THE INFLUENCE OF GADGETS ON THE INCIDENT OF SPEECH DELAY IN CHILDREN AGED 2-3 YEARS

Sari Mutiara Sukma Dewi1

1STIKES Abdi Nusantara Jakarta
sarimutiarasukmadewi575@gmail.com

ABSTRACT

It is known from 2013 data that 72% of children under the age of 8 have started using mobile devices such as smartphones, tablets and iPods with the majority of children aged 2 years preferring to use tablets and smartphones every day. This figure has doubled compared to 2011 which was only 38%.

Objective: to determine the effect of gadgets on the incidence of speech delays in children aged 2-3 years in the working area of the Pulo Gadung sub-district health center in 2023.

Method: This research uses quantitative research methods with a strengthened case control correlational design. The sample in this study was 130 respondents taken using total sampling techniques. Data analysis used univariate tests and bivariate tests in the form of the Chi-Square test.

Research results: this research shows that the Chi-square test value is a p-value of 0.002, which indicates that H0 is rejected and Ha is accepted.

Conclusion: The influence of gadgets on the incidence of speech delays in children aged 2-3 years was found in the Puskesmas Working Area, Pulo Gadung District.

Suggestion: From this research, it is hoped that the use of gadgets will receive more attention because it affects children's language skills. It is also hoped that parents will limit the use of gadgets with their children.

Keywords: gadgets, speech delay, language skills, children

INTRODUCTION

In Indonesia, the prevalence of speech delays in preschool children is between 5% -10%. Speech delays that occur in children are increasing. Several reports also state that the incidence rate of speech and language disorders ranges from 2.3% -24%.

According to Zelngin-Akkus et al (2018), the estimated prevalence of language delays in preschool age children ranges from 5% to 12%. On the other hand, expressive language delays are reported...
in the range of 13.5% - 17.5% of children aged 18-36 month. Speech delay is caused by several factors, including the use of gadgets (Pranelissia, 2020). As time goes by, children’s play activities with gadgets become difficult to separate. Currently, everyone can make social contact or communicate via gadgets such as computers, laptops, tablets, and smartphones (Novitasari, W & Khotimah, 2016).

Data results in the world since 2013, as many as 72% of children aged under 8 years have started using mobile devices such as smartphones, tablets, and iPods with the majority of children aged 2 years preferring to use tablets and smartphones every day. The figure has doubled compared to 2011 with 38 cases (Fajriana, 2015). Research by Zubaidah (2017) also revealed that Indonesia is a country that actively uses social media with 79.7% of active users. 23% of children use gadgets as a means of playing, while 82% of parents state that they are online at least one day a week. This data shows that it is true that using gadgets is very popular among children, adults, and the elderly.

The causes of delays in speaking in children are due to lack of motivation, minimal speed in conversation or communication, the presence of a foreign language, and the inability of parents to encourage children to speak (Bawono, 2017). Gadgets can prevent children's psychomotor abilities from developing because when children explore their physical abilities in a play activity, children are instead busy with gadgets. The loosening of social relations between parents and children is triggered by each of them being busy with their gadgets (Pelbriana, 2017).

As far as the searches carried out, no similar research has ever been found, the research that has been carried out is "a psycholinguistic study on the language acquisition of speech delayed children aged 2-3 years in sub-district. Ranca bungur district. Bogor" written by Resya Fakhrunnisa in 2023, "The influence of parents’ parenting styles in using gadgets for children on the speech development of children aged 3-4 years in Cibeunying Kidul district" written by Asysyipa nur Azizah et al in 2022, and "The influence of gadgets on early childhood" written by Vivi Yumarni in 2022.

PKM Pulo Gadung Sub-district is one of the health facilities in Pulo Gadung Sub-district. The majority, 55.4% of respondents were 3 years old, 57.2% of respondents were male, 79% of respondents' parents had a secondary education level, and 70.9% of respondents’ parents were high school graduates. The level of gadget use in the high category of cases in the high category was 78.3%, while gadget use in the low-level control group was 71%. Based on the results of preliminary studies that have been carried out, data has been obtained that the number of toddlers aged 2-3 years in the PKM Work Area, Pulo Gadung District is 120 toddlers. Data from the Pulo Gadung Community Health Center also shows that the number of toddlers experiencing speech delay in 2023 will be 60 toddlers. The number of children has experienced an increase compared to 2022 when there were 55 toddlers and in 2021 there were 36 toddlers. The results of interviews with 10 mothers of toddlers revealed that their children had played with gadgets for various reasons, so as not to relax, or to calm their children when they cried. Based on the background above, the author was interested in conducting research entitled "The Influence of Gadgets on the Occurrence of Speech Delay in Children Aged 2-3 Years in the PKM Work Area, Pulo Gadung District".

RESEARCH METHODS
The type of research used in this research is quantitative research with a correlational design attached to a case control. The sample in this study amounted to 130 respondents. The population in this study were all children aged 2-3 years in the work area of the Community Health Center, Pulo Gadung. The sampling technique used was total sampling (Hidayat, 2016).

The samples used were those that met the inclusion criteria, namely 1) Children aged 2-3 years; 2) Physically and spiritually healthy; and 3) Willing to be a respondent. And samples that met the exclusion criteria were not used, namely having physical and mental illness.

The research variable, namely the related variable (delpelndeln) is the incidence of delayed speaking, and the independent variable (indelpelndeln) in this research is the use of gadgets. The location of this research was carried out in December 2023. This research was carried out in the Pologadung sub-district area in 2023. Data Analysis Technique Data processing was carried out using univariate and bivariate tests using the Chi-Square test using the SPSS program.

