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SCIENCE**

DEPARTMENT OF SPECIAL NEEDS EDUCATION

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**DEPARTMENT OF SURGERY AND DEPARTMENT OF
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SPEECH AND LANGUAGE THERAPY PROGRAM
**FACTORS CONTRIBUTING TO LANGUAGE DELAY IN
CHILDREN AT JAZIEL SPEECH THERAPY CLINIC.**

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This is to certify that the thesis is prepared by mahlet azene, entitle as — Factors contributing to language delay in children at Jaziel Speech Therapy Clinic in partial fulfillment of the requirements for the degree of masters in speech and language therapy.

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Declaration

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This is to certify that the thesis project entitled: “factors contributing to language delay in children at jaziel speech therapy clinic.” Submitted in partial fulfillment of the requirements for the Master’s degree of Speech and language therapy of the postgraduate Studies, Addis Ababa University has a record of original research carried out by Mahlet Azene GSR/5409/15, under my supervision. Therefore, I recommend it to be accepted as the final thesis requirements.

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Acronyms

DLD – Developmental language delay

LD – Language delay

LLE – Late language emergence

SLI – Specific language impairment

SLT – Speech & language Therapy

VLBW -Very low birth weight

Abstract

Introduction: *This study investigates the factors contributing to language delay in children at Jaziel Speech & Language Therapy Clinic. Numerous risk factors have been linked in the past to children's linguistic delays. Both internal (originating from within the child) and external (originating from the environment) factors can have an impact on language delay.*

Objective: *This study aims to identify and analyze the various factors, including internal and external factors that contribute to language delay among children.*

Method: *A quantitative method approach was utilized and used questionnaire. This study conducted in Addis Ababa city particularly, around Megenagna at Jaziel Speech Therapy Clinic. The target populations for this study were the caregivers or parents who have children with delayed language in Jaziel Speech Therapy Clinic. This study prepared for 92 respondents for questionnaires. This study used stratified random sampling and purposive sampling technique. SPSS software used for the entry, analysis, and computation of the data. For quantitative variables, the mean, median, and standard deviation will be calculated. Data was presented using frequency tables, charts, and graphs.*

Result: *The findings reveal that gender, neurological impairments and developmental disorders, perinatal and prenatal factors, screen time, limited exposure to language-rich environments and parental involvement is significant determinants of language delay. Some findings shows family history, hearing Infections or ear-related issues contributes to the language delay.*

Conclusion: *By understanding these factors, this research identifies the factors and provides valuable insights on Factors of Language Delay among Children Attending Speech Therapy and this study reveals that language delays in children are influenced by internal and external factors.*

Recommendation: *The study suggests early screening and diagnosis, addressing hearing issues, enriching language environments, and enhancing parental education and engagement.*

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

According to Mackey (1986), language is a form and not a condition, or an arbitrary sound-symbol system, a system of many systems, a system of an order, or an order in systems.

Language development is one indicator of the overall development of children's cognitive abilities related to success in school (Nelson et al., 2006).

Children's ability to speak is an essential aspect of their lives. According to Rithipukdee and Kusol (2022) language development is a hierarchical process that starts with listening and progresses through learning by hearing words. Children will have become more adept at differentiating sounds after six months, and between 1.5 and 3 years old, they will show growth in terms of lexical resources and quick word connections (Roberts et al., 2019). One sort of communication issue is a language delay. If a child doesn't reach the age-appropriate language developmental milestones, they may have a language delay. Their verbal skills can be growing more slowly than those of normal children. They could struggle to communicate them or comprehend other people. A mix of cognitive, speech, and hearing impairments may be contributing to their delay.

Peripheral sensory (hearing loss) or motor (speech apparatus) impairment can cause delayed language development. Deficits in language may be a side effect of more widespread conditions including mental retardation, psychological issues, or neurological conditions (e.g., epilepsy, autism) According to Zhao et al. (2019) and Feldman (2015), language development is a reflection of how a child's brain and nervous system develop continually throughout each fundamental developmental stage.

Language development can be influenced by a wide range of potential influences, including environmental and biological ones. Birth weight, length of nursing, neonatal disease, birth order, and family history of specific language impairment (SLI) are examples of biological influences. The number of siblings in the family, the educational attainment of the parents, the social level, and the presence of two languages in the home are examples of environmental influences. These variables are thought to increase the likelihood of delayed language development, or SLI. Certain characteristics, like gestational age < 37 weeks (14–16), low birth weight (between 1500 and 2499 g), and extremely low birth weight (birth weight < 1500 g), are frequently mentioned as risk factors for SLI in the literature (Rice et al., 1998). Certain factors have unclear impacts, including low birth weight (birth weight < 2500 g) (Horwitz et al., 2003), poverty (Ullman & Pierpont, 2005), and family history of SLI (Tallal et al., 1989) & (Tomblin et al., 1997).

1.2 Statement of the Problem

Numerous risk factors for children's language delays have been linked to previous studies. Both external (from the environment) and internal (from within the child) variables might affect language delay. A few examples of internal influences are gender, genetics, prenatal history, Intellectual disability, hearing loss, and autism. According to, Hawa and Spanoudis (2014), some examples of external influences are: bilingualism; socioeconomic position; parenting styles; maternal occupation; usage of digital media; lack of tale reading sessions; breastfeeding habits; presence of older siblings; and parenting style.

