RELATIONSHIP OF GADGET USE AND SEDENTERY LIFESTYLE WITH SOCIAL INTERACTIONS AND MENTAL HEALTH IN ADOLESCENTS

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Abstract

The development of technology at this time has created various conveniences, with gadgets everything can be done without doing excessive activities, this creates a sedentary lifestyle. This also has an impact on social interactions which will reduce direct interaction so that it can also cause mental health in adolescents to be disturbed due to lack of activity and social interaction with the community. This study aims to determine the relationship between gadget use and a sedentary lifestyle with social interaction and mental health. The design of this study used a correlational approach, the population in this study were adolescents aged 15-19 years in Kuningan Regency, the number of samples was 100 people. Data was taken using a questionnaire. Statistical analysis using Spearman's test with =0.05. Based on the results of the analysis showed that there was a significant relationship between variables because the value was <0.05. Thus, there is a significant relationship between the use of gadgets and a sedentary lifestyle with social interaction and mental health.

Keyword:
Gadget, Sedentery Lifestyle, Social Interaction, Mental Health

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Introduction

The modern era is now synonymous with the era of digital society. Every human activity will be driven through digital technology. This makes everyone only make transactions or interactions through digital symbols. Human interaction is driven by all-digital technology. Nowadays almost all activities are dominated by modern equipment as a result of advances in science and technology, so that physical activity almost does not function and helps influence human lifestyles

which have an impact on movement crises and physical disorders related to health and fitness (Farinda, 2018).

The convenience that is obtained can change a person's lifestyle into a calm lifestyle. A sedentary lifestyle is a sedentary lifestyle, someone who has a lifestyle has a habit of not doing much physical activity or not doing movement. Sedentary lifestyle is a relaxed lifestyle, such as sitting, lying down, reading, watching television, playing cell phones, and others (Desmawati, 2019). In a study conducted by WHO (2019) 4 out of 5 teenagers around the world have a serene lifestyle. The findings are based on a survey of 1.6 million students in 146 countries and territories which stated that 81% of youth aged 11-17 do not engage in light to moderate physical activity for at least one hour a day, due to long hours in front of electronic devices. The average use of gadgets in a day is more than 380 minutes, 87% report cell phone use that occurs while sitting and 70% use cellphones to relax (Barkley and Leep, 2015).

In addition to causing lifestyle changes, gadgets also create social interactions that ideally have to be face-to-face now don't have to be face-to-face, interactions between humans are now slowly being replaced by human interactions with gadgets. Based on the results of a survey conducted on 30 teenagers, it shows that 100% of teenagers have gadgets, 75% of teenagers say that they often ignore the people around them because they are cool with their gadgets. In addition, 70% of teenagers say they prefer to interact with other people through their gadgets rather than interacting directly/face to face (Krisnana et.al 2020). The quality and quantity of face-to-face communication has also decreased due to the use of gadgets (Elsobeihi, 2017).

The problem that occurs in the current generation is the number of teenagers who are addicted to gadgets which have an impact on psychology, especially on self-confidence and also physical development (Nugraha, 2013). This is in line with the opinion of Syahyudin (2019) who said that excessive use of gadgets can make children not care about their environment and can make these children become introverts and have anti-social behavior. This electronic revolution is troubling because it changes the movement patterns of adolescents and encourages them to sit more and be less active which is associated with mental and social health (Fuadah et al, 2021).

According to Hoare et al (2016), a sedentary lifestyle causes adolescents to experience anxiety, suicidal ideation, loneliness, stress and psychological pressure. In addition, adolescence is a very high period for the onset of mental disorders (Kessler et al 2007). Excessive use of gadgets can cause problems such as depression, loneliness, social comfort problems and other problems (Suhana 2018). With gadgets, all the information and needs needed can be accessed easily. Gadgets also cause social disturbances such as impaired social interaction with the environment and reduced physical activity due to gadget addiction (Tarigan, 2018). In addition, gadget addiction can also affect health, such as decreased vision function, the effects of radiation emitted from gadget screens and hearing and changes in sleep patterns that tend to be disturbed. Many teenagers are disturbed by their health and sleep patterns due to using gadgets for too long, one of the activities that is often done is playing online games which results in forgetting about eating patterns and resting times.

Adolescence is a period of rapid growth and development characterized by neuronal plasticity, identity development, and the formation of behavioral patterns that can improve or reduce mental health. Thus, it is important to identify environmental exposures during this age that may reduce the development of mental health and social behavior disorders later in life.

Based on the description above, the purpose of this study was to determine the relationship between gadget use and a sedentary lifestyle with social interactions and mental health in adolescents.

Methods

The method used in this research is descriptive method, with the type of correlational study. The approach used in this research is a quantitative approach. The population in this study were high school students in Kuningan Regency. Sampling in this study used cluster random sampling with a total of 100 students. Because according to Fraenkel (2012) descriptive research of at least 100 people, for a correlation study of at least 50 it is very necessary to establish the existence of a relationship.

Instrument

in this study, the researcher used a gadget use questionnaire that aims to measure how gadgets are used by teenagers and has a reliability value of 0.88 (Belinta, 2018). To measure a sedentary lifestyle using a sedentary activity questionnaire which has a reliability value of 0.89 (Pramita and Griadhi, 2016). Furthermore, to measure social interaction using a social interaction questionnaire which has a reality value of 0.91 (Belinta, 2019). Then to measure mental health using the Positive Mental Health Questionnaire (PMHQ) which has a reliability value of 0.89 (Merino et.al 2017).

