Factors Associated with Gadget Addiction in Children at Inpres III Elementary School Perumnas Antang Makassar City

Sri Rahmah Haruna[1], Herti Haerani[1], Safira Senggo' Palayukan[1], Nur Afni Ponseng[2], Suci Rahmadani[3]

[1] Faculty of Nursing and Midwifery, Megarezky University Makassar
[2] Faculty of Pharmacy, Megarezky University Makassar
[3] Faculty of Public Health, Hasanuddin University
Correspondence Email: sheree.ramona@gmail.com

ABSTRACT

During the pandemic until the start of the COVID-19 endemic period, the government made a policy to do activities at home including studying online. These conditions make children's activities preoccupied with gadgets every day, so it is feared that it can lead to addiction. The research objective was to determine the factors associated with gadget addiction in school-age children at Inpres III Elementary School Perumnas Antang, Makassar City. This study used quantitative research using a cross-sectional approach. The research was conducted in August 2022. Sampling used an accidental sampling technique. The study conducted at Inpres III Elementary School Perumnas Antang Makassar City had a total sample of 132 respondents. As for the variables used for gadget addiction in school-age children, the results obtained were internal factors p-value = 0.000, external factors p-value = 0.000, situational factors addicted p-value = 0.000, social factors p-value = 0.000, and demographic factors p-value = 0.000. There is a relationship between internal factors, external factors, situational factors, social factors, and demographic factors on gadget addiction in school-age children at Inpres III Elementary School Perumnas Antang, Makassar City.

Keywords: gadget addicted, school-age children.

INTRODUCTION

Children are the next generation of the nation who should get rights as a stimulus to help their growth and development. In the future, they will become useful human beings based on their interests and talents as well as their respective conditions. They are expected to be able to become qualified human beings to lead and maintain the unity of the nation and state. To be able to get this, they must get an education, both at home and at school. The right age for them to enter school is at 7. Besides that, the phase of school-age children needs good nutrition, to support their growth and development so that later they can be as expected.

Several years ago gadgets were just ordinary mobile phones which were only used as communication tools like ordinary telephones. However, as time goes by, the world situation brings us to a time where technological developments are increasing. Currently, a variety of interesting features are provided, including features that can be used by children to enhance growth and development and are easily accessible to anyone. With the development of this technology, almost all activities now use gadgets. Especially now that we are in an endemic period after the outbreak of the Corona Virus Disease 2019 (COVID-19) shocked the world and was declared a global pandemic.

Since then, the government has made a policy to carry out all activities only at home, including online teaching and learning processes. These conditions of course make children's activities preoccupied with gadgets every day. Because children carry out the teaching and learning process at home, they continue their activities only through gadgets after finishing. This habit makes children interact more often with gadgets to overcome boredom while at home. This can have a good impact on growth and development. But on the other hand, it can also have negative impacts, such as being late for understanding lessons, lack of time to socialize with family or other people, and can also result in children being exposed to radiation because they play with gadgets too close to their eyes.

According to Mustofa, et al (2019), online learning is a distance education system with a set of learning methods, where teaching is carried out separately from learning activities (1). So, online learning is a learning activity that requires an internet network (teaching and learning activities, collecting assignments, as well as interactions between teachers and students which are carried out without having to meet in person). The learning process can use several applications such as classroom, video conference, telephone or live chat, zoom, or Whatsapp group. Online learning requires the support of mobile devices such as smartphones, tablets, and laptops. By doing online learning, it is generally difficult for children to let go of gadgets even though study hours are over.

Based on data from Kominfo and UNICEF, at least 30 million children and adolescents in Indonesia are internet users (2). As for news from the Sukabumi Update (2021), from the results of a survey conducted by the Indonesian Child Protection Commission (KPAI), it was noted that 76.8% of children were allowed to use gadgets by their parents outside of study hours. The figures obtained are still likely to be high. This can lead to gadget addiction if school-age children use it excessively and become a problem for the child's physical and psychosocial development (3).

