

Analysis of Gadget Use with Sleep Patterns and Emotional Development in Class Children 4-6

Atti Sulastrri Kharie

Puskesmas Siko, Kota Ternate, Maluku Utara, Indonesia

*Email: attisulastrri@gmail.com

ABSTRACT

Disturbances in sleep patterns and emotional development brought on by prolonged, intense gadget use are issues that frequently affect elementary school students. The purpose of this study is to ascertain how children in grades 4-6's use of gadgets affects their sleep habits and emotional growth. This research uses a cross-sectional, observational, analytical design. Simple random sampling was used to select respondents. The sample consisted of 59 individuals, while the population consisted of 70. Emotional development is the dependent variable, while gadget use and sleep patterns are the independent variables. Spearman rank is used in statistical test outcomes. The study's findings indicate that nearly all participants are aware of the use of devices, with 49 (83%).

Keywords: Children, Development, Emotional, Gadgets, Sleep Patterns

BACKGROUND

Children in primary school frequently experience issues such as sleep cycles being disrupted and emotional development being stunted by prolonged, intense use of electronics (Febriati, 2020). Children who use electronics for longer than two hours a day may exhibit disruptive behaviors that interfere with their sleep, such as expressing their emotions, becoming irate, throwing things in front of them, or crying when their parents take the device away (Rahmawati, 2020). Children use technology more than two hours a day on average. They use it mostly for Facebook, WhatsApp, YouTube, and movie watching, as well as for gaming at night, which might interfere with sleep cycles. Children who use technology will seem absorbed.

98% of Southeast Asian elementary school-age children have used a gadget, according to the World Health Organization (WHO) (2021). Of these, 67% use devices that belong to their parents, 18% to their families, and 14% to them personally. According to survey data from the US, kids between the ages of four and ten use electronics for eight hours a day on average. This can have detrimental effects on kids' social and emotional development as well as their sleep habits (WHO, 2021). According to the American Academy of Pediatrics (2020), children in elementary school shouldn't use gadgets for more than two hours a day. This implies that pupils in elementary school are only allowed to use electronics for a maximum of two hours every day.

According to the findings of the 2020 Basic Health Research (RISKESDAS) study on child development, Indonesian children's social and emotional growth reached 69.9%. The child's social development will suffer if the trigger is not dealt with right away. According to the Ministry of Health (2020), the percentage of kids who use electronics increased from 38% to 72% between 2019 and 2020. According to the Ministry of Health (2020), 8.1% of toddlers have mental-emotional (or developmental) issues. and 1.92% of kids in school age have

mental impairment. Developmental problems affecting social independence, fine and gross motor skills, and IQ are present in 16% of Indonesian toddlers. The Indonesian Internet Service Providers Association (APJII, 2020) survey findings show that there are 768 thousand elementary.

According to the findings of the preliminary data survey, which was carried out by researchers, there were 27 students in class 4, of whom 17 belonged to the male gender category and 10 to the female one. In class 5, there were 26 members of the male gender category. In class six, there were 17 individuals 10 men and 7 women and 14 men and 12 women. There are seventy pupils enrolled in grades four, five, and six. Researchers interviewed ten parents of students on December 27, 2021. The findings of this preliminary study showed that five (50%) of the parents stated that the length of their children's.

Children in elementary school who use electronics for extended periods of time each day will experience sleep patterns that are disrupted. Children in school require ten hours of sleep each day (Radliya, 2019). Children in school typically require 8 to 9 hours of sleep per night, though this can vary (Dian, 2019). A child's performance during the day will be impacted by a decline in sleep quality, both quantitatively and qualitatively. This can manifest as impatience, daytime tiredness, and trouble focusing during academic learning. In addition, children who experience long-term health effects may become easily agitated or melancholy, have higher body mass indices (BMIs), abnormal glucose metabolism, weakened immune systems, be at higher risk of cardiovascular diseases like hypertension, have higher rates of accidents, and be at higher risk.

In the meantime, emotional development is crucial for elementary school students since it will be necessary for them to be able to control their emotions when they interact with the outside world. Children that struggle with emotional regulation will find it challenging to fit in with their social surroundings (Rahmawati, 2020). Emotional development is an ongoing process of learning how to follow social norms and communicate and comprehend emotions while taking responsibility for one's actions in the surroundings. Children must be disciplined by adhering to rules, recognizing individual differences, and being aware of their surroundings (Pangestuti, 2018). Due to the significance of emotional intelligence in a disciplined mindset in children as they interact with their surroundings (Nugraha, 2018). The significance of observation.

