ORIGINAL ARTICLE

The Relationship Between Parenting Style and Gadget Addiction Among Preschoolers

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ABSTRACT

Introduction: Gadget addiction is a mental health problem in children. It can be influenced by various factors. This study tries to approach the parenting style aspect in terms of controlling the use of gadgets among preschool children. The aim of this study was to analyze the relationship between parenting style and the level of gadget addiction in preschool children. Method: A cross-sectional study design was used. The 104 parents who have preschooler children were chosen using simple random sampling. The Parenting Styles and Dimensions Questionnaire-Short Version (PSDQ) questionnaire and the Smartphone Addiction Test questionnaire were used to measure parenting style and gadget addiction respectively. Spearman Rho was used to analyze the relationship between parenting style and gadget addiction. Results: The results show that among the 104 parents, the majority adopted an authoritative parenting style (84.6%), while 70.1% of preschooler children did not depend on gadgets. There was a significant relationship between parenting style and gadget addiction among preschooler children (OR =0.564, \( \rho = 0.000 \)). Conclusions: Parenting style contributes to gadget addiction. Parents should use an authoritative parenting style to prevent gadget addiction among their preschooler children. The implication of this research is that it provides an overview that needs to be considered in order to prevent the gadget addiction that may occur during online learning. The significance of this research shows that adopting an authoritative parenting style can make children no longer dependent on gadgets.

Keywords: Parenting Styles, The level of Gadget Addiction, Preschool

INTRODUCTION

Gadgets are not only used by adults and teenagers. They have started to be used by children as well, including preschoolers who are generally only 3-6 years old. Parenting style has a very important role in the use of gadgets. The increasingly attractive technology used by gadgets means that the preschoolers are often able to use the gadgets themselves. Children become comfortable playing with gadgets due to the various features and applications that are interesting, interactive, flexible (1). Gadgets come in an array of variations which makes the child always want to use them. This can lead to them being addicted to the gadget. Gadget addiction can lead to the desire to play with the gadgets continuously. If the child is not given a gadget, the child will cry. This makes it difficult for them to interact with their environment, and the child can become lazy when asked to engage in other activities (2).

Almost all children (96%) have used mobile devices (3). Data from the Indonesian Child Protection Commission and the Association of Indonesian Internet Service Providers shows that out of all gadget users, 25.2% are internet users aged 5-9 years old (4). Children have been exposed to cellular devices since they are younger than 1 year old and most have had mobile devices since the age of 4 years old. The reasons why parents give mobile devices to their children is when the parents are doing homework with them for 70%, to keep children calm for around 65%, and to occupy their time before bedtime for 25% (3). Other research results say that Indonesia is the country with the most active social media users in Asia. In 2011, the use of gadgets in children aged 5 years was around 38%, which then increased to 72% in 2013. In 2015, it increased again to 80%. Gadgets are used as a means of playing for children, while 23% of parents claim that their children like to use gadgets. Additionally, 82% of parents say that their children are online on social networks at least once a week (5).

Preschoolers are a “golden age” period in development. Children will quickly learn to respond to something new by exploring their surrounding environment (6). This
period is a conducive period of growth and development, including various physical abilities, intelligence, talents, language, cognitive, socio-emotional capabilities and spirituality. This phase will determine the formation of the children’s attitude, behavior and personality in the future (6).

According to the Association of American and Canadian pediatricians, the suggested limit for children aged 3-5 years old when playing with gadgets is around 1 hour a day, and 2 hours a day for children aged 6-18 years old (7). In reality, in Indonesia, there are still many children who use gadgets 4-5 times more than they should be. The way that parents communicate with their children can influence whether the children obey their parents. The different types of parenting styles when caring for children can be divided into three types, specifically authoritative parenting style, authoritarian parenting style, and permissive parenting style.