The increase in the number of gadget users is always directly proportional to the behavior of the addicted gadget itself. Based on data published by Hootsuite (2014) shows a very large increase in active gadget users, which is around 3.8 times every year. The latest data shows that there are around 47 million active gadget users throughout Indonesia, 79.5% of whom come from the age category of children and adolescents (4). In Rahmawati research, et al., (2021) it was found that 53.3% of children experienced gadget addiction. Generally, children feel bored after school lessons and are interested in downloading applications after seeing advertisements that pass when using gadgets. Children also use gadgets to play games to please them. This game can also be addictive because it makes friends and shows interesting pictures or photos with a gadget usage time of approximately ± 24 hours per week (5).

Based on research conducted by Rahmawati, et al., (2021), the factors that cause gadget addiction include internal factors, external factors, social factors, and situational factors. Internal factors occur because of low self-control, while external factors do not come from individuals but because of media exposure about gadgets and various available facilities. Social factors occur because of the influence of the environment around the child and situational factors usually occur because the child feels bored (5).

Similar research was also conducted by Agusta (2016) who stated that the factors influencing gadget addiction were internal factors. The main cause of internal factors is a low level of sensation seeking characterized by high curiosity, appreciation of a sensation that arises when a stimulus excites receptors, and low self-control. The situational factor that is the main cause of students being addicted to gadgets is the saturation factor in learning. The social factor that is the main cause of students experiencing gadget addiction is the connected presence factor, namely the socialization behavior with other people that comes from the individual himself. The last factor, namely the external factor that causes students to experience gadget addiction, is the media factor, including social media (6).

The statement in the paragraph above is following the results of the initial interview that the researcher conducted on July 18, 2022. In the interview results, 20 children like to use gadgets when they come home from school to reduce boredom due to studying at school. This initial interview was dominated by girls, namely 13 girls and 7 boys. Out of 20 children, 3 of them use gadgets after completing their homework to play social media such as Facebook and Instagram because they like to see interesting things and can make new acquaintances, 5 children like to play online games, 9 children like to play TikTok because they want to see how many likes a video post that has been uploaded, and 3 children like to watch YouTube because they want to see interesting videos related to films according to their age and gender characteristics. This shows the tendency of addictive behavior that cannot leave the gadget in a day.

Addiction is a dependency syndrome. APA (American Psychiatric Association, 2020) in Lestari and Sulian (2020) states that addiction is a group of cognitive, behavioral, and physiological symptoms that indicate an individual is addicted to a particular substance or object. Addictive behavior toward gadgets has major consequences for children at school. Addictive behavior is categorized as impulse control disorder behavior. According to the APA (American Psychiatric Association, 2020), the hallmark of impulse control disorder is the failure to resist urges and temptations to take action on oneself and others (7).

Based on the background mentioned above, it is necessary to conduct research with the title "Factors related to gadget addiction in children at Inpres III Elementary School Perumnas Antang Makassar City".

METHOD

The study of factors related to gadget addiction in school-age children at Inpres III Elementary School Perumnas Antang Makassar City used quantitative research. This type of research is analytic observational with a cross-sectional study design, namely a research design that studies the dynamics of the correlation and association between independent and dependent variables (8). The independent variables are internal, external, situational, social, and demographic factors, while the dependent variables are gadget addiction. Observation or measurement of variables is carried out once and at the same time (point time approach) at Inpres III Elementary School Perumnas Antang, Makassar City. The population in this study were students of Inpres III Elementary School Perumnas Antang who were recorded at the Makassar City Education Office's dapodik as many as 528 students. The research technique used was an accidental sampling technique so a sample of 132 respondents was obtained. The data collection instrument used in this study was a questionnaire with 25 questions question.

From the results of this study, data obtained were processed with a method manual based on the questionnaire sheet which was distributed to respondents and then analyzed using a

statistical processing program. After analysis, the data is processed again using a computerized system with the stages of editing, coding, tabulating, and data entry.

This study was a univariate analysis performed on a single variable (9). Univariate analysis was carried out by calculating one variable to see the magnitude of the health problem through the distribution of the variable using descriptive statistics. Univariate analysis is the first step in data analysis. The results of this analysis are used as a basis for determining the appropriate bivariate analysis. Furthermore, bivariate analysis is an analysis that is done on two variables in a manner direct. Bivariate analysis was carried out by associating the data of the first variable with the second variable. The results of a bivariate analysis can be in the form of descriptive statistics or inferential statistics. In that analysis use statistics descriptive, the output form is in the form of multiple tables to see how the relationship between one variable and another variable is descriptive without conducting statistical tests. While bivariate analysis using inferential statistics was performed hypothesis testing to answer whether there is a relationship between the two variables with a significant level of 5% (α = 0.05).

