

USE OF GADGET IN RELATIONSHIP WITH INDEPENDENCE IN ACTIVITIES DAILY LIFE IN CHILDHOOD PRESCHOOL

Novinda Andi Ani, Qori Ila Saidah*, Sapto Dwi Anggoro, Nuh Huda, Dini Mei Widayanti, Dwi Priyantini, Ceria Nurhayati, Lela Nurlela

College of Health Sciences (Sekolah Tinggi Ilmu Kesehatan) Hang Tuah Surabaya, Indonesia

**Corresponding Author's Email: qorisaidah82@gmail.com*

ABSTRACT

Background : Child independence is one of stages of growth and development in children. The use of gadgets can cause children to be more passive because they are more focused on gadgets. This study is intended to investigate the relationship between the use of gadgets and the independence of pre-school children. **Method :** The study was designed using Cross-sectional approach. This study was conducted in Al-Fitroh Surabaya Kindergarten and Budi Mulya Surabaya Kindergarten samples with 104 respondents selected by cluster sampling technique. The research instrument was questionnaires assessment regarding both the use of gadgets and questionnaires independence pre-school children of which its validity and reliability test had been undertaken. **Result :** The results of this study demonstrate the use of the gadgets were mostly of the medium category, the independence of preschool children, mostly in the medium category, and there is a relationship between the use of gadgets to the independence of preschool children. The relationship is not very strong as indicated by the test results of Spearman's Rho values obtained ρ -value= 0.004 ($\rho < 0.05$) and the value of $r = -0.327$. **Conclusion :** The use of gadgets in children requires time restrictions so that children do not just focus on gadgets and that children's daily activities do not decrease. Time limits must be implemented for the use of the gadget for the children, then the child will be able to perform more activities every day so that this can improve child's independence.

Keywords : *Gadget, Child's Independence, Preschool Children*

INTRODUCTION

The gadget is an electronic device that has various forms and has now become dominant in the lives of all people, including children (Laszczyk, 2013). Many children use gadgets because gadgets have been equipped with entertainment features such as social media, video, audio, images, and games (Sapardi, 2018)

Gadget users are increasing, including preschool gadget users. In 2013, the results of a national survey conducted in October and November in Philadelphia, Pennsylvania, which was adapted from Common Sense Media's found that among children aged 3-4 years, children have used mobile devices without assistance and 1/3 children involved in multitasking media (Kabali *et al.*, 2015). In 2014, data from detikINET showed that Indonesia was ranked in the top five as a gadget user country with a total of 47 million active gadget users. Gadgets used by early childhood and adolescents have a fairly high percentage, namely 79.9% of the total population who use gadgets (Pagestuti, 2017).

According to Riadi (2015) Emarketer has conducted a survey and found that in 2016, Indonesia ranked in the top four as a gadget user country. E-Marketer also projects that gadget users will continue to grow from 2016 to 2019. In 2017, there are an estimated 74.9 million gadget user (Hiperaktivitas, 2018).

The preliminary study was conducted at Al-Fitroh Surabaya Kindergarten and Budi Mulya Kindergarten Surabaya. The results of a preliminary study conducted with interviews with several parents found that their children had started to recognize gadgets at an very early age and were able to operate gadgets at the age of 2-4 years. When using a gadget for each child is different, some say children use gadgets every day for 3-4 hours and some other children use gadgets only every day for >3 hours. Parents say they are worried about the effects of gadgets on children. Most parents say children still need to be fetch food as they are still fed, school equipment is still prepared by parents, in terms of dressing, tidying themselves, urinating, defecating, and

tidying toys still need help from parents.

The use of gadgets affects children's development, especially at preschool age (Strasburger & Cook, 2013). Although not a major cause of health problems, the use of media such as cell phones, iPads, and social media contributes greatly to the many risks of health problems and development in children (Laszczyk, 2013). One of development problems include children becomes lazy to move, interaction with parents and the environment will be reduced, and ultimate hinderance of socialization of children (Sapardi, 2018). Due to these factors, children at the age of 2 to 3 years develop an attitude of dependency. If they are independent children will feel that they can do something themselves without the need for the help of their parents (Marcdante *et al.*, 2014). However, because children are more focused on gadgets, daily activities decline, causing a decrease in the child's personal and social development (Park & Park, 2014). This causes a decrease in children's independence.

