International Journal of Scientific Research and Management (IJSRM)
||Volume||12||Issue||07||Pages||64-78||2023||
Website: https://ijsrm.net ISSN (e): 2321-3418
DOI: 10.18535/ijsrm/v12i07.gp03

Influence Factors, Impact and Interventions for Speech Delay and Language Delay in Early Childhood : Systematic Review

Rizky Yuniarti Palipung[1], Sintia Paramita[2,] Ni'matuzahroh[3]

Magister Psikologi Sains, Universitas Muhammadiyah Malang

Abstract.
Speech delay occurs when a child is unable to produce words correctly or fluently. Whereas language delay occurs when the child has difficulty in understanding what others are saying or difficulty in conveying information and thoughts. Speech delay and language delay allow children to experience several adverse effects such as developmental delays, decreased cognitive, social and emotional abilities, and risk of having poor health status. The literature search used two databases, Scopus and Scholar. Only studies describing influencing factors and interventions on speech and language delay were included. The results of this systematic review suggest that factors influencing the occurrence of speech and language delay in children, generally occur due to the influence of family factors with a history of speech delay and language delay, and gender factors. As well as, interventions that parents and prospective parents can do to avoid the occurrence of speech and language delays in children include, among others, conducting early examinations or early stage early identification to assess child growth, increasing maternal knowledge related to child development education, involving children in reading and activities together, and it is advisable for mothers to conduct routine examinations during pregnancy.

Keywords: Speech delay, Language delay, Influencing factors, Impact, Intervention, Early childhood

Introduction

Speech and language development is one of the indicators that can be used to predict a child's overall development and cognitive abilities. Children generally master the basics of speech and language by pre-school age. Speech and language skills play an important role in children's learning ability and their ability to build social relationships (Al-fadhli, 2015). Speaking is the most important form of conveying information and can only be done through language. Speech and language delay can be defined as a disorder that occurs in oromotor function and communication dysfunction (Kumar, 2022). Speech and language are not the same. Speech is a form of expression of thoughts in spoken words (Kumar, 2022). In speech the phonemic system combines language and sounds to convey meaning. Whereas language is a system of encoding symbols that enables conceptualization, reasoning and understanding, and in which emotions, ideas, information and beliefs can be shared. Language can be conveyed through signs and symbols (O'Hare, 2018).

Speech development generally goes through stages of cooing, babbling, jargon, single words, word combinations and sentence formation. Cooing is the sound a baby makes that sounds similar to vowels; babbling is when a child says consonants and vowels in sequence such as 'bababa', and jargon is a longer string of consonants and vowels that starts to sound like a sentence (Lawrence, 2013). Some children experience stages of speech and language development over a period of time. Speech and language delay indicates that developmental milestones occur in the order they should, but they occur more slowly than expected. Speech delay occurs when the child is unable to produce words correctly or fluently. While language delay occurs when the child has difficulty in understanding what others are saying or difficulty in conveying information and thoughts (Lawrence, 2013).

Speech delay is a common disorder, with 15% of toddlers aged 2 years having speech delay and 7% of children at school entry age having ongoing language development disorders. Speech and language delays can be classified as delays, dissociations, or deviations. Based on research conducted by the Indonesian Pediatric Association, it states that 5-8% of preschool children experience speech and language delays (Maulana, 2020). Whereas in primary school-age children the prevalence of language delays is estimated to range from 3% to 16%, this is known through research conducted in various countries such as the United Kingdom, New Zealand, Canada, Hong Kong and the United States (Wallace, 2015). Approximately 5% of children attending primary school have speech and language delays (Kumar, 2022). The global prevalence of speech and language delay disorders in the primary school age group varies between 3% and 20% (McLaughlin, 2011).

Speech and language delays can cause long-term harm to children, adversely affecting cognition, academic achievement, behavior, and social-emotional well-being. So it is important for parents and prospective parents to be able to know the factors that may affect the occurrence of speech and language delay disorders experienced by children. This is a form of intervention that can help parents and prospective parents to be able to help and take care of their children so that they can grow and develop properly and obtain the expected development. Most of the previous research on speech and language delay has only examined its relationship with neurological disorders in the child's brain or other disorders in children such as autism and down syndrome; only explaining factors; or only linking to one of the influencing factors; and no one has explained the overall factors that might cause speech and language delay in early childhood, the impact, and the interventions that can be done.

Therefore, this systematic review uses the title influence factors, impacts and interventions of speech delay and language delay which aims to explain the influence factors of speech and language delay as a whole, then the impacts that may occur to children when experiencing speech and language delay, as well as interventions that can be done as an effort to prevent adverse effects that may occur in children, especially early childhood. A systematic review is a research method used to identify, evaluate and interpret all relevant research results related to a particular research question, topic or phenomenon of interest (Kitchenham, 2010).

