly Disagree = 1, Disagree =2, Agree = 3, Strongly Agree = 4

Scale 2: Rarely = 1, Sometimes = 2, Often =3, Very Often = 4

Scale 3: Much Worse = 1, Somewhat Worse = 2, Somewhat Better = 3, Much Better = 4

Each participant's score will contribute to an overall mean score used for analysis. Tables will be reported in descending order, from highest to lowest in frequency count, percentage, or mean. Three qualitative open-ended questions were included at the end of the survey. These questions were analyzed using qualitative strategies and coded for patterns and themes.

Return Rate

The study attempted to collect responses from parents and caregivers of young children aged birth to five diagnosed with speech or language impairment who attend early childhood education schools. The early childhood education center operates nine schools in the Minneapolis metropolitan area of Minnesota, with an estimated population of 72 children per school. These schools were identified because the total number of children in attendance was over 600 young children. Participating communities were in suburban area settings in the central region of Minnesota.

The Director of the early childhood satellite location, and the Vice President of the organization were contacted to inquire about permission to survey all locations of the early childhood education schools. Permission was obtained from the Vice President to survey all eight locations and from the Director to survey its satellite location. These locations provided access to caregivers and parents of young children diagnosed with speech and language delays to participate in the survey. The director of the satellite location school received by email an electronic flyer with a QR code soliciting participation in the survey to assist with dissemination to other locations. The director of each school received the flyer by email, printed them out and displayed the flyer on their notice board. The first page of the survey affords participants with implied consent.

The expected population size was approximately 120 Minnesota families. The survey was open for three weeks. At the completion of the three weeks, eighty responses were collected, with seventy-nine respondents completing the survey, resulting in a 66 percent (66%) response rate.

Instrument Reliability

The reliability of the instrument used in this study was assessed using Cronbach's alpha coefficient. This assessment was conducted using the Statistical Package for the Social Sciences (SPSS), a software suite developed by IBM for complex data management, advanced analytics, and robust statistical computations. The research in question used a comprehensive instrument consisting of 17 Likert-type scale items. This instrument was divided into four subconstructs. The subconstructs are categorized as Intervention Strategies and Practices, Interactions with Service Providers, Parenting Challenges and Experiences, and Child's Language Skills.

A correlation coefficient value equal to or over .75 is commonly construed as indicating moderate to high reliability. This suggests that the instrument consistently performs well and is appropriate for research. In the present study, a thorough examination of the reliability of the four constructs stated was conducted using Cronbach's Alpha. The results demonstrate a strong correlation coefficient of 0.85, proving the instrument's reliable performance.

Basic Descriptive Findings

Items 1-8 are demographic items, including the respondent’s gender, age, educational background, marital status, child’s current age, child’s age when speech delay was identified, child’s gender, and the child’s relationship with the respondent. Items 9-25 contain the Likert-type items; and items 26-28 reflect the three open-items at the end of the survey. Basic descriptive statistics will be used to analyze data results in this study.

Demographic Findings

The survey included eight demographic inquiries pertaining to the respondent's gender, age, level of education, marital status, the current age of their child, the age at which the child's

speech delay was identified, the gender of the child, and the respondent's relationship with the child.

Gender

Results reported in Table 3 include item frequency counts, and percentages for this variable. Nineteen (23.75%) respondents identified as male, fifty-four (67.50%) respondents identified as female and seven (8.75%) respondents identified as other. These results indicate that women comprise the majority of participants in the current study, over twice as many female participants.

Table 3

Item #1 Gender (N=80)

Item	Gender	Frequency Count	Percentage
#1	Male	19	23.75%
	Female	44	67.50%
	Other	7	8.75%

Age Group

Table 4 reports survey results in frequency counts, and percentages for this item. Eight (10%) of the study respondents are between the ages of 18 and 24, twenty-one (26.25%) are between the ages of 25 and 35, thirty-one (38.75%) are between the ages of 36 and 45, ten (12.50%) are between the ages of 46 and 55, and ten (12.50%) are between the ages of 56 and older. Results reveal that 65 percent of the participating families ranged in age between 25 and 45 years.

Table 4

Item #2 Age Group (N=80)

Item	Age	Frequency Count	Percentage
#2	18-24	8	10%
	25-35	21	26.25%
	36–45	31	38.75%
	46–55	10	12.50%
	55 and over	10	12.50%

Highest Educational Level

Table 5 results include frequency counts and percentage of responses for item three. Twenty-seven (33.75%) of the study respondents identified their highest level of education as a high school diploma, twenty-three (28.75%) identified their highest level of education as a bachelor's degree, twenty (25.00%) identified their highest level of education as a master's degree and ten (12.50%) identified their highest level of education as holding a doctorate degree. These data reflect a well-educated community of families and caregivers who participated in this study with over 30 percent holding advanced graduate degrees.

Table 5

Item #3 Education Level (N=80)

Item	Education Level	Frequency Count	Percentage
#3	High school diploma	27	33.75%
	Bachelor's degree	23	28.75%
	Master's degree	20	25.00%
	Doctorate degree	10	12.50%

Marital Status

Table 6 describes item four survey results in frequency counts and percentages. Twenty-seven (33.75%) study respondents identified as single, 10 (12.50%) identified as widowed, 10 (12.50%) identified as divorced or separated, and 33 (41.25%) identified as married or in a

domestic partnership. Analysis of Table 6 reveals that around 60 percent of the study participants are characterized as single parents.

Table 6

Item #4 Marital Status (N=80)

Item	Marital Status	Frequency Count	Percentage
#4	Married	33	41.25%
	Single	27	33.75%
	Divorced or separated	10	12.50%
	Widowed	10	12.50%

Child's Age Group

Table 7 reports the survey findings in frequency counts and percentages for item five. Five (6.25%) study respondents reported that child is currently between 6-12 months old, eight (10.00%) reported their child is between 13-18 months old, seven (8.75%) reported their child is between 19-24 months old, 18 (22.50%) reported their child is between 25-30 months old, 15 (18.75%) reported their child is between 31-36 months old, and 27 (33.75%) reported their child is between 37-42 months old. The findings indicate that about 56 percent of the participants' children were aged 25 to 42 months.

Table 7

Item #5 Child's Age Group (N=80)

Item	Child's Age	Frequency Count	Percentage
#5	37-42 months	27	33.75%
	25-30 months	18	22.50%
	31-36 months	15	18.75%
	13-18 months	8	10.00%
	19-24 months	7	8.75%
	6-12 months	5	6.25%

Child's Age Group at First Sign of Speech Delay

Table 8 describes the survey results frequency counts, and percentage of responses for this item. Seventy-nine responses were received for the rest of the demographic questions. Twenty-four (30.38%) of the study respondents reported that their child first displayed signs of speech delay at 12 months or earlier, 47 (59.49%) at 13–24 months, seven (8.86%) at 25–36 months, and one (1.27%) at 37–48 months. The examination of Table 6 reveals that a majority of the study participants, specifically 60 percent, reported that their children had indicators of speech delay between the ages of 13 and 24 months.

Table 8

Item #6 Child's Age Group at First Sign of Speech Delay (N=79)

Item	Child's Age at First Sign of Speech Delay	Frequency Count	Percentage
#6	13-24 months	47	59.49%
	12 months or earlier	24	30.38%
	25-36months	7	8.86%
	37-48months	1	1.27%

Child's Gender

Table 9 reports survey results in frequency counts, and percentages for item seven. Forty-one (51.90%) study respondents reported that their child is male, thirty-three (41.77%) reported their child is female, and five (6.33%) identified their child as other. The survey results indicate that the majority of the participants have male children.

Table 9

Item #7 Child's Gender (N=79)

Item	Child's Gender	Frequency Count	Percentage
#7	Male	41	51.90%
	Female	33	41.77%
	Other	5	6.33%

Relationship with the Child

Table 10 illustrates the survey findings in frequency counts and percentages for item eight. Forty-seven (59.49%) study respondents described their relationship with the child as a mother, 11 (13.92%) reported as a father, nine (11.39%) reported as a grandmother, five (6.33%) reported as a grandfather and seven (8.86%) reported as other. Inspection of Table 10 reveals 60 percent of study participants describe themselves as mothers of children diagnosed with speech delay.

