

## THE EFFECT OF THE DURATION OF GADGET PLAYING ON THE EMOTIONAL DEVELOPMENT OF CHILDREN IN THE KIDS ROOM OF MOJOWARNO KRISTEN HOSPITAL

By

Ana Farida Ulfa<sup>1</sup>, Rina Agustin<sup>2</sup>, Praise<sup>3</sup>

<sup>1,2,3</sup>Faculty of Health Science, University of Pesantren Tinggi Darul Ulum, East Java, Indonesia

Email: [Sciencesbudosenana80@gmail.com](mailto:Sciencesbudosenana80@gmail.com)

---

### Article Info

*Article history:*

Received Apr 19, 2021

Revised May 04, 2021

Accepted May 22, 2021

---

### Keywords:

Duration, Gadget,  
Emotional Development

---

### ABSTRACT

Many parents thought that gadgets could be safe and easy to supervise playmates. In fact, if viewed from the point of view of mental health science, the natural growth and development process experienced by children can be disrupted due to the use of gadgets, including children's emotional development. The purpose of this study was to determine the effect of the duration of playing gadgets on children's emotional development. The research design used correlation analytic with cross sectional approach. The population of this study were all children aged 1 -5 years in the Children's Room, Mojowarno Hospital, a total of 34 children with purposive sampling technique obtained a sample of 32 respondents. The research instrument is a questionnaire on the duration of the use of gadgets and a Questionnaire for Mental Emotional Problems, the data were analyzed by Spearman Rho Test. The results showed that most of the children used gadgets in the moderate category (60-120 minutes) a day, namely 19 children (69.4%), almost all children did not experience emotional development disorders, namely 28 children (87.5%). The results of the analysis with the Spearman Rho test showed that  $p$ -value = 0.001 or less than (0.05) and  $r$ -value = - 0.552 so that there was a relationship between the duration of using gadgets and the emotional development of children at Mojowarno Christian Hospital where the longer they use gadgets, the more they experience children's emotional development disorders. This was because by using gadgets excessively, children would lack empathy and concern for the surrounding environment, sometimes children cry and got angry for no reason if their wishes are not obeyed, especially if they asked to play gadgets. It was hoped that health workers could provide direction or education to parents who had toddlers on how to wisely introduce gadgets to children

*This is an open access article under the CC BY-SA license.*



---

### Corresponding Author:

Ana Farida Ulfa

Faculty of Health Science, University of Pesantren Tinggi Darul Ulum, East Java, Indonesia

Email: [Sciencesbudosenana80@gmail.com](mailto:Sciencesbudosenana80@gmail.com)

---

## INTRODUCTION

### Onglobalization era like

Currently, the development of technology and information is progressing very rapidly which is marked by advances in the field of information and technology (Ismanto, 2015). One of them is developmentGadget which is increasingly widespread, almost all individuals, both children and adults, now have a cell phone or Smartphone. Even usageGadget also occurs in preschool children. Currently utilizationGadget being one of the shortcuts for parents in accompanying as caregivers for their children. With a variety of interesting features and applications, they use it to accompany their children so that parents can carry out activities in peace, without worrying about their children playing outside the house and making noise at home, which in turn makes them fussy and disrupts their activities. Children with shrewd can operateGadget and focus on games or other applications. Many parents thinkGadget able to be a playmate that is safe and easy to supervise. So that the role of parents as playmates is replaced byGadget.

Research by Meta Anindya Aryanti Gunawan, 2017 with the research title Relationship duration of useGadget to the social development of preschool children in PGRI 33 Sumurboto Banyumanik Kindergarten isWorld Health Organization (WHO) reports that there are 5-25% of preschool-age children experiencing psychosocial problems, especially social-emotional problems such as anxiety, difficulty adapting, difficulty socializing, difficulty separating from parents, difficult children to manage, and aggressive behavior. Various stimulations can affect development, including:Gadget.

