

Loneliness, Parent-Child Relationship and Gadget Addiction

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ABSTRACT

Loneliness is a sense of being unhappy and alone that frequently occurs in adolescents as a result of family circumstances or poor relationships between children and parents. Loneliness causes a teenager to seek an escape, one of which is a smartphone. Adolescent gadget addiction is indicated by continuous use of gadgets to the point of interfering with daily activities and functions. The objective of this study was to discover the role of loneliness in parent-child relationships and gadget addiction. The Parent Child Relationship Scale (PCRS), the UCLA Loneliness Scale Version 3, and the SAS-SV (Smartphone Addiction Scale-Short Version) were used in this study. This study included 135 adolescents (85 female respondents and 50 male respondents) aged 13-17 years who used gadgets for more than 11 hours per day or social media for more than 3 hours per day (excluding use for studying). The convenience sampling technique was used. The PROCESS mediation test of Andrew F. Hayes yielded results ($\beta = 0.466$; 95% CI [0.0134, 0.0833]). According to the findings of this study, loneliness contributed to poor parent-child relationships and gadget addiction in adolescents.

Keywords: Gadget addiction; Loneliness; Parent-child relationship.

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INTRODUCTION

Gadgets are a daily communication tool that has become a primary need for everyone. According to Kemp (2022) smartphone ownership in Indonesia will reach 96% of the total population. When the COVID-19 pandemic hit, the use of gadgets became increasingly popular, with Databoks (Jayani, 2021) noting an increase in internet usage in Indonesia from 73.75% in 2019 to 78.18% in 2020. Serra, Scalzo, Giuffre, Ferrara, and Corsello (2021) found that during the COVID-19 pandemic, there was an increase in internet and gadget use among teenagers for more than 4 hours per day, involving 184 teenagers. Because everyone is required to be at home to work (Work from Home) or study (Study from Home) and carry out social activities using devices, the internet and gadgets are the primary needs.

When using a device, many positive effects are obtained; however, continuous use of a device can be addictive. According to the findings of Lam and Liu's (2016) study, teenagers are significantly more addicted to the internet and gadgets than other age groups. Teenagers in a period of searching for identity, great curiosity, and a strong desire to socialize frequently use gadgets with a variety of features. According to Siste (Rossa, 2020), the phenomenon of using gadgets in adolescents in Indonesia is 19.3% of 2,9333 adolescents in 33 provinces in 2020, with a daily usage of 11.6 hours. Kristiana went on to say that using

social media for more than three hours per day, or using a device for more than 11 hours per day other than for work or study, can raise the risk factors for gadget addiction. When disconnected from a device or internet connection, people experience discomfort, anxiety, and sadness (Bragazzi and Puente, 2014). Adolescent gadget addiction can have a negative impact on behavior, development, social interactions, and interfere with daily life. Cheng, Yang, and Lee (2021) discuss the impact of gadget addiction on teenagers including suicide, sleep disturbances, anxiety, depression, unhappiness, and low self-esteem. Not only is gadget addiction self-defeating, but it can lead to criminal acts such as stealing, vandalism, and murder. In Kompas (Rachmawati, 2019), a teenager who was addicted to a gadget was arrested by the police for killing and robbing an online taxi driver; after further investigation, the motive for this crime was to repair the device used to play online games.

Ting and Chen (2020) discuss the environmental, social, and psychological factors that contribute to gadget addiction. According to Young (Montag and Reuter, 2015), loneliness is one of the factors that causes addiction. Kim, LaRose, and Peng (2009) research supports the notion that loneliness is one of the causes of internet addiction. Loneliness can occur when a person is disconnected from his/ her social environment, resulting in feelings of alienation, exclusion, or being overlooked by the social environment. Loneliness drives a person to seek “escape” in order to maintain contact with others. Teenagers are more likely to rely on technology to deal with loneliness, according to Chiu (2014) research. Adolescents who are lonely are more likely to use devices and are more likely to develop gadget addiction (Dikec, 2018).

According to Byrne and Baron (2005), loneliness is more common in adolescence than in other age groups. Someone entering adolescence will break away from their parents and seek out other social environments, such as friends, but if teenagers do not find friends or other social environments, they will become lonely. According to Antognoli (Cheng et al., 2021), loneliness in adolescents is more often caused by poor relationships between children and parents. Loneliness can be caused by poor parent-child relationships (Cavanaugh and Buehler, 2015); the worse the relationship between children and parents, the more lonely a person is. According to Hidayati (2018), poor family functioning is a factor that contributes to adolescent loneliness. According to Gökçearsan, Durak, Give, and Saritepeci (2021), a stronger sense of belonging in the family reduces gadget addiction and vice versa. In Indonesia, the lack of research on the relationship between gadget addiction in adolescents and the relationship between children and parents mediated by loneliness has piqued the interest of researchers.