Parents must understand that they must limit the use of gadgets in children for the proper development of children's independence. By restricting the use of gadgets, children will not be spoiled and will be able to focus more on playing gadgets. Children's activities will continue to be done independently and are not dependent on parents according to their development. If parents have understood this, then the child does not depend on parents when doing activities as their focus will no longer be on gadgets. Therefore, the efforts of parents in the use of gadgets in children are needed.

Based on the description above, the researcher wants to do research on the relationship between the use of gadgets with independence in daily activities in preschool children.

METHODOLOGY

Quantitative research uses analytic observational methods with the cross sectional approach. The study was conducted at Al-Fitroh Surabaya Kindergarten and Budi Mulya Kindergarten Surabaya with 104 respondents as samples taken with cluster sampling technique. The research instrument used a questionnaire using a gadget and a questionnaire for independence of preschool age children who had been tested for validity and reliability.

RESULTS AND DISCUSSION

1. The Use of Gadgets in Preschool Children in Kindergarten Al-Fitroh Surabaya and Kindergarten Budi Mulya Surabaya

Table 1: Characteristics of respondents based on the use of gadgets in preschool age children

| The use of Gadget in Preschool Children | Frequency (f) | Percentage (%) |
|---|---------------|----------------|
| Good | 36 | 34.6% |
| Medium | 47 | 43.3% |
| Bad | 21 | 20.2% |
| Total | 104 | 100% |

The results showed the characteristics of research respondents based on the use of gadgets in preschool age children, with a total of 104 child respondents using gadgets mostly in the medium category of 47 children (43.3%).

The use of gadgets in children should be given a time limit of 1 hour per day (Laszczyk, 2013) so that children have more time to do other activities that can stimulate child development and minimize obesity (Patton & Sawyer, 2000). From the above data, it can be seen that some of the respondents answered the questionnaire on the statement "Children use gadgets more than 1 hour per day" on the use of gadgets by moderate category as many as 47 children (45.2%) found respondents answered in columns "often" as many as 23 people (48.9%), "rarely" as many as 24 people (51.1%), and "never" as many as 0 people (0%). With the use of good category gadget as many as 36 children (34.6%) found respondents answered "often" as many as 7 people (19.4%), "rarely" as many as 25 people (69.4%), and "never" as much as 4 people (11.1%). In the use of poor category gadgets as many as 21 children (20.2%) it was found that respondents answered in the "often" as many as 17 people (81%), "rarely" as many as 4 people (19%), and "never" as many as 0 people (0%).

In the use of good categories of gadgets, it is still found that children use gadgets for more than 1 hour, researchers assume in giving the time limit most parents provide a time limit on the use of gadgets to children on the frequency aspect. It can be seen that some of the respondents answered the questionnaire on the question of frequency of gadget usage, with the use of good category gadget, respondents found that the frequency of using gadget 1-3 days was 19 people (52.8%), 4-6 days as many as 9 people (25%), and every day as many as 8 people (22.2%). In the medium category gadget usage, the respondents answered the frequency of using gadget 1-3 days were 19 people (40.4%), 4-6 days were

10 people (21.3%), and every day was 18 people (38.3%). In the use of poor category gadgets it was found that respondents answered the frequency of using gadgets 1-3 days by 4 people (19%), 4-6 days by 2 people (9.5%), and every day as many as 15 people (71.4%).

2. Child independence in Daily Activities in Preschool Children at Al-Fitroh Surabaya Kindergarten and Budi Mulya Kindergarten Surabaya

Table 2: Characteristics of respondents based on child independence in daily activities in preschool children

| Child independence in Daily Activities in Preschool | Frequency (f) | Percentage (%) |
|---|---------------|----------------|
| Not independent | 7 | 6.7% |
| Less independent | 54 | 51.9% |
| Independent | 43 | 41.3% |
| Total | 104 | 100% |

The results showed the characteristics of the research respondents based on independence in daily activities with preschool children, with a total of 104 respondents the majority of children were in the moderate category with 54 children (51.9%).

