



A CASE STUDY OF FACTORS INFLUENCING SPEECH DELAY IN TODDLERS

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ABSTRACT

The problem of speech delay in children is quite a serious problem because it is one of the most common causes of developmental disorders found in male toddlers. Children can be said to have speech delays when the level of speech development is below the level of speech development quality of children of the same age which can be seen from the accuracy of word use. This study focuses on what are the dominant factors in cases of speech delay in toddlers. This study uses a qualitative method with a case study approach. The unit of analysis is speech delay. The subjects in this study were five male toddlers and one female toddler who experienced speech delays. The informants in this study numbered four people consisting of five parents and one sister of the subject. Data collection techniques used interviews, observations, and supporting documentation to strengthen the truth of the data taken. The results of the data analysis showed that the cause of speech delay in children was due to the duration of gadget use, as well as the communication style between parents and children. The implications of this study can help in early identification of speech delays in toddlers, so that intervention can be carried out earlier.

Keywords : *Factor, Speech Delay, Toddler*

INTRODUCTION

Speech is a stage of development that has started since infancy. Child development is the process of change in a child towards the stage of maturity of physical and psychological functions that occur within a certain period of time. One of the stages of development in children is the process of speech development. Speech development is one form of child development by making sounds as an expressive form that wants to be shown such as articulation, fluency, and clarity in speaking (Agus, 2022).

The stage of speech development must be considered as early as possible, because this can be used as a parameter for the presence or absence of developmental disorders in children. Speaking not only involves the coordination of different muscle groups of sound mechanisms, but also has a mental aspect, namely the individual's ability to associate meaning with the

sounds produced. However, not all sounds made by children can be considered as speech (Kurniawan & Kasmianti, 2020).

During the 1-2 month stage babies are already cooing when interacting with their caregivers using sounds such as 'goo...', 'oo...', or 'coo...'. Babies around 3-9 months old begin to babble and combine consonant-vowel combinations such as 'ma...ma...ma...' or 'pa...pa...pa...'. By 10 months old, the baby is able to imitate speech (echolalia). Children say their first words between 10-15 months of age. A typical 13-month-old baby has a vocabulary of 50 words. By 18 months, babies can say 50 words and combine two words, such as 'drink milk', 'mama Kiki', and 'Ita's bike'. At two years old, babies can say 200 words. Three-year-olds have about 1,000 vocabulary words, of which about 80% are spoken clearly including unfamiliar terms. When the child is 4-5 years old, spoken sentences are already composed of 4-5 words, and the child can use prepositions. Children aged 5-6 years already use 6-8 words in their sentences. Papalia reveals that children at this age usually have a spoken vocabulary of about 2,600 words and understand more than 20,000 words. Children can also use conjunctions, articles, prepositions, and explain the meaning of basic words. They also understand opposites. (Soetjiningsih, 2018).

In fact, not all children experience appropriate development. Some children have speech impairments where their speech is inappropriate or below that of other children their age. There are children who are 5 years old but can only speak using 2 words, even then it is still unclear. In addition, there are also 5-year-old children who cannot pronounce words clearly at all, still imitating the sounds they hear, and some are still babbling. This is an indication of delays in children.

In general, it can be seen that the ability to speak of a child with another child is different. One form of disturbance in children's speech development is articulation disorders, according to Endang Rusyani, articulation is the movement of the speech muscles used to speak. Articulation disorders can be in the form of replacing one sound with another or even into a form of sound with a different meaning. For example, 'car' becomes 'obin', or rainbow becomes 'telangi'. A child with an articulation disorder is classified as a child with a speech delay. Hockenberry & Wilson suggest that speech disorders have various forms and causes (Endang, 2020).