The results of interviews and observations on parents and children conducted in the Children's Room of Mojowarno Christian Hospital, there were 10 children aged 1-5 years who could playGadget fluently, although not yet fully able to read. According to the parents who were in the Children's Room at the Mojowarno Christian Hospital, there wasGadget can easily supervise children at home without the mother leaving her duties. Apart from that, children usually operateGadget for playing and watching videos. However, from observations, some parents use this media to introduce letters to children, by watching educational videos and providing games that hone children's brains. So thatGadget the majority are used by children to play a game, where the game can hone the child's ability to recognize letters. Still there are also parents who useGadget to divert children so as not to interfere with the work of their parents so that parents provide facilities in the form ofGadget for their young children (Widiawati & Sugiman, 2014). In fact, when viewed from the point of view of mental health science, the natural growth and development process experienced by children can be disrupted due to usegadget, for that early childhood is not recommended to useGadget (Sari & Mitsalia, 2016).

In fact, when viewed from the point of view of mental health science, the natural growth and development process experienced by children can be disrupted due to usegadget, for that early childhood is not recommended to useGadget (Sari & Mitsalia, 2016). That's becausegadget used only one way. Parents should supervise in useGadget so that there is interaction between parents and children. Besides the negative impactGadget which makes children lazy to move and do activities, there is also a positive impact fromGadget, yesGadget can make it easier to sharpen the skills and intelligence of children. Such as coloring applications, learning to read, and writing letters, this has a positive impact on children's brain development (Novitasari, 2016).

According to one of the experts in information technology and the Bandung Institute of Technology (ITB), Dimitri Mahayana: around 5-10%Gadget maniac or addictGadget used to touchGadgetas much as 100-200 times a day. If the effective time for human activity is 16 hours or 960 minutes per day, then the person is addictedGadget will touch the device every 4.8 minutes. An addictGadget it will be difficult to live real life, for example chatting or not paying attention to learning because his attention is only onGadget. And even if he is separated byGadget, then there will be a feeling of restlessness.

Based on the explanation above, parents' understanding of influenceGadget very important. Efforts that can be made by parents is to apply a number of rules to their children in usingGadget. Besides that, as a parent, you should be able to understand and explain the content that is onGadget, provide opportunities for children to learn to useGadget to learn and interact from an early age. Due to usageegadget at this point is something that can not be avoided. Give directions to children how to useGadget correctly about sitting position and by paying attention to the location of the light and the distance of the eye withGadget. Because viewing distance that is too close will interfere with the child's vision. Choose an application that suits the needs of the child, according to the age and ability of the child. All games, social media, videos must pass parental supervision. Because elements of violence and pornography are prone to occur or easily found in the content mentioned above. Parents should know more about all the content that is ongadget her children. Arrange duration of usegadget. Do not let the children cool withGadget so that children forget the time to help children make their own decisions. Sometimes children want to create a new atmosphere but don't dare to communicate with their parents. Here parents must always invite discussions and even invite stories so that children can present or be creative with the ideas that are in their minds. Also instill fear of God so that if there is no child's parents know that God is watching and watching what is done. And this can make children make their own decisions without thinking that is not good.

Based on the description above, the researcher is interested in studying the effect of playing durationGadget on the emotional development of children in the children's room of Mojowarno Hospital. This needs to be done because considering that based on pre-research in the form of conservation in that location, many young children use itGadget and parents are impressed to let their children useGadget the.

## METHOD

The type of research used in this research is this research using a quantitative approach, with research methodsafter the fact. Data collection techniques with questionnaires. The instrument used in this study was a Questionnaire (MENTAL AND EMOTIONAL PROBLEMS QUESTIONNAIRE). The population used in this study

were all children aged 1 -5 years in the Children's Room of the Mojowarno Hospital with a total of 34 children. Selection of the sample in this study using purposive sampling, a sample size of 32 respondents.

With inclusion criteria:

1. Parents who are willing to be respondents.
2. Parents who have children aged 1 – 5 years.

#### **Exclusion criteria**

1. Parents whose children are in an unstable condition or need close observation
2. Parents who have children with mental disorders.

