

THE CORRELATION BETWEEN FAMILY SUPERVISION OF SCREEN TIME WITH THE INCIDENCE OF GADGET ADDICTION IN JUNIOR HIGH SCHOOL CHILDREN

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ABSTRAK

Perkembangan teknologi yang pesat telah meningkatkan penggunaan gawai di kalangan anak-anak dan remaja. Gawai memberikan manfaat berupa kemudahan akses informasi, tetapi penggunaan yang berlebihan dapat menimbulkan dampak negatif, termasuk adiksi gawai. Anak usia 12-15 tahun merupakan kelompok paling rentan terhadap dampak negatif gawai. Keluarga, khususnya orang tua, memegang peran penting dalam mengawasi dan membimbing anak dalam penggunaan gawai. Penelitian ini bertujuan untuk mengetahui hubungan pengawasan keluarga terhadap *screen time* dengan kejadian adiksi gawai pada anak sekolah menengah pertama. Jenis penelitian ini adalah kuantitatif dengan desain *cross sectional* yang menggunakan data primer dari masyarakat Kelurahan 5 Ulu Palembang dengan besar sampel sebanyak 91 sampel yang telah memenuhi kriteria inklusi dan eksklusi. Sampel penelitian ini diambil dengan cara *consecutive sampling*. Hasil uji statistik didapatkan P-value 0,000 sehingga dapat disimpulkan bahwa terdapat hubungan pengawasan keluarga terhadap *screen time* dengan kejadian adiksi gawai pada anak sekolah menengah pertama.

ABSTRACT

The Correlation Between Family Supervision of Screen Time With The Incidence of Gadget Addiction in Junior High School Children. Rapid technological developments have increased the use of gadgets among children and teenagers. Devices provide benefits in the form of easy access to information, but excessive use can have negative impacts, including adding gadgets. Children aged 12-15 years are the group most vulnerable to the negative impacts of gadgets. Families, especially parents, play an important role in supervising and guiding children in using devices. This research aims to determine the relationship between family supervision of screen time and the incidence of device addiction in junior high school children. This type of research is quantitative with a cross sectional design using primary data from the community of Kelurahan 5 Ulu Palembang with 91 samples that have met the inclusion and exclusion criteria. This research sample was taken by means of consecutive sampling. The results of the statistical test obtained a P-value of 0.000, so it can be concluded that there is a correlation between family supervision of screen time and the incidence of gadget addiction in junior high school children.

INTRODUCTION

The rapid development of technology and information has made it easier to access various types of information. One tangible form of technological progress is gadgets, which are devices with specific practical functions to support various activities.¹ The types of gadgets that are widely used include smartphones, laptops, computers, and tablets.²

The use of gadgets, especially among children and adolescents, continues to increase both globally and in Indonesia. Based on the 2017 Information and Communication Technology (ICT) survey, 66.3% of Indonesia's population owns a smartphone, and young people aged 9-19 years are the third largest group of gadget users.³ In 2024, the Indonesian Internet Service Providers Association (APJII) reported that internet penetration would reach 87.02% in the 12-27 age group, with 89.44% of them using personal devices such as cellphones and tablets to access the internet.⁴

Although gadgets provide benefits, such as increased knowledge and easy access to information, their excessive use can have negative impacts. Some of these impacts include health problems, such as eye problems, decreased social skills, and the risk of gadget addiction. Children aged 12-15 years are the group most vulnerable to gadget addiction, because at this age their cognitive processes, instincts, and curiosity are developing rapidly.⁵

Research by Lestari and Novianti (2022) showed that during the COVID-19 pandemic, 47.6% of children aged 12-15 years in West Java were at risk of gadget addiction, with an average daily usage of 3.5-6 hours.⁶ This shows that supervision of gadget use is very important, especially by families as the first and main educators of children.⁷ Families, especially parents, have an important role in guiding and supervising children to avoid the negative impacts of gadget use.²

Previous research by Fauzan (2021) showed a positive relationship between the role of the family and children's behavior in using gadgets. The better the family supervision and guidance, the lower the risk of children experiencing negative impacts, including gadget addiction.⁸ However, in reality, many parents pay less attention to their children's screen time for various reasons, such as being busy.⁹

To date, research related to screen time using gadgets has focused more on its impact on children's developmental disorders and health problems. Research on the effect of family supervision of screen time in preventing gadget addiction in children is still limited. Therefore, this study aims to analyze the relationship between family supervision of screen time and the incidence of gadget addiction in junior high school children.

