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ANALYSIS OF FACTORS RELATED TO SPEECH DELAY IN PRESCHOOL CHILDREN IN PAUD MAMPANG PRAPATAN DISTRICT

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Abstract

Background: Pre-school age children should be given stimuli such as carrying out motorized activities that are trained to get stimulation for all aspects of the child's development and prevent developmental disorders in children. In essence, speaking is an aspect of a child's development that starts from birth. Speech Delay is a tendency where children have difficulty expressing desires or feelings to other people, such as not being able to speak clearly, and lack of mastery of vocabulary which makes the child different from other children his age
Purpose: The aim of this research is to analyze the factors that influence speech delay in pre-school age children in PAUD Mampang Prapatan District
Methods: The research method used is Descriptive Analysis using Chi Square test data analysis. The sampling technique will be carried out using the Non Random Sampling technique. The research instrument consisted of the KPSP questionnaire, parental knowledge, frequency of gadget use and parenting patterns.
Result: The research results showed that there was a relationship between the frequency of gadget use and speech delay (p value 0.051), there was a relationship between parenting patterns and speech delay (p value 0.033) and there was a relationship between parental knowledge and speech delay (p value 0.002).
Conclusion: Therefore, the participation of health workers, especially nurses, is needed in studying and analyzing the incidence of speech delay in the aggregate of preschool-aged children

Keywords: Frequency of gadget use, Knowledge, Parenting Patterns, Speech Delay

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Introduction

Pre-school age children are children aged 3 to 6 years. At this age children have great potential to develop. Therefore, pre-school age children should be given stimuli such as carrying out trained motor activities in order to get stimulation for all aspects of the child's development and prevent developmental disorders in children.[1] Speech Delay is a delay in language or speaking. Language disorders are delays in the language sector experienced by a child. A child is said to be late in speaking if at that age his ability to produce sounds and communicate is below the average for children his age. Delayed Speech is a tendency where children have difficulty expressing desires or feelings to other people, such as being unable to speak clearly, and lacking vocabulary mastery which makes the child different from other children his age.[2]

Data from the National Center for Health Statistics (NCHS) parents report that the incidence of speech delays in children is 0.9% in children under 5 years of age, and 1.94% in children aged 5-14 years. Based on direct evaluation results, the incidence rate in school-aged children was 3.8 times higher. It is estimated that developmental disorders in the speech and language sector in children are around 4-5%.[3]

Riskesdas reported that 0.4 million (16%) Indonesian children aged 3-6 years experienced developmental disorders, both fine and gross motor development, hearing loss, reduced intelligence and speech delays.[4] The prevalence of speech and language delays has been reported over a wide range. Based on the Committed in Improving the Health of Indonesian Children released by the Pediatric of Society by the Indonesian Pediatrician Association (IDAI), it is estimated that more than 60% of children who have a history of speech delays will have specific learning difficulties, and if delays in speech and language development are not addressed early, then 40% -75% of children will experience difficulties in reading. The number of pre-schoolers (0-4 years) in Indonesia in 2014 was 9.54% of the entire population.[5]

The result of a delay in speaking is that it will hinder the thinking process. Where children will find it more difficult to practice reading and writing, and it will be difficult to concentrate. From several studies, the consequences that occur next to children are that children will have difficulty managing their feelings, one of which is difficulty expressing the child's own emotions. When children experience speech delays,

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this will have a negative impact on their social life in the future. Worse, children will choose to withdraw from the social environment, have difficulty adapting, and lack self-confidence.[6]

Several factors cause children to experience speech delays, namely minimal interaction with parents, hearing loss, speech organ disorders, autism, brain and nerve problems. Apart from causing children to have difficulty communicating, delays in speaking also make it difficult for parents to understand their children's wishes. Even further, delays in speaking can have serious consequences. Children will very easily have risk factors for mental disorders, such as depression and anxiety.[7]

Method

1. Research design

The design of this research is a quantitative research type. The research design in this research is descriptive analytical research with a case control approach.

2. Setting and samples

This research was carried out in PAUD Mampang Prapatan District. The sample in this research is a case control sample. The case sample is 36 children who experience speech delay and the control sample is 36 pre-school children who do not experience speech delay in PAUD Mampang Prapatan District.

