

Indication of Smartphone Addiction in Adolescents in the City of Surabaya

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Abstract

Background: Smartphone addiction is a problem that often occurs in early adolescents. The purpose of this study was to find an overview of smartphone addiction indications in adolescents.

Method: The population in this study is junior high school students in Surabaya who have smartphones. Sampling was carried out using multistage random sampling in ten schools spread in each region in Surabaya and each region represented by a private school and one public school. The number of samples in the study was 400 students. Measurement using Smartphone addiction Scale (SAS).

Result: The sample in this study were 400 students with 30.5% male and 69.5% female. The sample was between 12-17 (mean, 14.03 + 0.813) years with a distribution of 13% class seven, 65.8% class eight and 21.2% class Nine. The four indicators showed the majority in the moderate category, namely life disturbance, positive anticipation, withdrawal and cyberspace oriented, while overuse and tolerance are mostly in the low category.

Conclusion: Cyberspace oriented is the most visible indication because smartphones are considered an important part of adolescents' lives. So even though the use of a long smartphone is not considered excessive in its use. Identification of the type of addiction and the time that smartphone usage needs to be added as additional data.

Keyword: Indication, cyberspace oriented, smartphone, addiction, adolescent

Introduction

Smartphone addiction is one of the more common problems in adolescents. This is because it is unstable, easy to emotion, the urge to do fun activities^{1,2} SD = 0.65. Some studies show the prevalence of smartphone addiction in adolescents is quite high, such as in Switzerland 16.9%, Brazil 35.6% and in South Korea 35%³⁻⁵; its association with smartphone use, and its predictors have not yet been studied in a European sample. This study investigated indicators of smartphone use, smartphone addiction, and their associations with demographic and health behaviour-related variables in young people. METHODS A convenience sample of 1,519 students from 127 Swiss vocational school classes participated in a survey assessing demographic and health-related characteristics as well as indicators of smartphone use and addiction. Smartphone addiction was assessed using a short version of the Smartphone

Addiction Scale for Adolescents (SAS-SV.). If left excessive use of smartphone can cause physical and mental health problems⁶ that cell phone use during exercise reduces intensity, and that high frequency cell phone users are less fit than other users. Thus, cell phone use appears connected to health and fitness behaviors and should be better understood within this context. The present study investigated the sedentary nature of cell phone use, and examined the likelihood of cellphone use interfering with exercise behavior. Design A validated survey was administered to a random sample of students from a public US university (N = 226. Psychological problems that arise in the form of sleep disorders, anxiety, depression and emotional stress⁷. Samaha (2016) added that smartphone addiction in adolescents adversely affects adolescents' academic values and life satisfaction.

Indonesia is the second-largest country with a total of 124.3 million smartphone users ⁹. Surabaya is the city with the second-largest number of smartphone users after Jakarta, which is 956 thousand people and as many as 113,584 teenagers who use smartphones ⁹. Previous research conducted by princesses in 2018 has 60% smartphone addiction among adolescents in Surabaya ¹⁰.

The results of a preliminary study on December 20, 2018, on 10 junior high school students in Surabaya showed that 10% were 12 years old, 50% were 13 years old and 40% were 14 years old. As many as 50% of men and 50% of women. Adolescents agreed that smartphones are the most important part of their lives as much as 50% and 10% express strongly agreed that smartphones were the most important thing in life. adolescents didn't focus on when doing work because they played smartphones as much as 80%. adolescents always failed when reducing smartphone usage by 80% and 60% of adolescents had difficulty stopping using smartphones due to the challenge of playing games.

Smartphone addiction has several aspects that are similar to disorders in DSM-5 including four main factors such as compulsive behavior, impaired function, withdrawal, and tolerance ³. This study uses the Smartphone Addiction Scale (SAS) questionnaire developed by Kwon which consists of several indicators that describe smartphone addiction ¹¹. The purpose of this study is to find indications of smartphone addiction in adolescents in Surabaya.

Method

This study used a crosssectional design with a sample of adolescents in junior high school (SMP) in the city of Surabaya. The total sample in this study was 400 students who had smartphones spread across ten junior high schools in Surabaya. Sampling used a multistage

random sampling in each region in Surabaya where each region was represented by one private junior high school and one public junior high school. The distribution of sampling for northern Surabaya was 87 students, West Surabaya 90 students, Surabaya South 81 students, Surabaya East 68 and Surabaya Center, 74 students.

Data retrieval used the smartphone addiction scale (SAS) questionnaire and had been translated into Indonesian (3,11). SAS consisted of 10 questions which described smartphone addiction in adolescents. Before using this questionnaire, the validity and reliability tests had been carried out to 33 adolescent junior high school students in Surabaya and the value of all questions above 0.344 and the alpha cronbach value of 0.857, which means that it was declared reliable.. Each measurement value uses a Likert scale that is strongly agreed, agree, disagree and strongly disagree. The analysis in this study uses SPSS 20.

Result

This research was conducted from May 8 to June 14, 2019, in ten junior high schools in Surabaya, which consisted of five private schools and five public schools. Respondents in the study consisted of 400 adolescents in junior high school (SMP), with 30.5% men and 69.5% women. Samples were aged between 12-17 (mean, 14.03+ 0.813) years with a distribution of 13% seventh grade, 65.8% eighth grade and 21.2% ninth grade. Four indicators show that most of them are in the medium category, namely life disturbance, positive anticipation, withdrawal and cyber oriented, while overuse and tolerance are mostly in the low category.