Materials and Methods

1. Literature Search Strategy

   In this study, the literature search was conducted using two databases namely, Scopus and Scholar, and the writing of this systematic review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses checklist (PRISMA). The literature used was restricted from 2013 to 2023 to ensure that the studies were novel and acceptable. The research population was included in the search strategy, which included terms and keywords appropriate to the topic area. Keywords were used to find articles that addressed the three main issues of: (1) Speech delay, (2) Language delay, (3) Influence factors, (4) Impact, (5) Intervention, and (6) Early childhood.

2. Eligibility Criteria

   To be included in this systematic review, articles had to describe factors influencing speech delay and language delay in early childhood, their impact, and interventions used, using qualitative or quantitative methods, studies, systematic reviews, and meta-analyses. The article should be written in English. Abstracts, books, articles, systematic reviews, meta-analyses and studies that do not describe factors affecting speech delay and language delay in early childhood, their impact and interventions used will be excluded. This is done as a limitation of our review that includes information on the influencing factors and impact of speech and language delay in children, so that preventive and treatment interventions can be carried out in early childhood who experience this.

3. Analytical Process

   At each stage of the review process, three reviewers (RYP, SP, and NZ) separately searched for sources of information and assessed the appropriateness of the literature found for inclusion using

established criteria. The overall content of the literature used was checked. For abstracts with insufficient information, or where there were conflicts, the full text was requested. When all three reviewers independently determined that a study met the inclusion criteria after examining the full text, it was included.

4. Study Selection

The relevance of each article was first determined based on the data provided in the abstract. Full-text reproductions were requested after the abstract failed to provide sufficient information. The three reviewers independently assessed the abstracts using our search criteria and then selected publications for full-text review. Full-text articles were evaluated for eligibility using predefined criteria. Studies had to use an observational research design to explore the influencing factors and interventions of speech delay and language delay in early childhood to be included in the final analysis.

Results

1. Search and Screening

During this literature search, 1198 articles were identified from Scopus and Scholar. From all of these articles, the first stage of filtering was done through the journal title, 848 articles that did not match the title were excluded. Furthermore, the second stage of filtering was carried out by reading the abstract (N = 350), 223 abstracts that did not match the criteria were excluded. Then, the final stage of screening was carried out by reading the entire journal obtained (N = 127). And 112 articles with content that did not fit the criteria were excluded. So that the journals that match the research questions that have been asked are obtained. From a total of 1,198 journals, there were 15 journals that fit the criteria of looking for factors, impact, and prevention on speech and language delays in children. The articles used in this systematic review were entirely in English.

2. Characteristics of the Research Included

	Source	**Country**	**Method**	**Subject**	**Number of Subjects**	**Child Age**
1.	Al-Fadhli, K. Y., & Al-Bunaian, N. (2017). Prevalence and social influences of delayed language development in preschool-age Saudi children. *Int J Sci Res*, *6*(8), 1712-1720.	Saudi Arabia	Cross Sectional Study	Parents	1.235	3-5 years old
2.	Blumenfeld, A., Carrizo Olalla, J., SI DA, G. N., Sadras, Y., & Graizer, S. (2018). Language development delay in 24-month-old children at a health care center of the City of Buenos Aires. *Arch Argent Pediatr*, *116*(4), 242-7.	Argentina	Observational, Analytical, and Cross Sectional Design	Parents	138	2 years old

3.	Kamal, M., & Salahuddin, N. S. (2020). Gadget as risk factor to speech and language delay in autism children.	Indonesia	Observational, Analytical, and Cross Sectional Design	Mothers with autistic children	33	< 1 – 5 years old
4.	Gibbard, D., & Smith, C. (2016). A transagency approach to enabling access to parent-based intervention for language delay in areas of social disadvantage: A service evaluation. *Child Language Teaching and Therapy*, *32*(1), 19-33.	English	Experimental Design	Parents and child	18	2-3 years old
5.	Jullien, S. (2021). Screening for language and speech delay in children under five years. *BMC pediatrics*, *21*(1), 1-7.]	Spanish	Qualitative data collection and quantitave methods	Children with speech and language delays	18 parents and 69 children	2-3 years old
6.	Marshall, J., & Lewis, E. (2014). 'It's the way you talk to them.'The child's environment: Early Years Practitioners' perceptions of its influence on speech and language development, its assessment and environment targeted interventions. *Child language teaching and therapy*, *30*(3), 337-352.	English	Qualitative Design	People who work by interacting with children	12	5 years 11 months
7.	Lawrence, R., & Bateman, N. (2013). 12 minute consultation: an evidence-based approach to the management of a child with speech and language delay. *Clinical Otolaryngology*, *38*(2)	English	Systematic Review	Children with speech and language delays	20 literature	Early childhood