METHOD

Research Design

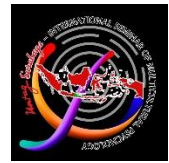
This study applied a quantitative approach to the correlational design, which assesses the relationship between two or more variables. A correlational design was used in this study to determine the role of loneliness as a moderator in the relationship between child-parent relationships and gadget addiction.

Participants

In Semarang, 135 teenagers (85 girls and 50 boys) took part in this study. Adolescents aged 13-17 years who used gadgets for more than 11 hours per day or social media for more than 3 hours per day met the criteria for this study. The convenience sampling technique was used in the sampling process.

Instrument

1. Gadget addiction - The gadget addiction scale was adapted from the Indonesian version of the SAS-



SV (Smartphone Addiction Scale-Short Version) developed by Kwon et al. (2013), which was later adapted and developed by Arthy et al. (2019). SAS-SV is made up of ten items that cover a variety of topics, including daily-life disruption, withdrawal, cyberspace orientation, relationship, overuse, and tolerance. Participants will rate the following statements on a scale of 1 (strongly disagree) to 6 (strongly agree). The SAS-SV reliability coefficient is equal to 0.69.

2. Loneliness - The scale used to assess loneliness in adolescents consists of 20 items adapted from *University of California Los Angeles (UCLA) Loneliness Scale Version 3* measurement tool developed by Russel (1996). The items on this scale are divided into 11 favorable items with negative questions about loneliness, such as “how often do you feel alone?” and 9 unfavorable items with positive words, such as “how often do you feel close to other people?” This study looks at trait loneliness, social desirability, and depression as aspects of loneliness. Participants will be asked to give a score ranging from 1 (strongly disagree) to 4 (strongly agree). The higher the score, the more lonely the participant. UCLA’s reliability coefficient is $\alpha = 0.84$.
3. Relationship between children and parents - The Parent-Child Relationship Scale, developed by Luo Guoying (1997), is used to assess the relationship between children and their parents. There are 18 items on this scale. Participants will be asked to rate their level of agreement on a scale of 1 (strongly agree) to 5 (strongly disagree). The closer the relationship between parents and children, the higher the score. The Pianta Child-Parent Relationship Scale, created and developed by Dr. Robert Pianta in 1992, is one of several measurement tools used to examine child-parent relationships. This measuring instrument, however, has limitations in that it only looks at the parent-child relationship from the parents’ perspective. The Parent-Child Relationship Scale developed by Luo Guoying (1997) is thought to be capable of viewing both positive and negative child-parent relationships from the child’s perspective. Chen’s (2012) research tested 250 Vocational High School Students from all regions of Taiwan. On PCRS, the reliability coefficient is $\alpha = 0.83$.

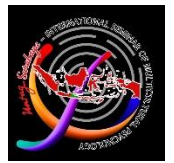
Research Procedure

The research was conducted in the following stages:

1. The researcher conducted adaptation to the scales that were used. The scale was translated by the researcher so that teenagers could understand it. Following completion of the translation process, the adapted scale was tested on adolescents using the same criteria as the respondents in this study.
2. Data was collected using a Google Form survey that included informed consent. Participants who met the criteria were asked to complete a 15-minute questionnaire. Participants had the option to refuse or withdraw from the questionnaire without penalty. Participants might share the questionnaire link with friends who met the required criteria.
3. Evaluation based on the results of filling out the scale
4. Statistical calculations were used to analyze data.

Data Analysis Technique

SPSS version 26 was used for the entire statistical analysis. Before testing the hypothesis, the researcher used Kurtosis to determine whether the data was normally distributed (Kurtosis z-values > -1.96). Then, using PROCESS v3.5 by Andrew F. Hayes, conducting a mediation analysis to determine the role of loneliness as a mediator in the relationship between child-parent relationships and gadget addiction.



RESULT

The correlation test results in Table 1 show that the parent-child relationship variable has a positive and significant relationship with loneliness ($r= 0.34$; $p=0.00$). Furthermore, there is a positive and significant relationship between the loneliness variable and the gadget addiction variable ($r= 0.34$; $p= 0.00$). The gadget addiction variable has a positive and significant relationship with the parent-child relationship ($r= 0.42$; $p= 0.00$).