Data collection was carried out after obtaining an ethical due diligence from the Unipdu Jombang ethics commission. The initial step of data collection was to select prospective respondents according to the inclusion criteria, the next step the researcher explained about the aims and objectives of the research, the benefits of the research and then asked for consent from the respondents after

#### **Characteristics Frequency Percentage (%)**

< 20 years 0 0 20-35 years 26 81.2 > 35 years 6 18,8 **Education**

#### **Mother**

Elementary (SD, JUNIOR HIGH SCHOOL) 0 0 Secondary (SMA) 30 93,8

High respondents agreed to participate. Next, the researcher will provide a questionnaire sheet and explain how to fill it out. Respondents fill in their personal data and (College)

#### **Mother's job**

researchers who give questions according to 2 6,2 what is written in the questionnaire. And researchers who write on the questionnaire sheet. This research was conducted on 1 June-15 July 2021 at Mojowarno Christian Hospital for children undergoing hospitalization. A sample of 32 children aged 1-5 years was obtained

## **RESULTS AND DISCUSSION**

### **Results**

#### **General data**

##### **Respondent Frequency Distribution**

##### **Based on Respondent Characteristics at Mojowarno Christian Hospital2021**

IRT 21 65.6 Private 11 34.4 Entrepreneur 0 0 ASN 0 0 Others 0 0 **Father's age**

< 20 years 0 0 20-35 years 7 21.9 > 35 years 25 78.1 **Education**

#### **Dad**

Elementary (SD, JUNIOR HIGH SCHOOL) 0 0 Secondary (SMA) 29 90,6 High

Percentage Frequency Characteristics(%)

#### **Age**

1 year 0 0

(CollegeHeight)

#### **Father's occupation**

3 9,4

2 years 0 0 3 years 11 34.4 4 years 11 34.45 years 10 31.2 Type

Sex

Male 17 53.1 Female 15 46.9 Education

Child

Not yet

School 14 43.8 PAUD 12 37.5 TK 6 18,8 Mother's Age

IRT 0 0 Private 24 75.0 Entrepreneur 6 18.8 ASN 2 6.2 Others 0 0 Total 32 100 Source: Primary data for 2021

Shows that almost half of the children are aged 3 years and 4 years, namely 11 children (34.4%). The average age of the children is 3.97 years, the smallest is 3 years, the largest is 5 years, and the standard deviation is 0.822. Based on gender characteristics, most of the children were boys, namely 17 children (53.1%). Based on the characteristics of children's education, almost half of them are not in school, namely 14 children (43.8%). Based on the characteristics of the mother's age, almost all of them were aged 20-35 years, namely 26 people (81.6%). Based on Mojowarno Christian Hospital2021

Development

Emotional

Characteristics of mother's education, almost all of them have secondary education (SMA), namely 30

Duration

Usage

No

Total There is

people (93.8%). Based on the characteristics of the mother's work, most of them are housewives

Gadget

disturbance

ladder that is 21 people (65.6%). Based on the characteristics of the father's age, almost all of them were > 35 years old, namely 25 people (78.1%). Based on the characteristics of the father's education, almost all of them had secondary education (SMA), namely 29 people (90.6%). Based on the characteristics of the father's work, most of them work in the private sector, namely 24 people (75%).

**Custom Data**

**Respondent Frequency Distribution**

**Based on Variable Characteristics at Mojowarno Christian Hospital2021**

**Percentage Frequency Variable (%)**

**Duration**

Usage

Gadget

High (> 120minute) 3 9,4 Moderate (60-120minute) 19 59,4 Low (< 60minute) 10 31,2 Development emotional

There is interference 4 12,5 None

disturbance 28 87,5 Total 32 100,0 Source: Primary data for 2021

Shows that most children use gadgets in the moderate category (60-120 minutes) in a day, namely 19 children (69.4%).

Based on emotional development, almost all children did not experience emotional development disorders, namely 28 children (87.5%).

The Relationship between the Duration of Gadget Use and Children's Emotional Development in

F % f %

minutes) 3 100 0 0 3100 High (> 120

minutes) 1 5,3 1894,719 100 Moderate (60-120

minutes) 0 0 1010010 100 Low (< 60Total 4 12,5 28 87,532 100 Source: Primary data for 2021

Shows that all children who

using gadgets > 120 minutes a day experienced emotional development disorders, namely 3 out of 3 children (100%), almost all children who used gadgets 60-120 minutes a day did not experience emotional development disorders, namely 18 out of 19 children (94.7%), and all children who use gadgets <60 minutes a day do not experience emotional development disorders, namely 10 out of 10 children (100%).