A child's independence can be seen from the way children wash their hands, eat, wear clothes, take a bath, defecate, and urinate independently. From the above data, it can be seen that some respondents have lack of independence in terms of physical abilities with respondents answering the questionnaire in the statement "Children prepare their own books without assistance" on the independence of children. From the study in the less independent category obtained by respondents answering "always" as many as 4 people (7.4%), the column with "often" as many as 15 people (27.8%), the column "rarely" as many as 29 people (53.7%), and the "never" as many as 6 people (11.1%). In the non-independent category it was found that respondents answered in the column "rarely" as many as 3 people (42.9%), the column "never" as many as 4 people (57.1%), and no respondent answered in the column with the choice "often" and in the column choice "always". In the independence of children in the independent category it was found that respondents answered in the column "always" as many as 14 people (32.6%), "often" as many as 22 people (51.2%), "rarely" as many as 6 people (14%), and "never" as many as 1 column people (2.3%).

In preschool, children begin to learn to tolerate separation from parents, children begin to learn various skills that can trigger independence in a child and success of children in the schooling period. Children's physical activity has increased so that the child will be able to improve skills and thought processes. From the data above, it was found that most of the child's independence was in the less independent category was 54 children (51.9%). Researchers assume the independence of children is influenced by the use of gadgets. Preschool age is the age where children explore the surrounding environment, the exploration carried out can be in the form of daily activities that can be a stimulus for the development of children's independence. But when children explore by using gadgets as the exploration media, their physical activity will decrease because children will be more interested in gadgets as it contains many interesting features. When a child's physical activity decreases, the stimulus to the child will decrease and the child will become more lazy to move. So that this can reduce the child's independence.

This can be seen from some respondents answering the questionnaire on questions related to demographic data, namely the frequency of gadget usage, the independence of children in the less independent category found that respondents answered the frequency of using gadgets 1-3 days by 19 people (35.2%), 4-6 days as many as 11 people (20.4%), and every day as many as 24 people (44.4%). In the independence of children in the non-independent category it was found that respondents answered the frequency of using gadgets 1-3 days by 1 person (14.3%), 4-6 days by 2 people (28.6%), and every day as many as 4 people (57.1%). In the independence of children in the independent category it was found that respondents answered the frequency of using gadgets 1-3 days as many as 22 people (51.2%), 4-6 days as many as 8 people (18.6%), and every day as many as 13 people (30.2%). This is in line with research conducted by ' that showed that excessive use of gadgets can make children become more passive. In addition, research by also explains that excessive use of gadgets can reduce children's activities, causing children's personal and social decline.

3. The Relationship of Using Gadgets with Independence in Daily Activities in Preschool Children in Kindergarten Al-Fitroh Surabaya and Kindergarten Budi Mulya Surabaya

Table 3: The relationship between the use of gadgets with independence in daily activities in preschool-aged children

| The Use of Gadgets in Preschool Children | Child independence in Daily Activities in Preschool | | | | | | Total | |
|--|---|------|------------------|------|-------------|------|-------|-----|
| | Not independent | | Less independent | | Independent | | | |
| | f | % | f | % | F | % | N | % |
| Good | 2 | 5.6 | 11 | 30.6 | 23 | 63.9 | 36 | 100 |
| Medium | 3 | 6.4 | 28 | 59.6 | 16 | 34 | 47 | 100 |
| Bad | 2 | 28.6 | 15 | 71.4 | 4 | 19 | 21 | 100 |
| Total | 7 | 6.7 | 54 | 51.9 | 43 | 41.3 | 104 | 100 |
| Spearman's Rho values obtained p -value = 0.004 ($\rho < 0.05$) The value of $r = -0.327$ (0.26-0.50) low correlation | | | | | | | | |

The results showed that the relationship between the use of gadgets with independence in daily activities at preschool age children in Al-Fitroh Surabaya Kindergarten and Budi Mulya Surabaya Kindergarten found that from a total of 104 respondents found that most children with the use of good category gadgets had independence in the independent category of 23 children (63.9%), the majority of children with moderate gadget use among 28 children (59.6%) in the independent category, and children with poor gadget use among 15 children (71.4%). Based on the results of the Spearman's Rho statistical test the value of $r = -0.332$ with p -value = 0.001 ($\rho < 0.05$) with a value of $r = 0.26-0.50$ low correlation, it shows that H_0 is rejected, H_1 is accepted, and sufficient relationship. So, statistically it was found that there is a sufficient strong relationship between the use of gadgets with independence in daily activities in preschool children.