RESULTS AND DISCUSSION

Based on the characteristics of the respondents, the characteristics possessed include age, gender, and occupation of the student's mother's father. Through these characteristics that meet the inclusion criteria, This study consisted of 132 respondents with details that were mostly aged 9-10 years as many as 51 (38.6%) respondents, female sex as many as 77 (73.5%) respondents, based on father's occupation as many as 65 (49.2%) respondents, and mother's occupation as many as 86 (65.2%) respondents.

The distribution of categories based on factors and levels of addiction found in school-age children at SD Inpres III Perumnas Antang Makassar City is as follows:

Table 1. Frequency Distribution of Factor Categories and Gadget-Addicted Levels in School-Age Children

Addiction Level	Category	Frequency	Percentage
>51%	Addicted	89	67.4%
< 50%	Not Addicted	43	32.6%
Internal factors			
>51%	Yes	97	87.1%
< 50%	No	35	12.9%
External Factors			
>51%	Yes	104	78.8%
< 50%	No	28	21.2%
Situational Factors			
>51%	Yes	105	79.5%
< 50%	No	28	21.2%
Social Factors			
>51%	Yes	104	78.8%
< 50%	No	28	21.2%
Demographic Factors			
>51%	Yes	101	76.5%
< 50%	No	31	23.5%
Total		**132**	**100%**

Source: Primary Data, August 2022

Based on table 1, it was found that the level of gadget addiction in school-age children at Inpres III Elementary School Perumnas Antang Makassar City was 89 (67.4%) respondents experienced addiction, while 43 (32.6%) respondents were not. In terms of internal factors, 97 (87.1%) respondents were affected by gadgets, while 35 (12.9%) respondents were not. Regarding external factors, 104 (78.8%) respondents were affected by gadgets, while 28 (21.2%) respondents were not. In situational factors, 105 (79.5%) respondents were affected by gadgets, while those who were not were 27 (20.5%) respondents. In terms of social factors, 104 (78.8%) respondents were affected by gadgets, while 28 (21.2%) respondents were not. In terms of demographic factors, 101 (76.5%) respondents were affected by gadgets, while those who did not were 31 (23.5%) respondents.

Based on the results above, the next step is factor analysis to determine the relationship between the independent variables and the dependent variable. The statistical test performed was Chi-Square with a significance level of α = 0.05. The results of the analysis test are presented in the following table:

Table 2. Analysis of Factors Associated with Gadget Addiction in School-Age Children

Internal factors	**Gadgets Addiction**		**P**
	Addicted	**Not Addicted**	
Yes	81 (65.4%)	16 (31.6%)	0.000
No	8 (23.6%)	27 (11.4%)	
External Factors	**Addicted**	**Not Addicted**	**P**
Yes	84 (70.1%)	20 (33.9%)	0.000
No	5 (18.9%)	23 (9.1%)	
Situational Factors	**Addicted**	**Not Addicted**	**P**
Yes	85 (70.8%)	20 (34.2%)	0.000
No	4 (18.2%)	23 (8.8%)	
Social Factors	**Addicted**	**Not Addicted**	**P**
Yes	88 (73.5%)	21 (35.5%)	0.000
No	1 (15.5%)	22 (7.5%)	
Demographic Factors	**Addicted**	**Not Addicted**	**P**
Yes	84 (68.1%)	17 (32.9%)	0.000
No	5 (20.9%)	26 (10.1%)	

Source: Primary Data, August 2022

From the results of the analysis in table 2 it shows that out of 132 respondents, on internal factors as many as 88 (89.0%) respondents experienced addiction and 43 (43.0%) respondents who did not experience addiction, there were 81 (65.4%) respondents who stated that there was a relationship between internal factors and gadget addiction in school-age children. While 8 (23.6%) respondents stated otherwise. Most of the respondents stated that there was a relationship between internal factors and gadget addiction in school-age children.

Regarding external factors, there were 89 (89.0%) respondents experienced addiction and 43 (43.0%) respondents did not experience addiction, there were 84 (70.1%) respondents stated that there was a relationship between external factors and gadget addiction in school-age children. While 5 (18.9%) respondents stated otherwise. Most of the respondents stated that there was a relationship between external factors and gadget addiction in school-age children.