The application of a good parenting style like the authoritative parenting style can create a good relationship with their children. However, if the parents apply a permissive parenting style, it can cause there to be a bad relationship between the parents and their child. For example, the children will be free to do as they wish when playing with gadgets (8). The children of authoritarian parents usually tend to be aggressive and lack self-directed goals or judgments. The children of authoritative parents tend to have clear goals, make their own decisions, are independent and have high self-confidence. On the other hand, children with permissive parents are more selfish and stubborn. Therefore, parents who engage in permissive parenting are more likely to have a child with a gadget addiction (9). Permissive parenting style has warm characteristics, meaning that it is liked by the children. The children are given the freedom by their parents to manage themselves. Low control from the parents can make children free to engage in activities like playing with gadget (10).

Therefore, the modification of the parenting style is necessary when supervising and imposing restrictions on preschoolers when using gadgets. This is in order to minimize the level of gadget addiction and other negative impacts. Gadgets can be useful. They can provide information. How the parents share and introduce the use of gadgets to their children is important. Psychological development, especially emotional growth and moral development, can also be influenced by the negative impact of gadgets (10). The growth and development that is undertaken at this age can affect the children’s behavior in a later stage of development. Parental assistance is needed in minimizing the negative effects of using gadgets for children. Therefore, the aim of this study was to examine the relationship between parenting styles and the level of gadget addiction in preschoolers.

**MATERIALS AND METHODS**

This study used a cross-sectional design involving 104 parents with preschool children selected through simple random sampling. This study was conducted in May 2019 in 2 kindergarten schools in Surabaya City in Indonesia. The inclusion criteria were parents with preschool children aged 3-6 years old, parents whose children used gadget, parent who lived together with their children, parents who can write and read and finally, parents who were willing to participate in the research. Parents who were out of town during the research period were excluded from this study.

A self-administered questionnaire was used to measure the sociodemographic status of the parents and children, including separate information on the parent (parental age, parental occupation, parental education level and parental income) and child (age of the child, the number of children in the family, the sequence of children in the family, and the frequency and duration of gadget use).

The Parenting Styles and Dimensions Questionnaire-Short Version (PSDQ) was used to measure parental care. This measuring instrument was invented by Robinson et al (2001). The scale used in this study was a standard scale derived from the theory of three factors by Diana Baumrind (1996). It was divided into 3 categories based on parenting style, namely democratic (authoritative), authoritarian and permissive. This instrument was used as the measurement tool in the previous research which was translated into Indonesian (11).

The researchers tested the validity and reliability of the questionnaire involving all three parenting domains referring to the 22 respondents with preschool children. The validity test results stated that the 32 items were valid questions with an overall value of \( r > 0.422 \). The reliability test with 32 questions obtained a Cronbach’s a value of 0.912. The questionnaire consisted of 32 questions which are divided into democratic (authoritative) parenting consisting of 15 questions, authoritarian parenting with 12 questions, and permissive parenting with 5 question items. Each section was score from 1-5. For example, \( 1 = \text{never} \), \( 2 = \text{rarely} \), \( 3 = \text{sometimes} \), \( 4 = \text{often} \), and \( 5 = \text{always} \). The final score was obtained by calculating the total score for each section and the total number of questions for each type of parenting style. The highest score indicates the preferred type of parenting.

The second instrument used the Smartphone Addiction Test Questionnaire. This is a simple test created by Pumpic Mobile Monitoring. It is used to determine the level of dependence of children on gadgets, especially smartphones. The researchers conducted validity and reliability tests on the 22 respondents. The validity test results for the 20 question items state that the value for each question item had a total value of \( r > 0.422 \). The
was found to be not gadget dependent for as many as 73 children (70.1%). Beside that, as many 14 children (13.5%) had mild gadget dependency, as many as 16 children (15.4%) had moderate gadget dependency, and 1 child (1%) was gadget dependent as shown in Table II.

Reliability test results obtained a Cronbach’s α value of 0.950. The questionnaire consisted of 20 question items translated into Indonesian. Each of the questions had a score of 1 if the answer was “Yes” and a score of 0 if the answer was “No.” The assessment criteria for the total scores was 0-5 = no dependency, 6-10 = mild dependency, 11-15 = moderate dependency, and 16-20 = dependence or addiction.