3. Measurement and data collection

The tools used in this research are several research questionnaire instruments whose validity and reliability have been tested. There are 3 parts to the research instrument in this study, namely: Demographic questionnaire (containing questions to obtain mother's identity data and child data), Speech delay questionnaire with KPSP (The questionnaire used is KPSP speech and language. The questionnaire options consist of 4 types of age. Ages 36 months, 48 months, 54 months and 60 months. The questionnaire filled out is appropriate to the child's age. The measurement results obtained if 0 = Yes, cannot do all language and speech development tasks according to age and 1 = No, which means can do development tasks according to age), Gadget frequency factor questionnaire (The answer criteria for using gadgets ≤ 1 hour indicates that the child plays gadgets (laptop, cellphone, tablet, iPad) for less than 1 hour every day. Meanwhile, the answer

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option > 1 hour indicates that the child plays gadgets for more than 1 hour every day), Parenting style factors questionnaire (The questionnaire used for parenting is the Parenting Style Questionnaire (PSQ). The PSQ measuring tool assesses 3 types of parenting patterns, namely authoritative/democratic parenting which consists of 13 questions, authoritarian parenting has 13 questions and permissive parenting has 4 questions. The measuring results on the authoritative/democratic parenting type instrument are 1-60 authoritarian, 61-120 permissive and 121-180 democratic) and Questionnaire on parental knowledge of factors causing speech delay consists of 15 questions with true or false options.

4. Data analysis;

In this research, the data that has been collected is then processed and analyzed using statistical techniques. The data entry and data processing process uses computer software applications using the SPSS program. This research uses two ways to analyze data, namely Univariate and Bivariate data analysis. Univariate analysis aims to explain or describe the characteristics of each research variable. In this univariate data analysis, it can be used to analyze research variables descriptively. Meanwhile, bivariate data analysis was carried out using the Chi Square test.

Results

Univariate Analysis

Table 1
Frequency Distribution of Characteristics of Frequency of Gadget Use among Respondents in PAUD, Mampang Prapatan District, South Jakarta

use of gadgets	frequency	percentage
Abnormal	45	62,5
Normal	27	37,5
Total	72	100

Table 2
Frequency Distribution of Characteristics of Parenting Patterns among Respondents in PAUD, Mampang Prapatan District, South Jakarta

Parenting Patterns	frequency	percentage
Authoritarian	13	18,1
Permissive	35	48,6
Democratic	24	33,3
Total	72	100

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Table 3
Frequency Distribution of Parental Knowledge Among Respondents in PAUD, Mampang Prapatan District, South Jakarta

Parental Knowledge	frequency	percentage
Not good	33	45,8
Enough	21	29,2
Good	18	25
Total	72	100

Bivariate Analysis

Table 4
The Relationship between Frequency of Gadget Use and Speech Delay in Pre-School Children in PAUD, Mampang Prapatan District

use of gadgets	*Speech Delay*						P Value	Odd Ratio
	Yes		No		Total			
	n	%	n	%	N	%		
Abnormal	27	75	18	50	45	62,5	0,051	3,000
Normal	9	25	18	50	27	37,5		
Total	36	100	36	100	72	100		

Table 5
The Relationship between Parenting Patterns and Speech Delay in Pre-School Children in PAUD, Mampang Prapatan District

Parenting Patterns	Yes		No		Total		P Value
	n	%	n	%	N	%	
Authoritarian	9	25	4	11,1	13	18,1	0,033
Permissive	20	55,6	15	41,7	35	48,6	
Democratic	7	19,4	17	47,2	24	33,3	
Total	36	100	36	100	72	100	

Table 6
The Relationship between Parental Knowledge and Speech Delay in Pre-School Children in PAUD, Mampang Prapatan District

Parental Knowledge	Yes		No		Total		P Value
	n	%	n	%	N	%	
Not good	24	66,7	9	25	33	45,8	0,002
Enough	7	19,4	14	38,9	21	29,2	
Good	5	13,9	13	36,1	18	25	
Total	36	100	36	100	72	100	

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Discussion

1. Relationship between frequency of gadget use and speech delay

The results of the research show that there is a relationship between the frequency of gadget use and speech delay in pre-school children in PAUD, Mampang Prapatan District. Based on the results of the chi square test, results were obtained (p value= 0.051) which showed that Ho was rejected (p value <0.05) there was a relationship between the frequency of gadget use and speech delay in pre-school children in PAUD Mampang Prapatan District. In line with Asgaf's (2020) research in Wameo Village, Baubau City. The results of statistical tests using chi square, obtained a value of p = 0.000. The results of this data analysis show that the P value is <0.05. Thus, it can be said that there is a significant relationship between the frequency of gadget use and speech delay.