METHODS

In order to ascertain the link between two or more variables, correlational research using a cross-sectional method approach was employed in this study. Each research variable was the subject of a single data collection procedure. Simple random sampling is the method of sampling that is employed. With a sample size of 59, the population consisted of 70 individuals. The dependent variable in this study is the emotional development of children in grades 4-6, while the independent variables are gadget use and sleep patterns. The steps of data processing include editing, coding, scoring, and tabulation. The Spearman rank statistical test, with $\alpha = 0.05$, is employed.

RESULTS

General Data

Age	Frequency	Percentage (%)
≤ 7 Years	3	5
7-10 Years	51	86
≥ 10 Years	5	9
Amount	59	100
Gender	Frequency	Percentage (%)

Man	45	76
Woman	14	24
Amount	59	100
Residence	Frequency	Percentage (%)
Parent	57	97
Boarding/Rental	0	0
Brother/Sister/Grandfather/Uncle/Aunt	2	3
Distant relatives	0	0
Amount	59	100

Based on the table above, it shows that the age of the respondents is that almost all respondents aged 7-10 years are 51 (%) respondents. Gender is known to almost all respondents, namely male, namely 45 (76%) respondents. Where respondents live, it is known that almost all respondents live with their parents, namely 57 (97%) respondents.

Custom Data

No	Use of Gadgets	Frequency	Percentage (%)
1	Low	49	83
2	Currently	3	5
3	Tall	7	12
	Amount	59	100

No	Sleep Pattern	Frequency	Percentage (%)
1	Not enough	5	8
2	Enough	4	7
3	Good	50	85
	Amount	59	100

No	Emotional Development	Frequency	Percentage (%)
1	Not enough	2	3
2	Enough	6	10
3	Good	51	87
	Amount	59	100

Based on the table above, it shows that the use of gadgets in children in grades 4-6 shows that almost all respondents, 49 (83%) of respondents, are in the Low category. Sleep Patterns in Grades 4-6 Children show that almost all 50 (85%) respondents are in the Good category. Emotional Development in Children in Grades 4-6 shows that almost all respondents, 51 (87%) of respondents, were in the Good category.

Cross Tabulation Results Between Independent and Dependent Variables

		Emotional Development			Total
		Not enough	Enough	Good	
Low Usage Gadgets	Frequency	0	3	46	
	%	.0%	6%	94%	100%
Currently	Frequency	0	2	1	
	%	.0%	67%	33%	100%
Tall	Frequency	2	1	4	
	%	29%	14%	57%	100%
Total	Frequency	2	6	51	59
	%	3%	10%	87%	100%

		Emotional Development			Total
		Not enough	Enough	Good	
Sleep Pattern Not enough	Frequency	2	1	2	
	%	40%	20%	40%	100%
Enough	Frequency	0	2	2	
	%	.0%	50%	50%	100%
Good	Frequency	0	3	47	
	%	.0%	6%	94%	100%
Total	Frequency	2	6	51	59
	%	3%	10%	87%	100%

Based on the table above, it shows that the cross tabulation between gadget use and emotional development in children in grades 4-6 at SDN Sonoageg 2 Nganjuk City shows that almost all respondents, namely 46 (94%) respondents were in the Fair category. Cross tabulation between sleep patterns and emotional development in children in grades 4-6 revealed that almost all respondents, namely 47 (94%) respondents were in the Good category.

Data analysis

Statistical Test Results		Correlation Coefficient
Variable	Significance Level	
Use of Gadgets	0.000	0.805
Sleep Pattern	0.000	
Emotional Development	0.000	

The results of data analysis show that the significance level is $0.000 < \alpha = 0.05$ so that H_0 is rejected and H_1 is accepted, thus there is an influence of the role of parents in handling enuresis incidents in preschool children aged 3-5 years.

DISCUSSION

Use of Gadgets in Grades 4-6

According to the study's findings, 49 (83%) of the respondents in Grades 4-6 fall into the Low category. This is corroborated by the survey's findings, which showed that parents provide their kids electronics so they may readily contact them when they go home from school and are picked up by them. Youngsters utilize technology to complete their task, not to play online games or access social media platforms like Facebook, Instagram, or WhatsApp. tasks that the instructor assigns. Aside from that, kids don't use their phones to cheat on exams or spend more than three hours a day on them. Kids occasionally utilize devices as well.

There are advantages and disadvantages to gadgets. Parents, however, are unaware that they are even ignoring the harmful effects of technology. Health, mental, and other effects are

among the many that occur (Arif, 2021). Nevertheless, there are advantages to these devices in addition to their drawbacks. One of the reasons parents give their kids devices is to help them communicate with their parents and to keep up with the latest trends so their kids don't grow up without a working knowledge of technology. Additionally, gadgets can serve as educational tools. Parents should not, however, be careless in their supervision of their children or in allowing them to use technology for extended periods of time. Keep the generation we want from turning into one that is addicted.

