DOI: https://doi.org/10.20961/jas.v14i1.87677 ISSN: 2615-0778

THE INFLUENCE OF HABITUS AND GADGET MEDIA DEPENDENCE ON SLEEP PATTERNS OF ADOLESCENT IN KETAJEN VILLAGE

Jurnal Analisa Sosiologi

Innabella Qurrotul Azizah[1*], Isa Anshori[1], Ikke Wahyu Pramesty[2]

[1]Sociology, Social Sciences and Political Sciences, Sunan Ampel State Islamic University of Surabaya [2]Aqidah & Philosophy, Faculty of Usuluddin, Al-Azhar University, Egypt

***Correspondence email:** innabellaqurrotuazizah853@gmail.com

Recived: 05 June 2024
Revised: 20 January 2025
Accepted: 30 January 2025

Edition:
January 2025, 14 (1): 52-65

Abstract

This study aims to explore the influence of excessive gadget use on adolescent sleep patterns in Ketajen Village. A quantitative approach was used with a survey method through a questionnaire to 50 adolescents aged 15-19 years. The questionnaire consisted of 15 questions covering the duration of gadget use, frequency of use before bedtime, and the impact on sleep quality. Data were analyzed using descriptive statistics to identify respondents' characteristics, as well as Pearson correlation and linear regression to evaluate the relationship and influence of gadget use on sleep patterns. The results showed that 75% of the respondents used gadgets for more than 3 hours a day, with 62.5% experiencing difficulty falling asleep and sleep duration of less than 7 hours each night. A total of 87.5% felt tired when they woke up, and another 87.5% woke up in the middle of the night to check their gadgets. Gadget use before bed also impacted concentration and daily activities. This study contributes to the international literature by focusing on the relationship between technology use and sleep quality in a rural context. Practically, the findings can be used by parents, educators and policy makers to manage gadget use to improve adolescents' sleep quality.

Keywords: Gadget usage, Teenagers, Sleep patterns

INTRODUCTION

Adolescents are the country's assets, and they will determine the future. Adolescence, also known as adolescence, is a transition period from childhood to adulthood. Adolescents experience physical changes in addition to cognitive and social development (Syamsoedin, Bidjuni, & Wowiling, 2015). Sleep deprivation is also a health issue that adolescents face. The repetitive cycle of changing states of consciousness is known as sleep. Adolescents' sleep function is critical to maintaining their cognitive abilities.

Gadget use among adolescents in Indonesia has seen a significant increase in recent years. According to recent data, around 80% of adolescents aged 15 to 19 in Indonesia use digital devices, and many of them spend more than three hours a day in front of screens, especially before bed (Yusnitasari et al., 2022). The data shows that not only is gadget use by adolescents high, but it is also associated with sleep disorders. A recent study found that about 62.5% of adolescents had difficulty falling asleep, and 87.5% reported feeling tired when they woke up. In addition, global studies show that excessive gadget use can result in decreased sleep quality among adolescents, with an increased risk of mental and physical health problems.

Data from international surveys show that the impact of gadget use is not limited to Indonesia. In countries such as the United States and the United Kingdom, research shows that adolescents who use gadgets for more than two hours a day have a higher risk of developing sleep disorders and mental health problems (Parasuraman et al., 2017).

Sleep pattern refers to an individual's sleep habits and rhythms that include various aspects, such as sleep duration, sleep timing, and sleep quality. It encompasses the sleep cycle which consists of different phases, including REM (Rapid Eye Movement) and NREM (Non-Rapid Eye Movement) sleep. The quality of sleep patterns is also very important; for example, a person may sleep for 8 hours but still feel tired if their sleep is disturbed by external factors such as noise or gadget use before bedtime (Wicaksono et al., n.d.).

Sleep quality is a measure of how well a person experiences adequate and restorative sleep. It encompasses various dimensions, including sleep duration, sleep

depth, and how refreshed one feels upon waking. Quality sleep can improve an individual's mood, concentration, motivation, memory, and cognitive function (Sulistia et al., 2018) Good sleep quality allows individuals to go about their daily activities with optimal energy and focus. Poor sleep can lead to various health problems, including mood disorders, decreased cognition, obesity and heart disease. Research shows that factors such as gadget use before bedtime can significantly affect adolescents' sleep quality (Khasanah, 2012; Hidayat, 2015).

