Midwifery Research Journal, 88-94
Volume 1 Number 3 January 2024
URL: https://jurnal.cakrabirawamedia.com/index.php/mrj/

ISSN 3025-6364 (Print) 3025-6356 (Online)

# The Association between the Length of Device Use and Eating Behaviors in Children Ages 5–6

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## ABSTRACT

Excessive use of gadgets has a negative impact on young children. It can lead to addiction in children, who initially only play games, but over time they get pleasure so that it becomes a habit that can disrupt children's eating patterns. Type of research This is a correlation analytic with a cross sectional approach. The population in this study were the guardians, totaling 40 respondents with 32 samples taken using the accidental sampling method and data collection using questionnaires. The research results were obtained. Most (78.1%) of the respondents had Toddlers with a normal duration of gadget use and the majority (59.4%) of respondents have toddlers with good eating patterns. The results of data analysis using the chi-square test showed that the value sig = 0.00 and the value $\alpha = 0.05$ means $P < \alpha$ then H1 is accepted, meaning there is a correlation between the duration of gadget use and the eating patterns of toddlers at RA Putra Harapan Gondang, Mojokerto Regency. The conclusion in this study is that the duration of gadget use is correlated with toddlers' eating patterns, toddlers will have a good diet if the duration of gadget use is normal, on the other hand, if the duration of gadget use is long it will have a bad impact on the eating patterns of children aged 5-6 years.

**Keywords:** children, duration, gadget, relationship

## BACKGROUND

In this sophisticated era, the presence of gadgets has become a major need for both children and adults. Gadgets are not only tools for communicating but can also help make other activities easier. Recently, parents have often been found giving gadgets to their toddler children. Gadgets are media used as modern communication tools. Gadgets make human communication activities easier. Now communication activities have developed even more advanced with the emergence of gadgets. Excessive use of gadgets has a negative impact on young children. It can lead to addiction in children, who at first just play games, but over time they get pleasure so that it becomes a habit that can disrupt the child's diet.

In 2014, a study led by Millward Brown, a multinational company from England, stated that Indonesian people have the highest screen time in the world. Based on this survey, the average use of electronic media in Indonesia reaches 540 minutes (equivalent to 9 hours) every day (Millward, 2014). Currently, there are 5.11 billion gadget users in the world, which has increased by 2% (100 million users) from the previous year. Around 4.39 billion are internet users and 3.38 billion are social media users. In Indonesia, around 25% of the population uses gadgets (Global Digital Reports, 2019). As many as 29% of young children in Indonesia have used cell phones in the last three months. In detail, babies aged less than one year amounted to 3.5%, toddlers aged 1-4 years amounted to 25.9%, and preschool children aged 5-6 years amounted to 47.7% (Central Statistics Agency, 2020).

Gadgets have positive and negative impacts, for this reason the role of parents is very important in the development of very advanced technology in this day and age. The positive impacts of using gadgets for children include developing imagination, training intelligence, increasing self-confidence, developing skills in reading, mathematics and problem solving. The negative impacts of using gadgets for children include decreased concentration in learning because they always want to play with gadgets, lazy writing and reading, decreased social skills, underdeveloped motor skills, children always have explosive emotions and there is a possibility that children will be exposed to pornography and sexual abuse. (Rohmah, 2018). With gadgets, children prefer to spend time watching gadgets rather than other activities. This also applies to feeding patterns for children in combination with gadgets. This can certainly trigger the child's eating process, whether it has a positive or negative impact. Gadgets are said to be more effective at entertaining children and preventing them from getting bored quickly compared to other activities.

For this reason, parents need to have discipline and limits when their toddlers use gadgets, so that it does not cause bad impacts. Currently in Indonesia a program has been developed for preschool children which aims to stimulate children's development as early as possible, using APE (educational game tools). APE is a game tool that can optimize children's development according to their age and level of development, and is useful for developing various aspects.

