

Problematic Smartphone Use and Psychological Well-Being in Adolescents

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ABSTRACT

This study aims to determine the relationship between problematic smartphone use and psychological well-being at SMA Negeri 1 Dukun Kab. Magelang. The research subjects used were 150 students of class X and XI. This research was carried out using a quantitative method using two scales, namely problematic smartphone use and psychological well-being. The sampling technique used was purposive sampling, while the research data analysis used the product moment correlation technique. The results showed that problematic smartphone use and psychological well-being had a significant negative relationship with a value of -0.375 with $p = 0.000$ ($p < 0.01$). The conclusion is that there is a negative relationship between problematic smartphone use and psychological well-being. Effective contribution of 14.1%. It can be said that problematic smartphone use has an impact of 14.1% on psychological well-being, with other variables influencing another 85.9%.

Keywords: adolescents, problematic smartphone use, psychological well-being.

Introduction

Adolescence is the transitional period between childhood and adulthood, which begins with the onset of behavioral maturity. The physical and psychological development of adolescents is influenced by environmental and social development. Based on interviews conducted by researchers with 5 adolescents in October 2022, it can be concluded that 3 adolescents cannot accept themselves, like to compare with others and see from other angles. In addition, there are 4 teenagers who are unable to socialize with others and lack attention to those around them.

Psychological well-being according to Suresh, et al (2013) is the acceptance of each individual's psychological abilities, which reflects one's satisfaction and positive outlook. Uncontrolled smartphone use and waking up every night can cause the quality of sleep hours in adolescents to decrease and can cause sleep problems that have an impact on low (Woods & Scott, 2016). Psychological well-being is a state of self identified by a view of joy, happiness of life and no symptoms of depression. Positive psychological functioning can influence a person's state of self-acceptance, positive social relationships, self-improvement, environmental conquest and autonomy. Smartphones are a factor that affects adolescent psychological well-being, because smartphones are easily accessible to all circles not only adolescents (Ryff, 1989). According to Ryan and Deci (2001), the three most important psychological well-being criteria are relatedness, competence, and independence.

Ryff (1989), states that there are six aspects of psychological well-being which include: a. Self-acceptance is the state of having a positive attitude and self-acceptance, recognizing the negative and positive dimensions of oneself, and having good psychological well-being. B. Positive



people should have a plan, purpose, and life path that teens use to understand the current and past ups and downs of life. C. Good relationships with others are the ability to maintain relationships as an indicator of psychological well-being. D. Independence is a person's habit of having a sense of self-worth, setting personal goals and objectives. E. Environmental management is an area of the environment that deals with external threats in everyday life. People who are able to properly direct and control all external activities according to their personal needs are individuals at the level of psychological well-being. F. Self-improvement is the habit of recognizing and realizing potential, evaluating and improving.

Based on the description above, psychological well-being is related to several aspects, namely relationships with people in their environment, psychological conditions, especially technological developments that also affect a person's psychological condition. Smartphones are one form of technological development that has the ability to support one's personal activities. Everyone of course has problematic smartphone use varies depending on the way of time management and self-control in using smartphones. According to Lopez-Fernandez (2016) problematic smartphone use is a person's inability to control themselves on smartphone use, it can lead to negative risks in daily life, including signs of dependence and morals, social activities, and emotions and feelings of a person in his life.

According to Lopez-Fernandez et al., 2014, problematic smartphone use consists of six aspects, namely: a. Tolerance is a condition where users always cannot control themselves in using smartphones. B . Running away from problems is a happy view of smartphone users making smartphones as a means to minimize or eliminate stress and feelings of emptiness with the existence of smartphones. Smartphones are not only a means of communication, video games and PDAs, and places and friends that bring happiness, reduce boredom, anxiety and provide a sense of calm. C. Withdrawal and withdrawal is a condition in which the smartphone user constantly focuses his attention on the smartphone even though the subject does not need it. Smartphone addicts experience feelings of impatience, anxiety, and tolerance when they are unable to use their devices. Teens also experience anger when smartphone use is interrupted. D. The desire is a habit to refrain from using a smartphone, if someone cannot resist using a smartphone. E. Negative consequences relate to the form of enjoying smartphone use when a person can do other activities, such as trying to hide themselves from others to spend time playing smartphones. For example, when the subject accesses the smartphone to do a task, but the subject becomes engrossed in himself with the smartphone and does not pay attention to what is being done. F. Social motivation is to use smartphones because the environment demands them.

Ryff (1989), grouped factors that affect psychological well-being, including age, type of age, socioeconomic status, culture, and smartphones. Researchers chose the smartphone factor because smartphones affect many things, both physically and psychologically. Excessive smartphone use can lead to social isolation and social media addiction, which can affect adolescent psychological well-being (Arifin, 2021). Problematic smartphone use according to Billieux, J. (2012) is excessive use caused by the inability to control smartphone use. Additional research on psychological well-being in adolescents is reviewed from the smartphone aspect.