Many studies on language delay have been conducted in Africa, Asia, and Western literature; however, one study that has somewhat similar data comes from our Country. It is cross-Sectional Prospective Study from the Saint Paul's Hospital Millennium Medical College and this research found the prevalence of speech delay to be 66.5% in children attending pediatric neurology clinics. In this research, isolated speech and language delays were found in more than two thirds of children in the neurology clinic, which is very high as compared to other studies. The environmental and medical conditions that have been identified as associated factors are: bilingual family members, average screen time, male sex, and a history of seizure and hearing impairment. History of asphyxia and preeclampsia were antenatal and postnatal associated factors identified with the development of isolated language delay. Since the prevalence of isolated speech and language delays is high, a speech therapist should be included in the care of these children, and further studies should be done at units other than the neurology clinic (Menbere et al, 2023).

Despite extensive research in various clinical contexts, including neurology clinics, there remains a notable gap in understanding the specific factors influencing language delays

within the speech therapy clinic setting. This study addresses this gap by investigating the factors of language delays among children in Jaziel Speech Therapy Clinic . By focusing on this speech therapy clinical environment, where early intervention and therapeutic strategies are pivotal, this study aims to identify key internal and external factors associated with language delay. Additionally, The issues and importance of the factors concerning a child's development (including caregivers, children, environment, or changing social conditions) influence the child's development; however, there is a lack of studies on factors of language delay in early childhood among children's attending speech therapy in Ethiopia. Through this investigation, this study is good for effectively determining the factors of language delay and parents or caregivers have limited awareness about language delay on factors of language delay in children and to raising awareness and educating the general public. Addressing these research gaps can enhance the understanding of factors contributing to language delay and inform more effective prevention, assessment, and intervention strategies for children at risk.

1.3 Objectives of the Study

1.3.1 General objectives of the study

The general objective of this study was to investigate the Factors contributing to language delay in children at Jaziel Speech Therapy Clinic.

1.3.2 Specific objectives of the study

The specific objectives of the study were the following;

1. To identify the external factors of language delay in the children presenting to the Jaziel SLT Clinic.

2. To identify the internal factors of language delay in the children presenting to the Jaziel SLT Clinic.

1.4 Significance of the Study

Identifying the factors of language delay in early childhood among children's attending speech therapy in Jaziel Speech & Language Therapy Clinic holds significant importance in several ways. Firstly, the study has great contribution for caregivers who have children with delayed language to identify the factors know when to seek help for this child. This research identified the factors contributing to delay in language and to identify and give caregivers possible recommendation. Secondly, it will be also to investigating and creating awareness for the caregivers. Thirdly, this study results can be contribute to early detection and prevention efforts, ultimately leading to better long term outcomes for children with language delay. Additionally, this research has its own supportive importance to the clinical and educational area as it can serve starting point for those who are interested to conduct further research. By addressing gaps in current knowledge and practice, this study has the potential to significantly impact the field of speech and language therapy, promoting more personalized and effective care for children.

1.5 Scope of the Study

The study focused on Caregivers or parents who have children with language delay in Jaziel SLT Clinic. The primary participants are caregivers or parents who have children with delayed language and actively taking and following speech therapy. Geographically, this

study was conducted in Addis Ababa town and this study conducted the research on the factors to delay in language development in Jaziel SLT Clinic. This study chooses the Jaziel SLT Clinic because of different factors; the first one was because the researcher is working with children at Jaziel SLT Clinic. Secondly, the scope of this study encompasses a comprehensive investigation into the various factors contributing to language delay in children attending a speech therapy clinic. It aims to identify and analyse internal and external influences that may impact language development.

1.6 Limitations of the Study

To this study conducted in one clinic and those results may not be applicable to other regions or cultures with different linguistic or socioeconomic backgrounds. This study might focus on a narrow age range of children, which could limit the understanding of how language delay presents across different developmental stages. The researcher was challenged by a lack of cooperation on the side of few respondents in filling out and returning questionnaires due to time constraints and workload in addition to social desirability bias.

1.7 Definition of Terms

Language delay is a warning sign that may presage the presence of later language impairment (Rithipukdee, & Kusol 2022).

Language development is a hierarchical change beginning with hearing and learning by hearing through the sound of word (Raju, 2020).

External Factors are originating from the environment factors can have an impact on language delay (Reid Chassiakos et al.2016).

Internal Factors are originating from within the child factors can have an impact on language delay (Reid Chassiakos et al.2016).

Speech and language therapy is a healthcare and academic discipline concerning the evaluation, treatment, and prevention of communication disorders, including expressive and mixed receptive-expressive language disorders, voice disorders, speech sound disorders, speech disfluency, pragmatic language impairments and social communication difficulties, as well as swallowing disorders across the lifespan (Brady, M. C, et al., 2016).

CHAPTER TWO

REVIEW OF LITERATURE

2.1 Definition of Language Delay

When a young child does not acquire language skills at the typical age-appropriate stage in their developmental timeline, it's known as a language delay. It can persist into adulthood and is most frequently observed in children between the ages of two and seven. Language delay is found to affect 2.3% to 19% of people (Begic, et al).

