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The Impact of Academic Stress and Cyberloafing on Students' Smartphone Addiction

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Abstract
This research is motivated by the high level of smartphone addiction among students. This is due to the coping activities carried out as a form of release from academic stress experienced by students. One of these coping activities is cyberloafing behavior. This study aims to determine the impact of academic stress and cyberloafing on smartphone addiction. This study is quantitative research with multiple regression analysis. The population in this study were 319 students of class XI SMA N 4 Padang, and the sample size was 177 people using the Proportional Random Sampling technique. The data was collected using an academic stress instrument. The results of the validity and reliability test of the academic stress instrument adapted from the SSA scale (Academic Stress Scale) were declared valid and reliable. Data were analysed with descriptive statistics and multiple regression. The results of this study indicate that academic stress and cyberloafing together have a significant impact on smartphone addiction. This means that the higher the level of academic stress experienced by students and the higher the cyberloafing carried out, the higher the level of smartphone addiction by students. This finding can be a reference for counselling teachers to provide services in reducing academic stress and reducing the level of cyberloafing and smartphone addiction in students.
Keywords: Academic Stress, Cyberloafing, Smartphone Addiction

Abstrak
Penelitian ini dilatarbelakangi oleh tingginya tingkat kecanduan smartphone dikalangan peserta didik. Hal ini disebabkan oleh adanya kegiatan coping yang dilakukan sebagai bentuk pelampiasan dari stres akademik yang dialami oleh peserta didik. Kegiatan coping tersebut salah satunya adalah perilaku cyberloafing. Penelitian ini bertujuan untuk mengetahui dampak stres akademik dan cyberloafing terhadap kecanduan smartphone. Jenis penelitian yang digunakan dalam penelitian ini adalah metode kuantitatif jenis penelitian regresi ganda. Populasi dalam penelitian ini adalah peserta didik kelas XI SMA N 4 Padang sebanyak 319 orang, dan jumlah sampel sebanyak 177 orang dengan menggunakan teknik Proportional Random Sampling. Instrumen menggunakan skala model Likert. Hasil uji validitas dan reliabilitas instrument stres akademik diadaptasi dari skala SSA (Skala Stres Akademik) dinyatakan valid dan riliabel. Data dianalisis dengan statistic deskriptif, dan regresi ganda. Hasil penelitian ini menunjukkan bahwa stres akademik dan cyberloafing secara bersama-sama memberikan dampak yang signifikan terhadap kecanduan smartphone. Artinya semakin tinggi tingkat stres akademik yang dialami peserta didik dan semakin tinggi cyberloafing yang dilakukan, maka semakin tinggi tingkat kecanduan smartphone yang dilakukan peserta didik. Temuan ini dapat menjadi acuan pada guru bimbingan konseling untuk memberikan pelayanan dalam mereduksi stres akademik dan mengurangi tingkat cyberloafing serta kecanduan smartphone pada siswa.
Kata Kunci: Stres Akademik, Cyberloafing, Kecanduan Smartphone

INTRODUCTION

The human is a social being who always needs other people. The need that makes a person dependent on each other is because a person cannot live without the help of others. The development of an increasingly advanced era makes a person follow these developments, one of which is technological progress. Technology such as smartphones can be used as a communication tool to connect with other people. Smartphones allow users to communicate via voice or text, perform functions such as Personal Digital Assistant (PDA), access email, internet and Global Positioning System (GPS), display and edit documents and data and access the internet with Wi-Fi. In addition to having functions like ordinary mobile phones such as Mp3 player, video and camera, smartphones also have additional application features that can be installed and run according to the user's wishes (Himmelsbach, 2011).

As technology develops more rapidly, there are many conveniences that can be obtained by someone in interacting both directly and indirectly. Technology can be used to ask for help from others, one of which is using communication tools such as smartphones. A person's motives for using a smartphone are quite diverse, including the sophistication of features, fast internet access, easy access to social media, entertainment facilities and help in doing school or office work (Iskandar, 2011).

