Journal of Rural Community Nursing Practice (JRCNP)
Volume 1 Issue 2, September 2023, pp 236-246
https://ebsina.or.id/journals/index.php/JRCNP
eISSN 2986-7401, pISSN 2986-8424

The Correlation between Smartphone Addiction Level and The Psychosocial Development of School-Age Children in Agricultural Areas

Aurora Anastasya Latifah[1], Ira Rahmawati[2]*, Iis Rahmawati[2]

[1] Faculty of Nursing, Universitas Jember, Indonesia;
[2] Department of Maternity and Pediatric Nursing, Faculty of Nursing, Universitas Jember, Indonesia.

Correspondence
Ira Rahmaw,
Department of Maternity and Pediatric Nursing, Faculty of Nursing, Universitas Jember, Indonesia.
Kalimantan street 37, Sumbersari, Jember, Indonesia 68121.
E-mail: ira.rahmawati@unej.ac.id

Article History
Submitted: 30-07-2023
Revised: 28-09-2023
Accepted: 29-09-2023

ABSTRACT

Smartphones are a form of technology that is growing rapidly. The use of Smartphones has various impacts on users, especially school-age children. One of the impacts that can occur from using Smartphones on school-age children is the inhibition of psychosocial development. This research was conducted to determine the relationship between the level of Smartphone addiction and the psychosocial development of school-age children in agricultural areas. The method used in this study is by using a cross-sectional approach. Sampling using a simple random sampling technique obtained a sample of 150 respondents. Data collection used the SAS-SV questionnaire and the psychosocial development questionnaire. This study used a relationship test, namely the Kendal-Tau test c. The study results showed that students with Smartphone addiction were in the 106 (70.7%) addiction category and 44 (29.3%) non-addictive categories. While the psychosocial development of children in the abnormal category was 86 (57.3%), the borderline category was 28 (18.7%), and the normal category was 36 (24%). These results show that the p-value obtained is 0.000 or a p-value <0.05. It can be said that there is a relationship between the level of Smartphone addiction and psychosocial development. In addition, the value of strength in both relationships is 0.340. This value is included in the weak category. So, the relationship between the two variables is included in the weak category. Then, the level of correlation shows positive results, namely the higher the level of smartphone addiction, the worse the psychosocial development of children.

KEYWORDS

SAS-SV, Smartphone addiction, Psychosocial development, School age children

How to cite:
Latifah, A.A., Rahmawati, I., & Rahmawati, I. (2023). The Correlation between Smartphone Addiction Level and The Psychosocial Development of School-Age Children in Agricultural Areas. Journal of Rural Community Nursing Practice. 1(2), 236–246. https://doi.org/10.58545/jrcnp.v1i2.126

1. BACKGROUND

In the current global era, media, technology, and information sophistication has developed rapidly. One of the technologies that continues to experience development is smartphones (Kurniawati, 2020). With the advanced features smartphones possess, they are often called

smartphones. The use of this Smartphone has facilities that make it easier for users to socialize with an adequate internet network (Mulyati & NRH, 2018) Since 2019 in a period of six years there will be an increase of up to 25.9% (Pusparisa, 2020).

The average use of smartphones among residents under the age of 30 years has increased by up to 33% each year (Mawarpury et al., 2020). Data shown by the Central Statistics Agency in 2021 shows that children aged 5 years and over can access social media with a percentage of 88.99%. In addition, 66.13% of children access the internet to obtain information or news. It was also found that around 63.08% of children aged 5 years could access the internet for entertainment. In the East Java region, the increase in smartphone use reached 73.81% in urban and rural areas. In urban areas, it has a percentage of 78.11%; in rural areas, it is 68.89% (BPSI, 2019).

Smartphone addiction is a condition in which individuals tend to use smartphones that exceed reasonable limits and override the effects that arise if they continue to use smartphones (Supartini et al., 2021). In using smartphones, it is necessary to limit the use of smartphones by individuals (Hasanah et al., 2020). The United States and Canada Pediatricians Association states that children aged 0-2 years should not be allowed smartphone exposure. Children aged 3-5 years are only limited to 1 hour/day for giving smartphones, and children aged 6-18 are limited to 2 hours/day. This cannot be implemented so children use smartphones 4-5 times or more often than recommended (Asmuji, 2020).