Table 10

Item #8 Relationship with the Child (N=79)

Item	Item Description	Frequency Count	Percentage
#8	Mothers	47	59.49%
	Fathers	11	13.92%
	Grandmothers	9	11.39%
	Others	7	8.86%
	Grandfathers	5	6.33%

Intervention strategies and practices

In addition to demographic information, the survey also examined different intervention strategies and practices available to children with communication delays. The study specifically explored the most effective intervention strategy and practices used by caregivers of young children diagnosed with speech impairment. By practicing various intervention strategies, caregivers can identify the most effective intervention measure for children with speech impairment. According to Law et al. (2009), "it is important for caregivers to practice various intervention strategies in order to identify the most effective measure for their child" (p. 1499)

Table 11 describes responses to items nine through sixteen on the survey. Items 9 through 16 on the survey asked respondents to indicate their level of agreement (strongly disagree =1, disagree = 2, agree = 3, strongly agree =4) with the following statements: *I use simple words to help my child improve his/her speech; I often and routinely talk to my child in a normal tone; I*

talk to my child in a manner he/she can understand; I use pictures and images when talking to my child; I use sign language when talking to my child; I let my child take the lead during our playtime; I use intervention practices and strategies daily with my child; I have a positive relationship with my service provider.

Item 9 measured responses to the statement: *I use simple words to help my child improve his/her speech;* and received 29 responses of agreement (36.71%), strong agreement 40 (50.63%), six (7.59%) with strong disagreement and four (5.06%) disagreed. Item 10, which stated that *I often and routinely talk to my child in a normal tone*, received 31 (39.24%) respondents agreed, 38 (48.10%) strongly agreed, and nine (11.39%) disagreed. Item 11, measured responses to the statement: *I talk to my child in a manner he/she can understand;* and received 26 (32.91%) responses of agreement, 41 (51.90%) strong agreement, 11 (13.92%) disagreed and one (1.27%) with strong disagreement. Thirteen respondents (16.46%) disagreed with item 12, which stated that *I use pictures and images when talking to my child*, while six (7.59%) strongly disagreed, 23 (29.11%) agreed and 37 (46.84%) strongly agreed. Item 13 measured responses to the statement: *I use sign language when talking to my child and* received four (5.06%) responses of strong disagreement, 11 (13.92%) disagreed, 25 (31.65%) respondents agreed and 39 (49.37%) strongly agreed. 10 respondents (12.66%) disagreed with item fourteen, which stated *I let my child take the lead during our playtime*, three (3.80%) strongly disagreed, 29 (36.71%) respondents agreed and 37 (46.84%) strongly agreed. Item 15 measured responses to the statement: *I use intervention practices and strategies daily with my child and* received four (5.06%) responses of strong disagreement, nine (11.39%) disagreed, 21 (26.58%) agreement and 45 (56.96%) responses of strong agreement. Two (2.53%) respondents strongly disagreed with item 16 which states *I have a positive relationship with my service provider*, one (1.27%)

disagreed, 28 (35.44%) responses agreed, and 48 (60.76%) respondents strongly agreed. Responses are displayed in Table 11.

The data presented in Table 11 shows the item descriptor for each of the eight items, including frequency counts, percentages, and minimum and maximum response, and are organized by mean. The items are listed in descending order by the mean from highest to lowest value in order to illustrate the statements with which survey respondents indicated a high level of agreement. A score of four correlates to the respondent identifying they "Strongly agree" with the item. A score of three signifies the respondent "Agrees" with an item and two correlates with "Disagree." A score of one equates to the respondents identifying they "Strongly disagree."

Table 11

Items 9-16 Intervention strategies and practices (N = 79)

Item #	Item Descriptor	Strongly Disagree 1	Disagree 2	Agree 3	Strongly Agree 4	Minimum	Maximum	Mean	SD
#16	I have a positive relationship with my service providers	2.53%	1.27%	35.44%	60.76%	1.00	4.00	3.54	0.65
	f =	2	1	28	48				
#11	I talk to my child in a manner he/she can understand	1.27%	13.92%	32.91%	51.90%	1.00	4.00	3.35	0.76
	f =	1	11	26	41				
#15	I use intervention practices and strategies daily with my child	5.06%	11.39%	26.58%	56.96%	1.00	4.00	3.35	0.87
	f =	4	9	21	45				
#10	I often and routinely talk to my child in a normal tone	1.27%	11.39%	39.24%	48.10%	1.00	4.00	3.34	0.73
	f =	1	9	31	38				
#9	I use simple words to help my child improve his/her speech	7.59%	5.06%	36.71%	50.63%	1.00	4.00	3.30	0.88
	f =	6	4	29	40				
#14	I let my child take the lead during our playtime	3.80%	12.66%	36.71%	46.84%	1.00	4.00	3.27	0.82
	f =	3	10	29	37				
#13	I use sign language when talking to my child	5.06%	13.92%	31.65%	49.37%	1.00	4.00	3.25	0.88
	f =	4	11	25	39				
#12	I use pictures and images when talking to my child	7.59%	16.46%	29.11%	46.84%	1.00	4.00	3.15	0.96
	f =	6	13	23	37				

The scores range in mean values with the highest score of 3.54 to the lowest score of 3.15. Item sixteen, which is the highest ranked item by mean (3.54) and has the lowest standard deviation (0.65), relates to the statement that *I have a positive relationship with my service provider*. The second and third highest ranked items by mean relates to the statement *I talk to my child in a manner he/she can understand* (3.35) and *I use intervention practices and strategies daily with my child* (3.35). The fourth, fifth and sixth highest ranked items by mean relates to the statement *I often and routinely talk to my child in a normal tone* (3.34), *I use simple words to help my child improve his/her speech* (3.30), *I let my child take the lead during our playtime* (3.27), respectively. The lowest ranked items by mean relate to the statements *I use sign language when talking to my child* (3.25) and *I use pictures and images when talking to my child* (3.15).

The mean scores for the eight items relating to *Intervention strategies and practices* range from 3.54 to 3.15, with a combined mean average of 3.32. The standard deviation of the eight items range from 0.65 to 0.96, with a combined average standard deviation of 0.82. *I have a positive relationship with my service provider,* has the highest mean value of 3.54, the lowest standard deviation of 0.65, and the second highest mean among all items in the study. *I use pictures and images when talking to my child* had the lowest mean score of 3.15, the highest standard deviation of 0.96, and the highest standard deviation score out of the all items.

Based on the data shown in Table 11, it can be deduced that a majority of the study participants, over 50 percent, agree with using an intervention practice of talking to their child in a manner he/she can understand.

Interactions with service providers

The next section of the survey focused primarily on the caregiver's experiences with their service providers, spanning the phases before and after engagement. This examination underscores the significance of caregiver-service provider relationships, analyzing service provider's competence in knowledge of various intervention strategies, child developmental milestones, and their abilities to coach or train caregivers on evidence-based practices that encourage language development.

Table 12 displays responses to items 17-20, measuring the responses to caregivers' perspectives on their interactions with service providers: including knowledge of child developmental milestones, intervention strategies, professionalism, and impact of training and coaching from service providers. Items seventeen through twenty asked respondents to indicate the frequency with which they interact with service providers (rarely =1, sometimes =2, often =3, very often =4) to the following statements regarding their experience with service providers. *My service provider clearly explains my child's language developmental milestones*, *My service provider shared unique knowledge of various intervention strategies by modeling and coaching*, *My service provider established a professional and cordial relationship with my family*, and *The training and coaching I received from my service provider positively impacted my role as a parent.*

Item 17 measured the response to the statement *My service provider clearly explains my child's language developmental milestones* and received 43 responses (54.43%) indicating the frequency level as very often, 25 (31.65%) reporting the frequency level as often. Nine study participants (11.39%) specified sometimes, and two (2.53%) respondents reported their frequency level as rarely. Item 18 results reveal 38 (48.10%) participant's frequency level as very

often to the statement *My service provider shared unique knowledge of various intervention strategies by modeling and coaching,* 30 (37.97%) frequency level as often, nine (11.39%) as sometimes and two (2.53%) respondents reported rarely. The results for item 19 measured the respondent's level of frequency to the statement *My service provider established a professional and cordial relationship with my family*. Forty-nine (62.03%) reported very often, 18 (22.78%) often, 10 (12.66%) sometimes and two (2.53%) rarely. Item 20 showed most respondents 55 (69.62%) indicating very often as the frequency level to the statement *The training and coaching I received from my service provider positively impacted my role as a parent.* Eleven (13.92%) reported often, 10 (12.66%) sometimes and three (3.80%) rarely.