2.2 Risk Factors of Language Delay

Numerous risk factors have been linked in the past to children's linguistic delays. Both internal (originating from within the child) and external (originating from the environment) factors can have an impact on language delay. Mental retardation, hearing loss, autism, prenatal history, genetics, and gender are examples of internal variables. Bilingualism, socioeconomic position, the degree of education attained by mothers and caregivers, the use of digital media, the lack of story reading sessions, nursing habits, the presence of older siblings, parenting styles, and the occupation of mothers are examples of external influences. According to, (Reid Chassiakos et al.2016), 40% to 60 % of preschoolers with language delays will have trouble mastering written language and academic topics in the future.

2.2.1 Internal Factors for Language Delay

Compared to full-term babies, preterm infants between the ages of 18 and 36 months were shown to have greater language impairments. For instance, the preterm children had trouble to developing vocabulary and had vocabulary counts of less than fifty. The linguistic

development of the preterm children was delayed; some of them had trouble understanding and using the language (Suttora et al, 2020).

Babies with very low birth weights are more likely to experience language, cognitive, and hearing impairment disorders. It has been shown that cognitive impairment occurs in approximately 40% of school-age very low birth weight (VLBW) infants. The majority of VLBW new-borns have subpar executive function and attention abilities (Collins, G. S. et al, 2015).

The occurrence of linguistic deficits is significantly influenced by genes (Bishop et al., 1995). The late emergence of language is strongly influenced by genetic and neurobiological factors. Delayed language emergence and chronic language deficits are more common in children with a family history of language impairments (Lyytinen, et al., 2001). In addition, their likelihood of being late talkers is doubled when compared to people without such a family background (Zubrick, 2007). Language difficulties could also be brought on by genetic anomalies. In 2005, scientists discovered a link between expressive language delay and a genetic disorder: a duplicate copy of the same genes absent in Williams-Beuren syndrome sufferers. Also known as XYY syndrome, it frequently results in speech delay (J. A. Mitchell & Logan, 2005). Furthermore, Chapman Et al. (1998) discovered that compared to nonverbal mental age-matched generally developing children, children and adolescents with Down syndrome (ages 5 to 20 years) produced fewer words overall and fewer distinct words during connected speech (conversation and narrative). In conclusion, the majority of the research points to expressive vocabulary development in young people with Down syndrome being later than expected given mental age.

The extent to which children with autism use language is heavily influenced by their intellectual and social developments; the range of their skills can be very different and on opposite ends of a spectrum; many children with autism develop some speech and language

skills, but not like typically developing children and with uneven progress (Miniscalco et al., 2006) & Hagberg, et al., 2010). Children with autism may have difficulties comprehending what is being said to them. They may also have trouble communicating non-verbally by using hand gestures, eye contact, and facial expressions. Their linguistic usage is greatly impacted by their social and intellectual growth. Their skill sets can vary greatly and be found at opposite ends of a spectrum.

Many children with autism develop some speech and language skills, but not like typically developing children, and with uneven progress (US Department of Health and Human Services 2017). Young Children's learn to speak through listening to their caregivers and their environment for words and sounds. Lack of these sound inputs from hearing loss makes it harder for young children to learn how to use and interpret language, which finally results in delayed speech and language development (Josey, 2021). For instance, they could find it difficult to put words together, comprehend what others are saying, or use proper grammar skills that children who are normally growing often possess (Hazan et al., 2018).

Parents or caregivers are crucial in helping young children develop their language skills because they offer the young child's comprehension, attention, connection, and interaction. According to earlier research, a mother's age is one of the predictive factors for age-appropriate development in early childhood. Mothers over 35 and between the ages of 20 and 35 had a 33 percent and an 18 percent lower chance, respectively, of giving birth to children who developed at an age appropriate level than mothers under 20. This is due to the fact that these mothers belong to the working-age demographic, which means they have limited time to devote to raising their kids. Their kids are therefore more likely to experience a possible developmental delay (Pattanapongthorn et al., 2014). Research involving preterm new-borns

in low-income households has discovered that the age of the mothers is linked to a developmental delay (Potijk 2013).

Furthermore, research on the connection between gender and language proficiency revealed that female children developed their language skills more quickly than male children (Adani, & Capanec, 2019) & (Collisson et al, 2016).

2.2.2 External Factors for Language Delay

A child's temperament and personality are negatively impacted by delayed language development. Conversely, children with challenging temperaments make others less interested in interacting with them, which jeopardizes the development of expressive language and increases the child's vulnerability to anxiety in unfamiliar situations.

Accordingly, a child's mutism may be triggered by moving from a familiar home to a school (Horwitz et al, 2003).

Children from low-income and low educational level families are more prone to experience expressive language delays and challenges. Although a family's socioeconomic status has little direct impact on language development, it does have some indirect effects due to linked factors (Horwitz, et al., 2003). Mother speech, which differs depending on the family's socioeconomic position, might have an impact on a child's early vocabulary development (Hoff 2003). Children from lower socioeconomic backgrounds benefit more from the development of their productive vocabulary than do children from higher education levels since these young children are more likely to speak in longer utterances and use richer vocabulary when interacting with their mothers (Dollaghan et al., 1999).

