



CHARACTERISTICS AND ADDICTION OF GADGET IN ADOLESCENT DURING THE COVID-19 PANDEMIC

Gani Apriningtyas Budiati^{1*}, Nilam Purwaningrum², Yuliatil 'Adawiyah³, I Made Moh. Yanuar Saifudin¹

¹Nursing Programme, STIKes Surya Global, Jln Ringroad Selatan Blado, Jl. Monumen Perjuangan, Balong Lor, Potorono, Banguntapan, Bantul, Yogyakarta 55194, Indonesia

²Nursing Programme, STIKes Tri Mandiri Sakti, Jln Raya Hibrida No. 3, Sido Mulyo, Gading Cempaka, Sido Mulyo, Bengkulu, Kota Bengkulu, Bengkulu 38229, Indonesia

³Nursing Programme, Universitas Haji Sumatera Utara, Jl. Samanhudi No.292, Binjai Estate, Binjai Selatan, Kota Binjai, Sumatera Utara 20727, Indonesia

*gani.apriningtyas@gmail.com

ABSTRACT

Gadgets are growing rapidly. Gadgets can be used as a medium to find information, entertainment, and interaction. This pandemic condition causes teenagers to often engage in activities in front of gadgets. Conditions in the long term can cause dependence and adverse health effects. The aim of this study is to know the characteristics of adolescents and the use of gadgets in adolescents during the covid-19 pandemic. This research is descriptive research. The population of this study is were adolescents aged 12-18 years. The number of sample in this study is 135 respondents. The analysis used is univariable analysis. The sampling technique used in this study is accidental sampling. Results of this study showing that the majority of adolescents aged 16 years (85.9%), the majority of education is high school (95.6%), the majority of the purpose of using gadgets is for social media (46%), the tasks that teenagers get during the pandemic are the majority 5 tasks (83%) . Most gadgets used during online learning are <3 gadgets (88.1%). For gadgets that are often used, the majority of respondents use mobile phones (97%) and the majority of respondents are in the category of gadget addiction (67%). The characteristics of adolescents in this study are mostly 16 years old, have high school education, with the aim of using gadgets to socialize media. The tasks they have to do in a day during the pandemic 5 tasks, with the number of gadgets used <3 gadgets. Teenagers use mobile phones more often than other gadgets and most of these respondents are addicted to using gadgets.

Keywords: addiction; adolescent; characteristics; gadget

INTRODUCTION

Gadget technology is growing rapidly. From this gadget, individuals can access and connect with many things, including social media and information (Manumpil et al., 2015). The existence of gadgets can also be used as a medium to find information, entertainment, and interaction with other people. The benefits of this gadget have been felt by the community (Marpaung, 2018).

Along with the development of technology and the use of gadgets,

directly or indirectly humans have an attachment to gadgets. Gadgets make it easier for humans to carry out various activities including business, learning, and social interaction (Marpaung, 2018). The benefits of having gadgets for teenagers include easy access to knowledge and knowledge related to academic activities. In the study, it was explained that there was a relationship between the use of gadgets and learning achievement which showed that adolescent learning achievement could increase along with the amount of

information / ease of information that can be easily accessed using gadgets (Dewanti et al., 2016).

In aspects of human life, the use of these gadgets sometimes becomes less controllable. Gadgets certainly have advantages and disadvantages. In addition to some of the advantages that have been described, please note that the use of gadgets is related to the presence of radiation that can affect humans. This needs to be a concern, especially for parents in introducing gadgets to children and adolescents as independent users (Marpaung, 2018).

The pandemic conditions that have occurred in the past few years have had a considerable impact on several aspects. Education, work, and the economy have also been affected by the COVID-19 pandemic. Steps have also been taken to anticipate activities that can be done, one of which is the use of gadgets (Solviana, 2020)

This pandemic condition requires everyone, especially student children/teenagers, to do activities/study at home. In the world of education, offline activities are shifted to online activities. This of course creates new habits and new behaviors, especially in teenagers. Thus, both parents, and teenagers or children will often use their time to do activities in front of gadgets (Rohayani, 2020). With the advancement of technology, it is hoped that the younger generation can be smarter both intellectually, emotionally and socially. However, this condition on the other hand also raises pros and cons regarding the impact of using gadgets on children/adolescents (Solviana, 2020).

Gadgets are often abused by teenagers. The irresponsible use of gadgets can lead to academic work decline in adolescents, and learning achievement. The results showed that 46.3% of teenagers spent more than 11 hours in one day in front of gadgets. The use of gadgets in adolescents needs attention because it has an impact on health, including obesity, irregular meal times, neck pain and especially dry eyes. In adolescents themselves, of course, the use of gadgets for too long can affect learning achievement in schools (Manumpil et al., 2015).