	, 148-153.					
8.	Salunkhe, S., Bharaswadkar, R., Patil, M., Agarkhedkar, S., Pande, V., & Mane, S. (2021). Influence of electronic media on speech and language delay in children. *Medical Journal of Dr. DY Patil University*, *14*(6), 656-661.	India	Cross Sectional Study	Parents	425	6 months - 6 years
9.	Çiçek, A. U., Akdag, E., & Erdivanli, O. C. (2020). Sociodemographic characteristics associated with speech and language delay and disorders. *The Journal of Nervous and Mental Disease*, *208*(2), 143-146.	Turkey	Cross Sectional Study	Parents and child	228	2 – 6 years old
10.	Olson, K. B., Wilkinson, C. L., Wilkinson, M. J., Harris, J., & Whittle, A. (2016). Texts for talking: evaluation of a mobile health program addressing speech and language delay. *Clinical pediatrics*, *55*(11), 1044-1049.	Spanish	Pilot Interventio n Study	Parents	31	11 months – 3 years
11.	Kumar, A., Zubair, M., Gulraiz, A., Kalla, S., Khan, S., Patel, S., ... & Qavi, M. S. S. (2022). An assessment of risk factors of delayed Speech and Language in children: A cross-sectional study. *Cureus*, *14*(9).	Pakista n	Cross Sectional Study	Parents and child caregiver s	150	2-11 years old
12.	Muluk, N. B., Bayoğlu, B., & Anlar, B. (2016). A study of	Turkey	Analytical Cross Sectional	Children	505	5 – 27 months

	language development and affecting factors in children aged 5 to 27 months. *Ear, Nose & Throat Journal*, *95*(1), 23-29.					
13.	Almekaini, L. A., Zoubeidi, T., & Albustanji, Y. (2017). Screening for speech-language development in Emirati toddlers. *J Psychol Cognition. 2017; 2 (1): 26-31. J Psychol Cognition 2017 Volume 2 Issue 1*, *27*, 1-5.	United Arab Emirates	Cross Sectional, Community Based Study	Children	152	18 – 36 months
14.	Wallace, I. F., Berkman, N. D., Watson, L. R., Coyne-Beasley, T., Wood, C. T., Cullen, K., & Lohr, K. N. (2015). Screening for speech and language delay in children 5 years old and younger: a systematic review. *Pediatrics*, *136*(2), e448-e462.	United States of America	Systematic Review	Children with detected speech and language delays	31 literature	Children up to 5 years old
15.	Saeed, H. T., Abdulaziz, B., & Al-Daboon, S. J. (2018). Prevalence and risk factors of primary speech and language delay in children less than seven years of age. *J Community Med Health Educ*, *8*(2), 608.	Iraq	Cross Sectional Study	Children	353	< 7 years old

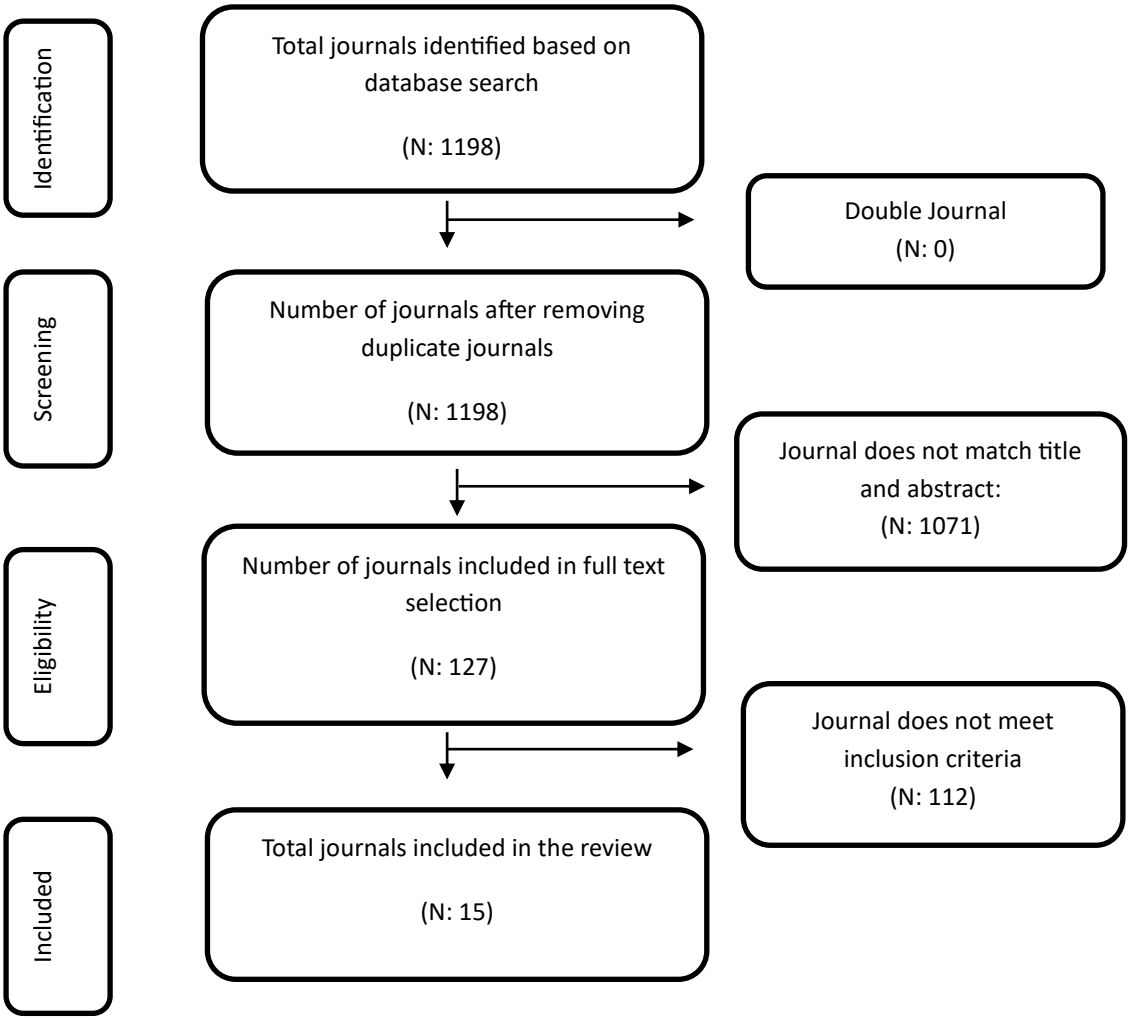
There were 20 studies included. There were 8 studies using cross sectional methods, 1 experimental design, 2 systematic reviews, 1 qualitative design, 1 qualitative data collection and quantitative methods and 1 pilot intervention study. The studies were published based on different geographical areas, including: 1) Saudi Arabia, 2) Argentina, 3) Indonesia, 4) England, 5) Spain, 6) India, 7) Turkey, 8) Pakistan, 9) United Arab Emirates, 10) United States, and 11) Iraq. The review sample included a total of 3280, including parents, caregivers, people who work by interacting with children, and early childhood.

