


The Effect Of Gadget Use Intensity On Emotion Regulation In Elementary School-Age Children

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Article Info	ABSTRACT
<p>Keywords: gadget use intensity, emotion regulation, children</p>	<p>Not only does the use of gadgets in school-aged children have positive impacts, it also has negative impacts, one of which results in addiction, making children always feel anxious, irritable and unable to control their emotions when asked to stop playing with gadgets. The increasing prevalence of gadget use is continuous with the frequency and duration spent in using gadgets due to the fear of being left behind. In addition, excessive gadget use can cause emotional changes. This study aims to determine the relationship between the intensity of gadget use and emotional regulation in children aged 6-12 years at Elementary Schools in Majalengka Sub-district. This type of research uses quantitative research with a cross sectional approach. The population in this study were children aged 6-12 years, totaling 230 children and the sample was 70 children with purposive sampling technique. This research instrument used a questionnaire and analyzed the data using the chi square test. More than half (57.1%) of children aged 6-12 years have high gadget intensity and less than half (45.7%) of children aged 6-12 years have poor emotional regulation. There is a relationship between the intensity of gadget use and emotional regulation in children aged 6-12 years with p value = 0.000. Conclusion: emotional regulation is influenced by gadget intensity, so it is necessary to make a clear and consistent gadget use schedule, provide alternative interesting and educational activities and educate children about healthy gadget use.</p>
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INTRODUCTION

The use of technology in the modern era is very beneficial for various age groups. These technologies include computers, mobile phones, laptops and various other types of gadgets. Gadgets are the most popular technology among the public. Gadgets are a set of electronics that have a purpose as a means of communication, documentation, social networking, and entertainment (Nuraini & Wardhani, 2023).

According to the Association of Pediatricians in America and Canada revealed that it would be better if children aged 0 to 2 years were not exposed to gadgets, children aged 3 to 5 years should provide limits in the duration of using gadgets for about 1 hour per day, while children aged 6 to 18 years with a duration of about 2 hours per day. In contrast to

the fact that in Indonesia there are many children who use gadgets for more than 4 hours which exceeds the recommended amount (Yanti, 2022).

Based on a report from the Central Statistics Agency (BPS), 33.44% of early childhood aged 0-6 years in Indonesia will be able to use cellphones by 2022. Meanwhile, school-age children (6-12 years old) in Indonesia have accessed the internet for social media. The percentage reached 88.99%, which is the largest compared to other internet access purposes. Apart from social media, 66.13% of children aged 6-12 years in Indonesia also access the internet to get information or news. Another 63.08% access the internet for entertainment (BPS Indonesia, 2022).

The increasing prevalence of gadget use is continuous with the frequency and duration spent in using gadgets due to the fear of being left behind. This kind of incident is caused by excessive use of gadgets so that it can form a habit. Therefore, individuals who are accustomed to high gadget use intensity will feel afraid of missing out on information if they leave or do not even open the gadget, which will potentially lead to an increase in the intensity of gadget use. A sign of the impact of individual teenagers using gadgets exceeds the time that in a day can exceed from 6 to 8 hours with continuous use. So that the negative impacts that arise, in terms of psychological factors, are triggering mental illness, developing consumerism, and changing emotions (Fazhan et al., 2023).

According to Dr. Jenny Radesky, an expert in pediatrics and child development, screen time can reduce social interaction time and physical activity, which can lead to fatigue and mood disturbances. In addition, excessive gadget use can cause emotional changes. Emotional changes that may occur due to gadget use are irritability, disobedience, mimicking the behavior in the gadget and talking to the gadget. In addition, lack of control in gadget use results in reduced direct interaction, resulting in the emergence of anxiety disorders (Nurajizah et al., 2023).

