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PSYCHOSOCIAL HEALTH OF JUNIOR HIGH SCHOOLERS AFTER A YEAR OF ONLINE LEARNING

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ABSTRACT
The massive use of smartphone as the main learning tool for young learners due to Covid-19 pandemic has affected various aspects, including their psychosocial health. However, this case does not gain much attention from neither the parents nor the teachers. This study aimed to investigate the psychosocial problems faced by junior high school students associated with the overuse of smartphone after having a year of online leaning due to Covid-19 pandemic. This research was a descriptive study. The respondents were 78 junior high school students studying in Pemalang who were selected by a purposive sampling technique with two inclusive criteria: they used smartphones as the main learning media; and they had done online learning for at least one year. The collected data were analysed by a frequency distribution. The results showed that 29.12% of the respondents were psychosocially unhealthy; 22.78% of them were almost psychosocially unhealthy; and 48.1% of them were psychosocially healthy. However, only 10.1% of them did not suffer any psychosocial problems. Besides, the data showed that 65.8% of the respondents were in high risk of being addicted to smartphone. It can be concluded that most of the respondents faced psychosocial problems and were in high risk of smartphone addiction. Therefore, parents, teachers, and other related parties are expected to assist students in healing and maintaining their psychosocial health.

Keywords: online learning; pandemic; psychosocial health; smartphone

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INTRODUCTION

Firstly detected in Wuhan by the end of 2019, the novel coronavirus disease (COVID-19) has spread throughout the world rapidly. The changes it brings were dramatic. Not only can cause death, it initiates a huge psychological as well as social crisis of human kind (Cao et al., 2020; Odriozola-González et al., 2020). Some studies even claimed that along with its wide implication, the pandemic brings about extreme mental burden to students (Elharake et al., 2022; Ren et al., 2021).

In Indonesia, the first two cases of Covid-19 were officially confirmed and announced by the president on March 2, 2020 (Cheung, 2020; Gorbiano, 2020). Two weeks after the announcement, the government urged the closure of offices and schools (Adi & Rochman, 2020). People nationwide were supposed to stay home to keep a distance from each other for at least 14 days. Students at all levels were urged to learn through online learning at home. However, since the number of cases of COVID-19 was still growing fast, on April 10, 2020, the government decided to implement a large scale social restriction policy (Muhyiddin, 2020). The following month, on May 28, 2020, the emergency status of the pandemic was

changed. People in Indonesia called it 'New Normal Era' (Muhyiddin, 2020). Offices, companies, and some public places were allowed to open, but in a strict safety protocol. However, the government found it difficult to decide whether or not allowing students to study at schools was safe. As the result, most students in Indonesia were still supposed to stay and learn at home.

At the beginning, the urgent and sudden policy to keep children stay and learn at home brought a big shock and confusion to the society, especially students, parents, and teachers. Most of them were not ready to prepare home learning since it was mostly done online. Not all of the students as well as their parents had gadgets and internet access (Simamora, 2020). Similarly, not all of the teachers were familiar enough with online or distant learning. However, the only choice they had was to obey, adapt, and do the instruction. Based on the findings of some research, it can be seen that either the implementation of online learning or its challenges differs from one place to other places due to different interpretation, condition, and problem faced by each student or teacher in that area (Barrot et al., 2021; Simamora, 2020). To overcome various problem faced by students and teachers, various research and parties offered various solution. However, the use of smartphone, which was the primary tool in online learning, gained less attention.

Before the pandemic appeared, some issues related to the bad impacts of the overuse of smartphones arose. In various mainstream media, such as national television channels, newspapers, etc., some extreme cases of smartphone-addicted youngsters were investigated (Antara, 2019; Witjaksono, 2019). However, this issue disappeared soon after the Covid-19 pandemic spread. Any single issue related to Covid-19 gained the greatest attention and priority. In addition, by the high urgency, smartphone became the closest alternative to help students keep learning and stay safe (Almahasees et al., 2021). In an instant, people forgot how unsafe smartphones could be to young people. Smartphones which was initially not involved (Masadeh, 2021) and even avoided to be used by young learners became their main learning partner in an instant.