Due to the lack of access to suitable therapies and resources, poverty is also a significant risk factor for language delay. When compared to people who don't truly require it, the likelihood

that someone who needs early intervention for language problems will receive assistance is very low (Brown et al., 2016).

Nevertheless, there are situations in which the restricted abilities and skills of parents or other caregivers make it difficult to structure the home environment in a way that supports a child's growth. In addition, technology is advancing at an exponential rate these days.

Children in early childhood now spend more time glued to screens, whether they are televisions, laptops, tablets, or smartphones (Phongphetdit & Authawee, 2020). According to the American Academy of Paediatrics, children between the ages of two and five should watch high-quality media for one hour each day (Nobre and others, 2020). Because of their jobs, parents frequently let their children's watch TV or browse the internet on their own for enjoyment. Occasionally, screen time is also utilized to calm down a child who is acting out. A child's delayed linguistic abilities are the outcome of all of them (Kabali et al, 2015).

The level of parental awareness regarding verbal stimulation and language development is another external factor that influences children's language development. A child's home environment also affects how they develop their language. This is measured by the "Emotional and Verbal Responsively of Mother" subscale and the "Provision of the Right Play Material," which contains elements that are critical for language development in the first two years of life. There are differences in the relationship between environmental influences and language development (Elardo et al., 1977).

The next external factor influencing a child's language development is their parenting style. Parenting practices and children's language development are connected (Joni, 2015).

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Research Design

To conduct the study, this study used a cross sectional descriptive study. A cross-sectional descriptive study design would be particularly suitable for this research endeavour. This design allows researchers to collect data from a diverse group of children at a specific point in time, providing a snapshot of factors contributing to language delays within the speech therapy clinic setting. This study used descriptive quantitative approach. The quantitative descriptive research design focused on quantifying the collection and analysis of data. This approach to studying factors contributing to language delay in children involves systematic measurement and analysis of numerical data to uncover relationships between various variables influencing language development.

3.2 Study Area

This study was conducted in Addis Ababa city particularly, around Megenagna at Jaziel SLT Clinic. This area is located in the central part of Ethiopia. It's found between 9° 02' 52" latitude north and 38° 43' 41" longitude east. (<https://latitude.to/articles-by-country/>). Jaziel speech therapy clinic is a speech therapy clinic which works with children and adults who have communication disorders and swallowing disorders. This study chooses Jaziel Speech Therapy Clinic for the study on factors contributing to language delay in children ensures access to a clinical setting, diverse patient population, clinical expertise, potential for impactful findings, and collaborative opportunities.

3.3 Study Population

The target population for this study was the children with delayed language in Jaziel SLT clinic and this study examining factors contributing to language delay includes over 500 children who are assessed at Jaziel Speech Therapy Clinics, with their parents serving as the primary informants. These children, spanning a diverse range of ages and backgrounds, have been diagnosed with various language disorders such as specific language impairment or developmental language disorders. Their participation involves undergoing thorough assessments and evaluations conducted by qualified speech therapists at Jaziel clinic, neurologist and pediatricians.

3.3.1 Inclusion Criteria

1. Caregiver and child: Caregivers or parents who are primary caregivers for children between the ages of 2 and 5 years old.
2. Language Delay Diagnosis: Children with confirmed language delay or speech-language disorder by certified speech and language therapist, neurologist and pediatricians.
3. Consent: Caregivers willing to consent obtained for participation in the study.

3.3.2 Exclusion criteria

1. Language Background: Caregivers or parents from diverse linguistic backgrounds.
2. Unwillingness to Participate: Caregivers or parents who are unwilling or unable to participate in the study due to time constraints, language barriers, or other reasons.

3.4 Sample Size and Sampling Techniques

The sample size for this study was 92 participants from above 500 clients. Although the sample size was decided based on the data collection process based on the richness and depth of the data obtained the planned sample size. The sample size is determined by speech therapists, neurologists and pediatricians diagnosis. Therefore, the researcher was prepared 92 respondents for questionnaires

This study used convenience non-probability sampling technique, which involves selecting participants based on their convenient availability and accessibility within the Jaziel Speech therapy clinic setting. This method allows to efficiently recruiting children who are actively in speech therapy services, ensuring a diverse representation of language delay cases within the clinic. By utilizing convenience sampling, the study aims to capture a cross-section of children with varying degrees of language delay and explore the multitude of factors contributing their language development.

3.5 Sources and Types of data

This study used both primary and secondary data sources.

3.5.1 Primary source of data

The primary data collected through questionnaire.

3.5.2 Secondary source of data

The secondary data collected from children secondary data collected from children's medical reports refers to information that has already been documented by healthcare professionals in clinical settings.

3.6 Instruments

This study used different methods of data collection instruments to gather appropriate and valid data from the study population. The following data collection instrument was used.

3.6.1 Questionnaire

Data collected using a well-structured questionnaire after obtaining informed consent. The questionnaire was consisting of a Socio demographic profile, internal or biological factors, family-based risk factors, and external or environmental factors and treatment approaches. The questionnaire included both open ended and close ended questions to collect data from the target groups. The target group is caregivers or parents who have children with delayed language in Jaziel SLT clinic. The questionnaire was translated into the local language for convenience.