According to the researcher, children's use of devices is in the low group because parents help and supervise them so that their everyday activities may be closely watched. In addition, parents provide their kids with technology while they are in school so that they may communicate with their parents or older siblings more easily when they return home. In addition to that, kids use technology to access and study the materials that teachers present them at school. This allows them to study the content after school. In addition, the parents will retrieve the device when the youngster is at home.

Sleep Patterns in Children in Grades 4-6

The sleep patterns of children in grades 4-6 are known to fall into the Good category for nearly all 50 (85%) of the respondents, according to the research findings. This is substantiated by the questionnaire results, which show that the child sleeps for approximately 10 hours at night, is content with his sleep schedule, wakes up feeling rejuvenated, sleeps soundly at night, and doesn't feel weak or exhausted at all. Children always manage their time effectively to rest at night, and it is challenging to wake them up during the day when they are asleep. According to Wong (2019).

Emotional Development in Children in Grades 4-6

According to research findings, nearly all respondents 51, or 87% of the sample fall into the Good category for the emotional development of students in grades 4-6 at SDN Sonoageg 2 Nganjuk City. According to the questionnaire's results, children can identify and control their emotions when they are angry, adjust their thought patterns to fit the circumstances, refrain from taking their emotions out on others, and recognize the emotions of others when they are in stressful situations where Children constantly think positively, try to remain composed, don't keep their emotions to themselves, and, in the event of difficulties, always attempt to maintain self-control and are cautious not to show them.

According to the researcher, children who possess strong self-control are able to manage their anger and refrain from venting it on others. While introducing technology to young children is perfectly acceptable, parents are expected to be involved in their children's supervision. Avoiding unwanted items is the aim. As a result, it is hoped that kids will spend less time on electronics and that parents will expose them to more of the world. Children feel protected, trust their surroundings, and have a stronger sense of competition in their surroundings if their emotional development is healthy. However, if development is not going smoothly, the youngster will start to have worries.

The Relationship Between Gadget Use and Sleep Patterns and Emotional Development in Children in Grades 4-6

The data analysis results indicate that the significance threshold is $0.000 < \alpha = 0.05$, indicating that H_0 is rejected and H_1 is accepted. This suggests that parents' roles in managing enuresis events in preschool-aged children, are significant. The majority of respondents 14 (58%) in the Less category were aware of the findings of the cross-tabulation between the role of parents and managing the occurrence of enuresis in preschool-aged children, ages three to five. The role of parents is one of the reasons why preschoolers, ages three to five, do not receive treatment for enuresis. The data analysis's findings for parents indicate that the significance level of Gadget.

Children's sleep patterns will be disturbed if they utilize electronics for extended periods of time each day while in elementary school. According to Radliya (2019), school children require ten hours of sleep every day. Although school-aged children's sleep needs vary, they typically require 8 to 9 hours per night (Dian, 2019). A child's performance throughout the day, including irritability, daytime sleepiness, and trouble focusing during the academic learning process, will be impacted by a decline in sleep quality, both numerically and qualitatively. In addition, the long-term health effects include children's susceptibility to anxiety or depression, elevated body mass index (BMI), aberrant glucose metabolism, weakened immune system, elevated risk of cardiovascular disease, including hypertension, more accidents, and an increased risk.

To solve the aforementioned issue, parents must maintain, increase, modify, and enhance their elementary school-aged children's gadget-using behavior in order to avoid disturbing their sleep patterns or even their emotional development. They should also remind their children not to play with their devices for longer than two hours each day. In addition, parents need to help their kids become used to going to bed and waking up at the same time every day in order to maintain a healthy sleep schedule. Avoid coffee before bed, schedule daily exercise, and use the bedroom exclusively for sleeping rather than as a multipurpose space. It should be possible for schools to offer health education resources by using banners or pamphlets that include.

CONCLUSION

According to the study's findings, 49 (83%) of the respondents in Grades 4-6 fall into the Low category. It is known that nearly all 50 (85%) respondents fell into the Good group when it came to sleep patterns for kids in grades 4-6. It is known that 51 (87%) of the respondents fell into the Good group for Emotional Development in Children in Grades 4-6. Data analysis results indicate that the significant level of Sleep Pattern (0.000), Emotional Development (0.000), and Gadget Use (0.000) $< \alpha = 0.05$ allows H_0 to be rejected and H_1 to be accepted, indicating a link between Gadget Use.

To ensure that school-age children's sleep cycles and emotional development are not disrupted, parents are expected to maintain, increase, modify, and correct their children's gadget-using behavior. It is envisaged that schools would be able to offer health education resources through banners or booklets. Includes information about the risks of excessive gadget use and the need for schools to teach students about these risks, which can affect their sleep habits and overall development. It is intended that future researchers would be able to explore additional elements that affect children's sleep habits and emotional development, as well as provide input and basic data for future research.

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