Psychosocial development is a change and stability in emotions, personality, and social relationships that can affect cognitive and physical functioning. The existence of a transition from childhood to adulthood causes various changes, namely biological, and psychological changes, to social changes (Pratiwi & Malwa, 2021). The psychosocial development of school-age children is in the ability to produce work, interact, and learn to achieve on their own. At school age, children will experience the stages of industrial development by solving a problem gradually and productively. However, if it is not achieved properly the child will experience inferiority or low self-esteem. Failure in this period will be able to make children feel inferior so that in adulthood children will experience obstacles in socializing (Malfasari et al., 2020).

RISKESDAS data in 2013 stated that there were 14 million Indonesians, some children experiencing disorders in

psychosocial and emotional development. Developmental disorders experienced by children in Central Sulawesi ranged from 11.6% and it is known that in Central Java there are 4.7% of children experiencing psychosocial disorders (Khasanah et al., 2019). The influence of excessive Smartphone use can cause various conditions that can affect the growth and development process of adolescents such as children becoming autistic and often doing their own thing (psychosocial disorders), children will become lazy to study, lack of interest in socializing with peers and their environment (Taufik & Susanti, 2019).

2. METHODS

The research design used in this research is descriptive quantitative correlation using a cross sectional study approach. Respondents in this study were school-age children aged 10-12 years. The sampling technique uses simple random sampling. Samples were selected manually according to the inclusion criteria. The location of the research was carried out at one elementary school Jember. when the research starts in January 2023. before data collection, parent of respondents will be given informed consent as a form of approval in research participation. The sample in this research is 150 respondents.

Data collection used the SAS-SV (Smartphone Addiction Scale-Short Version) questionnaire and the psychosocial development questionnaire. Smartphone Addiction Scale-Short Version (SAS-SV) was adapted from Arthy et al (2019) with a reliability value of 0.740 (Arthy et al., 2019). The psychosocial development instrument uses a questionnaire adapted from research conducted by Aisyah Hanayi Nasution in the title Psychosocial Development of School-Age Children at Elementary School 060922 Tanjung Rejo Village, Medan Sunggal District. The reliability result of this questionnaire is 0.789 (Nasution, 2017). Data analysis was performed with the Kendall Tau-C test. the use of the Kendall tau-c test is because the two data are in ordinal form and do not have the same category.

3. RESULTS

Table 1. Distribution of Respondent characteristics based on age, gender and class of students at Elementary School Kepatihan 06 Jember 2023 (n=150)

Respondent characteristics	Frequency (n)	Precentage (%)
Age (Years)		
10	62	41,3
11	53	35,3
12	35	23,3
Gender		
Male	72	48
Female	78	52
Class		
3	51	34
4	46	30,7
5	53	35,3

Table 2. Distribution of Smartphone Addiction Level to Students at Elementary School Kepatihan 06 Jember 2023 (n=150)

Level of Addiction Smartphone	Frequency (n)	Precentage (%)
Addiction Smartphone	106	70,7
Non-Addiction Smartphone	44	29,3

The characteristic of the research respondent are presented in table 1. shows that in the age category most students have 10 years of age as many as 62 children (41.3%). Then, in the gender category, the most students had female sex, with 78 children (52%). Furthermore, the class that has the most students in grade 5 with 53 children (35.3%). Based on the research results that have been obtained on the level of student smartphone addiction, it can be seen in table 2, namely that most students experience smartphone addiction, as many as 106 respondents (70.7%). while the rest are in the category of not experiencing smartphone addiction with a total of 44 respondents (29.3%).

Table 3. Distribution of Psychosocial Development of Students at Elementary School Kepatihan 06 Jember 2023 (n=150)

Level of Psychosocial Development	Frequency (n)	Precentage (%)
Abnormal	86	57,3
Borderline	28	18,7
Normal	36	24

Journal of Rural Community Nursing Practice (JRCNP)
Volume 1 Issue 2, September 2023, pp 236-246
https://ebsina.or.id/journals/index.php/JRCNP
eISSN 2986-7401, pISSN 2986-8424

Based on the results of research on the psychosocial level of children, it can be seen in table 3. The psychosocial level of students is included in the less category, namely 86 respondents (57.3%) while students who fall into the good category are 36 respondents (24%).

Based on the research results obtained, it can be seen in table 5.1.4 that the p value obtained is 0.000 or a p value <0.05. It can be said that there is a relationship between the level of smartphone addiction and psychosocial development. In addition, the Kendall Tau-C correlation coefficient is 0.340 with a p value of 0.000. This value is included in the sufficient category. So, the relationship between the two variables is in the sufficient category and the hypothesis is accepted and declared significant with a positive correlation of 34% with a p value of 0.000. Then regarding the direction of the correlation shows positive results, namely the higher the level of Smartphone addiction, the worse the child's psychosocial development.