RESEARCH RESULT
Respondent Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 years</td>
<td>68</td>
<td>52.3</td>
</tr>
<tr>
<td>3 years</td>
<td>62</td>
<td>47.7</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>70</td>
<td>53.8</td>
</tr>
</tbody>
</table>
Based on the above information, it is stated that the level of gadget use in the largest group of cell cases in the category is high, namely 81.6%.

**Intensity of gadget use (control group)**

Distribution of frequency of gadget use (case group) of children aged 2-3 years

<table>
<thead>
<tr>
<th>Use of gadgets</th>
<th>Case Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>3</td>
<td>52</td>
</tr>
<tr>
<td>Currently</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Tall</td>
<td>53</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2023

Based on Table 1 above, it can be stated that the level of gadget use in the 1 group control. The largest cell in the low category is the largest cell 81.5%.

**Language Ability in Children**

Frequency distribution of language abilities in children aged 2-3 years

<table>
<thead>
<tr>
<th>Language skills</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sprachlch delay</td>
<td>65</td>
<td>50</td>
</tr>
<tr>
<td>Normal</td>
<td>65</td>
<td>50</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2023

Based on Table 1 above, it is stated that 50% of children aged 2-3 years in the area of the Public Health Center, Pulo Gadung sub-district have experienced this type of problem. I have.

**The Influence of Gadgets on Speech Delay Events**

The influence of gadgets on the incidence of speech delay in children aged 2-3 years

<table>
<thead>
<tr>
<th>Use of gadgets</th>
<th>Speech delay</th>
<th>No speech delay</th>
<th>P. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>Low</td>
<td>3</td>
<td>4.6</td>
<td>52</td>
</tr>
<tr>
<td>Currently</td>
<td>9</td>
<td>13.8</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2023

Based on the table, it is clear that the majority of gadget users in the low category do not experience a delay rate of 85.7%, while the majority of gadget users in the high category experience a lag rate of 95.8%. The results of the Chi-square test showed a p-value of 0.002, so H0 was rejected and Ha was accepted, which means it was found. The influence of gadgets on the occurrence of speech delay in children aged 2-3 years in the Puskeljasmas Work Area, Pulo Gadung District.

**DISCUSSION**

Based on the results of research and discussions regarding the influence of gadgets on the occurrence of spell cases in children aged 2-3 years in the Puskelja Puskesmas area, Pulo Gadung sub-
district, Selbelsar 52.3% of respondents were 2 years old, Selbelsar 53.8% of respondents were male, Selbelsar 51.5% of people old responders have a high school education level, and approximately 53.8% of the parents of the respondents are domestic workers. The level of gadget usage in the group of cases in high categories is 81.6%, and the use of gadgets in the group control group in the high category is 81.5%, SAR 50%, while the use of gadgets in the high category, most of them experience a decline rate of 50%.

The results of the Chi-square test showed a p-value of 0.002, so H0 was rejected and Ha was accepted, which means it was found. The influence of gadgets on the occurrence of speech delay in children aged 2-3 years in the Puskeljasmas Work Area, Pulo Gadung District. Delays in language development in early childhood are also influenced by family characteristics such as the father’s/mother’s education and parents' work. According to Papalia, Olds & & Feldman (Mulquiah et al., 2017) state that mothers with a low level of education are a risk factor for language and speech delays in children. The employment status of parents has an impact on the growth and development of children, this is related to the parent's ability to fulfill the child's basic needs for growth, whereas working mothers reduce their ability to encourage early childhood development (Sunanti et. al., 2016).

According to (Mulyantari et al., 2019), the risk of using gadgets for a duration longer than 1 hour per day will result in a higher risk of speech delays. Parents can make several efforts to reduce the impact of using gadgets on their children by assisting while the child uses gadgets. The assistance provided by parents when using gadgets includes several activities, including limiting the types of viewing for children so that there is a perceived benefit despite the risks borne by using gadgets. Apart from controlling children's viewing of gadgets, parents should also be able to explain what they are watching so that children can understand the pros and cons of the content they are watching. (Qomari et al., 2021). Parental assistance will also increase the attention the child receives, thereby increasing the interaction and communication between the child and the parent.

Spelling delay is a condition where young children experience delays in their speech processes compared to the language processes of children of the same age. A child first learns language in a family environment. Children begin to learn and learn the language of the family and learn to speak. Children learn to talk when interacting with other people. During the first few years of a child's life, the child's responsive brain learns new languages and builds lines of communication. When the pathway is not fully developed due to only receiving unidirectional stimulation, it cannot be denied that language and speech abilities are slow to develop (Spelelch and Language Kids. 2022).

CONCLUSION

The results of the Chi-square test showed a p-value of 0.002, so H0 was rejected and Ha was accepted, which means it was found. The influence of gadgets on the occurrence of speech delay in children aged 2-3 years in the Puskeljasmas Work Area, Pulo Gadung District.

SUGGESTION

1. For parents
   Used as additional information in the health sector, especially regarding the influence of gadgets on the incidence of speech delay in children
2. For institutions
   Used as material for scientific literature, especially midwifery in the care of preschool children.
3. For Researchers
   Provided additional information about the influence of gadgets on the incidence of speech delay in children aged 2-3 years

REFERENCES

http://ejurnalmalahayati.ac.id/index.php/kebidanan

Sari Mutiara Sukma Dewi