The results of the 6 smartphone addiction indicators are explained in the table below:

Table 1 Descriptive of indicator smartphone addiction

Smartphone Addiction		Total	
		n	%
life disturbance	Low	98	24.5
	Medium	210	52.5
	High	92	23
Total		400	100
Positive anticipation	Low	162	40.5
	Medium	203	50.8
	High	35	8.7
Total		400	100

Cont... Table 1 Descriptive of indicator smartphone addiction

withdrawal	Low	94	23.5
	Medium	232	58
	High	74	18.5
Total		400	100
overuse	Low	182	45.5
	Medium	171	42.8
	High	47	11.7
Total		400	100
cyberspace-oriented	Low	107	26.7
	Medium	250	63.5
	High	43	10.8
Total		400	100
tolerance	Low	204	51
	Medium	153	38.2
	High	43	10.8
Total		400	100

Table 1 illustrates the level of each indicator of smartphone addiction.

1. *Life disturbance.* The amount of life disturbance was 52.5% in the medium category. This means that the smartphone is quite disruptive to youth activities. Adolescents with smartphone addiction will experience psychological problems such as aggressive behavior, low self-esteem and communication disorders ⁶that cell phone use during exercise reduces intensity, and that high frequency cell phone users are less fit than other users. Thus, cell phone use appears connected to health and fitness behaviors and should be better understood within this context. The present study investigated the sedentary nature of cell phone use, and examined the likelihood of cellphone use interfering with exercise behavior. Design A validated survey was administered to a random sample of students from a public US university (N = 226. If allowed to be addicted to a smartphone can harm all the activities of adolescents.

2. *Positive anticipation.* The findings indicated that positive anticipation is 50.8% in the medium category. Positive anticipation can be seen from physical symptoms that arise due to excessive use. Use of a smartphone for too long can cause pain in the neck, shoulders, hands and lead to poor lifestyle ¹². These signs are found in adolescents who spend too long using a smartphone.

3. *Withdrawal.* This finding showed that as many as 58% in the category is experiencing the withdrawal of smartphone addiction. Teenagers say they cannot

live without a smartphone. This might be because smartphones are considered something important and is a necessity in the lives of adolescents ¹³.

4. *Overuse.* The amount of overuse mostly showed as much as 45% in the low category. This shows that the duration of smartphone use is considered not excessive. adolescents with smartphone addictions are usually characterized by long periods of use of smartphones ¹⁴. Besides anxiety without a smartphone also occurs in adolescents with smartphone addiction ¹. This low overuse may be due to the use of the old which is considered normal.

5. *Cyberspace-oriented.* The number of cyberspace oriented was 63% in the medium category. The focus of adolescents would always be on smartphones even if they don't use them. So it is difficult for adolescents to focus on school and experience a decline in academic value ⁸. This percentage is the highest compared to other indicators and is the most dominant indicator in describing the level of smartphone addiction.

6. *Tolerance.* Tolerance values in adolescents were mostly in the low category as much as 51%. This form of tolerance can be seen from using a smartphone longer than needed. The use of smartphones for a long time has become one of the signs of smartphone addiction both in playing games or social media ¹⁵. The duration of smartphone use is not relevant to the main purpose

of smartphone use ¹⁶including addiction, financial problems, dangerous use (i.e. whilst driving). The notion that a long time is considered normal is the reason why tolerance values are mostly in the low category.

Discussion

This study shows indications of smartphone addiction in early teens. These results indicate that life disturbance, positive anticipation, withdrawal and cyber oriented are mostly in the moderate category. These four indications are most felt by teenagers. Increased intensity of smartphone use is more visible as a sign of addiction ¹⁵. In addition, a sign of addiction that arises is that adolescents will feel anxious when not holding a smartphone ¹. This is because smartphones are considered the most important and are one of the main needs that must be met ¹³.

Other results show that overuse and tolerance are mostly in the mild category. It means that smartphone usage time is not excessive for adolescents or does not exceed the planned time limit. Haug (2015) revealed that the symptoms of smartphone addiction will be seen with the use of a longer than usual. But the amount of time spent using a smartphone is considered normal ¹⁷worldwide smartphone usage has greatly increased. Alongside this growth, research on the influence of smartphones on human behavior has also increased. However, a growing number of studies have shown that excessive use of smartphones can lead to detrimental consequences in a minority of individuals. This study examines the psychological aspects of smartphone use particularly in relation to problematic use, narcissism, anxiety, and personality factors. Methods A sample of 640 smartphone users ranging from 13 to 69 years of age (mean=24.89 years, SD=8.54. In addition, the presumption is not the assumption of people around the old smartphone usage. This is what causes the lack of feeling that he is using an excessive smartphone.

There are several limitations to this study. There is no amount of time and frequency to use a smartphone in one day. Applications that are often used are also not identified, so it is unknown what form of addiction often occurs in adolescents.

Conclusion

Four indications in adolescents showing smartphone addiction are among the most dominant, cyberspace-oriented. Smartphones become an inseparable part

of adolescent life. But adolescents don't claim to use smartphones excessively. This is because spending a long time with a smartphone becomes a natural thing and is a fulfillment of needs.

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