## METHODS

This type of research is cross sectional analytic with a cross sectional approach, namely the independent variable and dependent variable which are the object of research, are measured or collected simultaneously or at the same time. A cross-sectional approach was used because the measurements of duration of gadget use (independent variable) and toddler eating patterns (dependent variable) were carried out together to see whether there was a relationship between the two or not. This research aims to determine the relationship between the duration of gadget use and the eating patterns of children under five.

### Population

In this study, there were 40 respondents from the Guardians in September to October 2022.

### Sample

Is part of the number and characteristics possessed by the population (Sugiyono, 2013). The sample in this research was 32 parents, respondents.

### Sampling

Certain methods or techniques, so that the sample is as representative of the population as possible (Rahmawati et al., 2016). This research uses probability sampling with the accidental sampling method, namely a method of determining samples by taking respondents who happen to be present or available in a place according to the research context (Notoatmodjo, 2010).

### Data analysis

Analysis carried out on two variables that are thought to be related or correlated (Andrean & Lutfiyati, 2020). Bivariate analysis in this study uses the chi-square test statistical analysis method if the data is normally distributed. If the p value $<0.05$ then there is an influence of gadget use on eating patterns.

## RESULTS

### General Description of Research Locations

By achieving the following, this school received "B" accreditation by having 2 class level categories, namely class A and B. The number of teachers is 5 people, all of whom are female. Data on supporting facilities are in the form of 2 classrooms and a playground.

**Distribution of Respondents Based on Age**

Table 4.1. Frequency distribution of respondents based on age of respondents

| Age/years | Frequency | Percentage (%) |
|---|---|---|
| <20 | 8 | 25,0 |
| 20-35 | 24 | 75,0 |
| >35 | 0 | 0,00 |
| **Amount** | **32** | **100,0** |

Source: Primary Data 2022

Based on Table 4.1, it shows that of the 32 respondents, the majority (75.0%) were aged 20-35 years.

**Characteristics of Respondents Based on Education**

Table 4.3. Frequency distribution of respondents based on education of respondents

| Education | Frequency | Percentage (%) |
|---|---|---|
| Elementary School | 3 | 9,40 |
| Junior High School | 9 | 26,1 |
| Senior High School | 20 | 62,5 |
| College | 0 | 00,0 |
| **Amount** | **32** | **100,0** |

Source: Primary Data 2022

Based on Table 4.3, it shows that of the 32 respondents, the majority (62.5%) had a high school education

**Characteristics of Respondents Based on Occupation**

Table 4.4. Frequency distribution of respondents based on occupation of respondents

| Work | Frequency | Percentage (%) |
|---|---|---|
| Housewife | 12 | 37,5 |
| Private | 14 | 43,8 |
| Self-Employed | 6 | 18,8 |
| Government Employees | 0 | 00,0 |
| **Amount** | **32** | **100,0** |

Source: Primary Data 2022

Based on Table 4.4, it shows that of the 32 respondents, almost half (43.8.5%) worked as private employees.

**Duration of Gadget Use**

Table 4.5. Frequency Distribution of Respondents Based on Duration of Gadget Use for Toddlers in Respondents.

| Duration | Frequency | Percentage (%) |
|---|---|---|
| Normal | 25 | 78,1 |
| Long | 7 | 21,9 |
| **Amount** | **32** | **100,0** |

Source: Primary Data 2022

Based on table 4.5, it shows that of the 32 respondents, most (78.1%) of the respondents had toddlers with normal gadget usage duration and a small portion (21.9%) of respondents had long gadget usage duration.

**Children's Eating Patterns**

Table 4.6 Frequency Distribution of Respondents Based on the Diet of Toddlers

| Dietary habit | Frequency | Percentage (%) |
|---|---|---|
| Good | 19 | 59,4 |
| Enough | 9 | 28,1 |
| Not enough | 4 | 12,5 |
| **Amount** | **32** | **100,0** |

Source: Primary Data 2022

Based on table 4.6, it shows that of the 32 respondents, the majority (59.4%) of respondents had toddlers with a good diet, a small portion (28.1%) of respondents had toddlers with an adequate diet and a small portion (12.5%) %) respondents have toddlers with poor eating patterns.