Gadget addiction is defined as the behavior of using electronic devices, especially mobile phones, excessively to the point of interfering with daily activities. The behavior of adolescents who spend a long time using gadgets can result in changes and disruptions in their activities, such as forgetting learning tasks, eating, drinking, and maintaining personal hygiene (Afdalia et al., 2024).

The prevalence of sleep quality problems among adolescents according to various studies shows varying results. In Beijing, it was found that 21.2% of adolescents had sleep disorders. Middle and high school students showed varying prevalence of sleep disorders, ranging from 15.3% to 39.2% (Azmi & Erkadius, 2017). If this situation persists, it may result in a social crisis and decreased confidence levels among adolescents (Simanjuntak & Wulandari, 2022).

Based on data in Indonesia, epidemiological research exploring sleep quality in adolescents is still relatively rare. Research using the Sleep Disturbances Scale for Children method found that the prevalence of poor sleep quality (especially related to sleep-wake transition disorders) in the control population reached 73.4% (Romayati Keswara et al., 2019).

This study categorizes the main variables into two categories: Gadget Use Level and Sleep Pattern Indicators. The level of gadget use is divided into three categories: low, which is less than 3 hours of use per day; medium, which is between 3 to 5 hours of use per day; and high, which is more than 5 hours of use per day. Meanwhile, sleep pattern indicators include several important aspects, namely sleep duration measured in hours per night, sleep latency referring to the time taken to fall asleep, sleep efficiency which is the ratio between sleep time and time spent in bed, frequency of sleep disturbances indicating how often a person wakes up at night, and daytime dysfunction referring to the level of sleepiness and fatigue experienced throughout the day. By categorizing these variables, the study can more clearly analyze the influence between gadget use and adolescent sleep patterns in Ketajen Village.

The negative impacts of sleep deprivation can include increased physical health problems, risk of accidents, impaired memory and learning, possible obesity, and mental health problems (Huda, 2016; Khusnal, 2017).

One of the reasons why teenagers do not sleep well is their changing lifestyle, such as using electronic devices. The use of gadgets by teenagers is unavoidable. To date, around 30 million children and teenagers in Indonesia use devices consisting of the internet and digital media as their main way of communicating. The results show that 80 percent of people surveyed use digital devices, namely the internet. This shows a significant digital divide between urban residents who are considered more prosperous and rural residents who are considered less prosperous (Sari, Ilyas, & Ifdil, 2017). A group of teenagers gather in one place, but they don't talk much unless they are using their respective smartphones. So far, 82 million people in Indonesia use the internet. Due to this achievement, Indonesia is ranked eighth among other countries in the world. According to Broto (2014), 80 percent of internet users are teenagers aged 15 to 19.

According to Damayanti (2017), the effects of electronic device use include an increase in the amount of time children spend playing games and using social media on these devices. Smartphone users take more than 60 minutes longer to fall asleep than the usual bedtime. Therefore, these teens may be sleeping longer than they do in general. Many people are stuck in the habit of constantly using smartphones that are sophisticated and easy to use nowadays (Mawitjere, Onibala, & Ismanto, 2017).

Ketajen Village, which is one of the villages in Sidorajo with increasingly widespread access to technology , is no exception to this phenomenon. Adolescents in this village, as in many other places, show an increase in the use of gadgets for various purposes such as social media, playing games, and watching videos. Excessive gadget use, especially around bedtime, has sparked concerns about its effect on the quality and quantity of their sleep. This provides important context for the phenomenon in Indonesia, where around 80% of adolescents aged 15 to 19 use digital devices for more than three hours a day, especially before bedtime.

Although many studies have been conducted in urban areas, there is a lack of studies that focus on the impact of screen time on adolescents' sleep patterns in the rural context of Indonesia, particularly in Ketajen Village. This study aims to examine the influence between gadget use and adolescent sleep quality in the village. With this approach, it is hoped that this study can provide applicable suggestions for parents,

educators, and policy makers to improve the sleep quality and well-being of adolescents in the village.