Table 4. Analysis of the relationship between Smartphone Addiction Level and Psychosocial Development of Students at Elementary School Kepatihan 06 Jember in 2023 (n=150)

Variable	p Value	Correlation Coefficient	Correlation Direction
Level of Addiction Smartphone Psychosocial Development	0,000	0,340	Positive

Table 5. Cross-tabulation between Smartphone Addiction Level and Psychosocial Development of Students at Elementary School Kepatihan 06 Jember 2023 (n=150)

Level of Addiction Smartphone	Level of Psychosocial Development		
	Abnormal	Borderline	Normal
Addiction Smartphone	70 66%	24 22,6%	12 11,3%
Non-Addiction Smartphone	16 36,4%	4 9,1%	24 54,5%

Table 5 shows that 70 students (66%) who are addicted to opiates have poor psychosocial development. Meanwhile, as many as 24 students (54.5%) students who are not addicted to using smartphones have good psychosocial development. With this in mind, it can be seen that students who are increasingly addicted to using smartphones, the psychosocial development of students will be less and less.

4. DISCUSSION

The results of the research conducted the results of the research conducted

showed that the most respondents were the age range of 10 years as many as 62 students (41.3%), 11 years old as many as 53 students (35.3%) and 12 years old as many as 35 students (23.3%). According to research conducted by Suci et al (2022), the results showed that children aged 10-14 experienced a significant increase in smartphone use, namely 8 hours of use. In addition, the tendency to use smartphones among children aged 9-12 years is 22.2% of respondents (Rachmayanti et al., 2022). The age of 10-12 years has a significant development where there will be changes in behavior, self-confidence and concentration in achieving achievements in school. So that children's exposure to technology makes various changes that stand out when children experience addiction to technology such as smartphones (Arifin & Rahmadi, 2017).

The results of the research conducted showed that there were 78 female respondents (52%) compared to 72 male respondents (48%). The tendency to use smartphones has been widely experienced by various groups, both men and women. The results of research conducted by Philip and Bianchi (2005) stated that men and women have the same tendency towards smartphone addiction. This is because women and men have the same interest in technological developments. The same research was also conducted by Dlodlo (2014) which stated that men and women have the same rights in accessing technology and information so that they have the same addiction tendency to Smartphones (Mawarpury et al., 2020).

The results of research conducted related to the level of smartphone addiction in school-age children showed that 106 students (70.7%) were addicted to smartphones and 44 students (29.3%) were not addicted to smartphones. The results obtained show that most students have high levels of addiction, the rest have low addiction. Research conducted by Suci Rachmayanti et al (2022) related to Smartphone addiction shows data from 90 respondents with an age range of 9-12 years found that 64.4% of children were in the low category, 22.2% of children were included in the medium category, and 14.4% of children are included in the high category. In this study it was said that the use of Smartphones will increase along with the growth and development of children who are experiencing a transition from child to adolescent. In this study, data was obtained that there were no significant differences in

male and female smartphone addiction (Rachmayanti et al., 2022).

The results of research conducted related to the psychosocial development of school-age children at Elementary School Kepatihan 06 Jember showed that most of the psychosocial development aged 10-12 years was in the less category 86 (57.3%), some respondents were in the sufficient category 28 (18.7%), and good category 36 (24%). Lack of psychosocial development will cause children to tend to be difficult to adapt to the environment, irritable, hyperactive, so that it can cause children to tend to be quieter. Research conducted by Mayenti and Sunita (2018) showed that out of 60 respondents, 48.3% of children experienced poor psychological development as a result of the impact of smartphone use (Mayenti & Sunita, 2018).

Effective communication patterns are in line with the child's psychosocial development. Interpersonal communication patterns can determine harmonious relationships between individuals or groups. Intense communication between children and their environment will make children experience good social development (Azis & Fawaida, 2021). Psychosocial development is the most important part in the stages of child development, at the age of 10-12 years the industrial stage will help children experience a productive period in stages. If the child is not able to adjust properly, the child will experience inferiority or the child will experience low self-esteem because the problems they are experiencing cannot be dealt with properly and independently (Khotimah et al., 2021).