3.7 Data Analysis Procedures

First this study prepared and obtained oral consent from parents and caregivers. Data collection conducted using a combination of Sample Surveys and key informant interviews depending on the preferences and accessibility of the target population. Participants invited to complete the questionnaire and participants responded to the questionnaire at their convenience. Sample survey used from the quantitative method. This study used questionnaires with both open ended and close ended. The data collection was done by the researcher and questions which were not clear and legible to the respondents were read by the data collectors in order to clarify the difficulties. Finally, Participants were free to write what they feel.

3.8 Data Analysis Methods

The data that was gathered through the questionnaire analysed through quantitative methods. A well-designed questionnaire used to collect data about the socio demographic profile, internal and external risk factors of speech and language delay in children. SPSS software, version 25 (IBM Corp., Armonk, NY) used for the entry, analysis, and computation of the data. For quantitative variables, the mean, median and standard deviation will be calculated. Data presented using frequency tables and logistic regression.

3.9 Reliability and Validity test

3.9.1 Reliability Test

The degree to which a variable or group of variables is consistent in what it is meant to measure is referred to as reliability, according to Hair et al. (2014). Reliable measurements will have values that are consistent when taken several times. It suggests that the same event occurs repeatedly in situations that are either very similar or identical. According to Neuman (2014), an unpredictable, unstable, or inconsistent outcome resulting from the measuring process itself is the reverse of reliability. First and foremost, this study evaluated the validity and reliability of the language delay and its contributing components. The reliability investigation of the scales made use of the Cronbach's Alpha Coefficient.

Table 1: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.717	.713	10

Source: Own Survey Output (2024)

The Cronbach's alpha coefficient was utilized to assess the questionnaire's internal consistency and reliability. The reliability test result of 0.713 is displayed in the table above. This shows that the questionnaire has internal consistency and that each scale represents a trustworthy construct. It was discovered that the combined Cronbach's α for the independent and dependent variables was 0.713. All dependent and independent variable Cronbach's α values, as well as the total values, are determined to be more than the recommended minimum acceptable level of 0.7 by Hair et al (1998).

3.9.2 Validity

The degree to which a scale or collection of measurements faithfully captures the topic of interest is known as validity. Validity, which Muji (2004) states is arguably the most significant component of measurement, asks whether we are measuring what we intend to measure. Content validity measures how similar the elements that make up a summated scale are to its conceptual description (Hair et al., 2014).

Validity describes how well the information gathered pertains to the real subject of the study (Ghauri and Grongaug 2005). "Measure what is intended to be measured" is the definition of validity (Field 2005). Validation was done to assess the question's clarity and obtain some proof on whether the item's content was pertinent to addressing the study topic.

3.10 Ethical consideration

To conduct this study, the researchers included the following considerations. The researcher respected the willingness of the participants and rights of the participants. Participants had freedom to write and tell what they want based on the questions. Respondents participated based on informed consent. The use of offensive, discriminatory, other unacceptable language avoided in the formulation of the questionnaire. An adequate level of confidentiality of the research data ensured and the research will be independent and impartial.

CHAPTER FOUR

DATA RESULTS AND DISCUSSION

4.1 Introduction

In this chapter, analysis of data and research findings have been interpreted in relation to the objectives of the study and with respect to the research questions developed to guide the study. Questionnaires were distributed to 92 respondents selected by convenience stratified random sampling technique. From these 92 were properly filled. Thus, the analysis is based on the valid 92 questionnaires response from clients.

The data collected through questionnaire, were analysed through descriptive statistics, correlation, and regression analyse techniques. Demographic characteristics of respondents were summarized by using frequencies and percentages for all variables including age, sex, language development and factors of language delay.

4.2 Demographic Data

Table 2: Demographic data

		Frequency	Percent	Mean	Standard deviation
Gender	Male	68	73.9	1.2609	.44152
	Female	24	26.1		
Age of the child	2 years-3 years	25	27.2	2.2065	.84565
	3 years – 4 years	23	25.0		
	4year – 5 year	44	47.8		
Weight	2500–3000	14	14	2.8478	.36116
	>3000	78	78		
Total		92	100		

Source: Own Survey Output (2024)

Table 2 summarizes the demographics of 92 child respondents, with males making up 73.9% (68) and females 26.1% (24), showing a male predominance but representation of both genders. The majority of children are aged 4-5 years (47.85%), followed by 3-4 years (25%), and 2-3 years (27.2%). Regarding birth weights, 15.2% were between 2000-3000 grams, while 84.8% were over 3000 grams.