The ability of individuals to maintain their sleep state and achieve the right REM and NREM sleep phases is referred to as sleep quality (Khasanah, 2012). After waking up and feeling sound asleep, people can know the quality of good sleep (Hidayat, 2015).

Poor quality sleep can have a major impact on the physical and mental health of adolescents. Sleep deprivation can result in decreased concentration, poor academic performance, mood disorders, and long-term health problems such as obesity and cardiovascular disorders. Therefore, it is important to understand the extent to which excessive gadget use affects the sleep patterns of adolescents in Ketajen Village and find effective solutions to overcome this problem.

Previous studies tend to only highlight urban populations without considering contextual factors that are unique to rural areas, such as local customs and values. In addition, many of these studies did not include relevant socio- cultural variables, which could provide a deeper understanding of adolescents' gadget use behavior. Therefore, this study seeks to fill these gaps by exploring how excessive gadget use affects adolescents' sleep patterns in Ketajen Village. This focus on the local context is important to understand the dynamics of gadget use and its impact on sleep quality, as well as to formulate solutions that suit the needs of the local community. This study is expected to provide useful insights for parents, educators, and policy makers in designing more efficient interventions to improve the sleep quality and well-being of adolescents in rural areas.

RESEARCH METHODS

The type of data used in this study is quantitative data. (Sugiono, 2013) explains that quantitative data is data in the form of numbers or qualitative data that has been converted into numbers (scoring). This study involved adolescents in Ketajen Village aged between 15 and 19 years. The research began on Saturday, May 25, 20224, at 10:40 am. Data were collected through distributing questionnaires. The questionnaire used in this study consisted of two parts. The first part included questions with a "yes" or "no" answer format, while the second part contained questions with multiple answer options. The respondents were 50 teenagers aged 15-19 years old living in Ketajen Village. There were a total of 15 questions in this questionnaire, covering aspects such as duration of gadget use, frequency of use before bedtime, and impact on sleep quality.

The measurement scale used is a Likert scale for questions with answer options, which allows respondents to express their level of agreement or disagreement with certain statements. The justification for using questionnaires as a data collection method is due to the ease of reaching respondents and the ability to collect quantitative data. Primary data processing is done by calculating the frequency and percentage of each answer, while secondary data is analyzed qualitatively to gain a deeper insight into the phenomenon being studied.

Data were analyzed using descriptive statistical analysis techniques to describe the characteristics of the respondents and their sleeping patterns. Data were calculated in the form of frequencies and percentages for each question category. The results of the analysis were then interpreted to identify the influence between gadget use and adolescent sleep quality. In this way, the study can provide a clear picture of the impact of gadget use on sleep patterns in Ketajen Village.

RESULTS AND DISCUSSION

Results

The following table shows the research results obtained after distributing questionnaires.

Table 1: Data on Gadget Use and Adolescent Sleep Pattern in Ketajen Village

No.	Question	Yes	No	Total
1	Do you have a personal gadget?	100%	-	100%
2	Do you use gadgets for more than 3 hours a day?	75%	25%	100%
3	Do you often use gadgets before bed?	75%	25%	100%
4	Do you find it difficult to sleep after using gadgets?	62,5 %	37,5 %	100%
5	Are you getting less than 7 hours of sleep every night?	62,5 %	37,5 %	100%
6	Do you feel tired when you wake up?	87,5%	12,5 %	100%
7	Do you ever fall asleep during class or other activities?	100%	-	100%
8	Do you use gadgets in bed?	50%	50%	100%
9	Do you ever wake up in the middle of the night to check your gadgets?	87,5%	12,5 %	100%
10	Do you find it harder to wake up in the morning after using gadgets at night?	50%	50%	100%
11	Does gadget use interfere with your regular sleep schedule?	100%	-	100%
12	Do you use gadgets as an alarm to wake up?	75%	25%	100%
13	Do you often delay your bedtime to use gadgets?	75%	25%	100%

