Universitas Muhammadiyah Malang, East Java, Indonesia

Journal of Community Service and Empowerment

p-ISSN 2442-3750, e-ISSN 2537-6204 // Vol. 4 No. 1 April 2023, pp. 213-219

Psychoeducational Implementation to reduce gadget addiction in children due to distance learning during the Covid-19 pandemic

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ARTICLE INFO

Article history
Received: 2023-01-23
Revised: 2023-02-02
Accepted: 2023-02-20
Published: 2023-03-11

Keywords
Elementary school student
Gadget addiction
Psychoeducation

ABSTRACT

The distance learning process using mobile phone (gadget) and internet is one of the strategies implemented to keep the learning process going even during the covid-19 pandemic. This method increases the use of gadgets and the internet in elementary school students which can caused a gadget addiction. Dependence on these gadgets causes obesity problems, sleep pattern disturbances, decreased brain and eye function, growth and development disorders and even mental problem. Psychoeducation is a strategy that can be applied to reduce gadget addiction. Psychoeducational activities are carried out by providing material for 45 minutes which is adjusted to the tendency of the five senses used in receiving student information with the Primary System instrument. Classes will be divided into two groups, visual and auditory. Evaluation of psychoeducational activities was carried out after three days of psychoeducational activities by measuring the level of student addiction to gadgets with the Smartphone Addiction Scale-Short Version instrument (SAS). Psychoeducational activities have been proven to reduce the level of gadget addiction at school, marked by a decrease in SAS-VS scores after psychoeducation with a p value of 0.001 (0<0.005). The results of the activity show the importance of educational activities to reduce children's gadget addiction. The next suggestion is that parents' participation is also needed to facilitate children to carry out other activities so that children are not dependent on the use of gadgets.

Kata kunci
Kecanduan gadget
Psikoedukasi
Siswa sekolah dasar

Implementasi psikoedukasi untuk menurunkan adiksi gawai pada anak akibat pembelajaran jarak jauh selama pandemi Covid-19. Perubahan pembelajaran tatap muka (PTM) menjadi pembelajaran jarak jauh (PJJ) merupakan salah satu strategi yang diterapkan untuk menjaga agar proses pembelajaran tetap berlangsung di masa pandemi covid-19. Metode tersebut meningkatkan penggunaan gawai dan internet pada siswa sekolah dasar yang bisa menimbulkan dampak negatif berupa adiksi. Adiksi gawai dapat menimbulkan masalah obesitas, gangguan pola tidur, penurunan fungsi otak dan mata, gangguan tumbuh kembang hingga bahkan permasalahan mental. Psiko-edukasi merupakan salah satu strategi yang dapat diterapkan untuk mengurangi adiksi gawai. Kegiatan psikoedukasi dilakukan dengan pemberian materi selama 45 menit yang disesuaikan dengan kecenderungan panca indra yang digunakan dalam menerima informasi siswa dengan instrumen *Primary System*. Kelas akan dibagi menjadi dua kelompok yaitu visual dan auditory dan diperiksa tingkat adiksi gawai siswa sebelum dan tiga hari setelah pemberian kegiatan psikoedukasi dengan mengukur kembali tingkat adiksi gawai siswa dengan instrumen *Smartphone Addiction Scale-Short Version*. Kegiatan psikoedukasi terbukti dapat menurunkan tingkat adiksi gawai dengan nilai p 0,001 (0<0,005). Hasil kegiatan menunjukkan pengtingnya kegiatan edukasi untuk menurunkan adiksi gawai anak. Saran selanjutnya diperlukan juga partisipasi orang tua untuk memfasilitasi anak untuk melakukan kegiatan lain agar anak tidak tergantung pada penggunaan gawai.