Regarding situational factors, there were 89 (89.0%) respondents experienced addiction and 43 (43.0%) respondents did not experience addiction, there were 85 (70.8%) respondents stated that there was a relationship between situational factors and gadget addiction in school-

age children, while 4 (18.2) %) of respondents who stated that there was no relationship between situational factors and gadget addiction. Most of the respondents stated that there was a relationship between situational factors and gadget addiction in school-age children.

Regarding social factors, there were 89 (89.0%) respondents experienced addiction and 43 (43.0%) respondents did not experience addiction, there were 88 (73.5%) respondents stated that there was a relationship between social factors and gadget addiction in school-age children, while 1 (15.5) %) of respondents who stated that there was no relationship between social factors and gadget addiction. Most of the respondents stated that there was a relationship between social factors and gadget addiction in school-age children.

Regarding demographic factors, there were 89 (89.0%) respondents experienced addiction and 43 (43.0%) respondents did not experience addiction, there were 85 (70.8%) respondents stated that there was a relationship between demographic factors and gadget addiction in school-age children, while 4 (18.2) % of respondents who stated that there was no relationship between demographic factors and gadget addiction. Most of the respondents stated that there was a relationship between demographic factors and gadget addiction in school-age children.

Internal factors

The results showed that most of the internal factors for gadget addiction in school-age children were in the addiction category, namely 81 (65.4%) respondents. A small proportion also experienced addiction but it was not related to internal factors, there were 8 (23.6%) respondents. Based on statistical tests using the chi-square test to determine the relationship between internal factors and gadget addiction in school-age children, the value of $\rho = 0.000 < \alpha = 0.05$ is obtained. It can be concluded that H0 is accepted, so there is a relationship between internal factors and gadget addiction in school-age children.

Children who are addicted to gadgets, in this case, addicted to cellphones, are unable to control themselves properly, thus disrupting their daily activities, especially learning activities at home. His concentration decreases due to the use of gadgets that are not wise (10). What is classified as gadget addiction is uncontrolled use, negligence in carrying out daily activities, and routinely checking the gadget. Children who have experienced gadget addiction have big problems managing themselves well, they prefer to be alone in their room, and it is also difficult to get along with many people. If it is done continuously without any awareness to change or without parental control, it will become a habit (bad behavior) (5).

This internal factor also arises because parents give freedom to children without assistance in using gadgets. Therefore, it is necessary to assist parents to children to minimize the negative effects of using gadgets for children. Assistance provided by parents is in the form of providing time limits for children to use gadgets. For example, in a day, children are only allowed to play with gadgets for one hour and must-have features that support their development (5).

Based on the results of research conducted by R. Lestari and I. Sulian (2020) the highest percentage of internal factors is the sensation-seeking factor and the self-control factor with an average percentage of 71%. This shows that someone who tends to easily experience boredom in their activities and needs fun finally vents their boredom by playing with gadgets. The relationship is that sensation seeking is boredom, while self-control means someone who cannot control himself for something related to his pleasure. So, when a child starts to feel bored, he needs something that can create fun or a fun atmosphere and make him happy, so according to him, playing with gadgets is the best solution (7).

Thus, the author assumes that based on the internal factor instrument related to the addicted gadget that has been filled in by the respondent, it can be seen that the respondent is addicted to internal factors. This is because respondents are not able to control themselves so they often forget the time when using gadgets.

External Factors

The results of the study showed that most of the external factors to gadget addiction in school-age children were in the addiction category, namely 84 (70.1%). Meanwhile, there were 5 (18.9%) respondents who experienced addiction but were not related to external factors. Based on statistical tests using the chi-square test to determine the relationship between external factors and gadget addiction in school-age children, the value of $\rho = 0.000 < \alpha = 0.05$ is obtained. It can be concluded that H0 is accepted so that there is a relationship between external factors and gadget addiction in school-age children.