Of these 15 journals, research on speech delay and language delay in early childhood was studied in several states. Research conducted in the Asian continent as many as 7 journals, namely Saudi Arabia, Indonesia, India, Turkey, Pakistan, United Arab Emirates, and Iraq. There is 1 research journal conducted in the South American continent, namely Argentina. Then, there are 2 studies conducted on the European continent,

namely the UK and Spain. And, there is 1 research journal conducted on the North American continent, namely the United States.

All of the above literature was chosen by the researcher as the literature used in this study because it has met the predetermined criteria, namely explaining the factors, impacts, and prevention of speech and language delays in children. The literature is research with qualitative and quantitative methods, studies, systematic reviews, and meta-analyses. The subjects studied were early childhood, and the literature was written in English and published in international journals indexed by Scopus and Scholar.

PRISMA Graph of Journal Selection Flow



3. Influence Factors, Impact and Interventions

Communication is the exchange of information through speaking, writing and other media (Kumar, 2022). Problems with communication or oral motor function are called speech and language disorders. When a child's speech is difficult to understand and comprehend, or does not reach what is expected at a certain age, it can be said to be a speech and language delay. It is thought that toddlers may have a speech and language delay when they are between 24 to 30 months old and have a vocabulary development of <50 words, and no combinatorial speech (O'Hare, 2018). Early identification of speech and language delay in children will be helpful in terms of timely intervention or treatment and more likely to be able to prevent the impact that may be caused (Debata, 2019).

Childhood speech and language delay is a common developmental disorder associated with chronic impairments in academic achievement, social functioning and emotional health. Children with speech and language delays are at increased risk for learning and reading disabilities, behavioral and psychosocial adjustment difficulties, which may persist into adulthood. These delays affect up to 15% of 2-year-old children (Beitchman, 1996).

Speech and language difficulties are called primary if the cause is unknown, and secondary if they are caused by other conditions such as hearing and neurological disorders, developmental, behavioral or emotional difficulties. Therefore, children need to be screened to determine if there is a possibility of speech, language or hearing delays (Kumar, 2022). This systematic review will show the various factors that may influence the likelihood of speech and language delay, the possible effects, and the preventive measures that can be taken to avoid speech and language delay.

No.	Source	Influencing Factors	Impact	Prevention
1.	Al-Fadhli, K. Y., & Al-Bunaian, N. (2017). Prevalence and social influences of delayed language development in preschool-age Saudi children. *Int J Sci Res*, *6*(8), 1712-1720.	Male gender, family history of language delays, less time spent with mothers, and more than 2 hours of TV or electronic device use per day.	Cognitive decline and learning problems in children.	Correcting the misconception that language can be learned through screens, reaffirming the importance of interaction between parents and their children and the potential negative impacts of screen exposure.
2.	Blumenfeld, A., Carrizo Olalla, J., SI DA, G. N., Sadras, Y., & Graizer, S. (2018). Language development delay in 24-month-old children at a health care center of the City of Buenos Aires. *Arch Argent Pediatr*, *116*(4), 242-7.	Families with a history of speech delays; children with problematic behaviors.	Inhibiting children's academic achievement; and cause children to experience emotional difficulties.	Applying speech therapy to children
3.	Kamal, M., & Salahuddin, N. S. (2020). Gadget as risk factor to speech and language delay in autism children.	Intensity of Gadget Use	Children can develop autism	Parents are expected to play an active role in supervising and accompanying children in using gadgets, both the intensity of use, frequency, and the selection of games and educational applications. Also, providing stimulation with various kinds of learning and

