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## The Effect of Smartphone Use with Speech Delay Incidence in Toddlers in The Kapoiala Health Center Area, Konawe Regency

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**Abstract.** Smartphone is a set of electronic devices that have various functions. Smartphones provide facilities that vary in terms of design and application so that it becomes an attraction for users to take the time to play smartphones. Today, many toddlers often use smartphones to play games rather than being used as a means of learning or playing outside. The purpose of this study was to determine the effect of smartphone use on the incidence of speech delay in children under five in the working area of the Kapoiala Health Center, Konawe Regency. The sample in this study was toddlers as many as 57 people from a population of 205 people using the Accidental Sampling technique. The type of research used was a quantitative method with a cross sectional study design. The data collection technique used a research instrument in the form of a questionnaire. Data were analyzed using Fisher's exact test. The results showed that the low use of smartphones was 24 people (42.1%) and 33 people (57.9%), who were late with speech delay were 23 people (40.4%) and 34 people were normal (59.6%) and there is an effect of smartphone use with the incidence of speech delay in children under five in the working area of the Kapoiala Health Center, Konawe Regency where the value of  $p = 0.000 (<0.05)$ .

### Introduction

Smartphones are a set of electronic devices that have various functions<sup>1</sup>. Smartphones provide facilities that vary in terms of design and application so that they attract users to spend time playing smartphones<sup>2</sup>. Today, many toddlers often use smartphones to play games rather than being used as a means of learning or playing outside.

Along with the times, children's playing activities using smartphones have become difficult to separate, where based on a global survey of 350 parents conducted, it showed that 33% of parents admitted that their children aged

3-4 years used more than one smartphone and as many as 42% admitted their children use gadgets to play games and watch videos<sup>3</sup>. In Indonesia, toddlers who use smartphones show that 23% of children like to use smartphones without supervision as a means of playing<sup>4</sup>.

Continuous use of smartphones will have a negative impact on children's behavior patterns in their daily lives because they will be very dependent and become routine activities for children to carry out in daily activities<sup>5</sup>. In addition, the most common negative impact of smartphone use on toddlers, among others, is that children's mental development and communication will deteriorate which will

hinder speech ability because children who play gadgets actually enjoy their own world and tend to be silent/relevant to talk <sup>6</sup>.

Speech disorders in children are one of the developmental disorders that are often found in toddlers with various manifestations such as stuttering, voice problems, articulation, volume, voice quality and speech delay. Speech delay is a delay in language or speaking. Language disorders are delays in the language sector experienced by a child where a child is said to suffer from speech delay if at the age the ability to produce sound and communicate is below the average child of his age <sup>7</sup>.

Research conducted by Anggraini, that since using a smartphone, children become difficult to communicate with, do not care and are less responsive when their parents talk to them <sup>8</sup>. According to Santoso, that toddlers who use smartphones uncontrollably can have a bad impact on psychology and children have difficulty in socializing or communicating with people around <sup>9</sup>. The research that I will do is to look at the duration and frequency of more than 60 minutes and see whether the child's speech ability is normal or late, whereas previous studies used the duration and frequency of only more than 30 minutes.

Based on this background description, the researcher took the initiative to conduct research on the effect of smartphone use on the incidence of speech delay in children under five in the working area of the Kapoiala Health Center, Konawe Regency.

#### Method

This type of research is quantitative by using a *cross sectional study design*. This research was carried out in the working area of the Kapoiala Health Center, Konawe Regency in July 2021. The population in this study was 205 people. Sampling technique is the *Accident Sampling* so that the number of samples is 57 people. The instrument used is a questionnaire using primary and secondary data. data were analyzed by *Fisher's exact test*.

## Result and Discussion

**Table 1. Respondents' Characteristics in the Kapoiala Health Center Area, Konawe Regency**

Characteristics of Respondents	f (%)	Mean±Std.Deviasi
<b>Age</b>		
20-25 years old	30 (52,6)	25,07±2.2.999
26-30 years old	25 (43,9)	
31-35 years old	2 (3,5)	
<b>Marital Status</b>		
Married	57 (100)	
<b>Last education</b>		
Senior High School	15 (26,3)	43
College	42 (73,7)	31,6
<b>Total</b>	57(100)	

Source: primary data, 2021

based on the characteristics of the respondents, half of the respondents aged 26-30 years are 30 people (52.6) with a mean value and Std. Deviation is 25.07±2.2.999. Based on marital status, all of the respondents were married, namely 57 people (100%) while almost half of the last education was from college, namely 42 people (73.7%) and high school education, namely 15 people (26.3%).