External factors with media indicators trigger addiction to playing gadgets. External factors are factors that come from outside the individual. This factor is related to the high media exposure on gadgets, in this case, mobile phones and the various facilities in them. The higher the media exposure to advertisements displayed by gadgets, the more likely it is to experience a mobile phone addiction. For frequently used applications, it is dominated by the use of Face Book (FB) with 36%. Furthermore, the least used is the Snapchat application with 10%. Online games are also applications that cause addiction with reasons to reduce boredom and create happiness. Likewise, Instagram with a percentage value of 21% (7), this application can make its users have many friends and there are interesting image features with an intensity of time that is used approximately ± 24 hours a week (5).

The use of gadgets can have an impact on children. Children will use social media contained in gadgets, so they are more concerned with playing with gadgets than studying. Various applications of the gadget make children more indifferent. Often individuals who play with gadgets with various applications will ignore the people around them and this is when children experience addiction to gadgets. Initially only use it to play online games then over time the child will find fun things on the gadget so that it will become a habit. The gadget will also display various sites that are not feasible to access. Inappropriate sites that make children curious to access, for example, pornographic videos, violent videos, and so on. Children who use gadgets continuously often cannot control the words that are issued on social media, for example mocking, using impolite, and rude words. Gadgets will make children lazy to do activities and lazy to move because, in their daily life, they are unseparated from gadgets (8).

Thus, children can be exposed to media repeatedly from gadgets with the facilities they have. Media exposure about gadgets, in this case, the most frequently used, namely smartphones. This exposure is in the form of advertisements, promos, or info on the latest smartphone exhibitions that children can access or see anytime and anywhere. School-age children like new things that they get from playing and satisfy their curiosity through gadget technology, so gadget addiction is proven to be influenced by high media exposure (5).

The author assumes that based on external factor instruments related to gadget addiction that have been filled in by respondents, it can be seen that respondents experience addiction to external factors. This is due to the many facilities contained in the gadget and the many exhibitions about the advantages of using gadgets.

Situational Factors

The results showed that the situational factors for gadget addiction in school-age children were mostly in the addiction category, namely 81 (65.4%) respondents. Meanwhile, there were 4 (18.2%) respondents who experienced addiction but were not related to situational factors. Based on statistical tests using the chi-square test to determine the relationship between situational factors and gadget addiction in school-age children, the value of $\rho = 0.000 < \alpha = 0.05$ is obtained. It can be concluded that H0 is accepted so that there is a relationship between situational factors and gadget addiction in school-age children.

Situational factors that cause gadget addiction are stress, sadness, loneliness, and anxiety. The average results of the stress factor that causes learning boredom are 78%, 68% sadness, 80% loneliness, and 86% anxiety. Overall, the highest indicators of this situational

factor were indicators of loneliness and anxiety (7). According to Yuwanto (2010), these factors include factors that lead to the use of gadgets as a means of diverting anxiety when facing uncomfortable situations. For example, when experiencing sadness, there are no activities during free time or parents are busy working every day, thus causing loneliness, anxiety, and boredom with learning. Qiu mentioned in his research that the tendency for gadget addiction is one of the reasons for diverting feelings of anxiety and loneliness to an individual among children and adolescents. This is due to the lack of strong self-control over the use of gadgets so this is the beginning of dependence on these communication devices (12). Apart from that, another supporting factor is that this gadget is connected to the internet to access interesting features so that it can easily change the mood that is felt in children (7).

The situational factor that is the main cause of students being addicted to gadgets is the learning saturation factor. When children are forced to continue learning, it will make children irritable or sad because their play needs are not met. That is, when they feel bored studying and doing various kinds of assignments, they will face it by playing with gadgets. According to them this is one of the best solutions and is considered to reduce boredom or sadness. If this is allowed to continue to happen, it will eventually make children addicted to playing with gadgets.

The author assumes that based on the situational factor instrument related to the gadget addiction that has been filled in by the respondent, it can be seen that the respondent is addicted to situational factors. This is due to the many factors that cause children to be addicted to using gadgets and one of them is because they experience boredom.

Social Factors

The results showed that the social factors for gadget addiction in school-age children were mostly in the addiction category, namely 88 (73.5%). As for social factors that experience addiction but are not related to social factors, there are 1 (15.5%) respondent. Based on statistical tests using the chi-square test to determine the relationship between social factors and gadget addiction in school-age children, the value of $\rho = 0.000 < \alpha = 0.05$ is obtained. It can be concluded that H0 is accepted, so there is a relationship between social factors and gadget addiction in school-age children.