One of the phases that will be passed during the child development process is when the child enters the golden age. The golden period of children is referred to as the golden age or golden age is the period in which the child's brain experiences the fastest development throughout the history of life. Suyadi stated that the golden period takes place when the child is in the womb until early childhood, namely 0-6 years. However, the period from the baby in the womb to birth, until the age of 4 (four) years, is the most decisive. This period is referred to as the golden period, or better known as the golden age where children's brain development occurs very rapidly (Endang, 2020).

Meaningful language and speech development begins towards the end of 1 year of age. The most rapid progress in language and speech is typically made

during the preschool years, when children begin to experience a wide range of other critical developmental changes. Communication is highly dependent on vocalisation, the development of language and speech patterns with the development of interpersonal relationships. Thus, speech difficulties may arise from tensions in the inter-personal field, particularly those that occur during the preschool years. In addition, language and speech difficulties may be caused by organic factors, such as incorrect shape of the mouth or other parts of the speech apparatus, or nerve damage (Arnianti, 2019).

In the golden age the human brain is still very elastic, allowing a child to acquire a first language easily and quickly. Maria Montessori states that children's brains at an early age or in the golden age are like sponges that can absorb various information provided by the people around them including bilingual language so that parents think that providing various languages in early childhood makes them have more ability to process words in various languages. In terms of development, AUD (early childhood) is the most important growth period because it determines the next development period (Kurniawan & Kasmianti, 2020).

Hurlock explains that speech delay in children is when the level of speech development is below the level of quality of speech development of children of the same age which can be seen from the accuracy of word use. (Soetjningsih, 2018). There are many factors that influence speech delay, the most common of which are low levels of intelligence which can make it impossible for children to learn to speak as well, and lack of motivation as children learn that they can communicate adequately with pre-speech forms of parental encouragement to continue using 'baby language'. Preschool-aged children with speech or language difficulties account for three per cent, mostly boys. Delayed language and speech development can impact a child's overall cognitive, social and emotional development, due to the fact that people prefer to view children with speech delays negatively.

The American Academy of Pediatrics (AAP) explains that speech delays can impact a child's ability to interact with peers, understand instructions at school, and express themselves clearly. This can cause problems in the development of children's reading and writing skills. Speech delay in children is one form of speech disorder that has been proposed by many experts. Children with speech delay can be detected based on the conditions that occur in children. The general description of children with speech delay in this study is that the child's ability to use his or her speech is slower than his or her peers (Nurul, 2019).

Factors that can affect a child's development in speech include intelligence, type of discipline, order position, family size, socioeconomic status, racial status, bilingualism, and gender role classification. According to Piaget's theory, speech delays in children can be influenced by their stage of cognitive development, where children may not have reached the stage of concrete operations required for complex speech. Meanwhile, according to Vygotsky, social and environmental factors play an important role in children's speech

delay, with social interaction and the role of adults in helping children develop speech.

THEORETICAL FOUNDATION

A. Talk

According to Hurlock, speech is a form of language using articulation or words to convey something to others. Because speech itself is an effective means of communication, its use is also the most widespread and most important. Jakobson argues that 'everyone has the brain to speak, but almost half the world's population is totally illiterate, then the use of reading and writing is the merit of only a few people' (E, Zubaedah, 2019).

According to Hurlock, speaking can be acquired by children by: (a) imitation, which is observing a model either from peers or from older people; and (b) training, which is with guidance from adults. The important things that need to be prepared in learning to speak are: physical preparation to speak, mental readiness to speak, good models to imitate, opportunities to practice, motivation and guidance. Early childhood is generally a time of rapid development in learning to speak, namely increasing vocabulary, mastering word pronunciation and combining words into sentences (Karlina et al., 2018)..

Santrock also explained that language is a form of communication that is done orally, in writing, and gestures based on symbols. Language consists of words that are combined with various variations using rules in compiling into a sentence (Fitriah, 2017).