Table 12

Item #17 – 20 Interactions with service providers (N=79)

Item #	Item Descriptor	Rarely	Sometimes	Often	Very Often	Minimum	Maximum	Mean	SD
		1	2	3	4				
#20	The training and coaching received from my service provider positively impacted my role as a parent	3.80%	12.66%	13.92%	69.62%	1.00	4.00	3.49	0.85
	f =	3	10	11	55				
#19	My service provider established a professional and cordial relationship with my family	2.53%	12.66%	22.78%	62.03%	1.00	4.00	3.44	0.81
	f =	2	10	18	49				
#17	My service providers clearly explains my child's language development milestones	2.53%	11.39%	31.65%	54.43%	1.00	4.00	3.38	0.78
	f =	2	9	25	43				
#18	My service provider shared unique knowledge of various interventions strategies by modeling and coaching	2.53%	11.39%	37.97%	48.10%	1.00	4.00	3.32	0.77
	f =	2	9	30	38				

Table 12 shows the item descriptor for each of the four items, including frequency counts, percentages, and minimum and maximum response, mean, and standard deviation, and are organized by mean. The items are listed in descending order by the mean from highest to

lowest value to illustrate the statements with which survey respondents indicated the highest frequency level.

The mean scores for the four items relating to interactions with service providers range from 3.49 to 3.32, with a combined mean average of 3.41. The standard deviation of the four items ranges from 0.77 to 0.85, with a combined average standard deviation of 0.80. *The training and coaching I received from my service provider positively impacted my role as a parent*, has the highest mean value of 3.49 and the highest standard deviation of 0.85. *My service provider established a professional and cordial relationship with my family* has the second highest mean score of 3.44 and a standard deviation of 0.81. *My service provider clearly explains my child's language developmental milestones* has a mean score of 3.38 and a standard deviation of 0.78. *My service provider shared unique knowledge of various intervention strategies by modeling and coaching,* has the lowest mean score of 3.32 among the four items of interactions with service providers and the lowest standard deviation of 0.77. Examination of Table 12 reveals that 70 percent of the study respondents show improved parenting style after interactions with their service provider.

Parenting Challenges and Experiences

Table 13 describes participant's parenting experience before and after their engagement with a service provider. Respondents were asked to compare their parenting experiences prior to and after engaging a service provider. Respondents used a four-item Likert-type scale to compare their level of parenting challenges experienced before and after engaging a service provider (much worse =1, somewhat worse = 2, somewhat better =3, and much better = 4). Table 13 displays responses in descending order as calculated by mean and standard deviation. Additional

values such as frequency count, percentages, and minimum and maximum responses are also included.

Items 21 – 22 explored the impact that service providers exert on the difficulties caregivers and parents face before and after their engagement with these providers. Table 13 details item 21, which measured the response to the statement *parenting challenges and experiences before engaging my service provider was*. Over half the respondents, 43 (54.43%) reported that parenting challenges and experiences were *much worse*. Thirty (37.97%) participants described their parenting challenges as somewhat worse before they engaged a service provider. Six (7.59%) indicated somewhat better. No respondent reported that their experience before engaging a service provider was much better. The result for item 22, which stated *parenting challenges and experiences after engaging my service provider were*, received 45 (56.96%) respondents reported much better, and 32 (40.51%) stated somewhat better. One (1.27%) participant indicated somewhat worse, and One (1.27%) respondent identified that their experiences after engaging a service provider were much worse.

Table 13

Item #21 – 22 Parenting challenges and experience (N=79)

Item	#Item Descriptor	Much Worse 1	Somewhat Worse 2	Somewhat Better 3	Much Better 4	Minimum	Maximum	Mean	SD
#22	Parenting challenges and experiences after engaging my service provider	1.27%	1.27%	40.51%	56.96%	1.00	4.00	3.53	0.59
	f =	1	1	32	45				
#21	Parenting challenges and experiences before engaging my service provider	54.43%	37.97%	7.59%	0.00%	1.00	3.00	1.53	0.63
	f =	43	30	6	0				

Item 22 which relates to the statement *parenting challenges and experiences after engaging my service provider* has the highest mean value of 3.53, with the lowest standard

deviation of 0.59. Parenting challenges and experience before engaging my service provider has the smallest combined mean score among the two concepts at 1.53, and a standard deviation of 0.63. The findings presented in Table 13 demonstrate that most study participants reported experiencing improvements subsequent to their engagement with service providers.

Child's Language Skills

The subsequent section of the survey required parents and caregivers to document the progression of their child's language skills both before and after their involvement with support providers. Table 14 outlines items 23, 24, and 25, which explore participants' perspectives on the statements *My child's language skills before receiving support from my service provider was*, *My child's language skills after receiving support from my service provider was,* and *Prior to engaging with my service provider communicating with my child was*. Responses were recorded as much worse =1, somewhat worse =2, somewhat better =3, and much better =4. Most participants responded negatively to items 23 and 25, indicating that they perceived the process of their child's language skills development to be *much worse* prior to seeking assistance from a service provider. Item number 23 revealed 41 (51.90%) of respondents stated much worse, 27 (34.18%) reported somewhat worse, nine (11.39%) indicated somewhat better and two (2.53%) reported as much better. The results for item 25 showed most respondents (*f*=35, 44.30%) stated much worse, 32 (40.51%) reported somewhat worse, seven (8.86%) somewhat better and five (6.33%) identified much better with the statement.

The majority (73.42% or *f*=58) of respondents indicated much better as the response to item 24, which stated *my child's language skills after receiving support from my service provider was.* Seventeen (21.52%) of the respondents reported somewhat better, One (1.27%) somewhat worse and three (3.80%) stated much worse as the response to the statement.

Table 14 lists these statements in descending order as calculated by mean; the table includes frequency counts, percentages, minimum and maximum responses, and standard deviation.

Table 14

Item #23 – 25 Child's Language Skills (N=79)

Item #	Item Descriptor	Much Worse 1	Somewhat Worse 2	Somewhat Better 3	Much Better 4	Minimum	Maximum	Mean	SD
#24	My child's language skills after receiving support from my service provider was	3.80%	1.27%	21.52%	73.42%	1.00	4.00	3.65	0.69
	f =	3	1	17	58				
#25	Prior to engaging with my service provider, communicating with my child was	44.30%	40.51%	8.86%	6.33%	1.00	4.00	1.77	0.86
	f =	35	32	7	5				
#23	My child's language skills before receiving support from my service provider was	51.90%	34.18%	11.39%	2.53%	1.00	4.00	1.65	0.78
	f =	41	27	9	2				

The range of mean scores are 3.65 to 1.65 for the three items relating to child's language skills, with a combined mean average of 2.35. The standard deviation of the three items range from 0.69 to 0.86, with a combined average standard deviation of 0.78. Item 24 has the highest mean value of 3.65 and the lowest standard deviation of 0.69. Item 25 has a mean score of 1.77 and the highest standard deviation of 0.86 among the three items connected to the child's language skills construct.

The data presented in Table 14 indicates that a significant proportion of the study participants (73%) reported a favorable enhancement in their child's language abilities after receiving assistance from their service provider.

Open-ended Results

Items 26 through 28 were open-ended questions at the survey's end. These qualitative questions invited participants to *share the advantages or disadvantages they experienced in their interactions with their service providers, what intervention strategy they found most effective in supporting their child's language skills, and any additional information they felt was relevant to the survey.* The analysis of the open-ended survey responses offers an in-depth understanding of the advantages and disadvantages experienced by caregivers/parents in their interactions with service providers. Participants were required to answer all questions in the survey, including these qualitative questions. All 79 participants gave responses to items 26-27. Item 28, which required respondents to provide general comments with any information they believed relevant to the study, was optional. Inductive coding was used to examine their responses and identify and define themes.

Opened-ended Item: #26 Advantages/Disadvantages

Item 26 asked participants about the advantages/disadvantages experienced in their interactions with service providers. Table 15-16 depicts the comprehensive analysis of the advantages/disadvantages experienced by study respondents. The first theme to emerge from the study analysis is labeled positive remarks. The survey participants indicated that they had positive experiences with their service providers. A participant reported, *"I think the best advantage is I knew what to do with the help of a service provider."* Another survey respondent stated, *"My child now has more words than he had before he started receiving speech services."* The first theme received 28 responses. The findings derived from the study demonstrated that the participants experienced an apparent level of support through their interactions with service providers. A Participant reported "*professional support and display of know-how by service*

provider." Another respondent stated, *"It seemed uncomfortable at first, but the professionalism applied made us comfortable."* The second theme was labeled as professional support and received 21 responses. Nineteen participants indicated that their service provider demonstrated a commendable level of knowledge in child language development and effectively applied their expertise during their interactions with families. A participant stated, *"The service provider showed from day one that she knew what to do to help my child. She displayed competence."* Another participant reported, *"Service provider understood what to do, so this made all the difference."* Nineteen survey participants reported the emergence of the third theme.

Table 15 provides a comprehensive overview of the detected themes, including a definition of the theme derived from the survey results. In addition, the table presents the frequency count for each theme. According to the data presented in Table 15, it can be observed that a majority of the survey participants, specifically 33.44 percent, reported having positive experiences with their respective service providers. A notable proportion of respondents, particularly 26.58 percent, provided further details regarding their service providers' professional support. Additionally, 24.05 percent of participants emphasized the remarkable expertise and knowledge demonstrated by these service providers in child language development.