The smartphone's presence can bring huge developments and changes to a person, resulting in both positive and negative impacts on its users. Positive examples of the presence of smartphones are as a source of entertainment, a source of income, obtaining information, and so on. In addition, the negative impact is that many people experience smartphone addiction. According to Choliz (2012) and Leung, (2008) explain that smartphone addiction can have an impact on the health of its use. In addition, Soetjipto (Pratiwi et al, 2012) explains that addiction is a disorder that is uncertain when it occurs, marked by compulsive behavior in order to get satisfaction from certain activities.

Some people who are said to experience smartphone addiction are user behaviors that show unnaturalness and interfere with daily activities. This is supported by the opinion of Kwon & Paek (2016) who explain that individuals are said to experience smartphone dependence if smartphone users who start naturally then develop into social problems so that one's activities are disrupted. Ongkie (Smart, 2010) also revealed that someone is said to be addicted if they spend more than 14 hours per week. Meanwhile, Suler (1999) revealed that the criteria that appear when someone is addicted include a drastic change in lifestyle to spend more time playing smartphones.

Based on the results of observations that have been made by researchers, students' understanding related to the enactment of permission to carry smartphones is used to facilitate communication, information and interaction with other people and their parents. However, this freedom has an adverse impact on students, including: Initially, students use smartphones for learning purposes such as opening references related to subject matter, opening applications such as calculators, and foreign language translations. However, there are still many students using smartphones used outside of learning interests such as: replying to incoming chat messages from social media that are owned secretly during learning hours, playing online games at

school, and other activities that are not related to learning. Related to this problem, it can interfere with the learning process and not achieve compliance in following the lesson. Overcoming conditions like this requires cooperation between guidance and counselling teachers and all teachers and principals to take policies so that the condition of students can be directed towards good and useful behavior.

Based on several explanations of smartphone addiction, the focus of this study refers to the theory of Kwon & Peak, (2016) which explains that smartphone addiction is a behavior of attachment to smartphones which is accompanied by a lack of control and has a negative impact on individuals. In this study, the focus of measuring smartphone addiction is seen from daily-life disturbance, withdrawal, cyberspace-oriented relationships, overuse, and tolerance.

The next effort in providing appropriate treatment is to find out the factors that can contribute to the occurrence of smartphone addiction by students. Among the factors that can influence smartphone addiction are situational factors in psychological terms (Agusta, 2016). This factor is academic stress. Academic stress is a condition or situation where there is a mismatch between environmental demands and the actual resources owned by students so that they are increasingly burdened by various pressures and demands, (Rahmawati, 2012).

The students who experience stress are prone to addiction. Academic pressure, competition for learning achievement, and the tasks given in each lesson provide enormous pressure so that it can make learners able to coping. The distraction carried out by students is to use excessive smartphones so that they experience addiction. This can be seen in research (Kurniawan & Cahyantu, 2013; Samaha & Hawi, 2016) which reveals that the higher the academic stress experienced by students, the greater the tendency of smartphone addiction. Furthermore, supported by research by Hamrat et al, (2019) revealed that there is a positive influence between academic stress on smartphone addiction.

Based on the opinions of the experts above, the researchers concluded that academic stress is a situation where individuals perceive academic demands as a disturbance, a threat in education, when individuals are unable to deal with academic demands, a stress response will arise and have a negative impact. In other words, academic stress is a condition when there is a gap between academic demands and their abilities. Researchers measure the level of academic stress based on aspects of academic stress, namely physical, emotional, and behavioral responses (Fahmi, 2011).

In addition, another factor that causes smartphone addiction is cyberloafing behavior. Cyberloafing is a person's behavior in accessing the internet that is not related to the work he is doing (Askew, 2013). Cyberloafing is not only done by employees, but students also do it. Furthermore, according to the Indonesian Internet Service Providers Association (APJII) (2022), the largest number of internet users in the age of 13-18 years as much as 73.70% of the internet needs to be very much needed by many people. This finding answers the research results that the majority of internet usage in Indonesia is used at the education level of bachelor graduates (S1), diploma (D3), followed by SMA / SMK equivalent. As a result, it can be concluded that high school students have

followed the development in utilising their internet. This is in accordance with research conducted by (Gokcearslan, Uluyol, & Sahin, 2018) revealing that cyberloafing has a significant positive effect on smartphone addiction.