14	Do you ever feel anxious or worried when you can't use your gadgets?	75%	25%	100%
15	Do you feel that gadget use affects your concentration when studying or doing activities during the day?	75%	25%	100%

In addition to the questionnaire questions as in the table above, there is another questionnaire distributed in the form of questions as follows:

a. "How long do you usually use gadgets every day?" with the following options answers: a) Less than 1 hour, b) 1-3 hours, c) 3-5 hours, d) More than 5 hours. The answers given by respondents are: d) more than 5 hours 66.7%. c) 3-5 hours.
b. "How often do you use gadgets before bed?" With the following answer options: a) Never, b) Sometimes, c) Often, d) Always. The answers given by the respondents were: a) never, b) sometimes 33.3%. c) often 33.3%. d) always 33.3%.
c. "Do you have trouble sleeping after using gadgets at night?" with the following answer options: a) Never, b) Rarely, c) Often, d) Always. The answers given by the respondents are: a) never 16.7%. b) sometimes 33.3%. c) often 50%.
d. "How often do you feel tired or lackluster in the morning after using gadgets until late at night?" with the following answer options: a) Never, b) Sometimes, c) Often, d) Always. The answers given by the respondents are: a) never, b) sometimes 50%. c) always 33.3%. d) often 16.7%.
e. "Does gadget use make you delay your regular bedtime?" with the following answer options: a) Never, b) Sometimes, c) Often, d) Always. The answers given by the respondents are: a) Never, b) Sometimes, c) Often, d) Always 66.7%.

In accordance with the theory stating that gadgets are made with various applications that can offer various types of news media, social networks, hobbies, and entertainment (Widiawati & Sugiman H, 2014).In addition, another study revealed that 28.2% of adolescents use gadgets for a long time, which is more than 11 hours every day. The researcher argued that most of the respondents showed unhealthy patterns of gadget use, as the devices have affected various aspects of their lives. During adolescence, they start to be trusted to have their own gadgets and many of them experience dependence on these devices.

Discussion

1. **Habitus Theory by Pierre Bourdieu**

   Habitus explains how individual habits and patterns of behavior are formed by the social structure, culture, and environment they are in. The use of gadgets by teenagers can be analyzed as part of the digital habitus formed in a modern social and cultural environment. Researchers can explore how norms and habits of gadget use, shaped by family, friends and the media, affect adolescents' sleep patterns. For example, teens from families with strict regulations may have more regular sleep habits than those with no restrictions.

2. **Symbolic Interaction Theory by Herbert Blumer**

   This theory focuses on how individuals give meaning to objects and social interactions. Teenagers' use of gadgets can be seen as a symbol of social status, entertainment, or a communication tool. Researchers can explore how the meanings teens assign to gadgets affect their behavioral patterns, including sleep habits.

3. **Media Dependency Theory by Sandra Ball-Rokeach and Melvin DeFleur**

   This theory highlights the relationship between individuals, media, and the social environment, and how media dependency affects behavior and thinking. Researchers can explore the extent of adolescents' dependence on gadgets and how this dependence affects their sleep patterns, including its negative impact on physical and mental health.

For this study, a combination of Habitus theory by Pierre Bourdieu and Media Dependency Theory by Ball-Rokeach and DeFleur would be highly relevant. Habitus can explain the social and cultural influences in shaping gadget use habits, while media dependency theory can provide insight into the relationship between dependence on technology and its impact on adolescents' sleep patterns. If the research also includes an analysis of social interaction in digital media, Herbert Blumer's Symbolic Interaction theory could be an interesting addition to the analysis.

Based on the results of research conducted through questionnaires to teenagers in Ketajen Village, it appears that the use of gadgets has a significant impact on their sleep patterns. From the data collected, all respondents (100%) have personal gadgets, and 75% of them use gadgets for more than 3 hours a day. As many as 75% of the respondents also frequently use gadgets before going to bed, indicating a habit that may affect their sleep quality.