School-age children need the ability from within themselves to reduce emotional urges, especially negative emotions which are able to go through adolescence well. These abilities are certainly needed by adolescent individuals including the ability to regulate emotions. Emotion regulation is like a process of reducing and maintaining emotions which, if it occurs in children, can lead to disruption of mental health and severe psychiatric disorders, such as anxiety, depression vulnerability, borderline personality disorder, and others (Nuraini & Wardhani, 2023).

There is still not much research on the relationship between the intensity of gadget use and emotional regulation in children aged 6-12 years. There are several studies conducted by (Fazhan et al., 2023) regarding the impact of social media on emotional regulation, which shows that the use of gadgets has an impact on adolescent emotional regulation. Meanwhile, research (Nuraini & Wardhani, 2023) on the relationship between the duration of gadget playing and children's social emotional development shows that there is a relationship between the duration of gadget use and social emotional development. Meanwhile (Nurajizah et al., 2023) in their research on the relationship between the intensity of gadget use and emotional regulation in adolescents stated that

there was no significant relationship between the intensity of gadget use and emotional regulation.

Based on a preliminary study conducted at Elementary Schools in Majalengka Sub-district, on 10 children, the results show that 7 children are fairly frequent in using gadgets every day and 3 other children rarely use gadgets every day. Of the 10 children, 6 children said they were anxious, easily provoked to anger, and did not like it if they were reminded to stop using gadgets, and 4 other children said they would stop when their parents told them to stop using gadgets. Based on the above problems, the researcher is interested in conducting research on the relationship between the intensity of gadget use and emotional regulation in children aged 6-12 years at Elementary Schools in Majalengka Sub-district.

METHODS

The design that researchers will use in this study uses a quantitative research design with a cross sectional approach, which is an activity carried out by a researcher so that the research conducted can collect information related to a status that affects an existing symptom, where the symptoms that occur are in accordance with reality at the time of the research (Notoatmodjo, 2019). The population in this study were children of Elementary Schools in Majalengka Sub-district aged 6-12 years, totaling 230 children. Based on the formula, the sample size is 70 children. The sampling technique uses purposive sampling, which is based on criteria. The data collection tool used in this study was a questionnaire with a Likert scale. The first questionnaire sheet instrument was used to measure the intensity of gadget use and the second questionnaire sheet to measure adolescent emotional regulation. The second questionnaire (Atiqah, 2018) was used to determine adolescent emotional regulation consisting of 19 questions for each score 4: Always (SL), score 3: Often (SR), score 2: Sometimes (KD), score 1: Never (TP) with favorable answers can be given a value of 4,3,2,1 and unfavorable answers are given a value of 1,2,3,4. Data analysis using the chi square test

RESULTS

The results of this study are described in the form of tables and narratives as follows:

Table 1 Frequency Distribution of Intensity of Gadget Use among Children Aged 6-12 Years at Elementary Schools in Majalengka Sub-district

Intensity of Gadget Use in Children 6-12 Years of Age	Frequency (F)	Percent (%)
High	40	57.1
Low	30	42.9
Total	70	100.0

Table 1 shows that 40 respondents (57.1%) have high gadget usage intensity, and 30 respondents (42.9%) have low gadget usage intensity. So it can be concluded that more than half of the respondents have a high intensity of gadget use..

Table 2 Frequency Distribution of Emotion Regulation in Children Aged 6-12 Years at Elementary Schools in Majalengka Sub-district

Emotion Regulation	FrequencyPercent	
	(F)	(%)
Not good	32	45.7
Good	38	54.3
Total	70	100.0

Table 2 shows that 32 respondents (45.7%) have poor emotional regulation, and 38 respondents (54.3%) have good emotional regulation. So it can be concluded that less than half of the respondents have poor emotional regulation.