Basic obeservation obtained by researchers in the field, an example of using the internet in cyberloafing by students is accessing content outside the subject matter, there are even some students who create content during class hours. In addition, there are still many students who access social media as entertainment, relieve boredom, and release students who do not understand the lessons explained by the teacher. Not a few experts state that academic stress reactions can also trigger cyberloafing. The burden of learning can make students depressed, so they can do activities that can be used as an outlet for the stress that is being experienced through cyberloafing.

Based on several opinions about cyberloafing, the researcher concludes that yyberloafing is an activity carried out by students is accessing the internet using internet facilities provided by educational institutions and is used to access non-academic purposes carried out during learning hours, access outside of academic purposes such as chatting behaviour, opening news sites, online games during class hours based on aspects that have been put forward by Lim & Teo (2005) which include email activities, and browsing activities.

METHOD

Based on the problems and objectives that have been stated, this type of research is descriptive quantitative correlational research. The population in this study was taken in class XI students of SMAN 4 Padang in the 2022/2023 academic year totaling 319 students with different cultural backgrounds and a sample size of 177 students was selected using proportional random sampling technique. The sample consisted of 98 male students and 79 female students. The instrument used is a Likert scale model. Analyzed using the SPSS version 20.00.

RESULT

The results of data collection and processing of smartphone addiction instruments from the entire sample (respondents) totalling 177 people can be seen in Table 1.

Table 1. Frequency and Percentage Distribution of Smartphone Addiction (Y) by Category (n=177)

Score Interval	Category	F	%
≥235	Very High	0	0
190-234	High	42	23,73
145-189	Moderate	128	72,32
100-144	Low	7	3,95
≤99	Very Low	0	0
	Totally	177	100

Based on Table 1, it can be seen that the level of smartphone addiction in students is mostly classified in the moderate categor. This means that the level of smartphone addiction in students has an unfavourable impact and can interfere with learning activities so that it can affect learning outcomes and need to get appropriate counselling services. In addition, it is necessary to look at the next table to see the factors that cause smartphone addiction are the level of academic stress and the level of cyberloafing.

The results of data collection and processing of academic stress instruments from the entire sample (respondents) totalling 177 people, can be seen in Table 2.

Table 2. Frequency and Percentage Distribution of Academic Stress (X1) by Category (n=177)

Score Interval	Category	F	%
≥134	Very High	0	0
108-133	High	106	59,89
82-107	Moderate	61	34,46
56-81	Low	10	5,65
≤55	Very Low	0	0
	Totally	**177**	**100**

Based on Table 2, it shows that the level of academic stress of students is classified in the high category. This means that the level of smartphone addiction carried out by students is influenced by academic stress.

Based on the results of this study, it shows that if it is going to reduce the level of smartphone addiction in students, then handling academic stress can be improved first. So, the impact will reduce the level of smartphone addiction among students.

Table 3. Frequency and Percentage Distribution of Cyberloafing (X2) by Category (n=177)

Score Interval	Category	F	%
≥67	Very High	126	71,19
54-66	High	26	14,12
41-53	Moderate	9	5,08
28-40	Low	15	8,47
≤27	Very Low	2	1,13
	Totally	**177**	**100**

Based on Table 3, it shows that the level of cyberloafing of students is classified in the very high category. This means that the factors that cause smartphone addiction are most highly influenced by the level of cyberloafing. This shows that from this cyberloafing activity, students tend to carry out intense and excessive smartphone usage activities. Most learners show dependence on applications contained in smartphones, such as: opening calculator menus, foreign language translation applications, chatting activities and interspersed with opening other social media media media carried out during the learning process. This form of cyberloafing behaviour is also inseparable from the level of academic stress with the reason for the form of incomprehension of mastery of learning materials, boredom, and a less conducive learning environment and many other reasons that are deepened in the discussion.