The purpose of this study was to examine the relationship between problematic smartphone use and psychological well-being at SMA Negeri 1 Dukun. Based on these goals, the hypothesis proposed in this study is that there is a negative relationship between problematic smartphone use and psychological well-being in adolescents. The higher the problematic smartphone use, the lower the psychological well-being. On the other hand, the lower the problematic smartphone use, the higher the psychological well-being of adolescents.

Method

This research was carried out with a quantitative approach method and for data accumulation, this study used scaling techniques, namely: psychological well-being scale with 42 items and problematic smartphone use scale with 36 items. The population in this study was grade X and XI students of SMA Negeri 1 Dukun Kab. Magelang with research subjects of 150 students. Data collection techniques use purposive sampling techniques. Data analysis of this study used product moment correlation techniques assisted by SPSS 16.0 for Windows software.

Results

The reliability of the Psychological Well-being scale Cronbach's Alpha value $\alpha = 0.834$, within score rit = 0,236-0,569. Reliability of the Problematic Smartphone Use scale Cronbach's Alpha value $\alpha = 0.856$, within score rit = 0,310-0,548. Researchers used Pearson's product moment correlation test as a hypothesis test. After testing the assumptions and ensuring that the results meet the criteria a hypothesis test is carried out. The correlation test tries to determine the degree of relationship between variables X and Y. If there is a positive or negative correlation between variables X and Y. The relationship is expressed by the correlation coefficient (r).

Table 1.
Hypothesis Test Results

Variabel	R	R Squared	Eta	Eta Squared
Psychological Well-being *				
Problematic Smartphone Use	-.375	.141	.535	.287

If the significant number is less than 0.01. the basis for decision making. Using Pearson's product moment correlation. The data analysts looked for a relationship between two variables of problematic smartphone use and the variable of psychological well-being. The magnitude of the correlation coefficient between problematic smartphone use and psychological well-being obtained -0.375 ($p = 0.000$) based on the results of data analysis shows that there is a very significant negative relationship between the two. The higher the problematic smartphone use the lower the psychological well-being. So that the researcher can conclude that the hypothesis proposed in the study is accepted.

This is supported by other studies namely studies showing that problematic smartphone use has an impact on poor sleep quality which is consistent with this (Kwon et al. 2013; Princess. 2018). Increased smartphone use by teens throughout the day and night can disrupt sleep patterns. lower self-esteem and worsen anxiety and moodiness (Woods & Scott. 2016). In addition, Elhai et al. Dvorak. R. D.. Levine. J. C.. and Hall. B. J (2017) hypothesize a strong association between problematic smartphone use and depression and anxiety. The use of social media can reduce well-being such as satisfaction of psychological needs, mood, and life satisfaction (Przybylski et al., 2013).

Based on the results of the correlation analysis, it is clear that in this study the determinant coefficient was 0.141 (14.1%) and the remaining variables were not studied. The quadratic determinant coefficient or correlation coefficient of 14.1% and the remaining 85.9% shows how (r^2) (r^2)problematic smartphone use actually contributes to psychological well-being. It can be said that problematic smartphone use has an impact of 14.1% on psychological well-being with other variables affecting the other 85.9%. The findings in this study are in accordance with the opinion expressed by Elhai. J. D.. Dvorak. R. D.. Levine. J. C.. and Hall. B. J (2017) that students experience sadness and anxiety as a result of problematic smartphone use, while only a small percentage experience stress and increased self-esteem. Turkle (2011) has explored a number of

studies and outlined the general conditions where digital communication used today can damage self-reflection.

In this study researchers imply that this study still has many shortcomings, limitations, and challenges. As the time given by the school is limited. the environment in the classroom is not conducive. and some students at SMA Negeri 1 Dukun choose not to fill out the scale questionnaire provided. resulting in limited research. In addition, there is no theory revealed in detail related to problematic smartphone use. A larger sample size and expansion of new populations for the study would also be good. Given that smartphone usage has grown significantly in recent years in many parts of Indonesia. Incorporating psychological factors in research is another way to do it.

Discussion

The results of this study are problematic smartphone use with psychological well-being negatively correlated. According to the findings of the analysis, there is a substantial inverse relationship ($r = -0.375$, $p = 0.000$, $p < 0.01$) between problematic smartphone use and psychological well-being in students of SMA Negeri 1 Dukun. This finding shows that problematic smartphone use and psychological well-being have a negative relationship in students. The higher the problematic smartphone use, the lower the psychological well-being. So that researchers can conclude that the hypothesis proposed in the study is accepted.

Problematic smartphone use can affect adolescent psychological well-being. According to Zhang et al. (2019) internet addiction affects sleep quality which includes self-control in smartphone use. The existence of self-control in using smartphones and using free time to more positive activities can reduce smartphone use, this can improve psychological well-being. In addition, the environment and the role of surrounding people greatly affect the psychological well-being of adolescents. Surrounding people play a role in providing advice, information and reminders to adolescents who experience problematic smartphone use, then looking for causes, consequences and ways to deal with it so that adolescents can have good sleep quality without the need for special treatment.