How to cite: Astari, A. M., Amaliya, S., Kartika, A. W., Purnawa, A., Hamida, N., & Novarani, N. (2023). Psychoeducational Implementation to reduce gadget addiction in children due to distance learning during the Covid-19 pandemic. *Journal of Community Service and Empowerment, 4*(1), 213-219. https://doi.org/10.22219/jcse/v4i1.24667

INTRODUCTION

The impact of the Covid-19 pandemic on the education aspect is that there is a change in the learning system from face-to-face meetings to distance learning which is carried out with online learning or mix (a combination of face-to-face meetings and distance learning) (Purwanto et al. 2020; Putri et al. 2020; Setiati and Azwar 2020; Setiati and Rahayu 2017). Distance learning requires students to take part in learning activities using the internet with media gadget in the form of mobile phones or computers (Anggraeni et al. 2020). This condition led to a significant increase in internet use among children (33.98% in 2016 to 59.33% in 2020 where the biggest increase occurred at the age of elementary school children from 16.64% in 2016 to 35) 97% in 2020 (Jayani 2021).Data from the KPAI survey stated that 71.3% of those who use cellular phones already have their own cellular phones and it turns out that 79% use them outside of education or school needs (KumparanNEWS 2020).

Excessive use of the internet and mobile phones have negative impacts on children, one of these is an addiction. This condition is illustrated using gadgets that are intensive and difficult to control so that it can cause disruption to other work activities. Internet users will feel that the virtual world is more interesting than the daily lives they live (Gunawan et al. 2021; Poli 2017). This addictive activity is characterized by excessive use of gadgets to carry out learning activities, searching for information, playing games or communicate via WhatsApp or other communication applications. Excessive use of up to >8 hours/day can be categorized as addiction or addiction to gadgets (Aljomaa et al. 2016; Barotun Mabaroh and Sugianti 2021).

The impact of this addiction on children can cause health problems such as obesity, disturbed sleep patterns, decreased brain and eye function, developmental disorders, and even mental problems (Tamura et al. 2017). One of the mental problems in internet addiction is social disorder in children, attention deficit disorder and hyperactivity and most children with gadget addiction are at risk of experiencing mental and emotional disorders. These disturbances are in the form of tantrums when prohibited from using gadgets, negative behavior to lying to be able to play gadgets (Efastri, Lhaura, and Islami 2022; Setianingsih 2018; Wulandari and Hermiati 2019).

The negative impact of gadget addiction can be reduced by helping from both parents and direct health education interventions given to children (Chairulhaq et al. 2021). One method of providing health education to children is to provide psychoeducation. Psychoeducation is a form of intervention or treatment in the form of education or training for at-risk groups (individuals or groups) as a form of treatment and rehabilitation (Jalal et al. 2022). Education has been proven to be used as an intervention in reducing the level of gadget addiction in children (Setiawati and Fithriyah 2020). A preliminary study conducted at Public Elementary School Kalisongo 3 Malang, the results of interviews with children stated that some (73.5%) already had their own gadgets which were used for learning activities during the pandemic. The use of gadgets is mostly for playing games and communicating with friends. All children said they had never received health education regarding gadget addiction before. Based on the phenomena above, the impact of excessive use of gadgets can cause physical and mental health problems in children which will have an impact on learning achievement. A strategy is needed to overcome this problem with psychoeducation which aims to reduce an addiction on gadgets. This is also in line with the objectives of the Sustainable Development Goals (SDGs), both of goal number 3 and 4, Good Health and Well-Being and Quality Education respectively. Prevention of gadget addiction problems is expected to improve health status and support children to get extraordinary achievements in their education.

METHOD

The Community service activities are carried out in three stages: (1) initial assessment to identify the level of student addiction and the tendency of the five senses to receive information; (2) implementation of educational activities by adjusting the tendency of each group; and (3) the termination stage by providing an evaluation with a post-test. This activity is carried out by obtaining permission from Kalisongo 3 Public Elementary School Malang (Figure 1) and preparing activities.