The researcher gave the PSDQ questionnaire and Smartphone Addiction Test Questionnaire to the parents who had indicated informed consent as the research respondents. The parents filled out the questionnaires and returned them to the researchers. The researchers then conducted scoring and data analysis on the completed questionnaire results. In this study, the data collected was analyzed using the Spearman Rho test in order to determine the relationship between parenting style and gadget addiction (CI 95%, α = 0.05).

The data collection and analysis consisted of 2 steps. At the administrative stage. The study was approved by the Ethics Committee of Stikes Hang Tuah Surabaya, Indonesia vide reference number PE/26/V/2019/KEPK/SHT dated 30th April, 2019. The data retrieval was done after getting the research permit from the research location consisting of 2 kindergarten schools in Surabaya.

RESULTS

Characteristics of the Respondents based on Parenting Style in Al-Fitroh Surabaya Kindergarten and Budi Mulya Surabaya Kindergarten

Based on this research, almost all of the parents of the preschoolers in both kindergartens applied the authoritative parenting style, totaling 88 respondents (84.6%). There were 5 parents who applied the authoritarian parenting style (4.8%), and 11 parents who applied the permissive parenting style (10.6%). The parenting style characteristics of the 104 parents are as shown in Table I.

<table>
<thead>
<tr>
<th>Parenting Styles</th>
<th>Frequency (%)</th>
</tr>
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<tbody>
<tr>
<td>Authoritative</td>
<td>88 (84.6%)</td>
</tr>
<tr>
<td>Authoritarian</td>
<td>5 (4.8%)</td>
</tr>
<tr>
<td>Permissive</td>
<td>11 (10.6%)</td>
</tr>
<tr>
<td>Total (N=104)</td>
<td>104 (100%)</td>
</tr>
</tbody>
</table>

Table I: The type of parenting styles in preschool children (n=104).

<table>
<thead>
<tr>
<th>Addiction Level of Gadget</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Gadget Dependent</td>
<td>73 (70.1%)</td>
</tr>
<tr>
<td>Mild Gadget Dependency</td>
<td>12 (11.6%)</td>
</tr>
<tr>
<td>Moderate Gadget Dependency</td>
<td>6 (6.8%)</td>
</tr>
<tr>
<td>Gadget Dependent</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Total (N=104)</td>
<td>104 (100%)</td>
</tr>
</tbody>
</table>

The Relationship Between Parenting Styles and The Level Of Gadget Addiction In Preschoolers

Parents with an authoritative parenting style are likely to have children without gadget dependency, according to 70 respondents (79.5%). Additionally, 12 respondents had children with mild dependence (13.6%), and 6 respondents had children with moderate dependence (6.8%). The second style was authoritarian parenting style. A total of 3 respondents had children who were not gadget dependent (60%) and 2 respondents had children with mild dependence (40%). The examination of the permissive parenting style found that as many as 10 children had moderate dependence (90.9%) and that 1 had a gadget addiction (9.1%). Based on the Spearman Rho analysis, the test results show that ρ = 0,000 with a correlation coefficient of 0.564. This means that there is a moderate relationship between parenting styles with the level of gadget addiction because the value of correlation coefficient between 0.500-0.700 (Table III).

DISCUSSION

Parenting Styles in Al-Fitroh Surabaya Kindergarten and Budi Mulya Kindergarten

Table III shows that the dominant parenting style applied
to preschool children is authoritative by as many as 88 respondents (84.6%). Authoritative parents have a consistent approach to their children (12). The parents discipline their children in a warm and emotionally supportive context.

Children who grow up with an authoritative parenting style can get positive energy, meaning that they have a high level of creativity and confidence. Question number 11 shows that most “parents give reasons to their children as to why the rules of parents must be obeyed”. The answer to this question shows that 27 of the 104 respondents chose the answer ‘often’ (26%) and as many as 67 respondents (64.4%) chose the answer ‘always’. The parents provide rules in the family that can be accepted by all of the family members. This way, the children will realize what is good and bad behavior (12).