The use of gadgets in adolescents also has an impact on the behavior and daily activities of teenagers. At the age of teenagers, sleep time is needed, among others, for 7 hours. The use of gadgets that are too long, it will have an impact on decreasing sleep time for teenagers. Research shows that 63% of high school teenagers do not have enough sleep and this is related to the use of gadgets. From the research, it is also known that less than 50% of respondents have good behavior in using gadgets (Permadi et al., 2017). Based on this description, the aim of this study is to know about the characteristics and use of gadgets in adolescents during the COVID-19 pandemic.

METHOD

Study participants

The population in this study were adolescents aged 12-18 years. The sample in this study used an accidental sampling technique. The number of samples in this study is 135. in Yogyakarta, Medan, and Bengkulu areas.

Study Methods

This research is a descriptive study with a cross-sectional design. The instrument

that will be used in this research is a questionnaire. The questionnaire that will be used in this study consists of the respondent's characteristics questionnaire and Singer's (Singer, n.d.) screen time addiction questionnaire which have been translated into Indonesian. The screen time addiction questionnaire consists of 7 questions with two answer choices, namely "Yes" and "No". This screen time addiction questionnaire has been tested for validity and reliability tests. The results of the validity test show r arithmetic $> r$ table with a value between 0.432-0.476 which means it is valid and the results of the validity test show a value of 0.764 which means reliable.

Data collection will be carried out online (online) considering the current pandemic condition. Previously, the researchers coordinated the method of data collection. The researcher then made a google form to distribute the questionnaire to the respondents. Previously, respondents will be given information about the research that will be carried out using a chat application. The researcher will also ask the respondent's willingness to participate in the study by including the informed consent on the google form. Respondents who are willing to continue answering the questionnaire that will be distributed also use chat applications. After the participants fill in the data, the researcher will check the data that has been entered.

RESULT

Table 1.
Result of characteristic and gadget addiction (n=135)

Category	f	%
Age of respondents		
<16 years old	19	14,1
≥16 years old	116	85,9
Education of respondents		
Junior high school	3	2,2
Senior high school	129	95,6
College	3	2,2
The most using of gadget		
Social media	62	46
Game	32	20,7
Daring education	41	30,3
Ammount of task		
< 5 tasks	23	17
≥ 5 tasks	112	83
Ammount of gadget that used in daring		
<3 gadgets	119	88,1
≥3 gadgets	16	11,9
Gadget which most often used		
Laptop	4	3
Handphone	131	97
Gadget addiction in adolescent		
Not in addiction	49	36,3
Addiction	86	63,7

From table 1, it is known that the majority of adolescents in this study were 16 years old (85.9%). In the respondent's characteristics in the form of education, the majority of teenagers attended high school, as many as 129 people (95.6%). Meanwhile, adolescents with junior high school and college education each amounted to 3 people (2.2%). In the respondent's characteristics in the form of the purpose of using gadgets, it was found that the majority of teenagers most often use useful gadgets for social media purposes, as many as 62 people (46%). While those who often use gadgets for online learning are only 41 people (30.3%). In this study, it was also found that the majority of teenagers do 5 tasks in one day during online learning (83%) even though the most use gadgets for social media, according to previous results. During this online learning, the majority of teenagers only use <3 gadgets (88.1%). In table 6 it can be seen that the most frequently used gadgets by teenagers are cellphones with a percentage of 97%. From table 7 it is known that the majority of teenagers have experienced addiction to gadgets, as many as 86 teenagers (63.7%).

DISCUSSIONS

The use of gadgets in Indonesia, especially by teenagers, is increasing (Pratama *et al.*, 2020). Technology makes life easier. The internet and gadgets also make it easier for individuals to communicate with each other. In adolescents, they use several alternative gadgets, including cellphones, laptops, I-Pads, tablets, and others. Some teenagers use this gadget either for entertainment purposes, shopping, looking for learning resources, or other things (Agarwal & Kar, 2015). Teenagers and

gadgets seem to be two inseparable things (Herdianto & Syahidin, 2020). From year to year, the record of social media users on various platforms continues to increase. This massive use of social media certainly has positive and negative impacts (Pratama *et al.*, 2020).

Amid during in Covid-19 pandemic, children and adolescents are one of the vulnerable groups and need attention. In the developmental stage, this teenager is in the adjustment phase. The existing pandemic conditions put them be able to adapt both psychologically and socially. The limitation of space and interaction distance can also be a stressor for teenagers. As parents, they also have worried. On the one hand, they are worried about the health situation that causes parents to have a double burden, taking care of themselves and their teens. On the one hand, limiting activities at home also creates stress for both parents and teenagers. The fear of being exposed to the Covid-19 virus that is felt by adults/parents is also felt by teenagers. In terms of conditions, both parents and teenagers were exposed to the use of gadgets during restrictions on activities outside the home during the pandemic. Learning programs during a pandemic that require someone to innovate using gadgets also have positive and negative sides. Teenagers who in their daily lives have restrictions on the use of gadgets both at school and at home, can now easily access gadgets for various purposes. This sometimes gives its satisfaction for teenagers, but if it is not monitored it will become dependent (Vyjayanthi *et al.*, 2020).