				enrichment that are positive and beneficial for children.
4.	Gibbard, D., & Smith, C. (2016). A transagency approach to enabling access to parent-based intervention for language delay in areas of social disadvantage: A service evaluation. *Child Language Teaching and Therapy*, *32*(1), 19-33.	Effects of social losses (social and geographical factors).	Children are vulnerable to low academic achievement.	Early intervention; improve the interaction between children and parents.
5.	Jullien, S. (2021). Screening for language and speech delay in children under five years. *BMC pediatrics*, *21*(1), 1-7.]	Gender factor; family members with a history of speech delay; lower level of parental education; and various prenatal risk factors.	Cognitive and academic decline of the child; and social and emotional problems.	Conducting early identification/detection and early stage intervention; supervise child development; and identification of risk factors for speech delays.
6.	Marshall, J., & Lewis, E. (2014). 'It's the way you talk to them.'The child's environment: Early Years Practitioners' perceptions of its influence on speech and language development, its assessment and environment targeted interventions. *Child language teaching and therapy*, *30*(3), 337-352.	Environmental influences on the child (the people around the child and how they relate to each other, physical objects and the environment, hearing, and opportunities available to the child).	Cognitive and academic decline of the child; and social and emotional problems.	Provide a sense of security to children; paying attention; giving permission to the child to explore his environment; and increase parental awareness to provide early learning to children (teach children words), interact and play with children.
7.	Lawrence, R., & Bateman, N. (2013). 12 minute consultation: an evidence-based approach to the management of a child with speech and language delay. *Clinical*	Hearing loss and syndromes (such as Down syndrome).	Adverse effects on literacy; educational achievements; and problems in psychosocial developmen	Improve diagnosis facilities and enable early detection and intervention.

	Otolaryngology, *38*(2), 148-153.		t.	
8.	Salunkhe, S., Bharaswadkar, R., Patil, M., Agarkhedkar, S., Pande, V., & Mane, S. (2021). Influence of electronic media on speech and language delay in children. *Medical Journal of Dr. DY Patil University*, *14*(6), 656-661.	Duration of use of electronic media	Experiencing psychosocial development problems. Also, there is a possibility that the child will have ADHD.	Limit the duration of electronic media use in children.
9.	Çiçek, A. U., Akdag, E., & Erdivanli, O. C. (2020). Sociodemographic characteristics associated with speech and language delay and disorders. *The Journal of Nervous and Mental Disease*, *208*(2), 143-146.	Low income, absenteeism/non-participation from preschool education, low maternal education, having two or more siblings, late birth order, family history of speech and language delays/impairments, premature birth, low birth weight, and birth complications or lack of support during the neonatal period.	Allows children to experience behavioral and emotional disorders.	Providing education to parents and prospective parents about the importance of providing preschool education to children. Also, it is hoped that a mother will be able to improve her education level.
10.	Olson, K. B., Wilkinson, C. L., Wilkinson, M. J., Harris, J., & Whittle, A. (2016). Texts for talking: evaluation of a mobile health program addressing speech and language delay. *Clinical pediatrics*, *55*(11), 1044-1049.	Social status Low economy	The child will experience long-term academic and psychosocial disorders; and emotional disturbances.	Providing access to services at a more affordable cost; providing developmental education to parents of children.
11.	Kumar, A., Zubair, M., Gulraiz, A., Kalla, S., Khan, S., Patel, S., ... & Qavi, M. S. S.	Family with a history of speech delay; prolonged finger	Children have developmental	Increasing literacy in parents; provide knowledge that maternal

	(2022). An assessment of risk factors of delayed Speech and Language in children: A cross-sectional study. *Cureus*, *14*(9).	sucking habits; male gender; oropharyngeal anomalies; hearing problems; and middle ear infections.	difficulties; difficulties in literacy; decreased IQ in children.	participation and education will greatly affect the development of children's communication; increase children's motivation to speak from an early age; provide elaborative comments; reciting fairy tales; and involve children in reading.
12.	Muluk, N. B., Bayoğlu, B., & Anlar, B. (2016). A study of language development and affecting factors in children aged 5 to 27 months. *Ear, Nose & Throat Journal*, *95*(1), 23-29.	The mother's education level; socioeconomic status; and gender.	Children will experience adaptive and academic problems.	Conducting early intervention; providing education and increasing literacy related to child development to parents, especially mothers; improve interaction between mother and child; Invite children to talk and teach words to children.
13.	Almekaini, L. A., Zoubeidi, T., & Albustanji, Y. (2017). Screening for speech-language development in Emirati toddlers. *J Psychol Cognition. 2017; 2 (1): 26-31. J Psychol Cognition 2017 Volume 2 Issue 1*, *27*, 1-5.	The language exposure obtained tends to be minimal. As well as the influence of the location where the child lives, children who live in semi-urban and rural areas have a greater possibility of experiencing speech and language delays.	Children can experience learning problems.	Provide community-based services. As well as strengthening parental support for the healing process of children who experience speech and language delays.
14.	Wallace, I. F., Berkman, N. D., Watson, L. R., Coyne-Beasley, T., Wood, C. T., Cullen, K., & Lohr, K. N. (2015). Screening for speech and language delay in children 5 years old	Male gender, families with a history of speech and language delays/disorders, and low parenting style.	Allows children to experience academic disorders such as difficulties in learning.	Screening children at an early age and providing treatment to children who experience delays/disorders. As well as providing training to parents regarding the