Difficulty falling asleep after using gadgets was experienced by 62.5% of respondents, while 62.5% reported sleeping less than 7 hours each night. In addition, 87.5% felt tired when waking up and 87.5% admitted to waking up in the middle of the night to check their gadgets. This shows that gadget use affects not only sleep duration but also sleep quality, resulting in fatigue and lack of energy in the morning.

Furthermore, the use of gadgets in bed was reported by 50% of respondents, and 50% also found it more difficult to wake up in the morning after using gadgets at night. The use of gadgets as an alarm to wake up was noted by 75% of respondents, and 75% often delayed bedtime to use gadgets. The effect of gadgets on concentration was also significant, with 75% of respondents feeling distracted in studying or activities during the day.

In addition, the open-ended question in the questionnaire revealed that 66.7% of respondents use gadgets for more than 5 hours a day. A total of 33.3% used gadgets before going to bed "sometimes", "often", and "always" each with the same percentage. Difficulty falling asleep after using gadgets was reported by 50% of respondents who often experienced it, and 33.3% felt tired in the morning "always", while 16.7% "often". The use of gadgets that made respondents delay bedtime regularly was also significant, with 66.7% always delaying bedtime.

Overall, this data shows that excessive gadget use greatly affects the sleep patterns of adolescents in Ketajen Village, both in terms of sleep duration and quality. The habit of using gadgets before bed, waking up in the middle of the night to check gadgets, and delaying bedtime all contribute to the sleep problems experienced by adolescents in this village.

This study showed that 62.5% of adolescents in Ketajen Village had difficulty sleeping, with 87.5% of them feeling tired when they woke up. This finding is in line with Sandra Ball-Rokeach and Melvin DeFleur's theory of media dependence, which highlights how an individual's attachment to media can affect behavior patterns, including sleep. Research by Yusnitasari et al. (2022) also found that excessive gadget use caused an increase in cases of insomnia in adolescents in urban and rural areas.

This study adds to the literature by providing a new context, focusing on rural adolescents. Most previous studies, such as those conducted by Khusnal (2017) and Simanjuntak & Wulandari (2022), focused more on urban populations

without considering contextual factors typical of rural areas. By focusing on Ketajen Village, this study provides a new perspective on how widespread access to technology in rural areas affects adolescents' sleep patterns.

In addition, this study confirmed the results of a previous study which found that the duration of gadget use negatively correlated with sleep quality (Mawitjere et al., 2017). This finding also reinforces a global study by Broto (2014) which identified that adolescent gadget users tend to have poor sleep quality due to exposure to blue light from gadget screens, especially at night.

Habitus Theory by Pierre Bourdieu Habitus explains how individual habits and behavior patterns are formed by the surrounding social and cultural structures. In the context of this study, teenagers' habit of using gadgets before bed can be considered as part of the digital habitus formed from their social environment. For example, teenagers who come from families with strict regulations tend to have better sleeping habits than those who have no restrictions. This study indicates that the norms of gadget use in Ketajen Village, including for entertainment or communication, have significantly affected adolescents' sleep patterns.

Media Dependency Theory by Sandra Ball-Rokeach and Melvin DeFleur Media dependency theory provides a framework for understanding how gadget dependency affects adolescent sleep patterns. This dependence creates disruptive patterns of behavior, such as the use of gadgets for more than 5 hours a day by 66.7% of respondents, which ultimately leads to sleep disturbances. Continuous exposure to digital media triggers visual and emotional stimuli that make it difficult for teens to achieve quality sleep.

Using these two theories, this study provides insight that gadget use is not simply an individual habit, but rather the result of complex interactions between social norms, technology and adolescents' emotional needs. For example, the use of gadgets as alarms by 75% of respondents indicates a greater reliance on technology in their daily lives.