Spearman Rho test results show

that pvalue = 0.001 or less than  $\alpha$  (0.05) and r count = -0.552, which means that there is a relationship between the duration of using gadgets and the emotional development of children at Mojowarno Christian Hospital where the longer using gadgets, the more disturbed emotional development is.

**Discussion**

**1. Duration of Gadget Use in Children at Mojowarno Christian Hospital**

The results of research on the duration of gadget use shows that most children at Mojowarno Christian Hospital use gadgets in the moderate category (60-120 minutes) a day. Children do not have their own gadgets, but use their parents'. Started using gadgets from the age of 3, and used it more for watching YouTube.

Respondents who use gadgets with

moderate intensity (60-120 minutes) in a day because parents already understand that children may not use gadgets for > 2 hours a day, so parents who understand will limit the use of gadgets by children. usually occurs in parents who do not buy their own gadgets for children, meaning that the gadgets used by children belong to their parents or older siblings, so children cannot use gadgets for a long time. Parental supervision is an important factor in the use of gadgets on children so that the gadgets used have a positive impact on children because the progress of the times is inevitable, but with good use, the use of gadgets can provide benefits for children. Children are not allowed to play gadgets > 60 minutes every time they use gadgets and a total of 2 hours a day. Parents can divert their children's desire to use gadgets by inviting their children to play other games using toys, watching television, telling stories with their children. High parental education greatly affects the ability to direct children not to play gadgets often because

with higher education, parents will find it easier to find and absorb information about how to deal with children so they don't get addicted to gadgets.

Respondents who use gadgets with high intensity (> 120 minutes) because children are addicted to gadgets. The most widely used gadget is the smartphone, because in smartphones you can find a variety of interesting game applications and almost all applications that children need are available on smartphones, from games, communication, surfing the internet, to watching videos. The most used is to watch YouTube, because in the YouTube application there are a lot of videos about children that are provided in a very large number and children can choose at will to relieve boredom while in the hospital and it has also become a habit at home, parents giving gadgets to children so that children are quiet and do not disturb parents' work or be fussy. Parents with low education tend not to understand the dangers of using gadgets for too long, so they just let their children play gadgets as long as they stay at home and don't leave the house or bother their parents, this also happens to parents who work where they have more little time to communicate with children so they cannot supervise the child's use of gadgets intensely.

Respondents who use gadgets with low intensity (< 60 minutes) in a day because parents strictly control their children's gadget use so that it is not excessive, usually occurs in parents who do not buy their own gadgets for their children, meaning gadgets

Those used by children belong to their parents or older siblings, so children cannot use gadgets for a long time. Parents supervise children and know that the use of gadgets exceeds the limits allowed by child health experts.

Parents should consider how much time is allowed for their child in playgadget, due to the total duration of usegadget can affect child development (Hurlock, 2015). Using gadgets for too long can have an impact on children's social interactions with the environment and family which makes children's behavior passive and dependent on gadgets. their children become addicted to gadgets whose use knows no time (Mutriara et al., 2020).

Some of the reasons that make a child addicted to gadgets include visually and audio more attractive. Factors that influence the duration of using gadgets by children include the lack of parental assistance. The development of information technology due to globalization has lightened the burden on parents as educators and companions who should be providing lessons and knowledge to children at any time, because when parents are busy with their activities, children are given gadgets to watch videos and pictures that make them happy and feel at home studying with the gadget for a long time (Iswidharmanjaya, 2014).

## 2. Children's Emotional Development at Mojowarno Christian Hospital

The results showed that almost all of the respondents did not experience emotional development disorders, only a small number of children experienced emotional development disorders

According to the researchers, almost all respondents did not experience emotional development disorders, which means that children experience normal emotional development, because basically all children can develop normally. This can be caused because parents apply good parenting so that children do not feel pressured and have positive emotions. Parents who set a good example are easier for children to imitate than parents who patronize or direct them in stimulating development.