	and younger: a systematic review. *Pediatrics*, *13 6*(2), e448-e462.			handling of children with speech and language delays, which is carried out by professionals.
15.	Saeed, H. T., Abdulaziz, B., & Al-Daboon, S. J. (2018). Prevalence and risk factors of primary speech and language delay in children less than seven years of age. *J Community Med Health Educ*, *8*(2), 608.	Male gender, negative home environment and family history with speech and language delays.	They are at high risk of academic failure, as well as behavioral and social problems.	It is highly recommended to carry out early detection in children.

Based on the 15 journals above, it is known that there are 7 journals that state that family history with speech and language delays is a factor affecting speech and language delays (Al-Fadhli & Al-Bunaian, 2017; Blumenfeld et al., 2018; Jullien, 2021; Cicek et al., 2020; Kumar et al., 2022; Wallace et al., 2015; Saeed et al., 2018). 5 journals mention gender (Al-Fadhli & Al-Bunaian, 2017; Jullien, 2021; Wallace et al., 2015; Kumar et al., 2022; Saeed et al., 2018). 4 journals discuss the influence of the social and economic environment (Gibbard & Smith, 2016; Olson et al., 2016; Cicek et al., 2020; Muluk et al., 2016). 3 journals identified the intensity of gadget use (Kamal & Salahuddin, 2020; Salunkhe et al., 2021; Al-Fadhli & Al-Bunaian, 2017). 3 journals mention the low level of parental education (Jullien, 2021; Cicek et al., 2020; Muluk et al., 2016). Also, 2 journals explained that hearing loss is a factor influencing speech and language delays (Lawrence & Bateman, 2013; Kumar et al., 2022).

In the categorization of the impact of speech and language delays, it is known that there are 4 journals stating that cognitive and academic decline is the impact experienced by children with speech and language delays (Al-Fadhli & Al-Bunaian, 2017; Gibbard & Smith, 2016; Marshall & Lewis, 2014; Olson et al., 2016). 3 journals mention social and emotional problems (Marshall & Lewis, 2014; Jullien, 2021; Cicek et al., 2020). 2 journals identified literacy and psychosocial development (Lawrence & Bateman, 2013; Salunkhe et al., 2021). Also, the risk of experiencing autism and ADHD as a result of speech delays and language delays (Cicek et al., 2020; Saeed et al., 2018).

Furthermore, in the categorization of interventions on speech delays and language delays, that things that can be done based on the 15 journals include 4 journals recommending early intervention as a preventive measure (Gibbard & Smith, 2016; Jullian, 2021; Lawrence & Bateman, 2013; Muluk et al., 2016). 4 journals recommend education and improving parental literacy as important steps (Olson et al., 2016; Cicek et al., 2020; Kumar et al., 2022; Muluk et al., 2016). 3 journals emphasize the importance of supervising the use of gadgets (Kamal & Salahuddin, 2020; Salunkhe et al., 2021 Al-Fadhli & Al-Bunaian, 2017). 3 Journals emphasize the importance of screening and early detection (Jullien, 2021; Wallace et al., 2015; Saeed et al., 2018). Also, 1 journal suggested speech therapy for children with speech delays and language delays (Blumenfeld et al., 2018).

Through this categorization, it can be seen that these studies provide comprehensive insights into the factors that influence speech and language delays in early childhood, the impact they have, and the preventive measures that can be taken.

Discussion

This research highlights the importance of early detection and intervention in young children with speech and language delays. This systematic review was conducted in an effort to be able to answer the research questions that have been asked, namely what are the factors that cause speech and language delays in

children, the impact, and the interventions. The question was then answered through several journals which can be seen in the table above, it is known that the factor of having a family with a history of speech delay and language delay is the factor with the greatest possibility in influencing speech delay and language delay in early childhood. Followed by gender, that the male gender more often experiences speech and language delays, compared to female children.

Social and economic factors, including parental education and home environment can also contribute to speech and language development in early childhood. Interventions such as conducting routine child check-ups, improving maternal education on child development, and parental involvement in activities that support children's speech and language development have been shown to be effective in reducing or preventing speech and language delays.