Hildebrand explains the development of speech is to produce a verbal sound. In terms of paying attention to the results of speech is the ability to hear and make verbal sounds. Pronunciation is an important factor in speech. The ability to speak when children are able to combine words into statements and questions. This is the child's process in forming communication in speaking and thinking broadly in creativity. Children easily develop language when they understand words, and learn the vocabulary needed to communicate. For example, with nouns, adjectives, adverbs of time, this ability will be obtained in everyday life (Hasryanti, 2023).

According to Smilansky, the three functions of language in children are imitating adult speech, imagining situations, and organising games. Based on the explanation above, it can be concluded that speaking is a communication process that involves the use of spoken language to convey messages or information between individuals and groups.

B. Speech Delay

According to Hurlock (2013), Speech Delay is a general term that refers to the process of delay in speech and language that is not in accordance with the age of child development. Some parents consider speech delay as a normal condition experienced in the process of child development. It can be said that a child has a speech delay if the level of development is below the quality of

development in children of the same age. If when their peers speak using words, while the child continues to use gestures and baby talk, then such children are considered by others to be too young to play with. Papalia explains that late talkers are children who at the age of 2 years have a tendency to mispronounce words, then have poor vocabulary at the age of 3 years, or also have difficulty in naming objects at the age of 5 years. And children like that, later have a tendency to be unable to read.

According to Hurlock (2013) it is said that speech is delayed if the level of speech development is below the level of quality of speech development of children of the same age which can be known from the accuracy of word use. If when their peers speak using words, while the child continues to use gestures and baby talk, then such children are considered by others to be too young to play with.

RESEARCH METHODS

The type of research used in this research is qualitative research with a case study approach. The type of case study used in this research is an intrinsic case study type, the type of data used in this research is primary data.

The selection of subjects in this study was carried out using purposive sampling technique, namely criterion sampling. Criterion sampling Data Collection Techniques Semi-structured Interviews, Observation, Documentation Data analysis techniques in this study are three namely data reduction, data presentation, and conclusion drawing. Data validation Validation is carried out based on the certainty and accuracy of the research results. Both from the point of view of researchers, respondents, and readers. In this study, data validation was carried out with 2 strategies, namely (Creswell, 2016): A, Data triangulation, which is the process of validating data by collecting various different data sources and then the results can be analysed. B, External auditor, which is in this strategy used in reviewing research results by involving auditors from the beginning of the process to the conclusion of the research.

RESULT

Based on the results of interviews and observations, it can be seen that the subject's ability to speak as a whole is still classified as lower middle class. The following are the results of the research on the subject as follows:

1. Factors Causing Speech Delay

a. Subject O

In this case, O has problems in language development, especially in Indonesian, because the stimulus provided by his parents only uses English, watching YouTube with gadgets, and the child is also sent to an International School, so that the child is more interactive and communicative in English but only YouTube language or language that can be repeated.

The use of gadgets can make children's psychomotor abilities not develop, because at this time children must explore their physicality in a child's play activity. The estrangement of social relationships between parents and children can be triggered by the busyness of each with their gadgets. (Pebriana, 2017). This is in accordance with Soetjiningsih's theory which states that children who lack stimulus in their developmental aspects can interfere with their ability to speak. (Anggun & Rasi, 2020).

b. Subject B

In this case, B has both parents who are equally busy in the world of work. B was more attached to her father than to her mother. Father always brings B to work when he knows no one can look after B while he works, and Mother is not close to B because she does not accept the child's condition from birth to the present. She behaves in an ignorant manner, not caring about how her child develops.