4.3 External Factors for Language Delay

Table 3: External factors of language delay

		Frequency	Percent	Mean	Standard deviation
Level of education	Less than high school	12	13.0	2.6413	.98986
	Diploma education	31	33.7		
	Undergraduate/Graduate degree	27	29.3		
	other	22	23.9		
Monthly income	<10,000	30	32.6	2.3261	1.13009
	10,000–20,000	20	21.7		
	20,001–30,000	24	26.1		
	>30,000	18	19.6		
Screen time	Less than one hour	13	14.1	2.5326	.83140
	One hour – two hours	24	26.1		
	More than two hours	48	52.2		
	Other	7	7.6		
engage in language-rich activities	Daily	15	16.3	2.9022	1.28439
	Several times a week	22	23.9		
	Once a week	25	27.2		
	Rarely	17	18.5		
	Never	13	14.1		
	Total	92	100		

Source: Own Survey Output (2024)

The study examines external factors contributing to language delay in children, based on data from 92 respondents. Screen time analysis shows that 52.2% of children have more than two hours of screen time daily. Engagement in language-rich activities varies, with 27.2% participating once a week and 16.3% engaging daily. Cultural factors impacting language therapy approaches show mixed opinions among respondents. The primary attachment figures for children are mothers (34.8%) and caregivers (26.1%). Educational levels among respondents range from diplomas (33.7%) to undergraduate/graduate degrees (29.3%). Household income distribution reveals 32.6% earn less than 10,000 monthly, and employment status shows 37.05% are employed.

4.4 Internal Factors of Language Delay

Table 4: Internal factors of language delay

		Frequency	Percent	Mean	Standard deviation
Diagnosis	Seizures	8	8.7	3.8152	1.60992
	Autism	45	48.9		
	Cerebral palsy	7	7.6		
	Intellectual disability	4	4.3		
	Down syndrome	15	16.3		
	other please specify	13	14.1		
Ear infection	Yes	25	27.2	1.7283	.44729
	No	67	72.8		
prenatal or perinatal factors	Premature birth	8	8.7	4.3696	1.69497
	Low birth weight	6	6.5		
	Prenatal substance exposure	16	17.4		
	Maternal health	14	15.2		
	Birth trauma	10	10.9		
	Other	38	41.3		
Family history	Yes	37	40.2	1.5978	.49302
	No	55	59.8		
	Total	92	100		

Source: Own Survey Output (2024)

Table 4 highlights the internal factors contributing to language delay in children. The data shows that nearly half (48.9%) of the children were diagnosed with autism, 16.3% with Down syndrome, 14.1% with other conditions such as developmental delay, ADHD, hearing problems, and language delay, 8.7% with seizures, 7.6% with cerebral palsy, and 4.3% with intellectual disabilities. Additionally, 27.2% of the children experienced ear infections or hearing problems, with varying frequencies, while 50% had undergone hearing tests.

Prenatal factors affecting language development were found in 40.2% of cases, with key contributors including premature birth (10.9%). Family history of language delay was reported in 40.2% of respondents.

The age distribution of mothers was primarily between 25-34 years (39.1%) and 35-44 years (30.4%), while fathers were mostly between 25-34 years (40.2%) and 35-44 years (32.6%).

These findings underscore the diverse internal factors influencing language delay.

4.5 Factors of language delay regression

Table: 5 Factors of language delay regression

		95% CI		Odds Ratio
		Lower	Upper	
1.	Mother's Age	.246	26.786	2.57
2.	Father's Age	.163	15.811	1.61
3.	Attachment	0.74	3.473	1.60
4.	Household income	.261	11.747	1.75
5.	Diagnosis	.313	10.802	1.84
6.	Prenatal or perinatal history	.177	2.779	0.70
7.	Family history	0.376	10.999	2.03
8.	Engagement	.080	3.424	0.52
9.	Screen time	.129	40.085	2.27
10.	Involvement	.056	4.712	1.62

4.6 Discussions

There have been extensive studies on speech and language delay in Africa, Asia, and Western literature. In Ethiopia there is research on the prevalence of speech delay to be 66.5% in children attending pediatric neurology clinics. (Menbere et al, 2023) and this study align with factors of language delay in Jaziel SLT Clinic findings that gender differences have been observed in language delay. This study also found genetic predispositions and neurodevelopmental disorders play a significant role. Genetic influences, hearing impairments, and neurodevelopmental disorders establish the foundational challenges that some children face, and environmental factors can significantly modulate language outcomes. Conditions like autism spectrum disorder (ASD) and attention deficit hyperactivity disorder (ADHD) are prevalent among children with language delays.

According to Hawa and Spanoudis (2014), numerous risk factors have been linked in the past to children's linguistic delays. Both internal (originating from within the child) and external (originating from the environment) factors can have an impact on language delay. Mental retardation, hearing loss, autism, prenatal history, genetics, and gender are examples of internal variables. Bilingualism, socioeconomic position, the degree of education attained by mothers and caregivers, the use of digital media, the lack of story reading sessions, nursing habits, the presence of older siblings, parenting styles, and the occupation of mothers are examples of external influences. A study on this topic might explore a range of contributing factors, including internal and external factors. The study identified the factors contributing to language delay among children attending speech therapy at the Jaziel Speech and Language Therapy Clinic.

The results indicated that several internal factors significantly contribute to language delays. These include internal (biological) and external (developmental) issues such as preterm birth,

low birth weight, and certain genetic conditions. Specifically, the data showed that children born before 37 weeks of gestation or with a birth weight below 2500 grams were more likely to experience language delays. These findings align with the literature, which highlights the vulnerability of preterm and low birth weight infants to developmental challenges, including language impairments (Reid Chassiakos et al., 2016)

External factors such as the child's environment, parental involvement, and socio-economic status also play a crucial role in language development. The study found that children from lower socio-economic backgrounds were more prone to language delays, which is consistent with existing research that links socio-economic status to access to educational resources and parental engagement (Banerjee & Guiberson, 2012). Parental involvement emerged as a significant factor; children whose parents actively engaged in their language development through reading and conversation exhibited better language outcomes. This supports the findings of Whitehurst and Fischel (1994), who emphasized the importance of parental involvement in mitigating language delays.