Based on the results of the research table, it also shows that 5 respondents apply authoritarian parenting (4.8%). This is shown in question number 23 regarding “Parents usually criticize or scold children when children behave poorly that is not in line with expectations of parents”. The application of the authoritarian parenting style is done by the parents determining the limits and rules by themselves. These limits and rules must be obeyed by the children without taking into account the wishes and circumstances of the children (13).

Beside that in the authoritarian parenting style, there is a lack of two-way communication between the parents and their children (12). The parents use absolute control in that the rules are given but without no justification for them when interacting with their children. Children who grow up with an authoritarian parenting style can become obedient individuals because of the feelings of fear towards their parents. The parents are more dominant and determine everything in the child’s life. The child’s position is solely as the object of implementing. If at preschool age the child is guided by an authoritarian parenting style, then the child is likely to grow up to be timid, anxious and less adaptive.

Based on the results of the study, it was found that as many as 11 respondents (10.6%) apply the permissive parenting style. Parents using the permissive parenting style are usually warm towards their children, meaning that this parenting style is liked. Warmth tends to spoil the children. This can cause the children to be aggressive, to disobey their parents, to feel powerful, and to be less able to control themselves (14).

Children with parenting that involves freedom without conditions means that the children choose to do whatever they want to do (12). Parents do not have control over their children and sometimes they act so intolerant that they tend to ignore them. Parents who use the permissive parenting style give their children the freedom determining their activities and behavior. The parents usually provide leeway when supervising and their children are given the opportunity to do something with only a little supervision. The children will tend to do things that they like because they feel they will be left alone by their parents. This can have an impact on the children’s behavior as they tend to become selfish and less respectful of their parents.

**The Level of Gadget Addiction in Al-Fitroh Surabaya Kindergarten and Budi Mulya Surabaya Kindergarten**

The results showed that 73 out of the 104 preschoolers did not experience gadget dependence (70.1%). Question number 6 about “children very often check their gadgets” shows that 65 out of the 73 parents have children who are not dependent on gadgets (62.5%) while those who choose the answer “Yes” totaled as many as 8 respondents (7.7%). This can be influenced by the frequency of the use of gadgets by the preschool children. This is evidenced by the results of the cross-tabulation which shows that 38 out of the 73 children did not experience gadget dependence (52.1%) and they had a low frequency of gadget usage, of only 1-3 days in one week.

The level of gadget addiction can be influenced by the frequency of gadget use. The data from the cross-tabulation showed that 38 out of the 73 children who did not experience gadget dependence (52.1%) had a low frequency of gadget use, namely 1-3 days in one week. The results of the interviews with the parents indicated that they limited the frequency of gadget use by their children. This included only allowing their children to use gadgets on holidays for a duration of 1 hour a day. Children will not recognize gadgets if they do not start learning from the habits of their parents who use and introduce gadgets to them (15).

The frequency of the use of gadgets by preschoolers is said to be low if their use is 1-3 days in one week (16). If the parents provide direction and assistance to their children regarding the use of gadgets, especially in terms of the frequency and duration, then it is expected to minimize the level of gadget addiction in children. In addition, the results of the study also showed that there were 14 preschoolers who experienced mild dependence on gadgets (13.5%), 16 children who experienced moderate gadget dependence (15.4%) and 1 preschooler who had an addiction to gadgets (1%).

Based on this research, the level of gadget dependence is influenced by the high duration of gadget usage in preschool children, specifically > 60 minutes per day. The use of gadgets by preschoolers is more fun than playing with their peers (17). The increasingly innovative, flexible and creative features of gadgets create a sense of interest and comfort when played (1). Children who are addicted to gadgets can be influenced by the duration, frequency and parenting style used in
relation to their use of gadgets. The use of gadgets with a high frequency and duration without supervision where there are no limitations is likely to increase the level of gadget addiction in children.