The use of gadgets can cause a worrying effect, which can be the occurrence of obesity, sleep problems, eye health, and disorders of child development (Patton & Sawyer, 2000). When children are too often exposed to gadgets, children will become lazy to move, interactions between parents and the surrounding environment will be reduced and can interfere with the child's socialization development (Sapardi, 2018). Children who use gadgets excessively will make children focus on gadgets so that children's activities will decrease which can cause a decrease in the child's personal and social development, as well as a decrease in children's independence (Park & Park, 2014). In addition, children will become more passive (Genc, 2014). Researchers assume the excessive use of gadgets in children can cause children to focus on gadgets so that children will become lazy and passive. When children are lazy to move and become more passive, children's daily activities will decrease. So that children will be more dependent on parents in their daily

activities. This can cause decreased in independence in children's daily activities. The results of the study showed that the use of the gadget in the moderate category was among 47 children (45.2%) with the most independence of the children in the less independent category, as many as 28 children (59.6%), and in the use of the gadget in the bad category were 21 children (20.2%) with the less independent category as many as 15 children (71.4%). This is in line with research conducted by Patton & Sawyer (2000) that showed that excessive use of gadgets can make children more lazy to move. In addition Park & Park (2014) explained that the excessive use of gadgets can reduce children's personal development.

With the use of good category gadgets, it was found that there were 11 children (30.6%) in the less independent category was among 2 children (5.6%) were independent. In addition, in the use of poor category gadgets, there was still the independence of children in the independent category, namely 4 children (19%). According to Soetjningsih (1995) other factors that influence a child's independence are the environment, social characteristics, stimuli, the role of child caregivers, love and affection, parental education, mother's employment status, and parenting (Putri, 2016). Researchers assume that in addition to the use of gadgets, children's independence is influenced by other factors, namely the mother's work status. A mother who is not working will be able to monitor the child's development. Mothers who do not work have more time to provide children with stimulus, support and opportunities, and invite children to participate in daily activities so that it will increase the child's independence.

It can be seen from the results of the study that showed that in the use of gadgets in the good category with the independence of age of preschool children, the category of less independent as many as 11 children

(30.6%) obtained the status of working mothers, namely working mothers with private jobs as many as 5 people (45.5%) self-employed 1 person (9.1%), 1 civil servant (9.1%) is more dominant than 4 housewives (36.4%). In the use of good category gadgets with independence of preschool age children not more than 2 in the categories of independent children (5.6%) found the status of the work of the mother is working with the type of entrepreneurial work as many as 1 person (50%), private as much as 1 person (50%), and no working mothers or housewives. In addition, in the use of poor category gadgets with self-reliance preschool children as many as 4 children (19%) found the work status of the mothers with the type of work, housewives as many as 4 people (100%) and no working mothers. This is in line with the research of Maulina, Makhfudli, & Ulfiana (2016) that showed that mothers who do not work have more time to provide stimulation to children so that the child's development gets good results. Working mothers do not have much time to monitor children's independence, while mothers who do not work or housewives have more time to monitor children's development (Pristiani, Junaid, & Paridah, 2016).

CONCLUSION

Based on the research data, the following

conclusions can be drawn:

1. The use of gadgets in preschool children at Al-Fitroh Surabaya Kindergarten and Budi Mulya Kindergarten Surabaya is mostly in the medium category.
2. Independence in daily activities in preschool-aged children in Al-Fitroh Surabaya Kindergarten and Budi Mulya Surabaya Kindergarten are mostly in the less independent category.
3. The use of gadgets has a low relationship with independence in daily activities in preschool children.

RECOMMENDATIONS

Excessive use of gadgets can cause children to be lazy, with less movement, so that physical activity in children will decrease and children will become more dependent on parents and other help for doing daily activities. So, parents need to provide time limits and restrict the use of gadgets in children. The introduction of children in gadgets should be done when the child is aged 5 years or more. Parents are also expected to be able to monitor and stimulate the development of children's independence by involving children in activities and providing less support to children to carry out daily activities independently, so that children will be stimulated to become more independent.