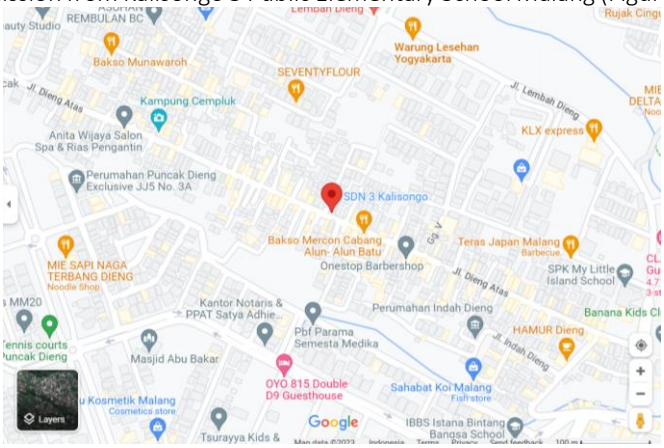

Figure 1. Location of Kalisongo 3 Public Elementary School

The first activity was carried out by conducting an assessment in the form of an assessment of the level of addiction one has after obtaining the results from the Smartphone Addiction Scale-Short Version questionnaire and the Primary System special questionnaire to determine the five senses that are dominantly used by students. From the results of this study, students will be divided into 2 classes based on the tendency of the five senses used to receive information: Visual (Information obtained is encoded into an image), and Auditory (Information obtained is encoded into a sound). This activity can be seen in figure 2 that consist activity in grade 4 (a) and grade 5 (b).

(a) (b)

Figure 2. Data collection activities (a) study activities in grade 4 (b) data collection for grade 5

The second activity was carried out by providing psychoeducation to each group using different methods and media. The group with the Visual input system was given psychoeducation by using displays with dominant images that explained the information to be conveyed. Groups with an Auditory input system are given psychoeducation using a communicative approach from the material provider. Psychoeducation is carried out 1 meeting with a duration of 45 minutes. The material provided are the negative impact of smartphone addiction, other things that can be done to reduce smartphone addiction and develop students' interests and character. the implementation of psychoeducational interventions can be seen in Figure 3.

(a) (b)

Figure 3. Psychoeducational activities (a) visual class; (b) auditory class

In its implementation, the psychoeducational method given considers the representational system of each student, in more detail of the step based on picture 2 as follows:

a) Respondents with a visual system use more visualized content through slides, books, examples written on the blackboard, or by reading text, images, and graphics. The media used is media with a visual representation system in the form of slides about the bad effects of gadgets, picture cards on activities that can be done to reduce gadget use and students are invited to draw a concept map of their outlook on life in the next 10 years.
b) Auditory respondents better understand information when it is expressed orally by the teacher. These students develop their learning effectively when they read texts aloud, listen to audio recordings of stories, or participate in discussions. The media used is media slides of material presented by the speaker and reading about the bad effects of gadgets. Furthermore, students were asked to be able to explain the results of a concept map image of their outlook on life for the next 10 years that had been made together.