Table 15

Item #26 Open-ended descriptive analysis of advantages of service providers

Theme	Description	Frequency Count
Positive Remarks	Expressing admiration for exceptional quality of work	28
Professional Support	Offering resources aimed at supporting and improving the language development of children	21
Knowledge and Expertise of Provider	Service provider high level of competent in child language development and effectively applying their knowledge while engaging with families	19

Four survey participants expressed significant concerns regarding the limited availability of service providers. Thus, the lack of service providers is another theme used in this analysis. One of the participants reported, *"Service providers not readily available."* Scheduling conflicts is another theme identified from this analysis, receiving four responses from study participants. A respondent stated, *"The provider's sessions were not always convenient for my schedule."* High cost is another theme that three study participants identified. One participant reported, *"The provider's fees were not covered by my insurance, so I had to pay out of pocket."* The ineffectiveness of service providers' techniques is another theme identified in three responses. This theme is referred to as the ineffectiveness of techniques. One study respondent stated, *"The provider's recommendations were not always feasible for me to implement."*

Table 16 provides a comprehensive overview of the themes that have been identified, accompanied by a brief description derived from the survey responses. The table also presents the frequency count associated with each theme. According to the data shown in Table 16, it can be observed that a minority of the participants in the survey (5.06%) indicated encountering a significant drawback in their interaction with service providers, namely in terms of scheduling conflicts arising from arranging sessions and concerns with not enough service providers.

Table 16

Item #26 Open-ended descriptive analysis of disadvantages of service providers

Theme	Description	Frequency Count
Lack of Service Providers	The scarcity or shortage of service provider's availability	4
Scheduling Conflicts	The scheduling of sessions creates significant inconveniences and challenges	4
High Cost	The costs for receiving intervention sessions are extremely high	3
Ineffectiveness of Techniques	The lack of effectiveness observed in the recommended intervention strategies	3

Opened-ended Item: #27 Most Effective Intervention Strategies

Item 27 was a qualitative question that invited participants to *share the intervention strategy they found most effective in supporting their child's language skills*. A total of 79 responses were obtained for item 27. The theme of simple daily conversation was identified from the analysis and received 50 responses. A participant reported, *"Using very simple words with a lot of repetition helped my child a lot. Praising my child like clapping my hands for him when he finally uses words also encouraged him to speak more."* The theme of digital and visual aids garnered 12 responses from the study respondents, with a participant stating, *"visual aids and use of digital apps."* Another prominent theme from the data analysis is sign language, receiving three distinct responses from study respondents. A participant reported, *"Sign language and using simple words has been quite helpful in communicating with my son."* The identification of encouragement and positive reinforcement emerges as a notable theme in the survey analysis, garnering two responses from the participants involved in the study. A respondent stated, *"Positive reinforcement for attempts and then gentle corrections regarding the correct sounds with then having her repeat the correct sound several times."*

Table 17 details each identified theme and includes a general definition based on survey responses and the frequency count for each theme. Inspection of Table 17 reveals that most study participants (63.30%) have reported continuously engaging in simple daily conversation with their child is an effective intervention strategy.

Table 17

Item #27 Open-ended descriptive analysis of most effective intervention strategy

Theme	Description	Frequency Counts
Simple Daily Conversation	Engaging in regular and continuous one-on-one discussion	50
Digital and Visual Aids	Items that give shape and form to words or thoughts such as models, brochures, photographs, or videos	12
Patience and Confidence	Exercising compassion and maintaining an optimistic attitude in relation to the child's perspective enhancement in language skills.	7
Sign Language	The use of visual gestures and signs for communication	3
Encouragement and Positive Reinforcement	Motivating young children to improve their language skills by praising and rewarding good conduct to encourage it.	2

Opened-ended Item: #28 General Comments

The final question on the survey is Item 28, and it asked participants to share *any additional information they believe was relevant to the survey.* Since this was an optional item, participants could choose not to respond. Forty-one participants chose to include responses to item 28. Study respondents recorded a substantial number of positive experiences. This theme is labeled positive experience, and it received 19 responses. A study participant reported, *"I'm experiencing improvement and I'm glad."* Another stated, *"My service provider is totally dedicated to helping my child and that dedication gives me more courage and believe that my child will reach his full potential."* A substantial number of study participants provided various suggestions as their general remark. This theme is referred to as a suggestion, receiving 17 responses. A participant stated, *"Every parent should be aware of development milestones and how to note signs of delay."* Three survey participants indicated they had challenges with implementing intervention strategies. This theme is referred to as challenges with implementation. A participant reported, *"My service provider have given me a lot of strategies but because I work two jobs I'm always exhausted to try most of it."* Another theme identified

from the study analysis is the lack of enough service providers, receiving two responses. One of the study respondents stated, *"There are not enough service providers."*

Table 18 presents a comprehensive overview of the identified themes and includes a general description based on survey responses and the frequency count for each theme. Analysis of Table 18 reveals that many of the general remarks obtained from the survey had a positive sentiment, with participants emphasizing the significance of collaborating with professional service providers.

Table 18

Item #28 Open-ended descriptive analysis of general comments (N=41)

Theme	Description	Frequency Counts
Positive Experience	Experiences are considered essential, beneficial, or emotionally captivating.	19
Suggestions	An idea or proposal that signifies a specific truth or circumstance offered for consideration.	17
Challenges with Implementation	The difficulties involved in the execution of intervention strategies	3
Lack of Service Providers	Insufficient availability of service providers	2

Chapter V: Findings and Conclusions

The primary objective of the current study was to investigate the perceptions and knowledge of caregivers of children who exhibit communication delays during their early developmental stages. Understanding the perceptions and knowledge of caregivers and parents is crucial, as their experiences often serve as the initial point of reference for identifying and addressing potential challenges. Assessing caregivers' awareness and knowledge regarding early identification of language delays is imperative. Early identification plays a critical role in ensuring timely and effective interventions. The present investigation, therefore, aims to shed light on how caregivers/parents recognize these delays and the challenges they face during this crucial period. Their insights can provide invaluable direction for professionals in designing individualized intervention strategies. Additionally, the study sought to examine the early identification of this disability and the various intervention measures that are accessible to assist families in coping with these challenges. Furthermore, this investigation is to gain a comprehensive understanding of parents and caregivers experiences in relation to speech and language delays displayed by their children in the early stages of development. The investigation also places emphasis on caregivers/parental perceptions of the most effective intervention strategies.

Summary of the Study

A twenty-eight-item survey was developed to examine and understand the experiences of caregiver's perceptions of early identification of children with communication delay, the various recommendations of intervention practices, and respondent's interactions with service providers. The descriptive survey used a Likert-type scale to assess the extent of agreement regarding implementing targeted intervention practices for enhancing language development. Further, the

survey also attempted to measure the frequency of interactions between the respondents and their respective service providers and compare the challenges encountered by the participants before and after their engagement with a service provider. The survey was administered through Qualtrics (a secure internet-based survey tool) and gave participants three weeks to complete responses.

An early childhood education school with nine locations in central Minnesota was identified with diverse enrollment, funding, and demographics. Permission was granted to survey parents and caregivers of young children diagnosed with speech delay who attend early childhood education schools. This study is unique to previous studies on caregiver's/parental perspectives, experiences, and beliefs. The survey was conducted to access caregivers and parents of young children diagnosed with speech or language delay. Eighty responses were collected, with seventy-nine respondents completing the survey, resulting in a 66% response rate.

The demographic composition of the study participants offers a versatile representation across several categories. Regarding gender distribution, the sample was predominantly female, constituting 67.50 percent (*f*=44) of the respondents. Males accounted for 23.75 percent (*f*=19), while a smaller section identifying as 'Other' comprised 8.75 percent (*f*=7) of the study population.

Age and educational background further diversified the sample. The largest age cohort was the 36-45 bracket, representing 38.75 percent (*f*=31) of participants, followed by the 25-35 age group at 26.25 percent (*f*=21). In education, a high school diploma was the most common qualification held by 33.75 percent (*f*=27) of the respondents. Bachelor's and master's degrees were held by 28.75 percent (*f*=23) and 25 percent (*f*=20) of the participants, respectively, with doctorate holders making up the remaining 12.50 percent (*f*=10).