The next step after processing the data on each variable, the next step is to conduct a normality test, linearity test, and multicollinearity test and proceed with hypothesis testing. The following are the test results

Table 4. Normality Test

Variable	*Asymp.Sig.*	Sig	Explan-ation
Academic Stress (X_1) with Smartphone Addiction (Y)	0,079	0,05	Normal
Cyberloafing (X_2) with Smartphone Addiction (Y)	0,079		Normal

The results of the normality test analysis in the table above show that the three variables have a Dmaximum number smaller than the Dtabel with a set (0.05). This means that the data from the three variables are normally distributed. This shows that one of the requirements for regression analysis has been fulfilled.

Table 5. Linearity Test of Academic Stress Variables (X1), Cyberloafing (X2) with Smartphone Addiction (Y)

Variable	F	*Sig.*	Explanation
X_1 Y	1,444	0,001	Linier
X_2 Y	3,195	0,000	Linier

The linearity test results show that the data on the academic stress variable (X1) with Fcount 1.444 and the cyberloafing

variable (X2) with Fcount 3.195 are known to have a significance value of 0.001 and 0.000 <0.05, because the linearity value is less than 0.05 it can be concluded that the data for each variable (X) is linear.

Table 6. Multicollinearity Test between Academic Stress (X1) and Cyberloafing (X2) Variables

Variable	*Tolerance*	*VIF*
(Constant)		
X_1	0,889	1,125
X_2	0,889	1,125

The results of the calculation state that the VIF value of the academic stress variable is 1.125 and the VIF value of the cyberloafing variable is 1.125 The VIF value of the two variables is less than 5. This means that there is no multicollinearity between the academic stress variable and the cyberloafing variable. Symptoms of multicollinearity are seen if the VIF value is below 5, then the data is declared free from symptoms of multicollinearity. The three analysis requirements tests show that all test results fulfil the criteria to carry out the next step, namely: regression testing to answer the research hypothesis. *Ha:* there is an influence between academic stress and cyberloafing on smartphone addiction. The hypothesis was tested using multiple regression analysis between academic stress and cyberloafing on smartphone addiction which resulted in regression coefficients, as can be seen in the Table 7.

Table 7. Multiple Regression Coefficient Test of Academic Stress Variables (X1), Cyberloafing (X2) on Smartphone Addiction (Y)

Variable	R	R *Square*
$X_1 X_2 - Y$	0,606	0,367

Table 7, shows that the R value is 0.606, which shows the regression coefficient of academic stress and cyberloafing on smartphone addiction. The R Square (R2) value is 0.367, meaning 36.7% of the contribution of the two variables between academic stress and cyberloafing to smartphone addiction. Furthermore, the significance test is carried out which aims to explain whether the variation in the value of the independent variable can explain the variation in the dependent value using the F value, as can be seen in the table below:

Table 8. Results of Multiple Regression Analysis of Academic Stress Variables (X1), Cyberloafing (X2) on Smartphone Addiction (Y)

Variable	*Unstandardized Coefficients*		t	*Sig.*
	B	*Std. Error*		
(Constant)	25,508	7,545	3,381	0,001
X_1	0,158	0,029	5,361	0,000
X_2	0,620	0,100	6,213	0,000

Table 8 shows that the results of multiple regression analysis can be explained as a constant 25.508 means that if academic stress and cyberloafing are considered constant, then students' smartphone addiction will be equal to 25.508. Furthermore, b1 0.158X1, means that if academic stress increases by one point, the smartphone addiction score will increase by 0.158, then b2 0.620 X2 means that if the cyberloafing behaviour score increases by one point, the smartphone addiction score will increase by 0.620.

DISCUSSION

The research shows that there is a positive and significant contribution between academic stress and cyberloafing together on smartphone addiction. The results of this study were obtained based on a series of data analyses which showed that the contribution of academic stress and cyberloafing together to smartphone

addiction was 36.7%. This means that academic stress and cyberloafing are one of the factors that influence the occurrence of smartphone addiction, while 63.3% is influenced by other factors.