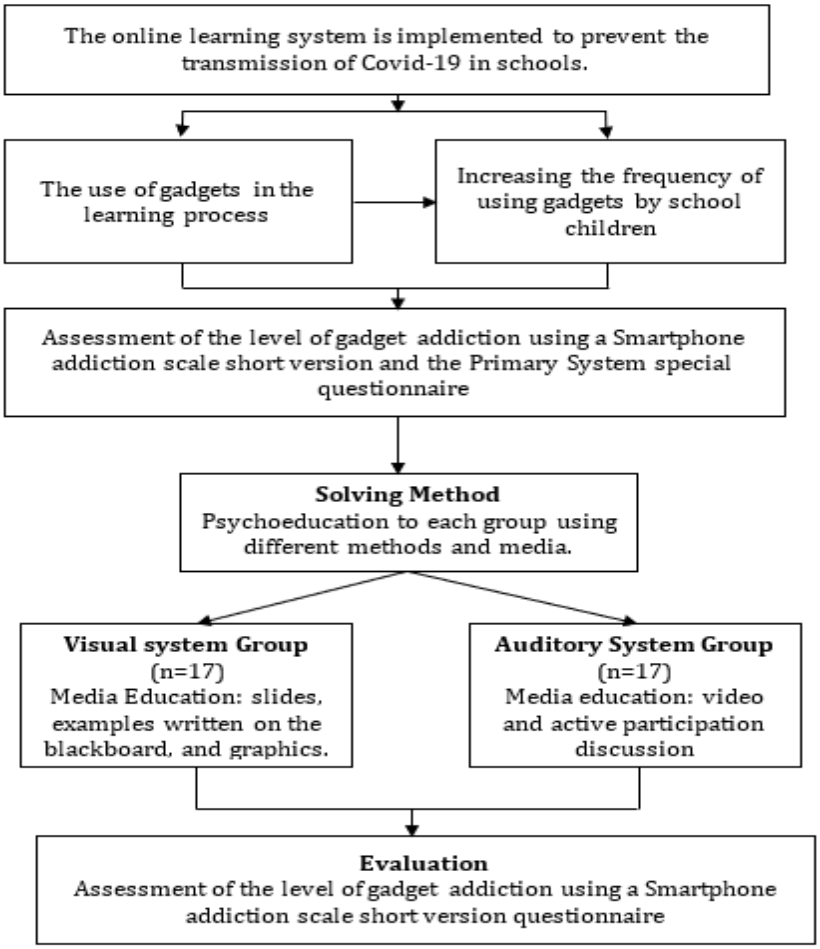

Figure 4. Step of psychoeducation Community Services

The termination and evaluation stage were carried out 3 days after the implementation of the research by re-testing the level of gadget addiction experienced by the research sample through the Smartphone Addiction Scale-Short Version questionnaire and identifying the impact and student responses to the psychoeducation that had been given. Evaluation and termination activities can be seen in Figure 5.

Figure 5. Evaluation and termination

RESULTS AND DISCUSSION

This activity was attended by 34 students in grades 4 and 5. Most students are male (52.9%) with an average age of 10.24 years. We also examine students' responses to psychoeducation that has been given in Table 1.

Table 1. Results of Psychoeducational Community Service Activities to Reduce Gadget Addiction in Children (n=34)

Variable	n	Percentage
Sex		
Male	18	52,9%
Female	16	47,1%
Forms of Education		
Very interesting	8	23,5%
Interesting	16	47,1%
Ordinary	7	20,6%
Less attractive	3	8,8%
Educational influence		
Very influential	12	35,3%
Little effect	11	32,4%
Less effect	6	17,6%
No effect	5	14,7%
Changes after education		
Do not change	4	11,8%
Little changed	14	41,2%
Ordinary	4	11,8%
Very changed	12	35,3%
Variable	Mean (SD)	CI 95%
Mean age	10,24 (0,606)	10,02-10,45
SAS-SV score (pre)	26,44 (9,4)	23,1-29,5
SAS-SV score (post)	26,0 (11,3)	22,1-29,9
Frequency of using the gadget (pre)	2,1 (1,3)	1,68-2,55
Frequency of using the gadget (post)	1,8 (0,9)	1,4-2,1
The duration of using the gadget (pre)	2,4 (1,4)	1,9-2,9
The duration of using the gadget (post)	2,2 (1,4)	1,8-2,8

The students' opinion about the education that had been given was that most students stated that the form of education was interesting (47%), felt that it was very influential (35.3%) by making slight changes (41.2%) to their habits of using cellphones at home. Furthermore, the effect of providing psychoeducation was tested on the Smartphone Addiction Scale Short Version (SAS-SV) score which shows the level of gadget addiction experienced by students.

The differences in addiction score pre and post implementation before and after the intervention can be seen in table 2 below.