**Table 2. Research Variables on Respondents in the Kapoiala Health Center Area, Konawe Regency**

Research Variables	f (%)	Mean ± SD
<b>Smartphone use</b>		
Low	24	42,1
Medium	33	57,9
<b>Speech Delay</b>		
Normal	34	59,6
Late	23	40,4
<b>Total</b>	57(100)	

Source: primary data, 2021

Based on the variable smartphone users in the medium category are 33 people (57.9) while the normal speech delay is 34 people (59.6) and those who are late are 23 people (40.4%)

**Table 3. Effect of smartphone use with speech delay events in children under five in the Kapoiala Health Center Area, Konawe Regency**

smartphone	Mask use		Amount n (%)	value
	Normal n (%)	Late n (%)		
Low	21 (87,5)	3 (12,5)	24 (100)	$\rho = 0,003$ $r = 0,313$
Medium	13 (39,4)	20 (60,6)	33 (100)	
<b>Total</b>	<b>34 (59,6)</b>	<b>23(40,4)</b>	<b>35 (100)</b>	

Source: primary data, 2021

Table 3 shows that the use of smartphones in the low category with *speech delay* is 21 people (87.5%) while the late speech delay is 3 people (12.5%) while smartphone users in the medium category with normal speech delay are 13 people (39.4%) and 20 people late speech delay (60.6%)

Based on the fisher exact test results obtained value of 0.000 which means that there is an effect of smartphone use with the incidence of speech delay in children under five in the working area of the Kapoiala Health Center, Konawe Regency.

### **The use of smartphones in toddlers in the working area of the Kapoiala Health Center, Konawe Regency.**

The results of this study indicate that most toddlers use smartphones in the medium category, namely 33 people (59.6%) which is caused when children use smartphones the response of the child does not answer when invited. talk and use of smartphones are not under the supervision of parents or caregivers while most of the use of smartphones are in the low category, namely 24 people (42.1%), this is because toddlers use video applications and parents do not fully understand the negative effects of long-term smartphone use.

Previous research explained that respondents who experienced speech or language delays also showed very high results due to the high intensity of smartphone use. Smartphones are very influential on children's speech development and can be an indicator of all child development because they are sensitive to delays in other aspects of development, this is because language skills are influenced by cognitive, sensory, psychological, emotional and environmental abilities.

Researchers concluded that the use of smartphones in children as a substitute for children's friends to play so as not to cry and not to interfere with their parents' daily activities.

### **Occurrence of Speech Delay in Toddlers in the Work Area of the Kapoiala Health Center, Konawe Regency**

Results of the current study indicate that almost half of toddlers do not experience speech delays or are normal, namely 34 toddlers (59.6%) this is due to the absence of guidance, parental guidance and assistance, the child can correctly point at least one part of his body (hair, eyes, nose, mouth and other body parts). Meanwhile, almost half of children under five have speech delays, which are 23 people late in speaking (40.4%) this is because toddlers do not follow orders carefully without signaling with their index finger or eyes when giving orders such as putting paper on top. floor and put the paper under the chair.

The results of previous studies show that the use of smartphones is worrying for the development of the social life of children at an age where they should learn to socialize with the environment and spend more time in cyberspace.

The results of this study indicate that the use of smartphones in children causing speech delay in children is caused by the work of parents so that parents must diligently invite their children to talk and communicate.

### **The Effect of Smartphone Use With Speech Delay Incidence in Toddlers in the Work Area of the Kapoiala Health Center, Konawe Regency**

The results of the current study found that low smartphone use was almost entirely normal or did not experience speech delay while smartphone use was mostly experiencing speech disorders, namely late speaking, caused by a child when using a smartphone the child does not care about the surrounding environment, does not turn his head when called and gets angry when disturbed or his smartphone is taken. In addition, the results of this study also show that there is a relationship between smartphone use and the incidence of speech delays in children caused by children using smartphones without parental supervision, children starting to like to be alone, children not

being able to say their full names without help and not being able to distinguish various colors.

Supported by previous research which shows that there is a relationship between the intensity of gadget use and developmental delays in children<sup>10</sup>. There is a relationship between exposure to gadget use and the psychosocial development of preschoolers<sup>11</sup>. In accordance with the theory which states that the use of gadgets can make the role of family and friends replaced by gadgets so that individuals prefer to be alone and do not make social contact<sup>12</sup>.

The use of gadgets too early without parental supervision will have a negative impact on children's social development where children tend to choose to play with friends so that social interaction between children and the community or the surrounding environment decreases and even fades<sup>13</sup>. Developments in the pre-school period will determine the success of children's development in the next period.

### **Conclusions**

The conclusion in this study is that there are effects of smartphone use with the incidence of speech delay in children under five in the working area of the Kapoiala Health Center, Konawe Regency.

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