CHAPTER FIVE

SUMMARY OF FINDING, CONCLUSION AND RECOMMENDATION

5.1 Summary of Findings

This part of the study aims to summarize the finding and results that have emerged from the data analysis presented in chapter four. The general objective of this study was to identify the factors of language delay. From the study the following particular summary of the findings were observed:

- Boys are more frequently observed to have language delays compared to girls in the study. The underlying reasons for this gender disparity are still under investigation.
- A small number of children with language delays have a family history of similar issues.
- Conditions such as autism spectrum disorder (ASD) are commonly associated with language delays.
- Neurological impairments and developmental disorders significantly contribute to the language delay.
- Some Children's experience hearing infections or other ear related issues experience delays in language development.
- Hereditary conditions like specific language impairment (SLI) are prevalent among the studied group.
- There are perinatal and prenatal factors that may have influenced the child's language development like premature birth and low birth weight are common medical factors linked to language delays.
- Limited exposure to a language-rich environment, often due to lower socioeconomic status, is a contributing factor.

- Reduced interaction with caregivers and less access to educational resources can delay language acquisition.
- The level of parental involvement in language-promoting activities and the employment status of the respondent are crucial factor.
- Most respondent's doesn't manage their children's using screen time.
- The level of parental involvement in language-promoting or language-rich activities can contribute to language delay
- Most respondents don't engage in any verbal stimulation activities during your pregnancy

5.2 Conclusion

The Study on “the factors contributing to language delay in children at Jaziel Speech & Language Therapy Clinic” reveals that language delays in children are influenced by a complex interplay of genetic, neurological, environmental, and psychosocial factors. Key conclusions from the study are as follows: Premature birth, low birth weight, and chronic illnesses are associated with higher incidences of language delays, indicating the need for targeted support for these at-risk groups.

Understanding the factors contributing to language delay among children attending speech therapy is crucial for developing effective intervention strategies. This thesis has explored the multifaceted nature of language delays, considering internal and external influences. The findings highlight that while genetic predispositions and neurodevelopmental disorders play a significant role, the quality of a child's environment and interactions can profoundly impact their language development. Conditions such as autism spectrum disorder (ASD) and attention deficit hyperactivity disorder (ADHD) are prevalent among children with language delays. Genetic influences, hearing impairments, and neurodevelopmental disorders establish

the foundational challenges that some children face and environmental factors can significantly modulate language outcomes.

The observation that boys are more frequently affected by language delays than girls suggests potential biological and developmental differences that require further investigation.

Initial language delays in bilingual or multilingual children typically resolve with adequate exposure and support, indicating that bilingualism is not a cause of language delay but may require specific supportive strategies.

Social factors, including the educational environment and peer interactions, further influence language development. The educational background and involvement of parents in language-promoting activities significantly influence children's language development, suggesting that parent education and engagement are critical components of effective for awareness and intervention.

Overall, the study highlights the necessity for a multifaceted approach in addressing language delays, incorporating genetic, medical, environmental, and educational factors. Early identification and tailored therapy are paramount in promoting optimal language development and minimizing long-term impacts on children's communication skills.

5.3 Recommendation

Based on the findings from the research on “Factors of Language Delay among Children Attending Speech Therapy,” the following recommendations are proposed to enhance the identification, intervention, and support for children with language delays:

1. Early Screening and Diagnosis:

- Implement routine early screening programs for language delays in preschool and pediatric settings to ensure timely identification and intervention.

- Use comprehensive assessment tools that consider genetic, neurological, environmental, and psychological factors to provide a holistic understanding of each child's language delay.

2. Integrated Therapeutic Approaches:

- Develop and promote integrated therapeutic approaches that address both language delays and co-occurring neurological or developmental disorders such as ASD, Down syndrome and ADHD.
- Train speech therapists to collaborate with other professionals, including psychologists, neurologists, and educators, to provide comprehensive care.

3. Addressing Hearing Impairments:

- Ensure early detection and treatment of hearing impairments through regular auditory screenings and prompt medical interventions.
- Provide specialized speech therapy techniques and assistive technologies for children with hearing loss to support language development.

4. Enrichment of Language Environments:

- Create programs aimed at enriching language environments, especially for children from lower socioeconomic backgrounds. This could include access to books, educational toys, and language-focused activities.
- Encourage parental involvement in language-promoting activities through workshops and resources that emphasize the importance of daily verbal interactions and reading.

5. Parental Education and Engagement:

- Develop educational programs for parents to inform them about the critical role they play in their child's language development and how to effectively engage in language-promoting activities.
- Provide support groups and resources for parents to share experiences and strategies for supporting children with language delays.

6. Support at risk medical conditions:

- Offer specialized support and intervention programs for children with medical conditions that increase the risk of language delays, such as premature birth or chronic illnesses.
- Integrate medical management with speech therapy to address the comprehensive needs of these children.