Table 1. Mean, Standard Deviation and Correlation between Variables

| Variable | Mean | SD | Parent-Child Relationship | Loneliness | Gadget Addiction |
|---------------------------|-------|------|---------------------------|------------|------------------|
| Parent-child relationship | 23.97 | 4.23 | 1 | | |
| Loneliness | 26.82 | 5.02 | 0.34 | 1 | |
| Gadget Addiction | 12.48 | 2.34 | 0.42 | 0.34 | 1 |

$n = 135$; $**p < 0.01$

According to the calculation, the loneliness variable has a significant indirect influence on the relationship between the parent-child relationship variable and the gadget addiction variable ($\beta= 0.466$; 95% CI [0.0134, 0.0833]). As a result, loneliness can be interpreted as mediating the relationship between child-parent relationships and gadget addiction. The following hypothesis was tested:

1. Weak parent-child relationships have a positive influence on gadget addiction. ($\beta = 0.272$; 95% CI [0.189, 0.354]))
2. Weak parent-child relationships have a positive influence on loneliness in adolescents ($\beta = 0.421$; 95% CI [0.23, 0.62]))
3. Loneliness has a positive influence on gadget addiction ($\beta = 0.11$; 95% CI [0.38, 0.18]))
4. Loneliness mediates the relationship between weak parent-child relationships and gadget addiction. ($\beta = 0.466$; 95% CI [0.0134, 0.0833]))

From the results of the hypothesis testing carried out, it can be explained in the following mediation model image:

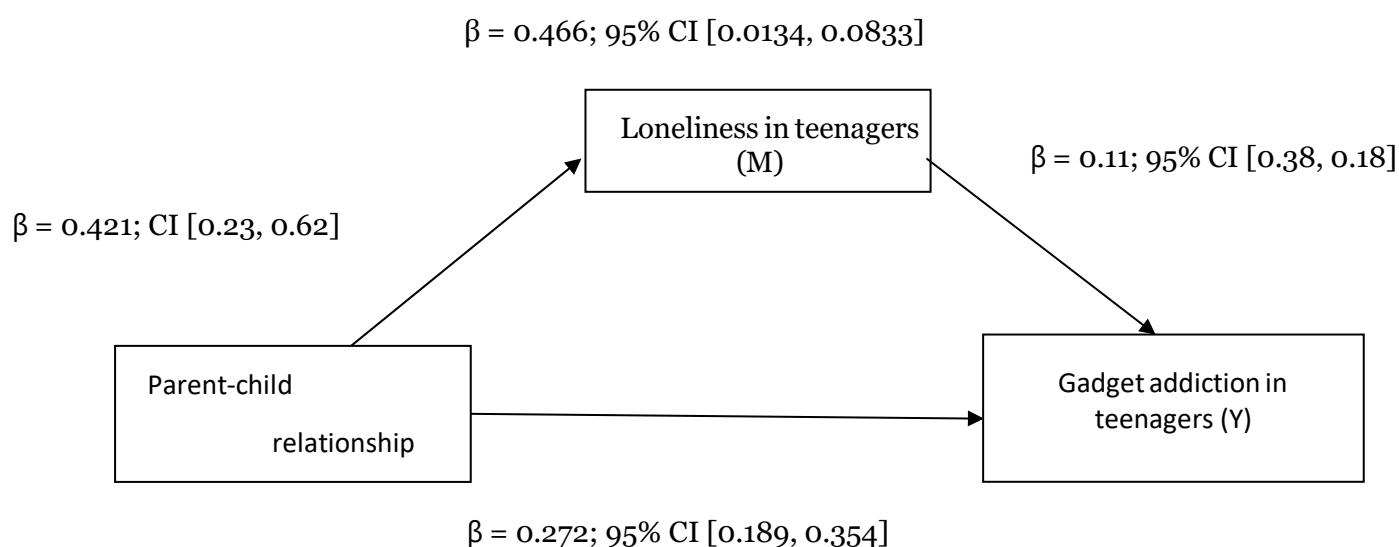


Figure 1. Indirect influence of parent-child relationships, loneliness and gadget addiction

DISCUSSION

According to this study, poor parent-child relationships had a positive influence on gadget addiction. The weaker the child-parent relationship, the greater the adolescent gadget addiction. Adolescents who had positive parent-child relationships could resist gadget addiction. The findings of this study are in a line with the findings of Gökçearslan, Durak, Give, and Saritepeci (2021), who found that the stronger the relationship between children and parents, the less likely someone was to become addicted to gadgets, and vice versa. Furthermore, this study found that poor parent-child relationships had an impact on adolescent

loneliness. Antognoli's research (Cheng et al., 2021) supports the findings of this study, which showed that loneliness in adolescents was frequently caused by poor relationships between children and parents. This study also found that loneliness caused teenagers to become addicted to electronic devices. This finding was supported by Young's (Montag and Reuter, 2015) belief that loneliness is one of the factors that causes addiction.

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