METHOD

This study is a quantitative study with a cross-sectional design. The study was conducted in December 2024 with a population of families and junior high school children in Kelurahan 5 Ulu, Palembang. The sample was taken using a random sampling technique, namely Consecutive sampling. The inclusion criteria in this study were families who live in the same house with junior high school children who are at least 20 years old and junior high school children who use gadgets at home who are willing to be involved in the study. Data were collected through 2 questionnaires, namely the family supervision questionnaire and gadget addiction questionnaire. Data analysis was carried out univariately and bivariately using the computerized Kruskal-Wallis test.

RESULTS

After going through the data analysis process, 91 respondents were obtained that could be analyzed. The frequency distribution of scores is shown in table 1.

Table 1. Frequency Distribution of Respondents' Family Characteristics

Characteristics	Frequency (n)	Percentage (%)
Age (Year)		
20-30	6	6.6
31-40	30	33
41-50	40	44
51-60	14	15.4
61-70	1	1.1
Gender		
Male	43	47.3
Female	48	52.7
Education		
SD	11	12.1
SMP	14	15.4
SMA	51	56
D3	2	2.2
S1	8	8.8
S2	5	5.5
Job		
Labor	25	27.5
Housewife	36	39.6
Self-employed	5	5.5
Others	25	27.5
Income (Rupiah)		
<1.500.000	38	41.8
1.500.000-2.500.000	30	33
>2.500.000-3.500.000	13	14.3
>3.500.000	10	11
Total	91	100

Based on Table 1, it was found that the age range of respondents was mostly 41-50 years old, 40 people (44%), with 48 people (52.7%) being female, 51 people (56%) having a high school education. 36 people (39.6%) work as housewives, and 38 people (41.8%) have income <1,500,000.

Table 2. Respondent Characteristics

Characteristics	Frequency (n)	Percentage (%)
Age (Year)		
11	4	4.4
12	23	25.3
13	24	26.4
14	40	44
Gender		
Male	47	51.6
Female	44	48.4
Duration of Usage (Hour)		
<1	16	17.6

1-2	32	35.2
3-4	33	36.3
>4	10	11
Total	91	100

From table 2, it is known that the age of most respondents was 14 years, as many as 40 people (44%), with male gender as many as 47 people (51.6%), and the maximum duration of use was 3-4 hours as many as 33 people (36.3%).

Table 3. Frequency Distribution of Family Supervision Levels Screen Time

Supervision Levels	Frequency (n)	Percentage (%)
Low	62	68.1
Moderate	22	24.2
High	7	7.7
Total	91	100

The level of family supervision regarding screen time among respondents obtained the highest results in the low category, namely 61 respondents (68.1%) which is presented in Table 3.

Table 4. Frequency Distribution of Gadget Addiction Levels In Respondents

Addiction Levels	Frequency (n)	Percentage (%)
No Addiction	15	16.5
Mild Addiction	35	38.5
Moderate Addiction	40	44
Severe Addiction	1	1.1
Total	91	100

From table 4 above, the results show that the highest level of addiction among respondents is moderate addiction, with 40 respondents (44%).

Table 5. The Correlation Between Family Supervision and Gadget Addiction In Respondents

Family Supervision	Addiction Levels								<i>p-value</i>
	No Addiction		Mild Addiction		Moderate Addiction		Severe Addiction		
	n	%	n	%	n	%	n	%	
Low	2	3.2	25	40.3	34	54.8	1	1.6	0.000
Moderate	7	31.8	10	45.5	5	22.7	0	0	
High	6	85.7	0	0	1	14.3	0	0	
Total	15	16.5	35	38.5	40	44	1	1.1	

Based on Table 4.5, it was found that of the 91 respondents, the majority with low family supervision experienced moderate addiction, 34 respondents (54.8%), 10 people with family supervision experiencing mild addiction (45.5%), and high family supervision. 6 people (85.7%) did not experience addiction.