The majority of teenagers use their cell phones to access social media. Teenagers think that with the existence

of cell phones, they are much freer to use social media and can be done without parental supervision. Teenagers don't even heed some of the rules in social media, such as the initial age limit that requires 18 years of age. The activities they often do on social media include making statuses, sharing photos, and chatting (Sharma & Sharma, 2016).

From a sample of junior high school teenagers, about 83% of teenagers have their gadget with an average length of use of a gadget that is 2 years. Only a few teenagers have owned/used a gadget in less than 6 months. This of course needs attention about the impact of using gadgets. The duration of using gadgets is also for teenagers of high school age and above with an average use of 3 hours. In addition, the use of this gadget can also cause negative impacts, among others, decreased concentration of adolescent learning, no monitoring of social activities of adolescents, opening gaps in promiscuity, and pornography and dependence on gadgets (Herdianto & Syahidin, 2020).

Almost 50% of high school teenagers today have used gadgets. One of the negative impacts that arise from the use of gadgets in adolescents is bad social behavior (Iswanti et al., 2020). The use of gadgets in adolescents has reached the stage of addiction with a duration of using gadgets for 5-7 hours a day. Addiction to this gadget has given rise to several emotional disorders in adolescents, including anxiety, irritability, and self-isolation if kept away from gadgets. Parents are increasingly complaining about the psychological condition of teenagers who have experienced this addiction because it also has an impact on their social behavior (Fitriana et al., 2021). In

children aged 11-12 years, there is a significant relationship between the use of gadgets and emotional disorders. Almost 50% of respondents experience a high dependence on gadgets (Dhamayanti et al., 2019). there is no relationship between the use of gadgets with social-emotional difficulties in adolescents in several schools. However, it should be noted that adolescents with extended periods of gadget use show abnormal scores on social-emotional abilities (Dizon et al., 2019).

In addition, the impact on the socio-emotional aspect, addiction on gadget use also has an impact on sleep quality. The higher the use of gadgets in adolescents, the lower the quality of sleep. In addition, addiction on gadgets also reduces social interaction in adolescents (Krisnana et al., 2020). Gadget addiction on adolescents aged 12-18 years, also interferes with family functioning. The higher the level of dependence of adolescents on gadgets, the more disturbed their family functions will be. On average, parents feel that they cannot manage their children's time in using their gadgets. In addition, the affective response, affective involvement and behavior of adolescents to engage in family activities decreased due to excessive use of gadgets (Chasanah & Kilis, 2017). During the Covid-19 pandemic, there was an increase in the use of gadgets and caused dependence which caused behavioral disorders in children/adolescents. It can be seen from teenagers' indifference to social problems, unstable emotions, not wanting to socialize and always focusing on gadgets (Widodo & Wartoyo, 2020).

The word 'dependence' on the use of this gadget is pinned for use that has exceeded capacity and causes physical, social, and emotional disturbances. Although in the future, the use of this technology is expected to be a concern as a form of the modern era which is increasingly rarely using paper, but the uncontrolled use of gadgets in children/adolescents needs an attention because they have not yet become mature individuals (Agarwal & Kar, 2015). This is also a challenge for parents in the gadget era and the Covid-19 pandemic in caring for teenagers. During a pandemic, which is full of uncertainty, unpredictable situations, and new habits, it is also a stress for parents and teenagers. Therefore, positive parenting is needed both in terms of attitude, sensitivity, responsibility and concern which can later become the basis for mental survival in the face of the Covid-19 pandemic. With the dependence on gadgets, the burden of parenting is also increasing. Therefore, it is necessary to have good cooperation and communication between parents and teenagers in realizing and dealing with gadget addiction, especially during the pandemic (Karki et al., 2020).

CONCLUSIONS

In conclusion, the characteristics of adolescents in this study are mostly 16 years old, have a high school education, to use gadgets to socialize media. The tasks they have to do in a day during the pandemic 5 tasks, with the number of gadgets used <3 gadgets. Teenagers use mobile phones more often than other gadgets and the majority of these respondents are addicted to using gadgets.

ACKNOWLEDGEMENTS

The authors are grateful to the adolescents from the Yogyakarta, Bengkulu and Medan areas who participated in this study.