The researcher's view is in line with the statement delivered by Potter & Perry in (Anggraika et al., 2019) which states that the Reticular Stimulation System (RAS) is able to provide stimulation in the form of visual, sound, pain, and touch. On the other hand, this system can also receive stimulation from the cerebral cortex, which is related to the stimulation of emotions and thought processes. Neurons in the Reticular Intelligence System will release

catecholamines, such as norepinephrine, when they are in a conscious state. Very similar to what happens when we sleep: serum serotonin is released from certain cells in the pons and midbrain stem, known as the Bulbar Synchronizing Area (BSR). In contrast, when we are awake, the balance of impulses received from the brain center and limbic system is key. According to research conducted by Marvia E et al. in 2021 in Bima Regency, the interpretation of normal internet addiction was 27 students (16%), mild internet addiction was 87 students (51%), moderate internet addiction was 52 students (31%), and severe internet addiction was 3 students (2%). They also considered sleep quality as good for 50 students (30%) and poor for 119 students (70%).

According to researchers, there is a link between the way gadgets are used and the quality of teenagers' sleep. Screen time, especially at night, can disrupt sleep patterns. In addition, prolonged screen time can cause difficulty falling asleep due to exposure to blue light that resembles daylight, thus keeping one awake. On the other hand, the body tends to feel more relaxed in dim lighting conditions.

The relationship between duration of gadget use and sleep quality is very clear in this study. Excessive gadget use not only reduces sleep duration but also affects its quality. Respondents who used gadgets for more than 5 hours a day reported feeling tired (87.5%) and waking up in the middle of the night to check their gadgets (87.5%). This suggests that there are psychological impacts such as anxiety and fatigue due to sleep deprivation. Previous research has also shown that sleep deprivation can play a role in the onset of depression, and anxiety problems.

The researchers concluded that gadget dependence can negatively affect the quality of adolescent sleep. The greater the level of dependence on gadgets, the lower the quality of sleep. The researcher's view is supported by the theory expressed by (Hablaini et al., 2020) which states that there are various factors that can cause adolescents to experience low quality sleep. Children's sleep quality is very important for health, so it needs attention. Daily activities should also be considered, such as reducing the use of electronic devices to improve their sleep quality. With good sleep, a person will feel healthy and well, and have the enthusiasm for activities during the day.

The findings of this study have significant practical implications.

Educational policies can be designed to raise awareness about the importance of quality sleep and the dangers of gadget use before bedtime. Community-based interventions, such as counseling by village health cadres, can help build healthier sleep habits among adolescents.

In addition, schools can work with families to educate adolescents about managing screen time. For example, regulating screen time at home or reducing access to digital devices before bedtime. These interventions can help minimize sleep disturbances and improve adolescents' well-being.

CONCLUSION

This study shows that excessive gadget use has a significant impact on the sleep patterns of adolescents in Ketajen Village. Most respondents use gadgets for more than 3 hours every day, especially at bedtime, which results in sleep disturbances such as difficulty falling asleep, sleep duration of less than 7 hours, and feeling tired when waking up. This study makes an important contribution to understanding the relationship between gadget use and adolescents' sleep quality in a rural setting, which has previously received little attention. This study has added value by focusing on adolescents in a rural setting, a context that has rarely been examined in similar studies. The findings provide new insights into the sleep behavior patterns of adolescents in Ketajen Village, including the influence of technology access on their sleep quality. This enriches the literature on the socio- cultural impact of gadget use.

This study has several limitations, including a small sample size and uneven distribution of respondents, which may affect the generalizability of the results. Therefore, further research is recommended to include a larger and more diverse sample and consider other variables such as socio-economic conditions and access to technology. This will enrich the understanding of the relationship between gadget use and sleep patterns among adolescents in various contexts.

REFERENCES

Afdalia, F., Sundari, R. I., & Rahmawati, A. N. (2024). Gadget Addiction with Emotional and Behavioral Problems in Teenagers. Medika Respati: Scientific Journal of Health, 18(4), 225-232.

Anggraika, P., Apriany, A., Pujiana, D., & Medika, A. (2019). The Relationship Between

Sitting Position And The Incidence Of Low Back Pain (Lbp) In Stikes Employees. Journal of 'Aisyiyah Medika.

Awwal, H., Hartanto, F., & Hendrianingtyas, M. (2015). Media Medika Muda Prevalence Of Sleep Disorders In Adolescents Aged 12-15 Years: Study on SMP N 5 Semarang Students. 4(4), 873-880.