The Kruskal-Wallis test results obtained $p\text{-value} = 0.000$, which means H_1 is accepted. This shows that there is a significant relationship between family supervision of screen time and the incidence of gadget addiction in junior high school children in 5 Ulu Village.

DISCUSSION

Characteristics of The Respondents Family

The research results showed that most respondents' family characteristics were women aged 41-50 years and worked as housewives. The age range of 41-50 years is considered to be mentally and mentally mature. Therefore, people at that age are more likely to be able to carry out more optimal supervision because they are considered to have good comprehension abilities and thinking patterns.¹⁰ Apart from that, women are more likely to stay at home and carry out their duties as parents, especially in supervising their children.¹¹

This is in line with research conducted by Hardiyanti, et al., 2021 that women aged 36-45 years show mature thinking and mental characteristics to learn and adapt to new situations. Research conducted by Hardiyanti et al., 2021 states that housewives tend to play a greater role in supervising children because they spend more time at home. Apart from that, women's traditional role in taking care of the household, giving bHousewifeh, caring for children and protecting their husbands is one of the factors that plays a role.¹²

In this study, 51 people had a high school education. Based on Law number 20 of 2003, SMA is included in the secondary education category. This shows that many of the respondent's families do not have a high level of education. A higher level of education will generally encourage parents to realize the importance of supportive and responsive parenting patterns. They will engage in more frequent positive interactions with children and provide a cognitively stimulating environment.¹³

This is in line with research conducted by Wardianti, et al, 2024 which obtained 44 respondents with a high school education. Education is all areas of life in choosing and developing things that are very important and cannot be separated from life. In addition, parents who have a higher level of education tend to have better skills in caring for children and providing better education.¹⁴

In this study, 38 people obtained income <1,500,000. This shows that the economy in the 5 Uluarea is relatively low. Households with higher incomes tend to have access to better services, such as education and health care, which enable them to implement good parenting practices and support children's development.¹³

Respondents Characteristics

The research results showed that the maximum age was 14 years, as many as 40 people, with 47 people being male. 14 years old is an early adolescent who is experiencing rapid growth and is generally not able to control himself well and judge the good or bad things about gadgets so he is vulnerable to the negative impact of their use.¹⁵

This is in line with research by Lee & Kim, 2018 which states that men are more likely to experience gadget addiction. Men tend to use devices for longer periods of time because they play games or watch videos.¹⁶ Apart from that, research conducted by Arnani & Husna, 2021 also states that men are more likely to experience addiction than women.¹⁷

Respondents used devices the most for a duration of 3-4 hours. According to Przybylsk et al, 2020, the ideal duration of screen time is 1-2 hours a day for optimal benefits in psychosocial functioning so that in this study most children used devices for more than the recommended duration. Excessive use of gadgets can be a risk factor for gadget addiction.¹⁸ This is in line with

research by Fatah, et al, 2022, which found that children using devices for 6 hours tended to experience addiction.¹⁹

The Levels of Family Supervision of Screen Time

The research results showed that the level of family supervision regarding screen time was the highest with low supervision, namely 62 people (68.1%). The level of family supervision is influenced by several factors, such as low economic factors which will cause a family to experience financial pressure which can result in authoritarian or permissive parenting. Apart from that, educational factors, a higher level of education will generally encourage parents to realize the importance of supportive and responsive parenting patterns.