Marital status and child-related demographics provided additional layers of insight. Married individuals formed 41.25 percent (*f*=33) of the sample, with single respondents close behind at 33.75 percent (*f*=27). In relation to children's age, the 37-42 months category was predominant at 33.75 percent (*f*=27). Notably, when examining the age at which children first exhibited signs of speech delay, 59.49 percent (*f*=47) were identified between 13-24 months. In regard to the gender of the children, 51.90 percent (*f*=41) of respondents reported having male children. Demographic information was used to disaggregate data to provide further insight into factors shaping the beliefs and values of caregivers in this study.

The survey results indicated that a significant portion of the findings revolved around caregivers' intervention strategies and practices. Over 90 percent of participants reported fostering a positive relationship with their service providers, reflected by a mean score of 3.54. A majority of the respondents (51.90%) emphasized that they communicate with their child in an understandable manner, achieving a mean score of 3.35. Additionally, 48.10 percent of participants highlighted the routine use of a normal voice tone when conversing with their child, indicating a mean score of 3.34. Daily intervention practices also featured in the respondent's responses. Over half of the participants, 56.96 percent, confirmed their daily use of intervention practices and strategies with their child, with a mean score of 3.35. About 50.63 percent of participants use simple words to facilitate their child's speech improvement, achieving a mean score of 3.30. A considerable 69.62 percent felt that the training and coaching they received from their service provider positively impacted their parental role, reflected by a mean score of 3.49. Most of the respondents, 62.03 percent, felt their service provider maintained a professional and cordial relationship with their family, as indicated by a mean score of 3.44. Regarding post-engagement with service providers, 56.96 percent of participants observed a positive shift in

their parenting challenges, with a mean score of 3.53. However, prior to this engagement, 54.43 percent of participants in this study faced significant challenges, reflected by a mean score of 1.53. After receiving support, 73.42 percent of respondents noted improvements in their child's language abilities, with a mean score of 3.65. In contrast, 34.18 percent felt their child's language skills were somewhat worse before receiving support, with a mean score of 1.65.

The remainder of this chapter will address the three major research questions in this study pertaining to (1) exploring the experiences of caregivers/parents of children with communication and language delays, (2) emphasizing the intervention strategies and practices they use, and (2a) examining caregiver's experiences in their interactions with their child's service provider, paying particular attention to the quality of these interactions. Lastly, this study will also address the final question on the (3) perceived parenting experiences before and after their engagement with service providers, allowing for a comprehensive understanding of the changes in parental perceptions and challenges.

Conclusions

After examining *caregiver's perceptions of their experiences with early identification and support services for children with communication delay*, the results of this research overall supports the essential role of service providers in early childhood special education settings. This study revealed that a significant ***majority*** of respondents (over 90%) reported an increase in their child's communication abilities after receiving services from early education service providers (see Table 14). Results also reveal that over 85 percent of the participants reported noticeable communication difficulties and challenges with their children prior to receiving services. In conclusion, this study supports the need and essential role of early childhood special education

service providers and educators in assisting families of young children with communication delay. The specific research questions for this study will be addressed in the following section.

Research Question One

Based on the experiences of parents/caregivers of children with communication and language delays, what are the intervention strategies and practices used by these parents?

The participants reported using various intervention strategies and practices to improve their children's communication abilities. Survey results reveal that over 80 percent of the respondents indicated talking to their children in a manner he/she can understand to enhance their language skills. According to Garcia et al. (2015), the language development of children with communication delay is enhanced with Parent-Child Interaction Therapy (PCIT) when parent's speech styles are adjusted to speak like children. The study findings indicated that most participants (60.76%) strongly agreed that they converse with their child in an understandable manner, shaping their communication to suit their child's understanding. Over 85 percent of respondents reported consistently engaging in normal-toned conversations with their children to improve their communication skills. The findings from Garcia et al. (2015) indicated that language development is enhanced with Parent-Child Interaction Therapy (PCIT) when parents engage their children in conversations. The survey results also reveal that participants reported using pictures, images, or visuals, Augmentation and Alternative Communication (AAC) strategies to enhance communication. AAC strategies such as pictorial symbols (visuals) can help children with expressive language delays produce speech (Leech & Cress 2011). Over 80 percent of participants indicated using sign language (item 13) to communicate with their children. According to Leech and Cress (2011) AAC strategies such as sign language can help children with expressive language delays produce speech.

Furthermore, the data revealed that most respondents (87.34%) said they use simple words when talking with their children. According to Wolfe and Heilmann (2010) using simple words when talking to young children with communication delays can help them develop speech and language skills. Cheslock and Kahn (2011) emphasized that intervention strategies should target the child and encompass the entire family. Over half of the participants (56.96%) reported being proactive and using intervention practices and strategies daily. One respondent described their intervention strategy as, "Play-Based Therapy: this method incorporates play into language learning, which helps to engage the child and make the process more enjoyable."

According to the findings of this research, when caregivers (who participated in this study) obtain training or coaching on intervention strategies from their service provider, it helps these respondents to effectively implement these strategies, which ultimately results in the successful development of language in their young children.

Research Question Two

What are the parent's experiences with their child's service provider?

This study shows that most participants described their experiences with their child's service providers as positive, professional, supportive, and cordial. Over 60 percent of respondents (item 19) very often felt that their service provider offered professional services and fostered a cordial relationship with their family. One participant explained, "Service providers made my life so much easier. It reduced my frustration knowing there were practical steps for helping my child form language." Marshall et al. (2020) identified that support for parents, either instrumental or emotional, provided by family or friends, helps parents cope with some of the barriers they encounter in seeking and finding help for their children with developmental delays. This investigation also reveals that 54.43 percent of participants in this study often felt that their

service providers explained the stages of a child's language developmental milestones in detail. Over 90 percent of participants reported an improvement in their children's language skills (item 24) after receiving support from service providers were much better. One respondent stated, "My child now has more words than he had before he started receiving speech services." According to Rapport, McWilliam, and Smith (2004), professionals work hand-in-hand with families, sharing their expertise, and providing actionable insights, empowering parents to implement tailored/individualized intervention methods. Cheslock and Kahn (2011) identified evidence-based strategies for training parents, families, or caregivers on embedding learning prospects in a child's daily routine.

The data collected in this study documents that a majority of the caregivers expressed their interactions with the service providers of their children as beneficial, proficient, encouraging, and amicable. This statement reflects a positive relationship between the respondents and their service providers, resulting in an improvement in their children's communication skills. Additionally, this study highlights the importance of having educational professionals who are experts in child language development, capable of explaining extensively to caregivers the stages of language development in young children and providing individualized language intervention strategies for implementation.

Sub Question Two

What are the quality of these interactions?

To specifically measure the quality of the participant's interactions with service providers, the study respondents reported that the training and coaching they received from their service provider had a positive impact (item 20). One participant stated, "Interacting with a service provider has positively impacted my communication style and my parenting skills,

especially in supporting my son with special needs.” According to Roberts and Kaiser (2011), the training and coaching of parents/caregivers to implement supports have shown positive benefits on children's language and communication outcomes. Coaching has been found to increase caregiver abilities, which results in better outcomes for children (Meadan et al., 2016; Trivette et al., 2009). Most participants (86.07%) stated that their service provider shared unique knowledge of various intervention strategies by modeling and coaching. Cheslock and Kahn, (2011) identified evidence-based strategies for training parents, families, or caregivers on embedding learning prospects in a child's daily routine. Douglas et al. (2020) indicated that caregivers or parents benefit from professional coaching and can learn new strategies to help them feel empowered to support their child's development. Children learn more targeted words and make developmental progress with repeated learning opportunities in meaningful daily activities (Rapport et al., 2004). One participant stated, “Using very simple words with a lot of repetition helped my child a lot. Praising my child like clapping my hands for him when he finally uses words also encouraged him to speak more.”

The data suggests that respondents identified their service providers as knowledgeable about various language intervention strategies. The analysis of the survey data indicates that participants who received explicit training/coaching on specific intervention strategies from their respective service providers could apply these strategies effectively. This resulted in a notable improvement in the quality of parenting skills, understanding of child language development, and improving the communication abilities of their children, as reported by the respondents of the study.

Research Question Three

What are the perceived parenting experiences prior to, and after, engaging with service providers?

This study reveals that the perceived parenting experiences prior to engaging service providers were generally negative and focused on the challenges caregivers encountered when communicating with their children. Over 80 percent of participants (item 25) reported having difficulty communicating with their children ***before*** engaging a service provider. Salvago et al. (2019) state that parental anxieties about their children's speech abilities, communication difficulties, and unmet language milestones are frequently the primary reasons for referrals to speech and language therapists. According to the study by Marshall et al. (2017), "parents react more negatively to the possibility of a problem with their child. The realization process can be emotional, confusing, and even traumatic." One participant stated, "Having a child with special needs can be overwhelming but with the right support . . . life can be made easier." The data analysis also revealed that over 85 percent of respondents reported that their children's language abilities were much worse ***before*** engaging a service provider (item 23). Most of the study participants, 97 percent reported that parenting challenges improved ***after*** engaging service providers (item 22). One participant reported, "Communicating with my grandson has improved after he started receiving services for speech." Douglas et al. (2020) indicated that caregivers or parents benefit from professional coaching and can learn new strategies to help them feel empowered to support their child's development. One respondent stated, "My child now has more words than he had before he started receiving speech services." According to the findings of Roberts and Kaiser (2011), there are notable advantages in children's language and

communication outcomes when service providers offer training and coaching to parents or caregivers to facilitate the implementation of support strategies.