Table 2. The effect of psychoeducation on the SAS-SV score which shows the level of gadget addiction (n = 34)

	Mean (s.d)	Deviation (s.d)	CI 95%	p-value
SAS-SV score (pre)	26,44 (9,4)	0,44 (6,3)	23,1-29,5	0,001
SAS-SV score (post)	26,0 (11,3)		22,1-29,9	

Table 2 shows that there is a significant difference in the SAS-SV score before and after being given education where after being given education there is a decrease in the SAS-SV score which indicates a decrease in the level of gadget addiction. However, the decrease that occurred was not too large, namely 0.44. The behavior of using gadgets caused by having to use gadgets as a learning medium is something that students cannot avoid. This causes parents to provide gadgets as learning media. The negative effects of gadgets are known by parents so that on average they have provided supervision to their children, especially in terms of usage time. Parents are the main companions for children to ensure wise use of gadgets at home.

Excessive use of devices has the risk of being a trigger for someone to experience addiction. The concept of addiction or addiction is now developing in accordance with technological advances into a new type, namely internet addiction (Gunawan et al. 2021; Yunita et al. 2021). One of the addictions identified as part of internet addiction is game addiction which is defined by WHO as a mental disorder called gaming disorder. The fifth revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) lists the potential for one of the disorders caused by Internet addiction, namely Internet gaming disorder. This condition is triggered by the habit of playing intense games and prioritizing games above other daily interests or activities. In some studies, it is stated that the majority of children, along with many adults, play video or electronic games as much as 88% and they play these games at least 68% weekly and 23% daily (Petry et al. 2015).

Based on the results of the Smartphone Addiction Scale-Short Version (SAS-SV), before being given psychoeducation the mean score was 26.44 and after psychoeducation the score was 26.00. To deal with addiction, according to the intervention should have started at the early education level. Providing interventions using empowerment strategies and behavior modification has been shown to reduce addiction and increase student self-regulation (Mun and Lee 2015). Other research states that school-based educational strategies in group interventions significantly reduce addiction symptoms. The educational components are (a) Self-monitoring, (b) Understanding of addiction, (c) Self-reflection, (d) Choice of games, goals and time (Walther, Hanewinkel, and Morgenstern 2014).

Psychoeducation is a systematic, structured intervention to transfer knowledge about disease and its treatment, integrating emotional and motivational aspects to enable patients to overcome their illness. Psychoeducation is an important component of treating medical and psychiatric disorders, especially mental disorders associated with a lack of knowledge. The content of psychoeducation is the etiology of a disease, the therapeutic process, side effects of drugs, coping strategies, family education, and life skills training (Hadi 2015). This makes psychoeducation can be used as an intervention in dealing with gadget addiction because knowledge is a predisposing factor that can influence a person's behavior. With good knowledge and understanding through psychoeducation, it is hoped that positive behavioral changes will occur such as being able to manage time when playing devices or limiting the use of devices (Nugroho, Nurhidayah, and Supratno 2022).

CONCLUSION

Community service activities can be carried out smoothly because of good cooperation between the team and the Kalisongo 3 public elementary school. From the activities it can be concluded that psychoeducational activities have an influence on the level of gadget addiction. These results were proven by the significant difference between the SAS-SV score before and after being given education where after being given education there was a decrease in the SAS-SV score which showed a decrease in the level of gadget addiction by 0.44. The recommendation from the results of this activity is the need for psychoeducational activities as a fun strategy for students to be able to change behavior to be more positive. Psychoeducation is a strategy that can be easily accepted because it is given in a fun method that fits the child's development. The limitation in this activity is Psychoeducation was only given once and the evaluation of addiction scores with questionnaire was carried out two weeks after the intervention. This causes no clarification of addictive activities from parents.

ACKNOWLEDGEMENT

The author would like to thank to the Research Institutes and Community Service (BPPM) Faculty of Health Science, Universitas Brawijaya for providing financial support for this activity and the Department of Nursing Faculty of Health Sciences and Kalisongo 3 public elementary school, Malang district, East Java for providing support and facilities for this activity.

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