Along with the child's development, many factors influence such as the child is not given breast milk so that he feels an inner bond and affection from his mother when breastfeeding which makes the child less have compassion and have negative emotions such as grumpy. Disorders of emotional development that occur in children include children often looking angry for no apparent reason (such as crying a lot, being easily offended or overreacting to things they are used to dealing with) caused by poor parenting styles from their parents and lack of fulfillment of children's loving needs, children behave destructively and oppose the environment around them (such as violating existing rules, often doing things that are dangerous to themselves, or torturing animals or other children) and seem not to care about the advice that has been given to him because of a lack of attention from parents, the child shows a feeling of excessive fear or anxiety that cannot be explained in origin and is not comparable to other children of his age which can be caused because the child is often left alone and not accompanied by parents or because of the application of patterns wrong parenting, the child shows confused behavior so that he has difficulty communicating and making decisions because the child does not get developmental stimulation while at home which can be caused by the limited education and knowledge of his parents, the child experiences changes in eating patterns (such as loss of appetite, overeating or do not want to eat at all) that occurs in children with less or more nutritional status, children often complain of headaches, stomachaches or other physical complaints due to good parenting so that children often pretend to be sick to get attention, children often complain despair that occurs in children who are left to work by their mothers so they feel that no one pays attention and loves them which makes children feel hopeless, and children do repetitive actions for no apparent reason which can be caused by disorders in genetic factors that not examined in this study.

According to some experts in Sukesi (2015), the emotions of preschool children are influenced by parenting factors, educating children in an authoritarian way, which uses punishment methods to reinforce strict obedience, encouraging unpleasant emotions to become dominant. Parents who overprotect their children (overprotective), who lives in a dangerous prejudice against everything, gives rise to a fear in the child of being dominant; genetic factors (child temperament), temperament is the hereditary traits possessed by individuals from parents which can be either physical or mental. Regarding for example the temper, quiet and others; child's health condition; family conditions (home atmosphere); relationships with peers, if the child is well received by the group

peers, then pleasant emotions become dominant in them, whereas if children are rejected or ignored by peer groups, unpleasant emotions become dominant in them; relationship with family members (Sukesi, 2015).

Each age range exhibits some of the most marked differences in emotion expression and regulation. During preschool age, children also experience stress and respond to it, but at this age they are also trying to regulate their own feelings and impulses. Differences in the ability to express and regulate emotions in children are also related to children's cognitive development, where this child's cognitive development will affect the ability to control themselves and inhibit impulses (Nurmalitasari, 2015).

One of the factors that influence development is the education of the father or mother. Parental education is an important factor in the development of children. Because the higher the level of parental education, the better parents can receive all information from outside, especially about good parenting methods, how to maintain the health of their children, their education and so on (Dewi et al, 2015).

One of the factors that influence child development is family and customs, including work or family income. The purpose of working is to generate adequate family income to support the growth and development of children, because parents can provide all the needs of children, both primary and secondary needs (Dewi et al, 2015).

### **3. The Relationship between the Duration of Gadget Use and Children's Emotional Development at Mojowarno Christian Hospital**

The results showed that all children who used gadgets > 120 minutes a day experienced emotional development disorders, namely 3 out of 3 children (100%), almost all children who used gadgets 60-120 minutes a day did not experience emotional development disorders, namely 18 out of 19 children (94.7%), and all children who use gadgets <60 minutes a day do not experience emotional development disorders, namely 10 out of 10 children (100%). The results of the Spearman Rho test show that  $pvalue = 0.001$  or less than  $\alpha (0.05)$  and  $r$  count = -0.552, which means that there is a relationship between the duration of using gadgets and the emotional development of children at Mojowarno Christian Hospital where the longer using gadgets, the more impaired emotional development.

Respondents who experience emotional development disorders occur in children who use gadgets with high intensity (> 120 minutes a day), this is because by using gadgets excessively, children will lack empathy and care for the surrounding environment, sometimes children cry and get angry for no reason if their wishes are not complied with, especially if they ask to play gadgets, coupled with working mothers who rarely supervise the use of their children's gadgets which causes children to spend their time playing gadgets because their mothers leave them to work because there is no supervision and direction from parents who are busy working.

Children who use moderate intensity gadgets but have emotional development disorders because at the age of 3 years, children who should get good care from parents, especially mothers, but children are left to work by mothers so children do not get good care from parents, even though the child does not use the gadget when the mother is left at work, when the mother comes home, the child's HP will be used by the child to play, the mother does not forbid or supervise because she is tired of working and the child is given a gadget so as not to disturb the mother who is resting after work, then this can cause disturbances in children's emotional development.