The social factors that cause gadget addiction are the presence of online friends besides friends in the surrounding environment, virtual face-to-face meetings, and games that are more interesting than the existing games. Children aged 10 years find games that are on gadgets more fun than playing with their peers. This is inseparable from the various features that are increasingly sophisticated and fun for children. Game applications on these children's gadgets are certainly more interesting than the games in the surrounding environment (13). In this way, children carry out social interaction as the key to all their social life which is one way to communicate with others. Children need social interaction so that in the future they can live in society and carry out the roles that will become their identity. In addition, when interacting, children will get various information. However, today's gadgets are very popular with children because they have evolved into very attractive items with a design and touchscreen technology. On the other hand, gadget addiction can lead to a decrease in direct relationships with other people. This can lead to work efficiency which can interfere with children's learning and activities in their lives, because the time to do something useful is insignificant (5)(14).

Based on the results of Aditya's research (2020), states that the use of gadgets will have an impact on children's social behavior. Children become insensitive to the surrounding environment. The bad effects of gadget addiction also make school and home activities change. The impact is the lack of social interaction, lack of concern for oneself, the emergence of mental problems resulting in changes in attitude, and loss of communication with other people. Changes in children's social behavior caused by the use of gadgets in children are not recommended to exceed the daily time limit. This causes children not to learn and be unable to socialize, lack social interaction with peers, children tend to ignore the surrounding environment,

and will hinder the process of social interaction because their focus moves from the surrounding environment to gadgets (5)(13). Social media tends to allow a person to be able to establish social interactions with various people. For this reason, children become addicted to gadgets to fulfill their social interaction needs (14).

The author assumes that based on the social factor instrument related to the gadget addiction that has been filled in by the respondent, it can be seen that the respondent is addicted to social factors. This is because children tend to close themselves off from other people and prefer to use gadgets so that they are less familiar with their surroundings.

Demographic Factors

The results showed that the demographic factors for gadget addiction in school-age children were mostly in the addiction category of 84 (68.1%). As for demographic factors that experience addiction but are not related to demographic factors, there are 5 (20.9%) respondents. Based on statistical tests using the chi-square test to determine the relationship between demographic factors and gadget addiction in school-age children, the value of $\rho = 0.000 < \alpha = 0.05$ is obtained. It can be concluded that H0 is accepted, so there is a relationship between demographic factors and gadget addiction in school-age children.

Demographic factors that cause gadget addiction are gender, school life demographics, and duration of gadget use. Based on research conducted by Lee and Lee (2017) it was found that 1.9% of demographic variables (gender and family economic level) affect gadget addiction, in this case, smartphones, and 0.6% are influenced by school life. Based on this, the use of new technology clearly shows that there is a gender difference, boys tend to show an attitude of receptiveness to new technologies more than girls, so boys tend to experience addiction more than girls (15). The results of research conducted by Rahmawati N, Herlina Y, and Hasneli N (2021), also stated that based on gender, most men (70%) experienced addiction. The results of this study are also in line with the research of Liang, L., Zhou, D., Yuan, C., Shao., & Bian (2016) which states that men are more likely to experience addiction to the internet than women. Men use the internet as entertainment to get rid of boredom and reduce stress, while women use the internet to find certain assignments and information that are deemed necessary (5).

However, some say that there are differences between boys and girls, girls like to interact on social media more than boys. So it's natural that girls are happier and often access social media when using gadgets. This is very dangerous because the negative impact is also large. Girls will start seeking attention through social media to get lots of compliments. Children can do things that are out of bounds. Girls feel uneasy when they don't open social media. They want to know what people think about them, whether the uploaded photos and videos get a lot of praise or not. This makes girls tend to use their gadgets excessively until they become addicted (15).

Research results related to demographic factors were also found by S. Haug, et al., (2015) and HJ Bavli and R. Mozer (2018), stating that those included in the demographic factor variables were gender, age, education, living environment, and vocational. With the influence of peers in the school environment, children also adjust to using gadgets. This makes children less satisfied to be friends with peers who are not addicted compared to those who are addicted. Addicted children tend to become best friends and close friends. They will try to maintain intimate relationships with their friends. If not, then they will feel lonely, alienated, and increasingly addicted to gadgets. Based on this, it can be said that the duration of gadgets uses each day has a significant influence on gadget addiction. It was also explained that the longer the duration of gadget use per day, the higher the addiction (15)(16)(17).