In an ideal condition where smartphone using by children is accompanied, facilitated, and managed by the parents, a smartphone can offer bright solutions. Through online learning, learning objective can be reached more efficiently, effectively (Bahasoan et al., 2020), and flexibly (Almahasees et al., 2021). However, due to some circumstances, the requirements to use smartphone safely could not be fulfilled easily by all households. Many students should learn only with their smartphones with no guidance. This condition might worsen the possible threat raised by the use of smartphones by children. Therefore, the present study intended to investigate problems, especially the psychosocial effects of smartphone use by students after a year of online learning due to Covid-19 Pandemic.

The objectives of the study were mainly to assess the psychosocial health of junior high school students after having at least a year of online learning, and to measure junior high school students' smartphone addiction risk. A study conducted by Irawan et al. (2020) was also conducted to investigate the psychosocial impact of online learning during Covid-19 Pandemic. However, it differed in its objectives, time setting, and findings. The study was conducted to find the types of psychosocial impacts due to the online learning. It was held at the early implementation of online learning in Indonesia. It found that the main psychosocial problems of the students were boredom, anxiety, and mood swing. Differently, the study being discussed in this article mainly described about how severe was the psychosocial effects after a year implementation of online learning due to the Covid-19 pandemic.

Since the implementation of online learning is mainly done with smartphones, and one of the greatest threats coming from the misuse or overuse of smartphone is its addiction, thus this research investigated the risk of addiction in the students. Smartphone addiction or popularly called as Nomophobia is fear, discomfort, or anxiety of being unable to close to one's phone or to access digital world through the internet (Rodriguez-Garcia et al., 2020). The term Nomophobia itself is an abbreviation of 'no mobile phone phobia' (Aarthi et al., 2020).

METHOD

This research was a descriptive study. Its respondents were selected by a purposive sampling technique. They were junior high school students who willingly participate in the study and met two inclusive criteria: 1) they used smartphones as the main learning media; and 2) they had done online learning for at least one year. The data were collected through two self-rated health questionnaires. Both questionnaires were filled out anonymously by the respondents. The first questionnaire, which was also the main instrument of the study, was used to assess the psychosocial health of the respondents. It was constructed and published by the Ministry of Health of Indonesia. It is usually called as Strength and Difficulties Questionnaire or SDQ (Wardani et al., 2021). It consisted of 25 statements with three-level Likert scale. The students were asked to give their responses to the statements by choosing three options: 1) 'incorrect', if the statements contradicted their personal attitude; 2) 'correct', if the statements could fully describe their attitude; or 3) 'partially correct', if the statements partially or slightly presented their personal attitude. The statements covered five areas: emotional impairment, behavioral problems, hyperactivity, peer relationship problems, and prosocial behaviours (Kemkes, 2021). Each area was represented by five items and all items were sorted randomly. Each response from the respondents was scored 0-2. However, since only the first to the fourth areas were counted to decide the psychosocial state of the respondents, the scores might range from 0 to 40.

The second questionnaire was used to proceed the second research objective which was to measure the respondents' risk of smartphone addiction. This questionnaire was taken from Wardani et al. (2021). It consisted of 18 items with four-level Likert scale. They had to choose 'never', 'seldom', 'often', or 'always' to describe their frequency in doing, feeling, or thinking things presented by the 18 statements. Each response was scored 1-4, hence the score range of the second questionnaire would be 18-72. The higher the score, the higher the risk of smartphone addiction threatening the respondents. Respondents whose scores were higher than 36 were categorized as highly risk of smartphone addiction or Nomophobia.

RESULTS

A total of 79 junior high school students took part in the study. They were 42 male and 37 female students aged 11-14 years old when the data were recorded. The data recording was carried out in June 2021. The analyzed data gathered by the two questionnaires were presented in two different sections as follows.

Student Psychosocial Health

To assess their psychosocial health, the respondents were asked to fill out the first questionnaire. These data were tabulated and scored. These scores were be used to decide the psychosocial health of the respondents. However, there were two ways of interpreting the results of the data analysis to decide whether or not the respondents were psychosocially healthy.