REFERENCES

- Agarwal, V., & Kar, S. K. (2015). Technology addiction in adolescents. *Journal of Indian Association for Child and Adolescent Mental Health-ISSN 0973-1342*, 11(3), 170–174.
- Chasanah, A. M., & Kilis, G. (2017). Adolescents' gadget addiction and family functioning. *Proceeding of Universitas Indonesia International Psychology Symposium for Undergraduate Research (UIPSUR)*, 350–358.
- Dewanti, T. C., Widada, W., & Triyono, T. (2016). Hubungan antara keterampilan sosial dan penggunaan gadget smartphone terhadap prestasi belajar siswa SMA Negeri 9 Malang. *Jurnal Kajian Bimbingan Dan Konseling*, 1(3), 126–131.
- Dhamayanti, M., Dwiwina, R. G., & Adawiyah, R. (2019). Influence of adolescents' smartphone addiction on mental and emotional development in west java, Indonesia. *Behavioral Disorders*, 5, 6.
- Dizon, B. M. B., Dolor, M. K. Y. D., Domalanta, A. J. T., Domingo, P. F. M., Dominguez, J. A. V., Dulay, A. M., Dulfo, V. A. C., Dumo, H. M. A., Ebuengan, K. J. T., & Eduardo, D. D. L. (2019). Association between duration of gadget use and the socio-emotional difficulties of junior high school students in selected

- private schools in Quezon City: An analytic cross-sectional study. *The HEALTH SCIENCES JOURNAL*, 45.
- Fitriana, F., Ahmad, A., & Fitria, F. (2021). Pengaruh Penggunaan Gadget Terhadap Perilaku Remaja Dalam Keluarga. *Psikoislamedia: Jurnal Psikologi*, 5(2), 182–194.
- Herdianto, R., & Syahidin, D. (2020). Gadget & adolescent: Its effect depiction on the daily life. *Bulletin of Social Informatics Theory and Application*, 4(2), 40–51.
- Iswanti, D. I., Lestari, S. P., & Hani, U. (2020). Gadget use Relationship Towards Adolescent Social Behavior. *Jurnal Keperawatan*, 12(4), 815–822.
- Karki, U., Dhonju, G., & Kunwar, A. R. (2020). Parenting During the COVID-19 Pandemic. *JNMA: Journal of the Nepal Medical Association*, 58(231), 957.
- Krisnana, I., Hariani, V., Kurnia, I. D., & Arief, Y. S. (2020). The use of gadgets and their relationship to poor sleep quality and social interaction on mid-adolescents: a cross-sectional study. *International Journal of Adolescent Medicine and Health*.
- Manumpil, B., Ismanto, A. Y., & Onibala, F. (2015). Hubungan penggunaan gadget dengan tingkat prestasi siswa di SMA Negeri 9 Manado. *Jurnal Keperawatan*, 3(2).
- Marpaung, J. (2018). Pengaruh Penggunaan Gadget dalam Kehidupan. *KOPASTA: Journal of the Counseling Guidance Study Program*, 5(2).
- Permadi, A., Khusnal, E., & Rahmat, I. (2017). Hubungan perilaku penggunaan gadget dengan kualitas tidur pada anak usia remaja di sma negeri 1 srandakan bantul.
- Pratama, M. O., Harinitha, D., Indriani, S., Denov, B., & Mahayana, D. (2020a). Influence Factors of Social Media and Gadget Addiction of Adolescent in Indonesia. *Jurnal Sistem Informasi*, 16(1), 16–24. <https://doi.org/10.21609/jsi.v16i1.918>
- Pratama, M. O., Harinitha, D., Indriani, S., Denov, B., & Mahayana, D. (2020b). Influence Factors of Social Media and Gadget Addiction of Adolescent in Indonesia. *Jurnal Sistem Informasi*, 16(1), 16–24.
- Rohayani, F. (2020). Menjawab Problematika yang Dihadapi Anak Usia Dini di Masa Pandemi Covid-19. *Qawwam*, 14(1), 29–50.
- Sharma, I., & Sharma, N. (2016). Usage of Social Media by Adolescents of Jammu. *International Journal of Research in Social Sciences*, 6(8), 686–695.
- Singer, K. (n.d.). *Inviting Discussion About Safer Tech Use in Schools*.
- Solviana, M. D. (2020). Pemanfaatan Teknologi Pendidikan di Masa Pandemi Covid-19: Penggunaan Gamifikasi Daring di Universitas Muhammadiyah Pringsewu Lampung. *Al Jahiz: Journal of Biology Education Research*, 1(1), 1–14.

- Vyjayanthi, N. V, Banerjee, D., & Rao, T. S. S. (2020). The Silent victims of the Pandemic: Children and adolescents during the COVID-19. *Journal of Indian Association for Child and Adolescent Mental Health-ISSN 0973-1342*, 16(3), 17–31.
- Widodo, A., & Wartoyo, F. X. (2020). Lockdown and Gadget Addicted Phenomenon: Changes in Social Behavior of School Age Children During the Covid-19 Pandemic in Mataram City. *Proceedings of the 4th International Conference on Learning Innovation and Quality Education*, 1–8.