REFERENCES

- Genc, Z. (2014). Parents' Perceptions about the Mobile Technology Use of Preschool Aged Children. *Procedia - Social and Behavioral Sciences*, 146, pp 55–60.
- Kabali, H.K., Irigoyen, M.M., Nunez-davis, R., Budacki, J.G. & Mohanty, S.H. (2015). Exposure and Use of Mobile Media Devices by Young Children. *Pediatrics*, 136(6), pp 1044-1050.
- Kyle, T. & Carman, S. (2014). *Buku Ajar Keperawatan Pediatri*. In E. Tiar, S. Isneini, & B. Bariid (Eds.), Volume 1 (Edisi 2). Jakarta: EGC.
- Laszczyk, W.A. (2013). Children, Adolescents, and the Media. *Klinika Oczna*, 45(4), pp 339–342.
- Marcdante, K.J., Kliegman, R.M., Jenson, H.B. & Behrman, R.E. (2014). NELSON: Ilmu Kesehatan Anak Esensial. In I. D. A. Indonesia (Ed.) (Keenam). Indonesia: Saunders Elsevier.
- Maulina, E. I. N., Makhfudli & Ulfiana, E. (2006). (The Differences of Mother's Role in Stimulating Preschooler's Development on Working and Not Working Mothers at Puskesmas Banyu Urip Surabaya. *Indonesian Journal of Community Health Nursing*, 3(1), pp 52–56
- Pagestuti, R. (2017). Fenomena Gadget Dan Perkembangan Sosial Bagi Anak Usia Dini. *Indonesian Journal of Islamic Early Childhood Education*, 2(2), pp 165-174.
- Park, C. & Park, Y.R. (2014). The Conceptual Model on Smart Phone Addiction among Early Childhood. *International Journal of Social Science and Humanity*, 4(2), pp 147–150.

- Patton, G.C. & Sawyer, S.M. (2000). Media and young minds. *Medical Journal of Australia*, 173(11–12), pp 570–571.
- Pristiani, E., Junaid, J. & Paridah, P. (2016). Hubungan Pengetahuan, Sikap, Dan Status Pekerjaan Ibu Balita Dengan Frekuensi Penimbangan Balita Ke Posyandu Di Wilayah Kerja Puskesmas Pamandati Kabupaten Konawe Selatan. *Journal Ilmiah Mahasiswa Kesehatan Masyarakat*, 1(2).
- Putri, B.R. (2016). *Perbedaan Kemandirian Anak Prasekolah yang Dtitipkan di Taman Penitipan Anak (TPA) dengan Anak yang Diasuh oleh Asisten Rumah Tangga (ART) di Rumah*. Universitas Sanata Dharma Yogyakarta, Indonesia.
- Riadi, Y. (2015). Tahun Ini Pengguna Smartphone di Indonesia Mencapai 55 Juta. Seluler.ID. 21 September. Retrieved from: <http://selular.id/news/2015/09/tahun-ini-pengguna-smartphone-di-indonesia-mencapai-55-juta/>
- Safitri, N., Setiawati & 'Aini, W. (2018). Gambaran Penanaman Kemandirian pada Anak Usia Dini oleh Orang Tua dalam Keluarga. *Journal Pendidikan Luar Sekolah*, 1(1), pp 84-90.
- Sapardi, V.S. (2018). Hubungan Penggunaan Gadget Dengan Perkembangan Anak Usia Prasekolah di Paud/TK Islam Budi Mulia. *MENARA Ilmu*, XII(80), pp 137–145.
- Setianingsih, A. Ardani, W. & Khayati, F.N. (2018). Dampak Pengguna Gadget Pada Anak Usia Prasekolah Dapat Meningkatkan Resiko Gangguan Pemusatan Perhatian dan Hiperaktivitas. *Journal Kesehatan (Gaster)*, 16(2), pp 191-205.
- Soetjningsih., (1995). *Tumbuh Kembang Anak*. Jakarta: EGC.
- Strasburger, V.C. & Cook, S. (2013). Anticipatory Guidance. *American Academy of Pediatric*. Performing Preventive Services: A Bright Futures Handbook.
- Yulastati & Arnis, A. (2016). *Modul Bahan Ajar Cetak Keperawatan : Keperawatan Anak*.