c. Subject A

In the last subject, A, in his current condition he is only able to make easy sounds such as 'aaaa'. From an early age he was known to have problems in his speech development, A's mother and grandmother brought A to be examined by a doctor, because the mother felt something was different from her only child. When she got the results, the doctor advised her to immediately take him to a paediatric speech therapy centre because the hospital she went to did not provide such facilities. Mum brought him to the therapy centre and the therapist did facial exercises, but only once because she felt he could do it at home independently. A's current condition has not changed, due to the lack of stimulus from the closest people. The parenting experienced by A is permissive parenting, where the grandmother spoils A which makes him have no effort to speak, because he feels that the people around him are able to understand what he wants without having to speak first. The results of research by Lanny Wijayaningsih (2018), can be concluded that parents who play a lesser role in stimulating children and lack of interaction, can make children experience speech delay. The parenting style that fits this is neglectful parenting. This parenting style is very low in parental involvement and parental response to children. Parents tend to ignore or let children develop on their own more often. The impact that occurs when children get neglectful parenting is socially incompetent, poor self-control and does not handle independence well. low self-esteem, immature, and may be alienated from the family. In adolescence, they may show a pattern of skipping school and committing crimes'. (Icam, 2021).

If the child's speech delay is treated sooner, there is a higher chance of recovery.

d. Subject AA

In this case, AA had a speech delay due to Fragile X Syndrome and excessive gadget use. Fragile X syndrome is one of the main causes of intellectual delays in children, especially in boys, with a higher prevalence compared to girls.

The journal Psychological Review states that Fragile X syndrome is a genetic disorder that affects almost all aspects of child development, with a particularly significant impact on cognitive function and social behaviour. They identified that although early therapy and intervention can help children with Fragile X syndrome, increased awareness of this genetic disorder is essential to detect the syndrome sooner and provide appropriate support. (Moore & Barley, 2021).

The main symptoms experienced by children with Fragile X Syndrome are speech delays and communication difficulties such as difficulty in articulation or slurred speech. Children with Fragile X syndrome often show difficulties in social interaction, and may appear withdrawn or have difficulty reading social expressions.

Apart from that, gadgets are also one of the factors that cause children to experience barriers in communication. Excessive gadget use can significantly affect a child's language skills, with a greater impact on their speech and communication. This is due to a variety of factors, including the influence of visual media, limited social interaction, and lack of verbal stimulation which is crucial in the child's language development phase.

e. Subject AMR

In this case, AMR is said to have a speech delay due to dyspraxia. Dyspraxia is a developmental disorder that affects motor coordination. It is characterised by difficulty in planning and executing well-coordinated body movements, even though the child has no obvious physical or intellectual limitations.

Diagnostic and Statistical Manual of Mental Disorders (DSM-5), defines dyspraxia or Developmental Coordination Disorder (DCD) as a disorder that affects a child's ability to coordinate body movements in motor tasks, both gross motor (such as running, jumping) and fine motor (such as writing or using utensils). DCD often presents in early childhood, but can continue into adulthood, and has the potential to interfere with various aspects of a child's life, including education and social interactions. (American Psychological Association, 2021).

Children with dyspraxia may appear clumsy or fall over more often than their peers. They can also struggle with activities like running, jumping or climbing stairs. Some children with dyspraxia also have speech delays or difficulty in articulating words, which affects their ability to communicate clearly. Dyspraxia is likely related to abnormalities in the brain, particularly in the parts that regulate motor coordination and movement planning..

Apart from that, gadgets are also certainly one of the factors that hinder children's development. Excessive gadget use reduces a child's opportunity to interact directly with adults or peers, which is crucial for language development. In direct interaction, children can learn to imitate words, hear a variety of vocabulary, and understand the social context of conversations. Without these interactions, children are at risk of speech delays as they are not exposed to enough verbal stimulation. (Christakis et al. 2021).

f. Subject MA

In this case, the child experienced a speech delay due to excessive screen time. This leads to a lack of opportunities for the child to interact with their surroundings. Children who are addicted to gadgets tend to have shorter attention spans and have difficulty focusing on one activity for long periods of time.

In developmental psychology, it has been mentioned that verbal stimulation from adults and peers is an important aspect for early childhood language development. Children who are more frequently exposed to videos or apps on gadgets tend to listen less to conversations and more to pictures or sounds that are not interactive. This reduces children's opportunities to understand language structures and improve their speech. (Lillard & Peterson, 2021).