An examination of the survey data reveals that parental experiences, as perceived prior to their engagement with service providers, were primarily negative, marked by difficulties in effectively communicating with their children. In contrast, it is essential to acknowledge that a predominantly optimistic attitude defined the perceived parental encounters after their interaction with service providers, as families showed a noticeable improvement in their ability to communicate effectively with their children.

Discussion

The results from the study on caregiver perceptions of their experiences with early identification and support services for children with communication delay provide a compelling insight into the challenges and concerns faced by caregivers in this study. Language development in early childhood is a pivotal milestone, underscored by its impact on a child's social, emotional, and educational success (Visser-Bochane et al., 2020). The literature review describes various theories on language development, from Piaget's cognitive process theory to Vygotsky's sociocultural theory and Chomsky's theory of nativism. Each theory offers a unique explanation on how children acquire language, emphasizing the complex nature of language development.

The demographics of the survey population provide a comprehensive knowledge of the caregivers' backgrounds, which is crucial for understanding their perceptions and experiences. For instance, the gender distribution of the respondents reveals a predominantly female representation, with 66 percent identifying as female. This distribution reflects the traditional caregiving roles, where females, particularly mothers, often take the primary responsibility for child-rearing and seeking support services for their children. According to the survey findings,

most caregivers (*f*=71) who participated in this study could recognize the signs of communication delays in their children, with nearly 90 percent being able to do so as early as 24 months or even earlier. The literature review discusses the concerns and challenges faced by caregivers, from understanding the milestones of typical language development to recognizing the signs of speech and language delays. This aligns with the literature emphasizing the importance of early detection and intervention for children with communication challenges (Wallace et al., 2015).

The age distribution further provides insights into the age groups most concerned about early identification and support services. Many respondents fall within the age range of 36-45 years (38.75%), which suggests that the primary caregivers in this study seeking support are in their mid-adulthood, a period characterized by increased responsibilities and potential challenges in balancing work, family, and caregiving roles. In terms of educational background, the survey indicates a well-educated respondent pool. Over 30 percent hold a high school diploma, while 28.75 percent have completed a bachelor's degree. Additionally, 25 percent of participants have a master's degree, and 12.5 percent have achieved the highest academic attainment by obtaining a doctorate. This distribution underscores the importance of understanding that caregivers seek support and resources for their children's speech challenges, irrespective of their educational background.

The marital status of the respondents further adds depth to the demographic profile. Over 40 percent are married, 33.75 percent are single, 12.5 percent are divorced or separated, and 12.5 percent are widowed. This diverse marital status distribution highlights the varied family structures and dynamics that can influence the caregiving experience. For instance, most of our respondents (58.75%) are from single-parent households, which suggests that single parents in

this study might face unique challenges in navigating parenthood alone compared to their married counterparts. The results of this study indicate that a majority of respondents, in particular 51.90 percent, reported that their child is male. It is possible that male children may exhibit a higher likelihood of encountering difficulties in the areas of speech and language.

The survey results reveal that ***all*** participants (*f=79*) have sought professional help for their child's communication challenges. This is consistent with the literature suggesting that early intervention can profoundly impact their language development, especially when tailored to the child's specific needs (Kemp & Turnbull, 2014). For instance, Parent-Child Interactive Therapy (PCIT) has been highlighted by most participants (87.34%) as an effective intervention that addresses behavioral challenges and fosters language production (Garcia et al., 2015). I believe that caregivers or parents in this study who engage in regular conversation with their children, using a communicative approach that is easy to understand by the child, defines an effective means of enhancing the child's language proficiency. A majority of participants in this survey, amounting to over 86 percent, indicated using simple words when conversing with their young children who exhibit difficulties with communication. This approach is consistent with the conclusions drawn by Wolfe and Heilmann (2010). However, I have learned that the journey of early identification and intervention has its challenges. For instance environmental factors, such as the role of parents or caregivers and the time spent with the child, play a critical role in a child's speech and language development (Syamsuardi, 2015). I believe it is essential for caregivers to engage in daily conversation with their children using simple words, as this will help to increase and enhance the child’s language skills. While it is commonly observed that speech and communication delays are often linked to a primary disability, such as Autism Spectrum Disorder (ASD), it is worth noting that there exist instances where children with

language challenges do not exhibit any associated disabilities. According to Lockwood et al. (2021), speech delay is frequently the cause for children being referred to developmental pediatricians. It is not a definitive or required criterion for diagnosing (ASD). It's important to note that there are many children with ASD who demonstrate typical language development. Conversely, there are also many children who experience speech delays but do not have ASD (Lockwood et al., 2021).

In conclusion, the findings from the survey, when compared with the literature review, emphasize the importance of early identification and intervention for children with communication delays. Given the findings of this study, it is important to highlight that the caregivers who participated in this study exhibited an ability to recognize speech and language delay symptoms in their children. Consequently, these respondents proactively sought the assistance of service providers to facilitate their children's acquisition of communication skills. This proactive approach was achieved by implementing diverse intervention techniques to foster language development. The present investigation clarifies that most young children who take advantage of language development interventions have demonstrated a capacity for improving their vocabulary. This aligns with the findings from Siu (2015) that early identification allows for timely interventions, ranging from speech-language therapy sessions to assistive technology. I believe caregivers or families must possess a comprehensive understanding of the indicators or stages of language developmental milestones, as this is the initial step towards ensuring that a child struggling with communication delays can receive the necessary support services needed to thrive.

Limitations

Study limitations represent flaws within a research design that may influence the results and conclusions of the research (Ross & Bibler Zaidi, 2019). The following limitations are acknowledged in this study:

1. This study was limited to nine early childhood education schools in central Minnesota, limiting the sample to only the accessible population.
2. This study only included privately owned early childhood education school caregivers or parents. It did not include caregivers or families in public, charter, or parochial early childhood education schools, who may have different experiences or perceptions.
3. This study utilized primarily quantitative data and three qualitative questions. The data is limited to the choices presented to the respondents in the survey, and more insight or details may be obtained through qualitative interviews with caregivers of young children with speech delay.
4. This study only gathered data on the self-perceptions of respondents. The data is only as reliable as the honesty of the respondents completing the survey.

Recommendations for Practice

The recommendations for practice include:

1. Promote the attendance of early childhood education classes among caregivers of young children, as these classes provide invaluable insights into the fundamental stages of child development, specifically in language development.
2. Service providers must prioritize and integrate comprehensive family engagement and training initiatives into their intervention activities.

3. Promote and advocate for caregivers of young children to engage in daily and continuous conversations with their children using simple words, as this has been shown to enhance the process of language acquisition and development significantly.
4. The prioritization of encouragement and positive reinforcement ought to be enhanced within training programs designed for caregivers of young children to motivate children and strengthen their good behavior and communicative attempts.
5. The use of sign language as an alternative communication modality should be advocated among caregivers of young children as a viable strategy for children who encounter challenges in speech development.
6. Encourage a more collaborative approach between caregivers and service providers in identifying intervention strategies that are practical to implement by the caregivers

Recommendations for Further Research

Recommendations for further research include:

1. Replicate the study with a larger population sample and retest the findings for reliability.
2. Design a quantitative study focusing on the experiences and perceptions of service providers and observing the interactions between service providers and caregivers of young children.
3. Replicate the study to include caregivers whose children attend public, charter, or parochial early childhood education schools.

4. Conduct qualitative interviews to better understand the relationships between caregivers and service providers.
5. Research to explore the various milestones in a child's language development and how these can be clearly communicated and explained to parents or caregivers of young children.
6. Investigate the average timeline between a referral period for language intervention services and the commencement of speech services.
7. Investigate the correlation between early intervention and the rate of improvement in a child's language skills, considering the various age brackets noted in the survey.
8. Propose a research study to investigate the extent of caregivers' awareness regarding the potential advantages, if any, associated with early childhood education programs.