**Cross Tabulation of the Relationship between Duration of Gadget Use and Toddlers' Diet**

Table 4.7. Cross Tabulation of the Relationship between Duration of Gadget Use and Toddlers' Diet.

| Gadget Duration | Dietary Habit | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Good | | Enough | | Not enough | | Amount | |
| | F | % | F | % | F | % | F | % |
| Normal | 19 | 76,0 | 3 | 12,0 | 3 | 12,0 | 25 | 100 |
| Long | 0 | 00,0 | 6 | 85,7 | 1 | 14,3 | 7 | 100 |
| P-Value | | | | | | | Sig 2-tailed) 0,00 | |

Based on table 4.7, it shows that of the 32 respondents there were 25 toddlers who had a normal duration of gadget use, the majority (76.0%) with 19 respondents having a good diet, a small portion (12.0%) with 3 respondents having a good diet. which is sufficient and a small portion (12.0%) with 3 respondents having a poor diet, while of the 32 respondents there were 7 toddlers who had no duration of gadget use for a long time (00.0%) with 0 respondents having a good diet, the majority (85.7%) with 6 respondents had an adequate diet and a small portion (14.3%) with 1 respondent had an inadequate diet.

Based on table 4.7. Chi-Square Test obtained a value of sig = 0.00 and a value of $\alpha = 0.05$, meaning $P < \alpha$, so H1 is accepted, meaning there is a relationship between the duration of gadget use and the eating patterns of toddlers.

## DISCUSSION

**Duration of Gadget**

Based on table 4.5, it shows that of the 32 respondents, most (78.1%) of the respondents had toddlers with normal gadget usage duration and a small portion (21.9%) of respondents had long gadget usage duration. According to Kwan, et al in (Chasanah & Kilis, 2018) gadget addiction is a maladaptive behavior characterized by excessive use of gadgets, difficulty in controlling them and disrupting daily activities. Young Sunita and Mayasi in (Bintoro, 2019) state that gadget addiction in a child can be seen from: Children spend most of their time playing with gadgets, ignoring or putting aside other needs just to play with gadgets, such as forgetting to eat and bathe. Children ignore warnings from people around them. Normal or moderate use of gadgets will have a positive impact on toddlers' eating patterns because they can divert a child's attention so that feeding is easier. On the other hand, if used excessively it will make the child dependent and become a daily activity that has a negative impact on the child. toddlers apart from having a negative impact on eating patterns, namely decreased concentration when studying (when studying children become unfocused and only remember gadgets, for example children remember gadget games as if they were like characters in the

game). Laziness about writing and reading (this is caused by the use of gadgets, for example when children open a video on the YouTube application children tend to just look at the picture without having to write what they are looking for) and a decrease in social skills (for example children play less with friends in the surrounding environment, not paying attention to the circumstances around him).

**Children's Eating Patterns**

Based on table 4.6, it shows that of the 32 respondents, the majority (59.4%) of respondents had toddlers with a good diet, a small portion (28.1%) of respondents had toddlers with an adequate diet and a small portion (12.5%) of the respondents had toddlers with an adequate diet. %) respondents have toddlers with poor eating patterns. According to Handjani, eating pattern is the behavior of a human or group of people in fulfilling food which includes attitudes, beliefs and food choices, while according to Suhardjo eating pattern is defined as the way a person or group of people chooses food and consumes food on physiological, psychological, cultural and environmental influences social. The diet of toddlers plays a very important role in the growth process of toddlers, because food contains lots of nutrients. Children's feeding patterns are very important for the survival and development of a child (Bappenas and UNICEF 2017). Feeding patterns are behaviors that can influence nutritional status. Feeding patterns are a description of nutritional intake including the type, amount and schedule of meals to fulfill nutrition (Ministry of Health RI 2018). A good diet can influence a child's growth and development because with a good diet the body will get the nutrients it needs so that it will facilitate metabolism which supports child's growth and development, on the other hand, if a poor diet will have a bad impact on the child's physical health.