These influencing factors can allow children to experience several adverse effects such as developmental delays; Decreased cognitive abilities and learning problems in children; Inhibit children's academic achievement; Difficulties in literacy; Decreased IQ in children; Causes poor reading skills in children; At risk of social problems and social adjustment in children such as impaired interaction with peers; Causes children to experience emotional difficulties; And at risk of experiencing ausitme and ADHD.

At the stage of child development, children aged 3-4 years generally have enthusiasm in speaking, have great curiosity, such as telling their experiences to parents or others around them. Although they have high enthusiasm in speaking, they are not yet able to compose words properly. Language development is one of the things that children must have, according to the age stages that should be. Child development takes place over a lifetime and is influenced by various interrelated factors such as biological, cognitive, and socioemotional. Language allows children to translate experiences and feelings into symbols that can be used when speaking and thinking (Otto, 2015). So it is important for children to go through this stage of development well and the need for more attention from parents to be able to monitor and support children's speech and language development.

Some things that parents can do in preventing children from experiencing speech and language delays are, parents are expected to play an active role in supervising and accompanying children in using gadgets, both the intensity of use, duration, frequency, and selection of educational games and applications. As well as, providing stimulation with a variety of learning and enrichment that is positive and beneficial for children; Correcting the misconception that language can be learned through screens, reaffirming the importance of interaction between parents and children; Implementing speech therapy in children; Conducting early identification/detection and early stage intervention; conducting child development monitoring; and identifying risk factors for speech delay; Providing a sense of security for children, giving attention, giving permission for children to explore their environment and increasing parents' awareness to provide early learning to children (teaching children words); As well as, interacting and playing with children.

Furthermore, it is strongly recommended to increase literacy in parents; Provide knowledge that mother's participation and education will greatly affect the development of children's communication; Increase children's motivation to speak from a young age, provide elaborative comments; read fairy tales; and involve children in reading; As well as, Provide education to parents and prospective parents about the importance of providing preschool education for children. Then, suggestions can be given to the local government to be able to improve diagnosis facilities; Provide access to services at a more affordable cost; Provide developmental education to parents; Screen children at an early age and provide treatment for children who experience delays / disorders. As well as providing training to parents on handling children with speech and language delays, conducted by professionals.

Conclusion

Speech delay and language delay refer to a condition where the development of a child's speech and language skills develops more slowly than their peers. Speech and language delay is a complex problem with various influencing factors and impacts that significantly affect children's development. Genetic factors

and the socioeconomic environment are factors that can play an important role in the possibility of speech and language delays in early childhood. Through the results of this systematic review, it can be seen that speech and language delays have a significant impact on child development, especially cognitively, socially and emotionally. Parental involvement and early intervention are essential to reduce the risk and negative impact of speech and language delay. This systematic review uses early childhood subjects, so at this age the role of parents is very important in controlling and helping children get good language development as expected. It is also important for parents to increase their knowledge about speech and language development in children, and the need to conduct routine checks starting from pregnancy.

Discussion

In the clinical and educational context, the results of this study have important implications. Early detection through developmental screening in children needs to be integrated in the child health system, especially in early childhood. Providing education and training to parents, especially mothers, is important to teach the importance of providing speech and language stimulation to children at home. Intervention programs that involve parents and children in activities such as reading, story telling, or playing together can help accelerate speech and language development in children. Further research is needed to understand the interaction between genetic and environmental factors and to develop more effective intervention strategies. This study also emphasizes the importance of collaboration between parents, health workers, and educators in supporting optimal child development.

Statement

Acknowledgments

Thank you to the lecturers of the Developmental Psychology course, Mrs. Prof. Dr. Iswinarti, M.Si, Mrs. Ni'matuzahroh, M.Si., Ph.D., and Mr. Surahman who have shared and taught their knowledge about preparing a good systematic review that can benefit many people. And I would like to thank my parents and siblings, my friends who always accompany, help, and support me until the preparation of this systematic review can run well and properly.