The research results show that the higher the level of academic stress experienced by students and the higher the cyberloafing behavior carried out by students, the higher the level of smartphone addiction by students. Conversely, if the lower the academic stress experienced by students and the lower the cyberloafing behaviour of students, the lower the level of smartphone addiction experienced by students. The results of this study indicate that the cyberloafing variable is more dominant or contributes more to the onset of smartphone addiction in students compared to the academic stress variable. In this case, it is caused by the level of needs and problems experienced by each student so that it triggers smartphone addiction in these students.

This is in line with Chiu (2014) opinion, explaining that the beginning of addiction to smartphones is stress and the absence of self-control over dependence on these devices, so that individuals are increasingly addicted to these devices. The use of smartphones by students is a form of diversion of stress that arises, including stressors that come from their academic life. In this case, the smartphone serves to generate pleasure and temporarily relieve stress (Van Deursen et al., 2015).

From the description above, it explains that smartphone addiction behaviour can be influenced by several factors. One of the factors that influence smartphone addiction is academic stress and cyberloafing. Academic stress arises due to pressures related to education and individual knowledge that produce perceptions and judgements (Govarest & Gregoire, 2004). The academic stress in question is stress related to students' learning activities, in the form of tensions originating from academic factors experienced by students, resulting in distortions in students' minds and affecting physical, emotional, and behavioral. The things that can cause academic stress include pressure to get achievement, long study time, exam anxiety, and the number of tasks that must be completed, getting bad grades, complicated bureaucracy, career decisions and time management (Kariv & Heiman, 2005).

The factors that cause academic stress are internal. These factors are the existence of an individual's mindset that is not good so that it cannot control the stressors that arise, pessimism, and confidence to change a long-term mindset. While external factors are from dense lessons, pressure from oneself to get achievements, parents, and teachers as well as, social status. These factors support cyberloafing behavior to emerge as a coping effort from academic stress. Concerning the cyberloafing factor that has the greatest impact, it can be interpreted that cyberloafing behaviour occurs due to technological developments and easy access to the internet. According to students, cyberloafing behaviour has a good impact on reducing the stress experienced by students during learning.

The role of cyberloafing behaviour, according to Adiba et al. (2021) is to reduce momentary stress levels such as playing games, for a few minutes and increase creativity. This means that the cyberloafing behaviour carried out by students is used to eliminate uncomfortable situations when doing an activity. The reason individuals do cyberloafing is to explore or look for more

fun things and to avoid tasks (Blanchard & Henle, 2008). However, the reality that occurs in the results of this study shows that many students are complacent in their use, causing a negative impact on themselves. The negative impact that occurs on learners is that it can reduce academic productivity, because the academic stress they experience is not managed properly. From the coping activities carried out by students for academic stress diversion activities, it makes students uncontrollable and perform excessive cyberloafing activities carried out in the use of smartphones. This action is a form of negative coping that makes students increasingly experience smartphone addiction.

Based on the condition of the level of smartphone addiction experienced by students, the efforts that can be made by counselling teachers and counsellors are to reduce the level of academic stress and cyberloafing. By improving the level of academic stress and cyberloafing, it can reduce the level of smartphone addiction. Services that can be used to reduce the level of smartphone addiction are conducting positive coping skill activities through content mastery services and information services combined with other counselling guidance support activities.

CONCLUSION

Based on research Academic stress and cyberloafing together have a positive and significant impact on smartphone addiction by students. This means that academic stress and cyberloafing are one of the factors that influence the occurrence of smartphone addiction. The higher the level of academic stress experienced by students and the higher the cyberloafing behavior of students, the higher the level of smartphone addiction by students. Conversely, if the lower the academic stress experienced by students and the lower the cyberloafing behaviour carried out by students, the lower the level of smartphone addiction by students. The following suggestions to parties who have an important role in overcoming the problems of students: For the headmasters and all to provide school policies on regulations in the use of smartphones in the school environment. Guidance and Counselling Teachers/Counsellors are able to carry out coping skill activities positively to overcome the level of smartphone addiction, academic stress, and cyberloafing using counselling services. Parents, can control smartphone use activities at home, so that children are able to divide their time well.

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