The results of the research that has been carried out are related to the relationship between the two variables by using the Kendall Tau-C test, which results with a p value of 0.000. This can be interpreted that the p value <α. The α value is 0.05 so that the p value <0.05 means that the hypothesis is accepted (Ha). With these data, it can be concluded that there is a relationship between the level of smartphone addiction on the psychosocial development of school-age children in agricultural areas. Research conducted by Asif (2017) shows that the p value is 0.002, which means the p value <α so that it can be stated that there is a significant relationship between the level of gadget addiction and emotional disturbances in school-age children. Emotional disorders in children are serious behaviors and can affect development and reduce productivity to quality of life (Asif & Rahmadi, 2017).

The results of research that has been cross-tabulated between the level of smartphone addiction and children's psychosocial development show that children aged 10-12 years have a tendency or addiction to use smartphones, namely 70.7% compared to students who do not have a tendency, namely 29.3%. While the psychosocial development of children aged 10-12 years has psychosocial development in the less category of 57.3%, the sufficient category is 18.7% and the good category is 24%. Children with a tendency to use smartphones have psychosocial development in the less category.

In the other hand, Smartphone's positive effects on child cognitive skill. As children utilize smartphones, they viably get ready themselves to lock in with future advances. Since a few schools offer high-speed web get to understudies, children can start to create a greater information of how to explore resources online through their smartphones. Hosokawa and Katsura (2018) stated that While computer use can be positively related to cognitive and academic skills, especially on literacy competency.

CONCLUSION

Based on the result, it can be concluded that there is a relationship between the level of smartphone addiction on the psychosocial development of school-age children in agricultural areas. The study showed that the majority of respondents had a high level of smartphone addiction. This must be a concern for parents and care givers, because smartphone addiction can have detrimental effects. Nurses must educate families and children about the dangers of smartphone addiction both to physical and mental health. The social environment also needs to be supported to provide age-appropriate toys and help the growth and development of children.

ACKNOWLEDGMENT

The The authors would like to thank the Faculty of Nursing, Jember University, for facilitating this research.

AUTHOR CONTRIBUTIONS

Substantial contributions to conception, data collection, analysis, and writing: Aurora Anastasya Latifah, Ira Rahmawati, and Iis Rahmawati.

CONFLICT OF INTEREST

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

DATA AVAILABILITY STATEMENT

The data are not publicly available due to privacy or ethical restrictions.

REFERENCES

Arifin, L. A., & Rahmadi, F. A. (2017). Hubungan Tingkat Kecanduan Gadget Dengan Prestasi Belajar Usia 10-11 Tahun. Jurnal Kedokteran Diponegoro, 6(2), 728–736.

Arthy, C. C., Effendy, E., Amin, M. M., Loebis, B., Camellia, V., & Husada, M. S. (2019). Indonesian Version of Addiction Rating Scale of Smartphone Usage Adapted From Smartphone Addiction Scale-Short Version (Sas-Sv) In Junior High School. Open Access Macedonian Journal of Medical Sciences, 7(19), 3235–3239. https://doi.org/10.3889/oamjms.2019.691

Asif, A. R., & Rahmadi, F. A. (2017). Hubungan Tingkat Kecanduan Gadget Dengan Gangguan Emosi Dan Perilaku Remaja Usia 11-12 Tahun [Relationship Between Gadgets Addiction Levels and Teenage Emotions and Behavior Ages 11-12 Years Old]. Jurnal Kedokteran Diponegoro, 6(2), 148–157. Https://Ejournal3.Undip.Ac.Id/Index.Php/Medico/Article/View/18529

Azis, M. A., & Fawaida, U. (2021). Pola Intensitas Komunikasi Orangtua Dan Anak, Perkembangan Sosial Anak Usia Prasekolah. Jurnal Bimbingan Dan Konseling Islam, 1(1), 61–72.

Hasanah, U., Hijrianti, U. R., & Iswinarti, I. (2020). Pengaruh Smartphone Addiction Terhadap Perilaku Agresif Pada Remaja. Proyeksi, 15(2), 182. https://doi.org/10.30659/jp.15.2.182-191

Hosokawa R, Katsura T. Association between mobile technology use and child adjustment in early elementary school age. PLoS One. 2018 Jul 25;13(7):e0199959. doi: 10.1371/journal.pone.0199959. Erratum in: PLoS One. 2018 Dec 14;13(12):e0208844. PMID: 30044819; PMCID: PMC6059409.