Reference

1. Al-Fadhli, K. Y., & Al-Bunaian, N. (2017). Prevalence and social influences of delayed language development in preschool-age Saudi children. *Int J Sci Res*, *6*(8), 1712-1720.
2. Almekaini, L. A., Zoubeidi, T., & Albustanji, Y. (2017). Screening for speech-language development in Emirati toddlers. *J Psychol Cognition. 2017; 2 (1): 26-31. J Psychol Cognition 2017 Volume 2 Issue 1*, *27*, 1-5.
3. Beitchman, J. H., Wilson, B., Brownlie, E. B., Walters, H., Inglis, A., & Lancee, W. (1996). Long-term consistency in speech/language profiles: II. Behavioral, emotional, and social outcomes. *Journal of the American Academy of Child & Adolescent Psychiatry*, *35*(6), 815-825.
4. Blumenfeld, A., Carrizo Olalla, J., SI DA, G. N., Sadras, Y., & Graizer, S. (2018). Language development delay in 24-month-old children at a health care center of the City of Buenos Aires. *Arch Argent Pediatr*, *116*(4), 242-7.
5. Brown, C. M., Beck, A. F., Steuerwald, W., Alexander, E., Samaan, Z. M., Kahn, R. S., & Mansour, M. (2016). Narrowing care gaps for early language delay: A quality improvement study. *Clinical pediatrics*, *55*(2), 137-144.
6. Çiçek, A. U., Akdag, E., & Erdivanli, O. C. (2020). Sociodemographic characteristics associated with speech and language delay and disorders. *The Journal of Nervous and Mental Disease*, *208*(2), 143-146.
7. Debata, P., Kumar, J., & Mukhopadhyay, K. (2019). Screening for language delay between 6 months and 3 years of corrected age in very low birth weight children. *Indian Pediatrics*, *56*, 481-484.
8. Gibbard, D., & Smith, C. (2016). A transagency approach to enabling access to parent-based intervention for language delay in areas of social disadvantage: A service evaluation. *Child Language Teaching and Therapy*, *32*(1), 19-33.

9. Jullien, S. (2021). Screening for language and speech delay in children under five years. *BMC pediatrics*, *21*(1), 1-7.]
10. Kamal, M., & Salahuddin, N. S. (2020). Gadget as risk factor to speech and language delay in autism children.
11. Kitchenham, B., Pretorius, R., Budgen, D., Brereton, O. P., Turner, M., Niazi, M., & Linkman, S. (2010). Systematic literature reviews in software engineering–a tertiary study. *Information and software technology*, *52*(8), 792-805.
12. Korpilahti, P., Kaljonen, A., & Jansson-Verkasalo, E. (2016). Identification of biological and environmental risk factors for language delay: The Let's Talk STEPS study. *Infant Behavior and Development*, *42*, 27-35.
13. Kumar, A., Zubair, M., Gulraiz, A., Kalla, S., Khan, S., Patel, S., ... & Qavi, M. S. S. (2022). An assessment of risk factors of delayed Speech and Language in children: A cross- sectional study. *Cureus*, *14*(9).
14. Lawrence, R., & Bateman, N. (2013). 12 minute consultation: an evidence-based approach to the management of a child with speech and language delay. *Clinical Otolaryngology*, *38*(2), 148-153.
15. Marshall, J., & Lewis, E. (2014). 'It's the way you talk to them.'The child's environment: Early Years Practitioners' perceptions of its influence on speech and language development, its assessment and environment targeted interventions. *Child language teaching and therapy*, *30*(3), 337-352.
16. McLaughlin, M. R. (2011). Speech and language delay in children. *American familyphysician*, *83*(10), 1183-1188.
17. Maulana, M. S. (2020). RISK OF LANGUAGE DELAY IN TODDLERS WITHPROLONGED SCREEN TIME: EVIDENCE BASED CASE REPOR. *JECIES: Journal of Early Childhood Islamic Education Study*, *1*(1), 34-48.
18. Muluk, N. B., Bayoğlu, B., & Anlar, B. (2016). A study of language development and affecting factors in children aged 5 to 27 months. *Ear, Nose & Throat Journal*, *95*(1), 23-29.
19. O'Hare, A., & Bremner, L. (2015). Management of developmental speech and language disorders: Part 1. *Archives of disease in childhood*, archdischild-2014.
20. Olson, K. B., Wilkinson, C. L., Wilkinson, M. J., Harris, J., & Whittle, A. (2016). Texts for talking: evaluation of a mobile health program addressing speech and language delay. *Clinical pediatrics*, *55*(11), 1044-1049.
21. Otto, B. (2015). Perkembangan bahasa pada anak usia dini. *Jakarta: Kencana*.
22. Saeed, H. T., Abdulaziz, B., & Al-Daboon, S. J. (2018). Prevalence and risk factors of primary speech and language delay in children less than seven years of age. *J Community Med Health Educ*, *8*(2), 608.
23. Salunkhe, S., Bharaswadkar, R., Patil, M., Agarkhedkar, S., Pande, V., & Mane, S. (2021). Influence of electronic media on speech and language delay in children. *Medical Journal of Dr. DY Patil University*, *14*(6), 656-661.
24. US Preventive Services Task Force. (2006). Screening for speech and language delay in preschool children: recommendation statement. *Pediatrics*, *117*(2), 497-501.
25. Wallace, I. F., Berkman, N. D., Watson, L. R., Coyne-Beasley, T., Wood, C. T., Cullen, K., & Lohr, K. N. (2015). Screening for speech and language delay in children 5 years old and younger: a systematic review. *Pediatrics*, *136*(2), e448-e462.
26. Vrinda, R., Krishna, A. R., & Kunnath, S. K. (2021). Appropriate screen time use to prevent speech and language delay in toddlers during the Covid-19 pandemic: a brief report. *Disability, CBR & Inclusive Development*, *32*(4), 155-164.