The first way was by considering the overall scores of the respondents. A respondent would be considered healthy if his total scores of the four areas (i.e., emotional impairment, behavioral problems, hyperactivity, and peer relationship problems) was less than 16. He was counted as unhealthy or suffering psychosocial problems if his score was 20-40. The borderline scores range from 16-19 and were considered unhealthy though the degree of severity was lighter. The results of the overall scores were presented by Table 1. As presented by the table, there were only 38 out of 79 respondents considered 'psychosocially healthy'; 21 of them were male, 17 of them were female.

Table 1
Psychosocial State of the Respondents by the Overall Scores

Gender	Psychosocial State (%)		
	Unhealthy	Borderline	Healthy
Male (n=42)	30.95	19.05	50
Female (n=37)	27.03	27.03	45.94
Both (n=79)	29.12	22.78	48.10

The data in Table 1 should be read as follows. From 42 male respondents, 30.95% were psychosocially unhealthy; 19.05% were in the borderline or insufficiently healthy; and the rest were considered psychosocially healthy. The next rows of data in Table 1 and in the following tables should be read in the similar way. As can be seen at Table 1, though the percentage of the male and female students in each category were different, but the difference was not quite significant. The gender differentiation is presented in each table to show in what aspect was male students tended to have more problem than the female ones and vice versa. The most important result depicted by Table 1 is that by considering the overall scores, almost half of the respondents were considered 'psychosocially healthy'. The second way to determine the psychosocial state of the respondents was by interpreting the scores of each component of the psychosocial health: emotional impairment, behavioral problems, hyperactivity, and peer relationship problems. A respondent was considered psychologically healthy if his scores of all components were normal. He was said to be unhealthy if he had at least a borderline score in one of the components. Table 2-5 illustrate the respondents' problems in each component of the psychosocial health.

Table 2.
Emotional Problems Faced by the Respondents

Gender	Emotional Problem (%)		
	Yes	Borderline	No
Male (n=42)	21.43	11.9	66.67
Female (n=37)	35.14	13.51	51.35
Both (n=79)	27.85	12.66	59.49

It could be because either the male students faced less emotional problems or they could cope their emotional problems better than girls, the results showed by Table 2 indicated that the male students were emotionally healthier than their female peers. The gap was noticeable, it was 15.32%. However, more than half of both the male and female respondents were emotionally healthy.

Table 3
Behavioral Problems Faced by the Respondents

Gender	Behavioral Problem (%)		
	Yes	Borderline	No
Male (n=42)	28.57	19.05	52.38
Female (n=37)	16.22	16.22	67.56
Both (n=79)	22.79	17.72	59.49

On the other hand, more male students faced behavioral problems than the females. In other words, less female students had problematic behaviour, although more than half of both male and female respondents had no behavioral problems. The gap was as noticeable as in the emotional aspect, 15.18%.

Table 4
Hyperactivity Problems Faced by the Respondents

Gender	Hyperactivity Problem (%)		
	Yes	Borderline	No
Male (n=42)	2.38	2.38	95.24
Female (n=37)	8.11	-	91.89
Both (n=79)	5.06	1.27	93.67

Table 4 showed that there was only three female and two male students showing signs of hyperactivity. Thus, almost all of the respondents had no problems associated with hyperactivity.

Table 5.
Peer Relationship Problems Faced by the Respondents

Gender	Peer Relationship Problem (%)		
	Yes	Borderline	No
Male (n=42)	42.86	38.09	19.05
Female (n=37)	32.43	48.65	18.92
Both (n=79)	37.97	43.04	18.99

If Table 3 is the opposite of Table 2, then Table 5 is the opposite of Table 4. There were only a few students who did not have any peer relationship problems. The male and the female respondents shared almost similar numbers of healthy person without serious peer relationship problems.

The last but the most important finding of the study was that there were only five male and three male students (10.1% of all respondents) who were psychosocially healthy and had no problems in all areas: emotional impairment, behavioral problems, hyperactivity, and peer relationship problems.

Student Risk of Smartphone Addiction

The second questionnaire was used to measure the risk of Nomophobia. After being tabulated, converted, and sorted, the data showed that 29 out of 42 male respondents (69.05%) and 23 out of 37 female respondents (62.16%) had high risk of Nomophobia. If we ignore their gender difference, there were 52 out of 79 (65.82%) junior high school students having high risk of smartphone addiction or Nomophobia.