Then social and cultural factors, these factors can influence differences in parental treatment of boys and girls. Boys tend to be expected to be more independent and strong so parents tend to be more strict with boys.¹³ This is in line with research conducted by Pradevi, 2020 which states that economic, educational and cultural factors can influence supervision attitudes towards children.²⁰

Gadget Addiction Levels On Respondents

Based on the research results, it was found that the most respondents experienced moderate addiction, namely 40 people (44%). This can occur due to several internal factors from the child himself or external factors. Internal factors that can influence are psychological factors, one of which is the ability to control oneself in using devices. Then external factors such as the relationship with parents and how the family supervises the use of devices.²¹

This is in line with research by Pautina, et al, 2023, which states that the factors that cause children to experience gadget addiction are lack of attention from the people closest to them, stress or depression, lack of activities, a poor environment and parenting patterns that do not support their development.²²

The Correlation Between Family Supervision of Screen Time with The Incidence of Gadget Addiction In Junior High School Children

The results of this study show that there is a significant relationship between family supervision and the incidence of gadget addiction in junior high school children. Low supervision tends to result in children experiencing moderate addiction (54.8%) or even severe addiction (1.6%). Moderate supervision tends to result in children experiencing mild addiction (45.5%). Then, children are less likely to experience addiction (85.7%) with high supervision.

This is in accordance with the research results of Fauzan, et al, 2021 which states that there is a relationship between the role of the family in preventing the negative impact of using gadgets on children and children's behavior in using gadgets. It can be seen that the higher the family's role, the better the child's behavior in using gadgets. The role that families can give their children in utilizing technology is full supervision and guidance. Parents control gadget usage based on usage time, features and applications.⁸

Children's use of devices must be controlled and supervised by parents. If this is not controlled properly then the possibility of children experiencing device addiction will be high. Using devices without parental supervision has a negative impact on children, such as children becoming more aggressive, especially if they feel disturbed when using devices, decreased interest

in doing other activities such as playing and socializing with friends, and decreased attention to the surrounding environment.²³ However, in this study data was only obtained from one parent. This is one of the factors that data on the characteristics of respondents cannot be carried out comprehensively or comprehensively.

Based on Przybylsk et al, 2020, the ideal duration of screen time is 1-2 hours a day for optimal benefits in psychosocial functioning.¹⁸ If children use devices excessively, this will trigger a stimulus that will excessively activate the dopaminergic system in the brain. This stimulation induces the release of dopamine which creates a sensation of pleasure (euphoria). The sensation of pleasure due to the release of dopamine strengthens the user's behavior to continue checking their device, triggering reinforcement that is similar to the process of substance addiction such as substance use disorders.²⁴ This is in line with research conducted by Safila, et al, 2022 which states that there is a relationship between high intensity of device use and device addiction with use of more than 2 hours per day.²⁵

However, in this study it was found that 1 respondent experienced moderate addiction with high supervision (14.3%). Based on research data, it is known that the family characteristics are that the respondent's father works as a civil servant with a master's educational background and a high economic level. Parents who are busy working may be a factor causing addiction in these respondents, resulting in limitations in effectively supervising children's use of devices, which means that when parents are working and are not with their children at home, it is possible for children to use devices without supervision. Apart from family supervision, addiction can also be caused by school environmental factors such as lack of supervision by teachers, lack of motivation to learn and the influence of peers who also use devices excessively while at school. This can happen because children tend to be more easily influenced by the environment, especially if there is a lack of supervision in the school environment.²⁶

The research results also showed that 1 respondent with a low level of family supervision experienced severe addiction. From the research data, it is known that the family characteristics are that the respondent's mother is a housewife with a high school educational background and a low economic level. The severe addiction that occurs in respondents is likely caused by mothers' lack of knowledge regarding the importance of monitoring the use of devices so they are more likely to not supervise their children optimally. A higher level of education will generally encourage parents to realize the importance of supportive and responsive parenting patterns.¹³

CONCLUSION

From the results of the study conducted on families and junior high school children in the 5 ulu sub-district, it can be concluded that the respondent families are mostly with a low level of supervision are characterized by 41-50 years old female with high school education background and income <Rp.1,500,000. The respondents are mostly with moderate addiction are characterized by 14 years old male that using gadget for 3-4 hours per day. The results of the study showed a significant relationship between family supervision and the incidence of gadget addiction in junior high school children.

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