**The Relationship between the Duration of Gadget Use and the Diet of Toddlers**

Based on table 4.7. The Chi-Square Test obtained a value of sig = 0.00 and a value of $\alpha$ = 0.05, meaning P < $\alpha$, so H1 is accepted, meaning there is a relationship between the duration of gadget use and the eating patterns of toddlers at RA Putra Harapan Gondang, Mojokerto Regency. Research conducted by Anandita Mega Kumala, (2019) with the title The Relationship Between Duration of Use of Electronic Devices (Gadgets), Physical Activity and Diet and Nutritional Status in Adolescents Aged 13-15 Years. The research results showed that 72.1% of respondents had a high duration of use of electronic devices (gadgets). Apart from that, it was found that 14.8% of respondents had low physical activity. The diet of 80.3% of respondents was in accordance with PGS recommendations, but 96.7% of respondents did not meet the vegetable consumption recommendations. The nutritional status of respondents based on Z-score BMI/U was found to be 6.6% of respondents in the thin category and 14.8% obese. The results of the analysis show that there is a relationship between the duration of use of electronic devices (gadgets), physical activity and diet and nutritional status ($p<0.05$). Research conducted by Fiidatun Rohana (2020) with the title The Relationship between Gadget Use and the Diet of School Age Children at Sdn 02 Banyu Urip, Margorejo District, Pati Regency. The type of research used is quantitative using survey methods or data collection using a cross sectional approach. The population was 39 children and the sample used total sampling so the sample used was 39 children. Based on the research results, it shows that the most respondents were high gadget use with 23 respondents (59.0%), and the least was low use with 6 respondents (15.4%), and among them was moderate use with 10 respondents (25 .6%). Research on the relationship between gadget use and social interaction produces a p value (p 0.000 < $\alpha$ 0.05), so there is a relationship between gadget use and eating patterns. Technological advances such as gadgets certainly have a positive impact, especially making it easier for someone to search for information, making work easier and shortening the information process in work in the economic, educational and other fields. On the other hand, uncontrolled use has a negative impact on users. The impact of gadget play itself is that it disrupts fine motor nerves, inhibits the development of social

interactions, influences children's behavior patterns, influences speech patterns, makes them easily emotional, exposed to violent and pornographic content, the dangers of radiation, eating patterns, obesity and insomnia. Electronic media can influence eating patterns. Eating patterns tend to increase and decrease due to the influence of various food advertisements/promotions on television, the internet and other media which can attract the attention of toddlers.

## CONCLUSION

Most of the Respondents Have Toddlers with Normal Gadget Usage Duration. Most of the Respondents Have Toddlers with Good Eating Patterns. There is a relationship between the duration of gadget use and the eating patterns.

## REFERENCES


Anandita Mega Kumala, Ani Margawati, and Ayu Rahadiyanti, (2019). "Hubungan Antara Durasi Penggunaan Alat Elektronik (Gadget), Aktivitas Fisik Dan Pola Makan Dengan Status Gizi Pada Remaja Usia 13-15 Tahun," Journal of Nutrition College 8, no. 2 (2019): 73, https://ejournal3.undip.ac.id/index.php/jnc/article/view/23816/21648.

Arnani, N. P. R., & Husna, F. H. (2021). Perbedaan Kecenderungan Adiksi Gadget Siswa Sekolah Dasar Ditinjau dari Jenis Kelamin. Psycho Idea, 19(01), 57–64.

Aridiyah, Rohmawati, Ririanty. (2015). Faktor-faktor yang Mempengaruhi Kejadian Stunting pada Anak Balita di Wilayah Pedesaan dan Perkotaan. Jurnal Pustaka Kesehatan. 3(1): 166.

Chasanah, A. M., & Kilis, G. (2018). Adolescents' Gadget Addiction and Family Functioning. Advances in Social Science, Education and Humanities Research, 139, 350–358. https://doi.org/10.2991/uipsur-17.2018.52.