Azmi, S., & Erkadius. (2017). Relationship between Sleep Quality and Blood Pressure in 2nd Year Students of SMA Negeri 10 Padang. Andalas Health Journal, 6.

Broto, G. S. D. (2014). Kominfo and UNICEF Research on the Behavior of Children and Adolescents in Using the Internet. Retrieved from https://kominfo.go.id/

Damayanti, R. M., & Romdzati. (2017). The Relationship between Gadget Use and the Achievement of Developmental Tasks of Early Adolescent Children at SDN in Godean District.

Hablaini, S., Lestari, F., Niriyah, S., Studi, P., Stikes, K., & Pekanbaru, H. T. (2020). The Relationship Of Gadget Use With Quantity And Quality Of Sleep In School Children (Grade Iv And V) In Public Elementary School 182 Pekanbaru City. Abdurrab Nursing Journal, 4.

Hidayat Aimul, et al. (2015). Introduction to Basic Human Needs. 2nd Edition. Huda, N. (2016). 100 facts about sleep you need to know. Jakarta: PT Elex Media Komputindo.

Khasanah, & Hidayati. (2012).Sleep quality of the elderly in the social rehabilitation center "MANDIRI" Semarang. Journal of Nursing Studies

Khusnal, E. (2017). The Relationship of Gadget Use Behavior with Sleep Quality in Adolescent Children at SMA Negeri 1 Srandakan Bantul (Doctoral Dissertation, Aisyiyah University Yogyakarta).

Mawitjere, O., Onibala, F., & Ismanto, Y. (2017). The Relationship of Length of Gadget Use with the Incidence of Insomnia in Students at SMA Negeri 1 Kawangkoan. e-journal of Nursing (e-Kp) Volume 5 Number 1

Parasuraman, S., Sam, A., Yee, S. K., Chuon, B. C., & Ren, L. (2017). Smartphone usage and increased risk of mobile phone addiction: A concurrent study. International Journal of Pharmaceutical Investigation, 7(3), 125. https://doi.

Romayati Keswara, U., Syuhada, N., Tri Wahyudi, W., & Nursing Malahayati Bandar Lampung, A. (2019). Gadget use behavior with sleep quality in adolescents (Vol. 13, Issue 3).

Sari, A. P., Ilyas, A., and Ifdil, I. (2017). The Level of Internet Addiction in Aqa1

Adolescents, JPPI (Indonesian Journal of Educational Research), 3(2), 110- 117.

Simanjuntak, J., & Wulandari, I. S. M. (2022). Emotional and Behavioral Disorders of Adolescents Due to Gadget Addiction. Malahayati Nursing Journal, 4(4), 1057-1065. https://doi.org/10.33024/mnj.v4i4.6221

Sugiono. (2013). Educational Research Methods Quantitative, Qualitative and R&D Approaches. Alfabetaa

Sulistia, T., Djamahar, R., Rahayu, S., Biology Education Study, P., Negeri Jakarta Jln Rawamangun Muka, U., & Timur, J. (2018). Correlation Between Sleep Quality-Physical Activity And Cognitive Learning Outcomes On Human Coordination System Subject (Vol. 2, Issue 2). http://jurnal.

Syamsoedin, W. K. (2015). The Relationship between the Duration of Social Media Use and the Incidence of Insomnia in Adolescents at SMA Negeri 9 Manado. Journal of Nursing, 3(1).

Wicaksono, D. W., Yusuf, A., Widyawati, I. Y., Program, M., Nursing, S. I., Nursing, F., Airlangga, U., & Pengajar, S. (n.d.). Dominant Factors associated with Sleep Quality in Students of Faculty of Nursing Universitas Airlangga

Widiawati, I., & Sugiman, H. (2014). The Effect of Gadget Use on Child Development. Jakarta: Budi Luhur University. Ejournal of Nursing, 6, 1-6.

Yusnitasari, A. S., Ramadhani, A. T., Andini, & Hisan, K. (2022). Gadget Use with the Incidence of Insomnia in Adolescents: Cross Sectional Study on High School Students in Urban and Rural Areas. The Indonesian Journal of Health Promotion. https://doi.org/10.31934/mppki.v2i3