Another research at TK Negeri Pembina 3 Pekanbaru and the results showed that there was a relationship between gadget use and speech delay and the results of statistical tests using the Chi-Square test were obtained (p value = 0.003).[8] Thus it can be said that there is a relationship between gadget use and speech delay. This is in accordance with Apsari et al that when children are addicted to gadgets, they tend to be lazy about doing activities and are not sensitive to the environment, which can affect the child's level of aggression, behavior patterns and influence their development.[9] This is proven based on incomplete developmental tasks at each stage of the child's age.[10] From the results of the research and theory above, researchers assume that the use of gadgets can cause children to be late in speaking because children only focus on gadgets and do not communicate with their friends so that children cannot practice speech stimulation.

2. Relationship between parenting styles and speech delay

The results of the research show that there is a relationship between parenting patterns and speech delay in pre-school children in PAUD, Mampang Prapatan District. Based on the results of the chi square test, results were obtained (p value= 0.033) which showed that Ho was rejected (p value <0.05), there was a relationship between parenting patterns and speech delay in pre-school children in PAUD, Mampang Prapatan District.

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Another research was conducted by Rohmah et al at PB An-Nur Kindergarten, Tosaren Village, Kediri City and the results showed that there was a relationship between parenting patterns and speech delay and the results of statistical tests using the Chi-Square test were obtained (p value = 0.025).[3] Thus it can be said that there is a relationship between gadget use and speech delay. This is in accordance with research by Lestari that the type of parenting style of parents will influence development, especially in speech and language.[11] As role models, parents are figures who always play an important role in shaping children's development. Accompaniment, appropriate learning, good education at home will be one of the supports for achieving success in fulfilling developmental tasks.

From the results of the research and theory above, researchers assume that the majority of respondents apply parenting patterns in the permissive category. This can be caused by the fact that most parents treat their children based on compassion, so they let their children act as they please without any direction from their parents because the parents feel sorry for their children. Apart from that, the child's parents are less able to understand how to fulfill the child's needs in terms of proper parenting.

3. The relationship between parental knowledge and speech delay

The results of the research show that there is a relationship between parental knowledge and speech delay in pre-school children in PAUD, Mampang Prapatan District. Based on the results of the chi square test, results were obtained (p value = 0.002) which showed that Ho was rejected (p value <0.05), there was a relationship between parental knowledge and speech delay in pre-school children in PAUD Mampang Prapatan District. In line with Zamili's research at PAUD Cempaka Mas Medan. The chi-square test results show that (p value = 0.002), which means Ho is rejected (p value < 0.05), meaning there is a relationship between parental knowledge and speech delay.[12]

Research conducted by Setyaningsih & Anggasari at the Bhakti Siwi Foundation Kindergarten, Soran Village, Klaten Regency, obtained results from statistical tests using Chi Square (p value = <0.001) which showed that Ho was rejected (p value <0.05) there was a relationship Between parental knowledge and speech delay in pre-school children in PAUD, Mampang Prapatan District.[13] Another study conducted by Safitri

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showed that the results of statistical tests showed p value = 0.000 or p<0.05, which means there is a relationship between maternal knowledge and speech delay.[14] This research is in line with the theory which states that sound or verbal stimulation is very effective for the development of intelligence, especially in the field of linguistic or language intelligence, because it can sharply increase the quality and quantity of vocals. If parents respond to their child's chatter verbally, the child will respond back through vocalizations that are of higher quality and are practiced more often. Learning like this will affect children's fluency in practicing speaking or language skills.[12]

As a result of the research and theory above, the researcher assumes that to obtain language development appropriate to the child's age, a high level of maternal knowledge is required, where the mother, as the party who generally has more interaction time with the child, needs to have knowledge about growth and development and how to stimulate it. Good maternal knowledge must also be supported by positive parenting patterns so that children's language development can be appropriate to their age.

Conclusion

There is a significant relationship between gadget use, parenting patterns and parental knowledge with speech delay in pre-school children in PAUD Mampang Prapatan District (P value < 0.05). The community is expected to take part in responding positively to the problem of speech delays in children by utilizing the results of this research. It is hoped that the active role of the community can reduce the impacts that will occur in the future. All PAUD teaching staff in Mampang Prapatan District should also increase their knowledge about stimulation and improve educational skills, by attending seminars on the importance of early childhood education, by reading published articles and books related to early childhood education. Apart from that, the relevant Community Health Centers should also be able to make leaflets, banners, etc., about early development and stimulation in children, especially language, so that they can increase the knowledge of the community. Apart from that, you can also provide training to lay people, especially mothers, about early stimulation of children, especially language.

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