This is supported by other research, which shows that problematic smartphone use impacts poor sleep quality, which is consistent with this (Kwon et al. 2013; Putri, 2018). Increased smartphone use by adolescents throughout the day and night can disrupt sleep patterns, lower self-esteem, and exacerbate anxiety and moodiness (Woods & Scott, 2016). In addition, Elhai et al. Dvorak, R. D., Levine, J. C., and Hall, B. J (2017) hypothesized a strong relationship between problematic smartphone use and depressive and anxiety illnesses. The higher the problematic smartphone use, the lower the anxiety and depression. On the other hand, the lower the problematic smartphone use, the higher the anxiety and depression of adolescents.

The results of the categorization day of the problematic smartphone use variable concluded that 22 students (17.3%) had problematic smartphone use in the low category, 110 students (73.3%) had problematic smartphone use in the medium category and 14 students (9.3%) had problematic smartphone use in the high category. Meanwhile, in the psychological well-being variable, it is concluded that as many as 26 students (17.3%) have low category psychological well-being, as many as 102 (68%) have category psychological well-being, and as many as 22 students (14.7%) have high category psychological well-being.

Psychological well-being according to Ryff (1989), refers to a person's psychological well-being as a result of positive psychological functioning. Ryff (1989) later found that environmental control, self-growth, pleasant interpersonal relationships, autonomy, and self-acceptance are all strongly associated with psychological well-being. There are many mentions related to problematic smartphone use and its relationship with anxiety and depression, one of which is Elhai, J. D., Dvorak, R. D., Levine, J. C., and Hall, B. J (2017), that students experience sadness and anxiety as a result of problematic smartphone use, while only a small percentage experience stress and increased self-

esteem. In accordance with this statement, it is known that problematic smartphone use provides an effective contribution of 14.1% to the psychological well-being variable and the remaining 85.9% is the impact of factors not used in this study.

The realization of psychological well-being certainly needs support from the environment, especially from the family and school environment. This is because the environment is a place where adolescents have daily social interactions to spend their time. If the environment supports to do more positive activities, adolescents will not spend their time with smartphones.

In this study, the researcher concluded that this study still has many shortcomings, limitations, and challenges. For example, the time given by the school was limited, the environment in the classroom was not conducive, and some students at SMA Negeri 1 Dukun chose not to fill out the scale questionnaire provided, which resulted in research limitations. In addition, there is no theory that is expressed in detail related to problematic smartphone use. A larger sample size and expansion of the new population for this study would also be good. Given that smartphone use has grown significantly in recent years in many parts of Indonesia. Future researchers could include other psychological factors in their research.

Conclusion

The conclusion is that there is a negative relationship between problematic smartphone use and psychological well-being. The higher the problematic smartphone use, the lower the psychological well-being. Conversely, the lower the problematic smartphone use, the higher the adolescent psychological well-being. The effective contribution of problematic smartphone use had a 14.1% impact on psychological well-being, with other variables influencing another 85.9%.

Based on research that has been carried out related to the relationship between problematic smartphone use and psychological well-being, researchers are expected to pay more attention to other factors that affect adolescent psychological well-being, so as to enrich the results of research on psychological well-being adolescents were not disclosed in the study. Other factors that can affect adolescent psychological well-being include social environment, social support and culture. In addition to factors that need to be considered by the next researcher is the theory of problematic smartphone use which has not been widely studied and is difficult to find. Advice for parents, from the results of research conducted by researchers, there is a very significant negative relationship between problematic smartphone use and adolescent psychological well-being. It is expected that parents can provide direction, monitor and education about self-control in smartphone use. Suggestions for schools, it is expected to be able to provide more direction and guidance to students to pay more attention, understand and manage smartphone use time to their students so that students will feel more cared for, provide activities or containers to pour free time and become more understanding about when is the right time to use smartphones at school. Advice for students, expected to be able to control themselves in using smartphones. In addition, students are expected to fill their free time into activities outside of learning, like participating in extracurriculars that have been provided by the school.

Acknowledgement

I would like to express my deepest appreciation and gratitude to my supervisor, Mrs. Ismira Dewi S.Psi, M.Psi, Psychologist, who has made this work possible. Her guidance and advice have helped me through all stages of writing my project. I would also like to thank my college for providing the facility to turn my thesis into a journal as a gift and a pleasant moment. Thank you for the brilliant comments and suggestions that have been given to me. I would also like to give special thanks to my family for their continuous support and understanding during my research and writing of this journal. I would also like to thank SMA Negeri 1 Dukun for providing the necessary resources and facilities to complete this project. Lastly, I would like to thank God, for allowing me

to get through all the difficulties. I have experienced Your guidance day by day. You are the one who made me able to complete my journal.

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