7. Emphasis on early intervention:

- Advocate for early intervention programs that provide intensive and consistent speech therapy for young children identified with language delays.
- Educate parents, educators, and healthcare providers about the benefits of early intervention and the signs of language delays to ensure prompt action.

By implementing these recommendations, healthcare providers, educators, and policymakers can improve the identification, support, and treatment of children with language delays, ultimately enhancing their communication skills and overall development.

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APPENDIX: 1 Questionnaire



SPEECH AND LANGUAGE THERAPY

Factors contributing to language delay in children at Jaziel speech and language therapy
Clinic

Date_____

Dear Respondent:

My name is Mahlet Azene. I am a student in Addis Ababa University, Msc in speech and language therapy. As a requirement for partial fulfilment of the Master of speech and language therapy. The purpose of this study is to identify“Factors contributing to language delay in children at Jaziel speech and language therapy Clinic”.

The study is hoped to help identify Factors contributing to language delay in children at Jaziel speech and language therapy Clinic. Participation in this study is voluntary. You may refuse to participate or withdraw from the study at any time. All information gathered from this study will be kept confidential. You are thus kindly requested to fill this questionnaire with honesty and to the best of your knowledge. For further information I'm available at mahletazene21@gmail.com and Tel: +251922146307.

Thank you in advance

1. Seizures 2. Autism 3. Cerebral palsy 4. Intellectual disability
5. Down syndrome 6. other please specify

11. Has your child experienced any ear infections or other ear-related issues? 1. Yes 2. no

If yes, how many episodes ear infections?

Have your child has a hearing test? 1. Yes 2. no

12. What prenatal or perinatal factors that may have influenced your child's language development? 1. Premature birth 2. Low birth weight 3. Prenatal substance exposure 4. Maternal health 5. Birth trauma 6. Prenatal maternal smoking and alcohol intake 7. Other

13. Does your child have a family history of language delay or speech-language disorders?

1. Yes 2. No

14. How often do you engage in language-rich activities with your child (e.g., reading, storytelling, playing games, churches and singing)?

1. Daily 2. Several times a week 3. Once a week 4. Rarely 5. Never

15. How much screen time your child's use?

1. Less than one hour 2. One hour – two hours 3. More than two hours 4. Other please specify

16. Involvement in language-rich activities can contribute to prevent language delay.

1. Strongly Disagree 4. Agree
2. Disagree 5. Strongly Agree
3. Neither Agree nor Disagree

17. Cultural factors can influence a family's approach to language therapy.

1. Strongly Disagree

4. Agree

2. Disagree

5. Strongly Agree

3. Neither Agree nor Disagree

APPENDIX: 2 External Factors of Language Delay

Table 2: External factors of language delay

		Frequency	Percent	Mean	Standard deviation
Attachment	Father	9	9.8	3.6196	2.00462
	Mother	32	34.8		
	Grandmother/Grandfather	15	16.3		
	Brother	1	1.1		
	Sister	5	5.4		
	Caregiver	24	26.1		
	Other	6	6.5		
Level of education	Less than high school	12	13.0	2.6413	.98986
	Diploma education	31	33.7		
	Undergraduate/Graduate degree	27	29.3		
	other	22	23.9		
Monthly income	<10,000	30	32.6	2.3261	1.13009
	10,000–20,000	20	21.7		
	20,001–30,000	24	26.1		
	>30,000	18	19.6		
Employment	Employed	34	37.0	1.9239	1.9239
	Unemployed	31	33.7		

	Self-employed	27	29.3		
Screen time	Less than one hour	13	14.1	2.5326	.83140
	One hour – two hours	24	26.1		
	More than two hours	48	52.2		
	Other please specify	7	7.6		
engage in language- rich activities	Daily	15	16.3	2.9022	1.28439
	Several times a week	22	23.9		
	Once a week	25	27.2		
	Rarely	17	18.5		
	Never	13	14.1		
Cultural factors	Disagree	13	14.1	3.5870	0.5870
	Neither Agree nor	31	33.7		
	Disagree				
	Agree	29	31.5		
	Strongly agree	19	20.7		
	Total	92	100		

APPENDIX: 3 Internal Factors of Language Delay

Table 3: Internal factors of language delay

		Frequency	Percent	Mean	Standard deviation
Diagnosis	Seizures	8	8.7	3.8152	1.60992
	Autism	45	48.9		
	Cerebral palsy	7	7.6		
	Intellectual disability	4	4.3		
	Down syndrome	15	16.3		
	other please specify	13	14.1		
Age of the child's mother	Under 18	2	2.2	3.2391	.94194
	18-24	18	19.6		
	25-34	36	39.1		
	35-44	28	30.4		
	above 45		8.7		
Age of the child's father	18-24	7	7.6	3.6413	.88431
	25-34	37	40.2		
	35-44	30	32.6		
	above 45	18	19.6		
Ear infection	Yes	25	27.2	1.7283	.44729

	No	67	72.8		
prenatal or	Premature birth	8	8.7	4.3696	1.69497
perinatal	Low birth weight	6	6.5		
factors	Prenatal substance exposure	16	17.4		
	Maternal health	14	15.2		
	Birth trauma	10	10.9		
	Other	38	41.3		
Family	Yes	37	40.2	1.5978	.49302
history	No	55	59.8		
	Total	92	100		