Table 3 The Effect of Intensity of Gadget Use with Emotion Regulation in Children Aged 6-12 Years at Elementary Schools in Majalengka Sub-district

Intensity of Gadget Use in Children 6-12 Years of Age	Emotion Regulation				Total		p value
	Not good		Good		N	%	
	n	%	n	%			
High	26	65,0	14	35,0	40	100	0,000
Low	6	20,0	24	80,0	30	100	
Total	32	45,7	38	54,3	70	100	

Based on table 3, it shows that the proportion of children with poor emotional regulation with high gadget use intensity is 65.0% higher than the proportion of children with poor emotional regulation with low gadget use intensity of 20.0%. The results of statistical tests with chi square at $\alpha = 0.05$ obtained p value = 0.000, which means p value $< \alpha$, thus the null hypothesis is rejected so that there is a relationship between the intensity of gadget use and emotional regulation in children aged 6-12 years at Elementary Schools in Majalengka Sub-district.

Discussion

Overview of the Intensity of Gadget Use in Children 6-12 Years of Age

Based on the results of the study, more than half (57.1%) of children aged 6-12 years at Elementary Schools in Majalengka Sub-district had high gadget intensity. High gadget use among children aged 6-12 years is indeed an increasingly common phenomenon and this has a negative impact on children's physical health, such as visual impairment, posture problems, and lack of physical activity, as well as on emotional development because if too much time in front of the screen children may become more difficult to concentrate, experience sleep disturbances, and potentially experience gadget addiction.

The results of this study are lower compared to research (Nuraini & Wardhani, 2023) showing that respondents with high gadget intensity were 67.5%. However, it is higher than the research (Nurajizah et al., 2023) that respondents with high intensity in gadget use amounted to 45.6%. Based on the results of the study, it shows that there is a relationship between the age of the delivery mother and the incidence of low birth weight (LBW) at Arjawinangun Hospital, Cirebon Regency, as evidenced by p value = 0.000. The results of

this study are in line with research (Dhea et al., 2021) saying that the age of less than 20 years who undergo pregnancy from a physical and mental perspective will experience problems. Physically, the condition of the pelvis and uterus has not developed and causes pain and death for the mother and baby and the mother's physical growth and development will be stopped / inhibited. As well as mentally, the mother is not ready to undergo pregnancy and changes during pregnancy, is not ready to become a mother and is not ready to face the problems that will occur in the household.

While gadgets can be effective educational tools, uncontrolled use can disrupt study time and reduce interaction with conventional learning activities. Gadget is an English term that can be defined as a small electronic device with a variety of specialized functions. Gadget (Indonesian: acang) is a term derived from the English language to refer to a device or instrument that has a specific useful practical purpose and function generally assigned to something new. Gadgets in a general sense are considered to be an electronic device that has a specific function on each device. For example: computers, mobile phones, games and others (Indonesian Internet Network Providers Association, 2021).

Intensity is ability or strength, persistence, prowess. In the psychology dictionary, it is the strength of behavior or experience, or attitudes that are maintained intensely according to Hafi (1996 in Supandi, 2020). Intense here is something that is great or very high, passionate / full of enthusiasm very emotionally. Then in the Indonesian practical dictionary, intensity is a state or level according to Hehania & Farlin (2002 in (Mukarromah, 2019).

Efforts to control the intensity of gadget use in children aged 6-12 years include motivating parents to get children involved in outdoor activities, reading books, or playing with peers can be a good alternative so that it can divert children's time so as not to focus on using gadgets, other efforts are making a clear and consistent schedule for gadget use, providing alternative activities that are interesting and educational, educating children about healthy and responsible gadget use and being a good example of gadget use.

Overview of Emotion Regulation in Children Aged 6-12 Years

Based on the results of the study, it shows that less than half (45.7%) of children aged 6-12 years at Elementary Schools in Majalengka Sub-district have poor emotional regulation. Poor emotion regulation can have an impact on many aspects of a child's life, including social relationships, academic achievement, and mental well-being.

The results of this study are higher than research (Nurajizah et al., 2023) of children whose emotional regulation was poor at 37.5%. However, it is lower than research (Wulandari, D. & Lestari, 2021) showing that children whose emotional regulation is not good are 67.5%.