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Appendix A

IRB Approval Letter

INSTITUTIONAL REVIEW BOARD (IRB)
720 4th Avenue South AS 101, St. Cloud, MN 56301-4498

Date: May 26, 2023

Name: Ebere Ofem
Email: ebere.ofem@go.stcloudstate.edu

IRB PROTOCOL DETERMINATION:
Exempt

Faculty Mentor/Advisor: Frances Kayona

The Institutional Review Board has reviewed your protocol to conduct research involving human subjects.

PROJECT TITLE: **Caregiver perceptions of their experiences with early identification and support services for children with communication delay**

Your project has been: **Approved**

SCSU IRB#: **48820137**

Please read through the following important information concerning IRB projects.

- The principal investigator assumes the responsibilities for the protection of participants in this project. Any adverse events must be reported to the IRB as soon as possible (ex. research related injuries, harmful outcomes, significant withdrawal of subject population, etc.).
- The principal investigator must seek approval for any changes to the study (ex. research design, consent process, survey/interview instruments, funding source, etc) by completing an IRB Modification/Revision Request Form.
- The IRB reserves the right to review the research at any time.

Feel free to contact the IRB for assistance at 320-308-4932 or email ResearchNow@stcloudstate.edu and reference the SCSU IRB number when corresponding for expedited response. Additional information can also be found on the IRB website https://www.stcloudstate.edu/irb/default.aspx.

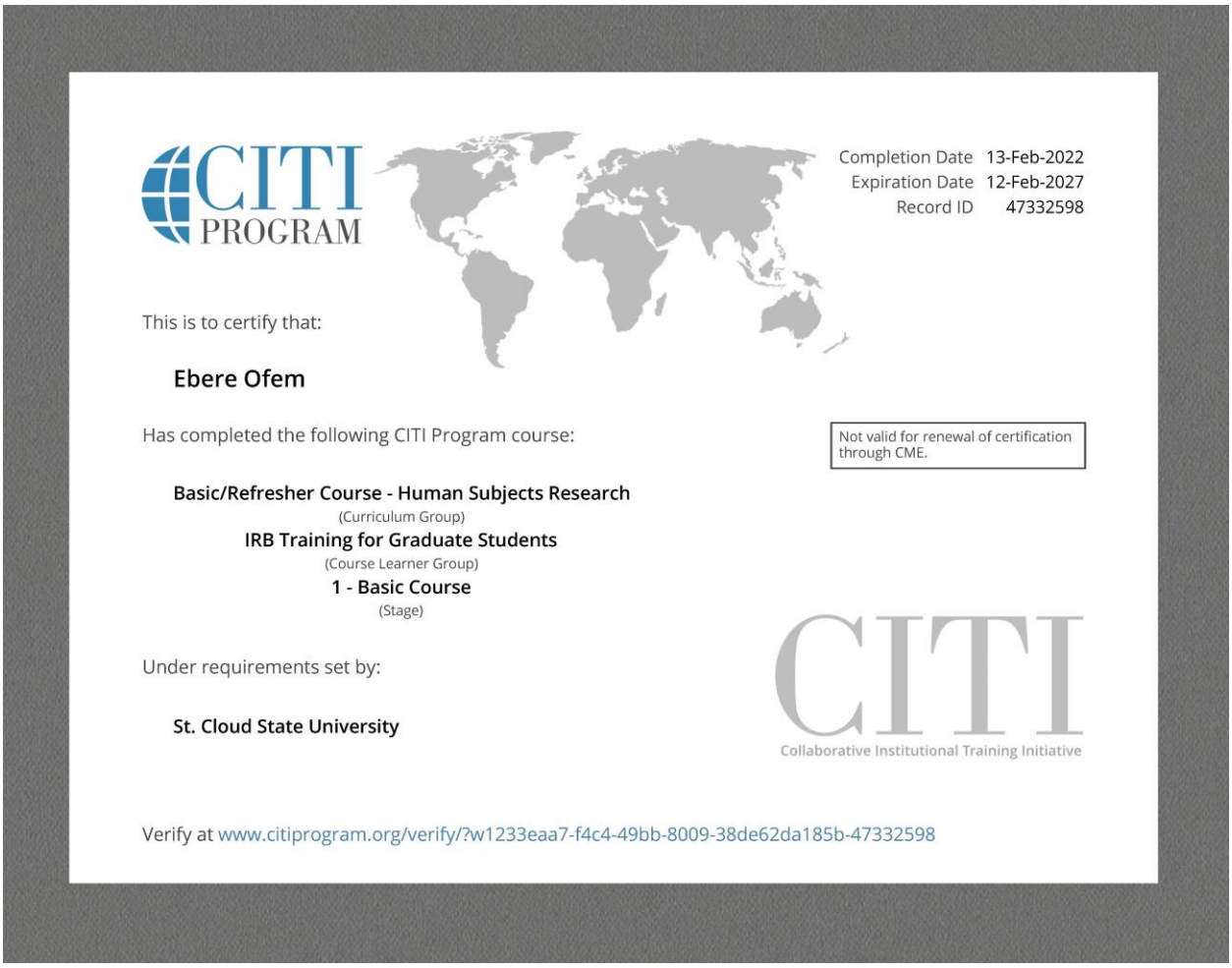
Sincerely,

IRB Chair:
William Collis-Prather
Program Director
Applied Clinical Research

IRB Institutional Official:
Dr. Claudia Tomany
Associate Provost for Research
Dean of Graduate Studies

Appendix B

CITI Completion Certificate



CITI PROGRAM

Completion Date 13-Feb-2022
Expiration Date 12-Feb-2027
Record ID 47332598

This is to certify that:

Ebere Ofem

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

Basic/Refresher Course - Human Subjects Research
(Curriculum Group)
IRB Training for Graduate Students
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

St. Cloud State University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w1233eaa7-f4c4-49bb-8009-38de62da185b-47332598

Appendix C

Cover Letter to the School Site Director

April 12th, 2023

Lisa Ward, Director
Especially for Children
Minneapolis, MN

Dear Ms. Ward:

In an effort to gather information on intervention practices for young children with speech delay, I am seeking the participation of parents, teachers and caregivers in your school for my thesis research. My research centers on the analysis of caregiver perceptions of their experiences with early identification and support services for young children with communication delays. My research will be primarily conducted through the attached questionnaire. This research project examines caregivers' perspectives on the early detection of language delay and their acceptance of support from service providers of intervention strategies made available to families of young children with communication challenges. This study aims to better understand parents' experiences and perceptions about identification and early intervention to help ease parents' concerns and provide more relevant and effective services for the child.

Would your school be willing to serve as a participant in this study? The study would require the participation of your teachers, parents, or caregivers in your organization.

Participation is voluntary. All participants are free to withdraw her/his consent and to discontinue participation in this study at any time. All data provided will be kept confidential. No identifying information is required. Results from the survey will be anonymous, and no persons will be able to identify a specific individual's data results. Only the principal investigator will be involved in the tabulation of the data. There are no foreseeable risks associated with participation in this study.

If permission is granted, I will distribute flyers soliciting participation in my survey at your organization. I have enclosed a standard form letter template, which can be retyped on organization letterhead and returned to me or my major professor at the addresses below. The organization will be provided with an analysis and description of the results after the study. The attachments include a sample of the questionnaire to be used by the participants.

If there are any questions, concerns, or objections, please call me at (763) 291-8544 (C) or email me at ebere.ofem@go.minnstate.edu.

Thank you for your time and consideration regarding participation in this study.

Sincerely,

Ebere Ofem
3140 Northdale Blvd. NW
Coon Rapids, MN, 55433
Cell: (763) 291- 8544

Frances Kayona Ph.D.
Major Professor
Educational Administration
A-279 Education Building
702 4th Avenue South
St. Cloud, MN 56301
(320) 308-3170

Attachments: (3)

Permission (to conduct the study) Form Template
Survey
Participant Implied Consent

Appendix D

Cover Letter to the School Vice President

April 12th, 2023

DeeAnn Besch, Vice President
Especially for Children
Minneapolis, MN

Dear Ms. Besch:

In an effort to gather information on intervention practices for young children with speech delay, I am seeking the participation of parents, teachers and caregivers in your school for my thesis research. My research centers on the analysis of caregiver perceptions of their experiences with early identification and support services for young children with communication delays. My research will be primarily conducted through the attached questionnaire. This research project examines caregivers' perspectives on the early detection of language delay and their acceptance of support from service providers of intervention strategies made available to families of young children with communication challenges. This study aims to better understand parents' experiences and perceptions about identification and early intervention to help ease parents' concerns and provide more relevant and effective services for the child.

Would your school be willing to serve as a participant in this study? The study would require the participation of your teachers, parents, or caregivers in your organization.