The Journal of Developmental Psychology adds that excessive gadget use, especially at night, can disrupt children's sleep, which is crucial for cognitive and language development. Inadequate sleep can affect a child's ability to process the information they have learnt throughout the day, including in terms of language acquisition. When children are sleep deprived due to excessive gadget use, the information processing process in the brain is disrupted, which also affects their learning, including speech. (Vandewater et al. 2021).

CONCLUSION

Speech delays in early childhood can be caused by a variety of factors, including environmental, genetic, health, and developmental factors. Environmental factors such as lack of verbal interaction, noisy environment, lack of opportunities to interact with peers, and lack of a good speech model can affect children's speech development. Genetic factors include family history and hereditary factors that can affect a child's speech ability.

The speech development in the six children who experienced speech delay was influenced by various factors, both in terms of the environment, medical conditions, and parenting styles. The first child has speech delays due to exposure to the two languages (bilingual) he learns, which often slows down the process of language mastery at an early age. Children are already able to communicate two-way, children are only able to use 1 word with unclear pronunciation. In addition, excessive use of gadgets further reduces children's time to interact directly with parents or peers, which is very important in

accelerating speech development. Children use gadgets with a duration of more than 12 hours. Direct interaction is limited, so the child's speech ability tends to be slower, both in the first and second languages.

The second child experienced a more complex speech delay, because in addition to being exposed to excessive gadgets, this child also had a short frenulum, which is a condition in which the small band under the tongue is too short, which limits the movement of the tongue when speaking. This inhibits articulation and pronunciation of words clearly, which is one of the obstacles in language development. The child has not been able to make a clear articulation sound. Overused gadgets further exacerbate this delay, as children lack enough verbal stimulation to practice speaking skills. Children use gadgets with a duration of more than 6 hours.

In the third child, the use of gadgets all day leads to a reduction in the time to verbally interact with others, which has a direct impact on language development. Children can only make shouting and buzzing sounds, unable to produce words can only produce vocal consonant letters. This child spends most of his time in front of a screen, watching videos or playing games, without talking much to his parents or peers. Children use gadgets with a duration of more than 6 hours. As a result, the development of children's vocabulary and ability to compose sentences is hampered, and this child's speech tends to be slower compared to children his age.

The fourth child faces speech delays influenced by genetic factors, where there may be a family history of similar problems. Children still use simple words and cannot combine 2 words. Coupled with the duration of excessive gadget use, this child has a delay in the ability to speak. Children use gadgets with a duration of more than 6 hours. These genetic factors can make children slower to develop speech skills, while excessive exposure to gadgets reduces the chances of getting the verbal stimulation needed to overcome the barrier.

The fifth child faces further challenges because he has dyspraxia, a disorder that affects motor coordination needed to speak. Dyspraxia causes children to have difficulty moving their tongue and lips appropriately when speaking, which has a direct impact on articulation and fluency of speech. Children are not yet able to make sounds, unable to speak clearly. When coupled with excessive use of gadgets, this child has difficulty getting enough language stimulation from the surrounding environment, which worsens speech delays. Children use gadgets with a duration of up to a day.

The sixth child, in addition to being exposed to excessive gadgets, also faces challenges in parenting styles. A parent's communication style that is less responsive or ignorant reduces the child's chances of practicing speaking. When parents do not provide much verbal stimulation, children become less motivated to talk or interact actively. The child is already able to combine 2 words but it is not yet a perfect sentence. The child is still upside down when he starts to speak. The long duration of gadgets further exacerbates this problem, as children tend to be isolated from the real conversations needed for optimal

speech development. Children use gadgets with a duration of more than 12 hours.

Overall, factors such as excessive use of gadgets, medical conditions such as short frenulum and dyspraxia, genetic factors, and less responsive parenting styles contributed to the delayed speech development in these six children. More verbal interaction, reduced screen time, and proper medical attention and therapy can help speed up their language development.

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