According to Hurlock in (Fitria, 2019) explains that emotion regulation is directing emotional energy into expression channels that can be useful and socially acceptable. Meanwhile, according to Calkins and Hill in (Wulandari, H., 2017) defines that emotion regulation is a process of recognizing, maintaining, and regulating positive and negative emotions, either automatically or controlled, which are visible or invisible, and conscious or unconscious.

According to Thompson (1994 in (Nurajizah et al., 2023) states that emotion regulation consists of intrinsic and extrinsic processes that are responsible for monitoring, evaluating, and modifying emotional reactions, especially to the nature of strong and temporary emotions. The intrinsic process of emotion regulation is a process that occurs within oneself or someone who can regulate their own emotions. While the extrinsic process of emotion regulation is regulating the emotions of others, and in other words helping others to regulate their emotions, usually in children.

According to Gratz & Roemer (2004 in (Fazhan et al., 2023) an important aspect of emotion regulation is the capacity to restore emotional balance even though at first individuals will lose control over the emotions they are currently feeling. Individuals can feel excessive emotions in a short time and quickly return to being able to neutralize thoughts, behavior, physiological responses, and can avoid negative effects due to excessive emotions.

Efforts to improve emotion regulation in children include building open and empathetic communication with children. Listen and understand their feelings without judgment. Parents and caregivers can set an example in managing emotions well. Children learn from what they see.

The Relationship between the Intensity of Gadget Use and Emotion Regulation in Children Aged 6-12 Years at Elementary Schools in Majalengka Sub-district

Based on the results of the study, it shows that there is a relationship between the intensity of gadget use and emotional regulation in children aged 6-12 years at Elementary Schools in Majalengka Sub-district with p value = 0.000. The existence of this relationship is because children who play too many gadgets have more difficulty concentrating, experience sleep disturbances, and increase problems in their emotional development.

The results of this study are in line with research (Fazhan et al., 2023) on the impact of social media on emotion regulation showing that gadget use has an impact on adolescent emotion regulation. Also in line with research (Nuraini & Wardhani, 2023) on the relationship between the duration of gadget playing and children's social emotional development shows that there is a relationship between the duration of gadget use and social emotional development.

The results of this study are in line with the theory of Dr. Jenny Radesky, a pediatrician and child development expert, that gadget use can reduce social interaction time and physical activity, which can cause fatigue and disrupt mood. In addition, excessive gadget use can cause emotional changes. Emotional changes that may occur due to gadget use are irritability, disobedience, mimicking the behavior in the gadget and talking to the gadget. In addition, lack of control in the use of gadgets results in reduced direct interaction, resulting in the emergence of anxiety disorders (Nurajizah et al., 2023).

The results of this study are in line with the theory that school-age children need the ability from within themselves to reduce emotional urges, especially negative emotions which are able to go through adolescence well. These abilities are certainly needed by adolescent individuals including the ability to regulate emotions. Emotion regulation is like a process of reducing and maintaining emotions which, if it occurs in children, can lead to

disruption of mental health and severe psychiatric disorders, such as anxiety, depression vulnerability, borderline personality disorder, and others (Nuraini & Wardhani, 2023).

Efforts to improve emotional regulation, it is necessary to provide counseling and education to the community, especially parents, to provide parenting to children properly and in accordance with the stage of growth and development of children so that good emotional regulation is built without limiting or applying pressure and helping children in problem solving.

CONCLUSION

The conclusions of this research are more than half of the respondents, 40 children (57.1%) aged 6-12 years at Elementary Schools in Majalengka Sub-district, had a high intensity of gadget use. Less than half of the respondents, 32 children (45.7%) aged 6-12 years at Elementary Schools in Majalengka Sub-district have poor emotion regulation. There is a relationship between the intensity of gadget use and emotional regulation in children aged 6-12 years at Elementary Schools in Majalengka Sub-district with p value = 0.000.

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