Dwi Ayu, Slamet Santoso K. (2017). Hubungan Pola Makan (Jumlah, Jenis, Frekuensi) Status Gizi (Antropometri Dan Survei Konsumsi) Dengan Keteraturan Haid Pada Remaja Putri Di SMA Negeri 51 Jakarta Timur Tahun 2015. Jurnal Ilmiah Kesehatan, 9 (1).

Erni purwani & Mariyam, (2013). Pola Pemberian Makan Dengan Status Gizi Anak Usia 1 Sampai 5 Tahun Di Kabunan Taman Pemalang. Jurnal Keperawatan Anak Vol.1 No.1 https://jurnal.unimus.ac.id/index.php/JKA/article/view/903/957.

Fajar Sri Tanjung, Emy Huriyati, Djauhar Ismail. (2017). Intensitas Penggunaan Gadget Pada Anak Prasekolah Yang Kelebihan Berat Badan Di Yogyakarta. Berita Kedokteran Masyarakat. Vol.33 No.12 Hal : 603-608 https://journal.ugm.ac.id/bkm/article/view/26869/19003.

Ismawati Septiningsih. Itok Dwi Kurniawan. (2021). Analisis Dampak Penggunaan Gadget Terhadap Pola Perilaku Anak. Veteran Society Journal. Vol. 2 No 2.

Lexy J. Moleong. (2017). Metode penelitian kualitatif. XXXVI (Bandung: PT Remaja Rosdakarya, 2017), 26.

Margawati and Ayu Rahadiyanti. (2019). "Hubungan Antara Durasi Penggunaan Alat Elektronik (Gadget), Aktivitas Fisik Dan Pola Makan Dengan Status Gizi Pada Remaja Usia 13-15 Tahun". Journal of Nutrition College 8, no. 2 https://ejournal3.undip.ac.id/index.php/jnc/article/view/23816/21648.

Morrisan, Andy Corry W, dan Farid Hamid. (2012). Metode Penelitian Survei (Jakarta: Pernada Media Grub), 37.

Musfiqon. (2012). Panduan Lengkap Metodoogi Penelitian Pendidikan (Jakarta: Prestasi Pustakaraya). 120.

Novitasari W & Khotimah N. (2016). Dampak penggunaan gadget terhadap interaksi sosial anak usia 5-6 tahun. Jurnal PAUD Teratai Vol.05 No.3 :182-186. http://jurnalmahasiswa.unesa.ac.id.

Nurhaeda. (2018). "Dampak Penggunaan Gadget Pada Anak Usia Dini Dalam Pandangan Islam Di PAUD Terpadu Mutiara Hati Palu". Early Childhood Education Indonesian Journal, (Palu: FKIP Universitas Muhammadiyah Palu), jil. 1 No. 2 https://www.jurnal.unismuhpalu.ac.id/index.php/ECEIJ/article/view/518.

Nur Sri Rahayu, Elan, Sima Mulyadi. (2021). Analisis Pengunaan Gadget Pada Anak Usia Dini. Jurnal Paud Agapedia. Vol.5 No 2.

Puji Asmaul Chusna. (2017). Pengaruh Media Gadget Pada Perkembangan Karakter Anak. Dinamika Penelitian. Vol.17 No.2.

Subagia, I Nyoman. (2021). Pola Asuh Orang Tua : Faktor, Implikasi Terhadap Perkembangan Karakter Anak. Bali : Nilacakra.

Subarkah, T., Nursalam, N. and Rachmawati, P.D., (2017). Feeding Pattern Toward the Increasing of Nutritional Status in Children Aged 1–3 Years. INDONESIAN NURSING JOURNAL OF EDUCATION AND CLINIC (INJEC), 1(2), pp.146-154.

Uce, L. (2017). The golden age: Masa efektif merancang kualitas anak. Bunayya: Jurnal Pendidikan Anak, 1(2), 77-92.

Yulsyofriend, Vivi Anggraini, Indra Yeni. (2019). Dampak Gadget Terhadap Perkembangan Bahasa Anak Usia Dini. Jurnal Pendidikan Anak Usia Dini. Volume 3 No. 1.