Procedure

The data collection procedure in this study used 4 questionnaires, namely the gadget use questionnaire, the Adolescent Sedentary Activity Questionnaire (ASAQ), social interaction questionnaire and positive mental health questionnaire. Then this questionnaire was given to students from 5 schools in Kuningan Regency with each school only needed 20 students as samples. The data analysis technique used in this research is using the Spearman test to find out how big the relationship between variables.

Data Analysis

The data obtained from the research results are quantitative data. Statistical analysis was performed using the SPSS 25 program for Windows. Kolmogorov-Smirnov normality test and Spearman correlation test, using standard statistical method.

Result

Table 1. Characteristics of respondents

	Category	Frequency
Gender	Man Women	17 83
Age	15 years 16 years 17 years 18 years	1 36 57 6
Total		100

Table 1 explains that there are 100 respondents consisting of 17 men and 83 women. Only 1 respondent aged 15 years, 16 years 36 people, 17 years old 57 people and 18 years old 6 people.

Table 2. Normality Test Kormogolov-Smirnov Test

Variable	Mean	Std. Deviation
Gadget Usage	65.32	3.89
Sedentary Activity	49.19	3.95
Social Interaction	56.99	5.72
Mental health	15.38	1.99

Table 2 describes the results of the normality test, the average value for gadget use is 65.32 with std. deviation 3.89. The mean sedentary activity was 49.19 and the standard deviation was 3.95. social interaction has an average value of 56.99 and a standard deviation of 5.72. and mental health had a mean of 15.38 and a standard deviation of 1.99.

Table 3. Correlation Test of Gadget Use with Social Interaction

Correlation Coefficient	Sig. (2-tailed)
-.214	.032

Based on table 3, it is known that the significant value or sig (2-teiled) is 0.032. Because the sig value is less than 0.05, it means that there is a significant (meaningful) relationship between the variables of gadget use and social interaction. The correlation coefficient is -.214, which means that it has a negative correlation, which means it is two-way, the use of gadgets increases and social interaction decreases.

Table 4. Correlation Test of Gadget Use with Mental Health

Correlation Coefficient	Sig. (2-tailed)
.032	.070

Based on the table 4, it is known that the significant value or sig (2-teiled) is 0.070. Because the sig value is less than 0.05, there is no significant relationship between the gadget use variable and mental health. The correlation coefficient of 0.070 means that it is strongly correlated.

Table 5. Correlation Test of Sedentary Lifestyle with Social Interaction

Correlation Coefficient	Sig. (2-tailed)
.004	.090

Based on table 5, it is known that the significant value or sig (2-teiled) is 0.090. Because the sig value is less than 0.05, there is no significant relationship between the sedentary lifestyle variable and social interaction. The correlation coefficient is 0.004 which means that the correlation is very weak.

Table 6. Correlation Test of Sedentary Lifestyle with Mental Health

Correlation Coefficient	Sig. (2-tailed)
.091	.066

Based on table 6, it is known that the significant value or sig (2-teiled) is 0.066. Because the sig value is greater than 0.05, there is no significant relationship between the sedentary lifestyle variable and social interaction. The correlation coefficient value of 0.091 means that the correlation is very strong.

The results of the Spearman test to determine the relationship between variables, all variables get a p-value (sig. value) <0.05, this makes all variables have a significant relationship.

Discussion

Adolescents are in the process of becoming adults, the mindset of teenagers who tend to be open is more receptive to new, innovative things than their parents. Adolescence is an age where interaction and communication with new people around them is very intense, and the use of smartphones has an impact on sedentary behavior, both negative and positive in social interactions (Tabotabo. 2015).

Owning a smartphone makes it very easy for them to access social networking sites, easy to make new friends, and interaction is often done through social networks. Based on the problems, phenomena, conditions, and the reality of the relationship between smartphone use and social interaction, gadget addicts unwittingly lose the ability to live together and also reduce direct social interaction and cause us to tend to adopt a sedentary lifestyle (Firdaus et al. 2015).

A sedentary lifestyle is a collection of activities that are done while sitting or lying down and require very little energy expenditure, such as watching television, playing video games, reading, and other similar activities. (Arundhana et al., 2016).

The impact on social interaction will of course also affect the behavior of adolescents both individually and towards others. Adolescents will tend to be less independent, more emotional, aggressive, difficult to communicate and get along with other friends, spoiled behavior, destructive behavior, and difficulty concentrating (Arundhana et al., 2016).

In addition, the impact of a teenager's lack of social interaction can also affect mental health. Adolescents will tend to lack self-confidence, cannot control their emotions and in making decisions they are not sure of their decisions. According to Sundus M (2015) regarding the effect of using gadgets on teenagers, excessive use of gadgets causes depression in teenagers at a certain age. Another study conducted by Mingli et al., (2015) said that teenagers who use gadgets more than 2 hours per day have an increased risk of depression.

Many studies have explored the relationship between gadget use and mental emotionality in adolescents, and the results are clear, as gadget use increases, so does the risk of mental-mental problems including depression, anxiety, mood disorders, and suicide.

Conclusion

Based on the results of research, calculations, and analysis of research data that has been carried out, regarding the relationship between gadget use and a sedentary lifestyle with social interaction and adolescent mental health. There is a relationship between the use of gadgets and a sedentary lifestyle with social interaction and mental health in adolescents in Kuningan Regency. For further researchers who want to examine the relationship between gadget use and sendter lifestyle with social interaction and mental health in adolescents, they can add a comparison variable. In addition, the addition of respondents will also provide research results that are much better in proving a study.

Acknowledgement

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