The author assumes that based on the demographic factor instrument related to the gadget addiction that has been filled in by the respondent, it can be seen that the respondent is addicted to demographic factors. This is because boys tend to use gadgets. After all, they see their friend playing games, so they want to do the same with their peers so they are not alienated in their environment. Whereas girls are more inclined to watch YouTube/social media

because they want to get lots of friends and attention from people. Some children, when all their schoolwork is finished, like to play with gadgets and then play for more than 2 hours. This is due to a lack of control from parents. Some even play with gadgets from morning to night until bedtime during school holidays.

CONCLUSION

Based on the results of research on factors related to gadget addiction in school-age children at Inpres III Elementary School Perumnas Antang, Makassar City, namely internal factors, external factors, situational factors, social factors, and demographic factors, the results obtained are $\rho = 0.000 < \alpha = 0.05$. This shows that the five variables studied have a relationship with gadget addiction.

REFERENCES

1. Primary RR. The Relationship between Study From Home (SFH) and the Level of Gadget Addiction in Teenagers at the Muhammadiyah 1 Alternative Middle School in Magelang City in 2021. University of Muhammadiyah Magelang, 2021.
2. Press. Kominfo and UNICEF Research on the Behavior of Children and Adolescents Using the Internet. 2014.
3. Gikas J, Grant MM. Mobile computing devices in higher education: Student perspectives on learning with cellphones, smartphones & social media. Internet High Educ [Internet]. Vol . 19, pp. 18–26, 2013.
4. Wulandari PY. Gadget Foster Children. 2016.
5. Rahmawati N, Herlina Y, Hasneli N, Faculty K, University R. Description of Gadget Addiction in School-Age Children. JKEP. 2021;6(1):134–44.
6. Agusta D. Risk Factors for Addiction to Using Smartphones in Students at SMK Negeri 1 Kalasan Yogyakarta. Guidance and Counseling E-Journal, 2016;3(5):86–96.
7. Lestari R, Sulian I, Guidance P, Counseling D, Teacher Training F, Education I. Factors Causing Students to Be Addicted to Mobile Phones Descriptive Studies on Students at SMP Negeri 13 Bengkulu City, "Cons. J. Ilm. guide. and Counseling, vol. 3, no. 1, pp. 23–37, 2020.
8. Nursalam. Research Methodology: A Practical Approach. In: 3rd ed. Jakarta: Salemba Medika; 2013.
9. Sugiyono. Combination Research Methods (Mixed Methods). Bandung: Alphabet; 2013.
10. Kwon M, et al. The Smartphone Addiction Scale: Development and Validation Of A Short Version For Adolescents. PLoS One. 2013;8(12):1–7.
11. Harfiyanto D, Cahyo ∗, Utomo B, Budi T. Journal of Educational Social Studies Patterns of Social Interaction of Students Using Gadgets at SMA N 1 Semarang. Article Info [Internet]. Vol. 4, JESS. 2015.
12. Gifted A, Cahyanti YI. Relationship between Academic Stress and Smartphone Addiction in Smartphone User Students. Journal of Clinical Psychology and Mental Health. 2013 Apr;2 No. 1:16–21.
13. Rini NM, Pratiwi IA, Ahsin MN. The Impact of Using Gadgets on the Social Behavior of Elementary School-aged Children. 2021;7(3):1236–41.
14. W. Novitasari and N. Khotimah. The impact of using gadgets on the social interaction of children aged 5-6 years," J. Teratai PAUD, vol. 5, no. 3, pp. 182–186, 2016.
15. Lee C, Lee SJ. Prevalence and predictors of smartphone addiction proneness among Korean adolescents. Child Youth Serv Rev. 2017 Jun 1;77:10–7.
16. Haug S, Paz Castro R, Kwon M, Filler A, Kowatsch T, Schaub MP. Smartphone use and smartphone addiction among young people in Switzerland. J Behavior Addict. 2015 Dec

1;4(4):299–307.
17. Bavli Ö, Katra H, Burak GÜNAR B. Investigation of Smartphone Addiction Levels Among University Students [Internet]. Vol. 4, International Journal of Cultural and Social Studies (IntJCSS). 2018. Available from: www.intjcss.com