**The Relationship Between Parenting Style and the Level of Gadget Addiction in Preschoolers**

The parenting style applied can affect the intensity of the use of gadgets in children. This is indicated by the results of the cross-tabulation showing that out of the 88 parents who adopted the authoritative parenting style, as many as 47 (53.4%) had children who used gadgets at a low frequency, 9 children (10.2%) with a medium frequency and as many as 32 children (36.4%) with a high frequency of gadget usage. When the parents apply the authoritative parenting style, this can minimize the level of gadget addiction among preschoolers.

Parents who use the authoritative parenting style can influence the socialization ability of their children (18). This is because these children live in families that always support them. They are places of love, warmth and harmonious interactions. The attitude adopted can shape the children so then they make better social adjustments and undergo an optimal growth and development process.

In this study, the results showed that most parents had a college education, totaling 32 mothers (56.1%) and 33 fathers (64.7%). They all had children who were not gadget dependent. This can be due to the educational background of the parents influencing the selection of parenting practices towards the authoritative style. The factors that can influence parenting include their socioeconomic status, level of education, the number of children, the values shared by both parents and their personality (6).

Parents who have low education level are likely to have less knowledge about the negative effects of gadget addiction. The parents find it easier to give the children the opportunity to play with gadgets. In contrast, parents who have high socioeconomic possibilities only have a little time available to assist their children when they are using gadgets. They let their children play gadgets, and this can increase the level of gadget addiction in children. Meanwhile, based on the results of the study, as many as 2 respondents (40%) of parents who apply authoritarian parenting have children with a mild addiction to gadgets, and as many as 3 respondents (60%) have children who are not dependent on gadgets. The adoption of stricter parenting has a positive impact on minimizing the level of gadget addiction.

According to Baumrind’s theory, the authoritarian parenting style means that the children must follow what is said by their parents (20). Children obey their parents because of feelings of fear, but they will still tend to repeatedly play with gadgets if the parents are not watching the child. Providing rules for not using gadgets without an explanation can cause curiosity. They think it is fun without knowing the negative effects of using the gadgets.

Based on the research results, as many as 10 respondents (90.9%) applied the permissive parenting style and had children with a moderate gadget addiction level. One respondent (9.1%) used the permissive parenting style with a child with another gadget addiction level category. The attitude of parents towards the use of gadgets tends to affect the level of gadget addiction in children. Dependence on gadgets by children can be caused by certain parenting styles and the using the gadget for a long period of time.

This is evidenced by the results of the cross-tabulation showing that out of the 11 parents who applied the permissive parenting style, as much as 8 children (72.7%) used gadgets with a high duration, and as many as 3 children (27.3%) used gadgets with a medium duration. The results of the study are supported by the research by (9). They said that children who experience parental permissive style are likely to have a higher likelihood of experiencing gadget addiction.

During the Covid-19 period, the whole community is staying at home to avoid the Covid-19 virus. For almost one year, all students have been studying at home using their gadget and engaging in a lot of activities at home alone to adhere to physical distancing in their social interactions. This increases the dependency of the student on their gadgets (21). People are pampered by the modern sophistication of gadgets, especially preschool children. This makes it easier for children to access gadgets every day.

If a child has become addicted to gadgets, the parents can approach the child by diverting their attention with more frequent companionship and conversations, vacationing with the family and exercising together. The parents can also choose educational games that are not boring for the child (19). Parents are expected to be able to monitor their child’s schedule when they are using gadgets according to their needs. This is so then the children are protected from the impact of the excessive use of gadgets at a young age (22).

**CONCLUSION**

There is a relationship between parenting style and the level of gadget addiction in preschoolers. Parents who adopt the authoritative parenting style tend to have children who are not gadget dependent. The parenting style that is suggested to be applied to children is the authoritative parenting style. Parenting styles can be influenced by the level of education, employment, socio-economic status and age of the parents.
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