Khasanah, U. A., Ph, L., & Indrayati, N. (2019). Hubungan Perkembangan Psikososial Dengan Prestasi Belajar Anak Usia Sekolah. Jurnal Ilmu Keperawatan Jiwa, 2(3), 157. https://doi.org/10.32584/jikj.v2i3.426

Khotimah, K., Maemonah, M., & Rahmi, Y. N. (2021). Perkembangan Psikososial Peserta Didik Sekolah Dasar Islam Di Masa Pandemi. Jurnal Basicedu, 6(1), 191–202. https://doi.org/10.31004/basicedu.v6i1.1881

Kurniawati, D. (2020). Pengaruh Penggunaan Gadget Terhadap Prestasi Siswa. Edukatif: Jurnal Ilmu Pendidikan, 2(1), 78–84. https://doi.org/10.31004/edukatif.v2i1.78

Malfasari, E., Herniyanti, R., Devita, Y., Adelia, G., & Putra, I. D. (2020). Pendidikan Kesehatan Jiwa Pada Tahap Perkembangan Usia Sekolah. Jurnal Masyrajat Mandiri, 4(6), 1066–1071.

Mawarpury, M.-, Maulina, S., Faradina, S., & Afriani, A. (2020). Kecenderungan Adiksi Smartphone Ditinjau Dari Jenis Kelamin Dan Usia. Psikoislamedia : Jurnal Psikologi, 5(1), 24. https://doi.org/10.22373/psikoislamedia.v5i1.6252

Mayenti, N. F., & Sunita, I. (2018). Dampak Penggunaan Gadget Terhadap Perkembangan Anak Usia Dini Di Paud Dan Tk Taruna Islam Pekanbaru. Photon: Jurnal Sain Dan Kesehatan, 9(1), 208–213. https://doi.org/10.37859/jp.v9i1.1092

Mulyati, T., & Nrh, F. (2018). Kecanduan Smartphone Ditinjau Dari Kontrol Diri Dan Jenis Kelamin Pada Siswa Sma Semarang. Jurnal Empati, 7(4), 152–161.

Nasution, A. H. (2017). Perkembangan Psikososial Anak Usia Sekolah Di Sdn 060922 Kelurahan Tanjung Rejo Kecamatan Medan Sunggal. Skripsi. https://www.Google.com/Url?Sa=T&Rct=J&Q=&Esrc=S&Source=Web&Cd=&Cad=Rja&Uact=8&Ved=2ahukewi1r92fodb4ahv6swwgheyvdzqqfnoecakqaq&Url=Https%3a%2f%2frepositori.Usu.Ac.Id%2fbitstream%2fhandle%2f123456789%2f1502%2f131101033.Pdf%3fsequence%3d1%26isallowed%3dy&Usg

Okta Savira D.N, Asmuji, Sri Wahyuni. (2020). Hubungan Penggunaan Gadget Dengan Perkembangan Psikososial Pada Anak Sekolah Dasar Usia (11-12 Tahun) Di Sdn Kaliwates 01 Kabupaten Jember. http://repository.unmuhjember.ac.id/5806/

Pratiwi, R. G., & Malwa, R. U. (2021). Faktor Yang Mempengaruhi Kecanduan Gadget Terhadap Perilaku Remaja. Jurnal Ilmiah Psyche, 15(2), 105–112. https://doi.org/10.33557/jpsyche.v15i2.1550

Pusparisa, Y. (2020). Pengguna Smartphone Diperkirakan Mencapai 89% Populasi Pada 2025-Penetrasi Ponsel Pintar Di Indonesia. Databoks.Katadata.Co.Id, 2025. https://databoks.katadata.co.id/datapublish/2020/09/15/pengguna-smartphone-diperkirakan-mencapai-89-populasi-pada-2025

Rachmayanti, S., Agustiani, H., Novianti, L. E., & Qodariah, L. (2022). Gambaran Kecanduan Gadget Anak Usia 9-12 Tahun. 10(2). https://doi.org/10.18592/jsi.v10i2.7296

Supartini, Y., Martiana, P. D., & Sulastri, T. (2021). Dampak Kecanduan Smartphone Terhadap Kualitas Tidur Siswa Smp. Jkep, 6(1), 69–85. https://doi.org/10.32668/jkep.v6i1.463

Taufik, M., & Susanti, T. (2019). Child Abuse, Sibling Rivalry, Dan Paparan Media Elektronik Terhadap Perkembangan Psikososial. J-Hestech (Journal Of Health Educational Science And Technology), 2(1), 1. https://doi.org/10.25139/htc.v2i1.1415