DISCUSSION

Students' Psychosocial Health

This study intended to neither measure nor compare the psychosocial impact of the use of smartphone by students before and after the online learning due to covid-19 pandemic. Its objective was to provide some empirical data about students' psychosocial state since either the overuse or misuse of gadgets is commonly associated to addiction or other mental social disorders (Aarthi et al., 2020; Otcu et al., 2021; Rodriguez-Garcia et al., 2020). The study was not carried out to prove that certain theories were right or wrong, but to give a sign of an undesirable condition that might need proper treatment to overcome. The findings were supposed to give sufficient reason to the related parties to reconsider their present vision about providing better and healthier learning environment to students since it turns out that learning environment at home might become the biggest challenge of students in doing online learning (Barrot et al., 2021).

From the results of the study, it can be clearly seen that the respondents' social and psychological health needed to be treated immediately. Although based on the overall scores, there were 48.1% of all participants were psychosocially healthy, the similar questionnaire also conveyed that there were only 10.1% respondents who did not show any sign of psychosocial disorders. Besides, this study was conducted in a very small scale and was held approximately a year after the crisis. To get clearer, broader description and analysis of the present psychosocial condition of young generation during and after the pandemic, a broader and longer study is needed (Otcu et al., 2021). However, the findings of this study might be like an iceberg phenomenon signaling the urgent need of promotive, preventive, as well as curative steps to ensure students health especially its psychosocial aspect.

The separate analysis of each component of psychosocial state of the respondents revealed a slight difference based on gender. More male students tended to have behavioral problems than the females. On the contrary, more female students tended to have emotional problems than their male peers. The implied message was that male and female adolescents might need different treatment to be mentally and socially healthy. Moreover, the analysis also depicted that only less than twenty per cent of the respondents having healthy peer relationship. There are several possible reasons behind this phenomenon, for instance the strict social restriction during the pandemic (Villani et al., 2021), the antisocial effect of nomophobia (Rodriguez-Garcia et al., 2020), and so on. In addition, (Otcu et al., 2021) stated that young people like adolescents tend to act impulsively despite their cognitive development in recognizing cause effect relationship of any phenomenon they face. Students need adequate guidance to grow properly and healthily. Therefore, the promotive, preventive, or curative treatments that will implemented to them must start form a comprehensive and thorough analysis of all related aspects. 'Failure to recognize the acute psychosocial needs of adolescents has the potential to lead to certain psychosocial problems in the long term' (Otcu et al., 2021). In educational frame, teachers, parents, and communities need to be aware that ensuring students psychosocial health is as important as ensuring the fulfillment of any cognitive learning objective.

Students' Risk of Smartphone Addiction

Due to its massive use by the majority of global community, smartphones or gadgets has become one of the most investigated topics in the world. However, despite its promising features, smartphone is considered addictive, antisocial, and dangerous (Rodriguez-Garcia et al., 2020). It is often claimed as one of the causes of depression, anxiety, anger, loneliness, mental disorders, personality disorders, and socio-psychological disorders, especially to young people (Rodriguez-Garcia et al., 2020).

Generally, parents are well aware that the misused of smartphone and the internet can be harmful. However, less parents are well aware that the harm does not only come from the inappropriate contents or application being consumed by their children. The overuse or the use with too long duration of smartphone can give more dangerous impact. A study conducted by (Otcu et al., 2021) found out that students' recent smartphone use duration increased as much as 91.8% compared to their duration before the pandemic. This study revealed that the increase use of smartphone during pandemic increased the mental, somatic, economic, and phobia among adolescents. In line with it, the findings of this present study revealed that more than sixty per cent of its respondents showed high risk of Nomophobia. This implied an urgency for all the related parties to help students avoid this great danger.

CONCLUSION

The findings clearly showed that students' psychosocial health indeed needed special attention. There were more than a half of all of the respondents who were not psychologically healthy. There were only 10.1% respondents who did not suffer from any psychological problem. In addition, 65.82% of the respondents had high risk of Nomophobia. Therefore, parents, teachers, and other related parties are expected to give more attention and time to accompany and guide their children or students doing their online learning especially when they have to use smartphone and the internet. They are also expected to provide some counselling as a promotive, preventive, and curative effort in ensuring students' psychosocial health.

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