Usage of gadget Excessive use on children will have a negative impact because it can reduce concentration power and increase children's dependence on being able to do things that they should be able to do on their own. Another impact is the increasingly open internet access in gadget which displays everything that children should not have time to see. Many children are starting to get addicted to gadget and forgetting to socialize with the surrounding environment which has a psychological impact, especially emotional and a crisis of confidence (Pearl et al., 2020). Children who use gadget overload time from the specified time limit some experts make them addicted and less sensitive to the surrounding environment. Almost all of them are individual and passive in interacting. They also prefer passive games with their gadgets rather than playing with their peers (Pangastuti, 2017).

### **CONCLUSION**

- 1) Most of the children at Mojowarno Christian Hospital use gadgets 60-120 minutes a day.
- 2) Almost all children at Mojowarno Christian Hospital do not experience emotional development disorders.
- 3) There is a relationship between the duration of gadget use and the emotional development of children in the hospital

Mojowarno Christian where the longer using gadgets, the more disturbed emotional development is evidenced by the results of the Spearman Rho test showing that  $p\text{value} = 0.001$  or less than  $\alpha (0.05)$  and the value of  $r$  count =  $-0.552$ .

## BIBLIOGRAPHY

- [1] Arikunto, S. 2010. Health Research Methodology. Jakarta: Rineka Cipta.
- [2] Chusna, P. A. (2017). The Influence of Gadget Media on Children's Character Development. *Research Dynamics: Religious Social Communication Media*, 17(2), 325–330. <https://doi.org/10.21274/dinamika/2017.17.2.32>
- [3] 5-330
- [4] Daniel Goleman. (2006). Emotional Intelligence, translation of the 22nd printing. jakarta: main library gramedia.
- [5] Ferliana, Jovita Maria. (2016). Important Children and Gadgets Rules of the Game. Downloaded on 01 September 2020 from <http://nakita.grid.id/balita/anak- and Gadgets the -important -rules of the game?> pages = 2.
- [6] Gunawan, M. A. A. (2017). The Relationship between the Duration of Using Gadgets and the Social Development of Preschool Children at PGRI 33 Sumurboto Kindergarten, Banyumanik. The Relationship between the Duration of Using Gadgets and the Social Development of Preschool Children in PGRI Kindergarten 33 Sumurboto, Banyunamik, 1–127.
- [7] Teacher, P., Atfhal, R., Religion, F., University, I., & Malang, I. (2019). THUFULI: Journal of Early Childhood Islamic Education Volume I Number 1 of 2019 e-ISSN; I.
- [8] Hidayat, A. Aziz Alimul. 2005. Introduction to pediatric nursing, Edition 2. Salemba Medika: Jakarta.
- [9] Indonesian Pediatrician Association (IDAI). (2011). Pediatric Tips Group. Jakarta: Publishing Agency of the Indonesian Pediatrician Association.
- [10] Juditha Cristiany, The Relationship between the Use of the Facebook Social Networking Site and the Behavior of Adolescents in Makassar City, e-Journal IPTEK-KOM
- [11] 8
- [12] Republic of Indonesia Ministry of Health. 2013. Basic Health Research. Jakarta: RI Ministry of Health
- [13] Nurhaeda, "The Impact of Using Gadgets in Early Childhood in Islamic Views at Mutiara Hati Palu Integrated Early Childhood Education", Early Childhood Education Indonesian Journal, Palu: FKIP Muhammadiyah University, Palu, No. 2 Vols. 1
- [14] Nursalam. (2013). Concept and Application of Research Methodology in Nursing: Guidelines
- [15] Thesis, Thesis and Research Instruments. New York: Salemba Medika.
- [16] Notoatmodjo. (2012). Health Research Methodology. Jakarta: Rineka Cipta.
- [17] Radliya, N. R., Apriliya, S., & Zakiyyah, T. R. (2017). The Effect of Device Use on Children's Social Emotional Development

---

THIS PAGE INTENTIONALLY LEFT BLANK