Participation is voluntary. All participants are free to withdraw her/his consent and to discontinue participation in this study at any time. All data provided will be kept confidential. No identifying information is required. Results from the survey will be anonymous, and no persons will be able to identify a specific individual's data results. Only the principal investigator will be involved in the tabulation of the data. There are no foreseeable risks associated with participation in this study.

If permission is granted, I will distribute flyers soliciting participation in my survey at your organization. I have enclosed a standard form letter template, which can be retyped on organization letterhead and returned to me or my major professor at the addresses below. The organization will be provided with an analysis and description of the results after the study. The attachments include a sample of the questionnaire to be used by the participants.

If there are any questions, concerns, or objections, please call me at (763) 291-8544 (C) or email me at ebere.ofem@go.minnstate.edu.

Thank you for your time and consideration regarding participation in this study.

Sincerely,

Ebere Ofem
3140 Northdale Blvd. NW
Coon Rapids, MN, 55433
Cell: (763) 291- 8544
Frances Kayona Ph.D.
Major Professor
Educational Administration
A-279 Education Building
702 4th Avenue South
St. Cloud, MN 56301
(320) 308-3170

Attachments: (3)

Permission (to conduct the study) Form Template
Survey
Participant Implied Consent

Appendix E

Site Approval Letter

Date: April 25, 2023

Dear Ms. Ofem:

The purpose of this letter is to formally grant you permission to survey parents and teachers at Especially for Children. Please feel free to let me know if you need any help with your data gathering.

Sincerely,

Lisa Ward, Director
efc13@especiallyforchildren.com
763-784-0901

Appendix F

School Participation Approval Letter

Especially for Children

Child Development Centers

5223 West 73rd Street

Edina Minnesota 55439

952 ▼ 835 ▼ 6055

Date: May 3, 2023

To: St. Cloud State Institutional Review Board

From: Participating Early Childhood Education School

Re: Permission to Conduct Study

This school organization has agreed to allow (Ebere Ofem) to collect data from selected parents, and caregivers for her Master's thesis study on Caregiver perceptions of their experiences with early identification and support services for children with communication delay. Please consider this a letter of approval.

Respectively,

Vice President of Schools

Appendix G

Survey Participant Request Flyer

Who we need:
Parents or caregivers of young children ages 0- 5years old.

Participant Requirement:
Participants must be age 18 +

Study Location:
Study will be completely virtual. No in-person requirements.

Study Duration:
Approximately 5 - 10 minutes.

Questions?
Please contact Ebere Ofem at 763 291 8544
ebere.ofem@go.stcloudstate.edu or
Dr. Frances Kayona at 320 308 3171
email: fakayona@stclooudstate.edu

Scan QR Code below to access the survey

Appendix H

Survey Recruiting Volunteers Flyer

Appendix I

Survey Consent Form

Implied Consent

Caregiver perceptions of their experiences with early identification and support services for children with communication delay

You are invited to participate in this study to provide the most efficient intervention practice used with your child with speech delay and your experience/interactions with service providers in supporting your child. Once identified, this study will highlight practices to help caregivers support young children with speech delays. To participate in this study, you must be a parent or caregiver of a young child(ren) diagnosed with speech or communication delay. This research project is being conducted by Ebere Ofem, for a graduate Thesis.

Background Information and Purpose

This study aims to examine caregiver's perceptions with respect to early intervention practices and the quality of interactions with service providers. This study also identify intervention strategies that are most effective in supporting children with communication delays and the effectiveness of collaborating with service providers.

Procedures

You will be asked to complete four-page survey questions if you decide to participate. Completion of the survey will take approximately 5 – 10 minutes of your time.

Risks

There are no foreseeable risks associated with participation in this study.

Benefits

The questions on this survey were developed by reviewing multiple research articles on speech/ communication delay in young children, interactions with service providers, and evidence-based

intervention measures. We hope that the information we gain will help us provide parents and caregivers with simple intervention practices to support children with speech delays.

Confidentiality

Data collected from this study will be reported and presented in aggregate (group) form and examined only in a group format. Your information will be confidential, and no answers that could identify a specific individual will be used.

Research Results

If you are interested in learning the results of the survey, feel free to contact the Child & Family Studies Department Office at 320 308 2132 or go to the SCSU Child & Family Studies Department, 901 4th Avenue South St. Cloud, MN 56301.

Contact Information

If you have any additional questions, please contact the researcher at 763-291-8544 or ebere.ofem@go.stcloudstate.edu, or the advisor, Dr. Frances Kayona, at 320-308-3171 or fakayona@stcloudstate.edu

Voluntary Participation/Withdrawal Participation is voluntary

Your decision on whether to participate will not affect your current or future relations with the researcher or St. Cloud State University. If you decide to participate, you are required to answer ALL questions. If you decide not to continue, you can withdraw at any time without penalty.

Acceptance to Participate

Your survey completion indicates that you are at least 18 years of age and consent to participate in the study.

Appendix J

Descriptive Survey Instrument

Survey

Caregiver perceptions of their experiences with early identification and support services for children with communication delay.

Part I

Demographic Data

1. Gender: ☐ Male ☐ Female ☐ Others

2. Age Group:

☐ 18 to 24 years ☐ 36 to 45 years ☐ Over 55 years

☐ 25 to 35 years ☐ 46 to 55 years

3. Highest educational degree held:

☐ Highschool Bachelor ☐

☐ Ed.D. or Ph.D. Master's ☐

4. What is your marital status?

☐ Single (never married) Widowed ☐

☐ Married, or in a domestic partnership Separated or Divorced ☐

5. What is your child age group?

☐ 6-12months ☐ 13-18months 19-24months ☐

☐ 25-30months ☐ 31-36months 37-42months ☐

6. My child first showed signs of speech delay at age

☐ 12 months old or earlier 13-24 months old ☐

☐ 25-36 months old 37-48 months old ☐

7. What is your child's gender

☐ Male ☐ Female Others ☐

8. What is your relationship with the child?

Mother ☐ Father ☐ Grandmother ☐ Grandfather ☐

Others (Specify) _____

Part II

Instructions: Please read each statement and mark the response on the scale that best indicates your current point of view relative to your experience as a parent of a child with communication and language delay.

Scale:

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

1. I use simple words to help my child improve his/her speech.
   Strongly Disagree **Disagree** **Agree** **Strongly Agree**
2. I often and routinely talk to my child in a normal tone.
   Strongly Disagree **Disagree** **Agree** **Strongly Agree**
3. I talk to my child in a manner he/she can understand.
   Strongly Disagree **Disagree** **Agree** **Strongly Agree**
4. I use pictures and images when talking to my child.
   Strongly Disagree **Disagree** **Agree** **Strongly Agree**
5. I use sign language when talking to my child.
   Strongly Disagree **Disagree** **Agree** **Strongly Agree**
6. I let my child take the lead during our playtime.
   Strongly Disagree **Disagree** **Agree** **Strongly Agree**
7. I use intervention practices and strategies daily with my child.
   Strongly Disagree **Disagree** **Agree** **Strongly Agree**
8. I have a positive relationship with my servise provider.
   Strongly Disagree **Disagree** **Agree** **Strongly Agree**

Please read each statement and mark the response on the scale that best indicates your current point of view relative to your experience as a parent of a child with communication and language delay.

Scale:

Rarely	Sometimes	Often	Very Often
1	2	3	4

9. My service provider clearly explains my child's language developmental milestones.
   Rarely **Sometimes** **Often** **Very Often**
10. My service provider shared unique knowledge of various intervention strategies by modeling and coaching.
    Rarely **Sometimes** **Often** **Very Often**

11. My service provider established a professional and cordial relationship with my family.

Rarely **Sometimes** **Often** **Very Often**

12. The training and coaching I received from my service provider positively impacted my role as a parent.

Rarely **Sometimes** **Often** **Very Often**

Please read each statement and mark the response on the scale that best indicates your current point of view relative to your experience as a parent of a child with communication and language delay.

Scale:

Much worse	Somewhat worse	Somewhat better	Much better
1	2	3	4

13. Parenting challenges and experiences before engaging my service provider was:

Much worse **Somewhat worse** **Somewhat better** **Much better**

14. Parenting challenges and experiences after engaging my service provider were:

Much worse **Somewhat worse** **Somewhat better** **Much better**

15. My child's language skills before receiving support from my service provider were:

Much worse **Somewhat worse** **Somewhat better** **Much better**

16. My child's language skills after receiving support from my service provider were:

Much worse **Somewhat worse** **Somewhat better** **Much better**

17. Prior to engaging with my service provider, communicating with my child was:

Much worse **Somewhat worse** **Somewhat better** **Much better**

Part III.

18. What advantages or disadvantages did you experience in your interactions with a service provider?
19. What intervention strategy do you find most effective in supporting your child's language skills?

20. General Comments: