The Influence of Self Esteem on Smartphone Addiction with Academic Stress as Mediator Variables in Class XI Students Using Smartphones at SMA Negeri 12 Jakarta

Rachmi Windicha Fitri[1]*, Adam Arya Haninditya[2], Vira Arini Ridwan[3]
Fakultas Psikologi, Universitas Persada Indonesia YAI
E-mail: miradich29@gmail.com[1]*, haninditya@proton.me[2], Virarini51@gmail.com[3]

Abstract

This research is a quantitative study which aims to examine the influence of Self Esteem on Smartphone Addiction, the influence of Self Esteem on Academic Stress, the influence of Academic Stress on Smartphone Addiction, and the influence of Self Esteem and Academic Stress on Smartphone Addiction. The subjects in this research were class XI students at SMA Negeri 12 Jakarta, totaling 140 samples using the Simple Random Sampling technique. This research uses 3 measuring instrument scales, namely: the Self Esteem variable measuring instrument scale, the Academic Stress variable measuring instrument scale and the Smartphone Addiction variable measuring instrument scale. The results of this study show that, 1) There is a significant influence between Self Esteem on Smartphone Addiction with $r = -0.26$ and $t = -3.30$ ($t > 1.96$), 2) There is a significant influence between Self Esteem on Academic Stress with $r = -0.33$ and $t = -4.12$ ($t > 1.96$), 3) There is a significant influence between Academic Stress on Smartphone Addiction with $r = 0.29$ and $t = 3.66$ ($t > 1.96$) 4) Academic Stress functions as a Mediator on the Influence of Self Esteem on Smartphone Addiction with $r = -0.105$ and $t = -2.375$ ($t > 1.96$).

Keywords	*Self Esteem, Academic Stress, Smartphone Addiction*

INTRODUCTION

Adolescence is a transition period in the development of human life related to childhood and adulthood. (Santrock, 2006). During this time, teenagers become very active in carrying out various activities and teenagers become enthusiastic about keeping up with the times, including developments in technology and information. Smartphones are one of the telecommunications developments in this era. According to research results, Nielsen (2013) reported that 33% of the Indonesian population owns and uses smartphones for various purposes every day and as many as 61% of smartphone users are residents under 30 years old. (http://inet.detik.com). Apart from its function for communicating, Smartphones also function for sending text messages, browsing the internet, and social media which allows cellular phones to become a simple medium of communication for all individuals at any distance (Smartphone, in Tran, 2016). Excessive use of smartphones will have a negative impact on users, especially teenagers. Teenagers tend to be lazy about doing schoolwork and other activities. This is called Smartphone Addiction.

Several previous studies have stated that the tendency for Smartphone Addiction in teenagers is related to Self Esteem. Based on several previous research results (Yuwanto, 2010; Bianchi & Phillips 2005) explains that Self Esteem and Smartphone Addiction have a correlation with each other. Self Esteem is a factor that causes individuals to experience Smartphone Addiction tendencies. Self Esteem is an internal factor of the individual. However, on the other hand, the results of research conducted by Bian & Leung (2007) stated that Self Esteem has a negative correlation with Smartphone Addiction. Indirectly, Self

Esteem influences Smartphone Addiction, so there are factors that can mediate, namely Academic Stress. Based on research conducted by Abraham Karuniawan & Ika Yuniar Cahyani (2013), it was revealed that the relationship between Academic Stress and Smartphone Addiction is positive and significant. To overcome the academic burden they bear, teenagers usually channel their complaints through social media such as Twitter, Facebook or Path.

LITERATURE REVIEW
Smartphone Addiction

*Smartphones*is is a cellphone with advanced features and has functionality beyond traditional cellphone functions such as making phone calls and sending text messages. Smartphones are equipped with the ability to display photos, play games, play videos, navigation, camera, Audio/Video Playback, send/receive e-mail, there are applications for social web, Web Surfing, wireless Internet, and much more. (in the journal Sarwar and Soomro, 2013: 216). Meanwhile, according to Hovart (in the journal Sufia Widi Kasetyaningsih, 2015: 22) explains that addiction can occur in certain activities that are carried out repeatedly and have negative impacts. Park & Lee (in the journal Bian & Leung, 2007 :2) explain that smartphone addiction is the behavior of excessive cell phone use which can be considered a non-intoxicating impulse control disorder and is similar to pathological gambling. According to Griffith (2005: 193-195) Smartphone Addiction has 6 dimensions, namely: Salience, this occurs when smartphone use becomes the most important activity in an individual's life, dominates the individual's thoughts (preoccupation or cognitive disorders), feelings (feeling of great need), and behavior (deterioration in social behavior). Mood Modification, high involvement when using a smartphone causes feelings of happiness and calm (such as relieving stress) when addictive behavior appears. *Tolerance* is the process of increasing the number of smartphone users to get the effect of changing mood.

In order to achieve satisfaction, the amount of Internet usage has increased markedly. The satisfaction obtained from using a Smartphone continuously for the same amount of time will decrease markedly, and to obtain the same strong effect as before, individuals must gradually increase the amount of use so that tolerance does not occur. *Withdrawal Symptoms* is an unpleasant feeling that occurs because smartphone use is reduced or discontinued and this affects a person's physical feelings and effects between feelings and physical (such as dizziness, insomnia) or psychological (for example, irritability or moodiness). *Conflict*. This leads to conflicts that occur between Smartphone users and their social environment (interpersonal conflict), conflicts in other tasks (work, assignments, social life, hobbies) or conflicts that occur within themselves (intraphysical conflict or feeling of lack of control) which is caused by spending too much time playing on the internet. Relapse. This happens when the individual returns to playing on the smartphone, when the individual has not yet recovered from his addictive behavior.

Academic Stress

Govarest and Gregoire (in Abram Karuniawan and Ika Yuniar Cahyanti, 2013) define Academic Stress as a condition or state of individuals who experience pressure as a result of students' perceptions and assessments of academic stressors, which are related to science and education.

Academic stress according to Sarafino and Smith (2012) consists of 2 aspects, namely, biological and psychosocial aspects. Biological AspectsPart of the physiological response to a stressor or strain is called reactivity. Stress will be experienced in various situations such as lack of sleep, and other physiological disorders caused by excessive impressions of the events involved. Whereas Psychosocial Aspects Consists of sub-aspects, namely cognitive, emotional and social. Cognitive symptoms include impaired memory, attention and concentration. Emotional symptoms include irritability, excessive anxiety, sadness and depression, and social symptoms consist of being less social, having a hostile attitude and being insensitive to the needs of other people.

Self Esteem

Baron & Byrne (2003:173) reveal that Self Esteem is the self-evaluation made by each individual: the individual's attitude towards himself in a range of positive and negative dimensions.

Coopersmith (in Sukma Andarini, Susandari & Dewi Rosiana, 2012: 219) divides the aspects contained in Self Esteem into 4, namely: Power, namely the ability to regulate and control the behavior of oneself and others. Significance (Meaning): namely meaningfulness in the sense of care, attention and affection that individuals receive from other people. Virtue (virtue, namely obedience to following moral codes, ethics and religious principles which is characterized by obedience to avoid prohibited behavior, and carrying out behavior that is permitted by morals, ethics and religion. Competence (ability), namely success in fulfilling demands, Achievement is characterized by an individual's success in completing tasks or work well at a high level from different ages.

The Relationship between Self Esteem, Academic Stress, and Smartphone Addiction

*Self Esteem*become a benchmark for teenagers in dealing with situations or problems that threaten their lives, especially for academic stress at school. The results of research by Acharya Pandey and Chalise NH (2015) conducted on Nursing Students at the University of Nepal show that the correlation between Self Esteem and academic stress is significantly inversely related. Adolescents who have high Self Esteem are able to improvise coping strategies in dealing with academic stress situations as explained by Taylor (2012). On the other hand, teenagers who have low self-esteem will perceive a problem as a threat in their daily life.

When faced with academic stress at school, such as homework assignments that pile up, teenagers tend to procrastinate or postpone their school assignments. Teenagers prefer activities that they think are more fun or entertaining in order to divert boredom from their academic demands at school. One of them is the use of smartphones. Using a smartphone is

not always useful. This is because a lack of behavioral control in using Smartphones will have a negative impact on teenagers, namely that teenagers can experience Smartphone Addiction tendencies.

Smartphone addiction is related to Academic Stress experienced by students or teenagers at school. Based on the results of research conducted by Abram Kurniawan & Ika Yuniar Cahyanti (2013) on students in the city of Surabaya, academic stress and smartphone addiction have a positive relationship. The higher the level of academic stress, the more dependent students are on their smartphones. Conversely, the lower the academic stress, the lower the student's dependence on smartphones.

Furthermore, Yuwanto (in the journal Iqbal & Nurdiani, 2016) stated that stress is also one of the situational causes of Smartphone Addiction. The level of stress makes students feel uncomfortable which comes from physiological tension resulting from task demands that exceed the student's abilities and is added to by the presence of minimum completion criteria (KKM) values in each lesson. So, smartphones have become a means to overcome tense situations after carrying out teaching and learning activities at school.

*Self Esteem*It is also related to individual addictive behavior, especially in teenagers, towards certain things, including the use of smartphones. Based on the findings made by Leung (2007), it was revealed that there are two factors in the occurrence of teenagers experiencing Smartphone addiction which are related to Self Esteem, namely the inability to control the desire to use a Smartphone, and feelings of anxiety and loss.

From the research findings above, researchers can perceive that Self Esteem has an influence on Smartphone Addiction directly or indirectly through Academic Stress as the mediator variable. This is based on findings from Leung (2007) which can explain that there is a direct influence between Self Esteem and Smartphone Addiction. Meanwhile, the findings of Pandey and Chalise NH (2015) explain that Self Esteem can influence Academic Stress, but the effect is inversely proportional. Then Abram Karuniawan & Ika Yuniar Cahyanti (2013) revealed that Academic Stress has a positive correlation with Smartphone Addiction so that the effect is comparable.

METHOD

In this study, there are 3 variables that will be measured, namely Self Esteem, Academic Stress, and Smartphone Addiction.

Self Esteem has several aspects which are operationalized through scale scores based on Coopersmith's character theory (in Sukma Andarini, Susandari & Dewi Rosiana, 2012: 219). namely: Power Significance, Virtue and Competence.

Academic stress has several aspects operationalized through scale scores based on the character theory of Sarafino and Smith (2012: 35-37), namely: biological aspects and psychosocial aspects, which consist of cognitive symptoms, emotional symptoms and social behavioral symptoms.

*Smartphone Addiction*has several dimensions which are operationalized through scale scores based on Griffith's (2005: 193-195) character theory, namely: Salience, Mood Modification, Tolerance, Withdrawal Symptoms, Conflict, and Relapse.

In this research, the population used was 216 students of class. The sampling technique uses Simple Random Sampling.

In collecting data, this research used the Likert scale method. The variables that use this scale are Self Esteem, Academic Stress, and Smartphone Addiction.

To test the hypothesis and analyze the data in this research using the Path Analysis method assisted by the lisrel program version 9.30.

The research was conducted at SMA Negeri 12 Jakarta, located on Jalan Agriculture Klender, Duren Sawit, East Jakarta. Data was collected in this research by distributing questionnaires to 140 students of SMA Negeri 12 Jakarta aged 16-17 years. This research took 4 classes, namely XI MIA 1, XI MIA 2, XI IIS 1 and XI IIS 2. Then the data obtained was processed using the Lisrel 9.30 program with the path analysis method.

The results of this research show that H1 has an r value of = -0.26 with a t value = -3.30 (t > 1.96). So, H0 is rejected, and Ha is accepted, so that "There is an influence between Self Esteem on Smartphone Addiction in class XI students who use Smartphones at SMA Negeri 12 Jakarta". In H2 it is known that r = - 0.33 with a t value of = - 4.12 (t > 1.96). So, H0 is rejected, and Ha is accepted, so that "There is an influence between Self Esteem on Academic Stress in class XI students who use smartphones at SMA Negeri 12 Jakarta". Then in H3 it is known that the value of r = = 0.29 with a value of t = 3.66 (t > 1.96). So, H0 is rejected, and Ha is accepted, so that "There is an influence between Academic Stress on Smartphone Addiction in class XI students using Smartphones at SMA Negeri 12 Jakarta", and in the influence of Self Esteem, Academic Stress on Smartphone Addiction in class at SMA Negeri 12 Jakarta, the findings from H4 showed that r = - 0.105 with a value of t = - 2.735 (t > 1.96). This indicates that Self Esteem can directly influence Smartphone Addiction. However, if we compare each t-Value with the t-table, the influence of Self Esteem on Smartphone Addiction can be mediated through Academic Stress. So, Ho is rejected, and Ha is accepted so that "Academic Stress functions as a Mediator of the Influence of Self Esteem on Smartphone Addiction in Class Students XI Smartphone users at SMA Negeri 12 Jakarta." From the results of group score categorization, it is known that the mean Self Esteem finding is 66.20, the mean Academic Stress finding is 90.07, and the mean Smartphone Addiction finding is 77.70.

RESULTS AND DISCUSSION

Regarding the influence of Self Esteem on Smartphone Addiction in this research, this is in line with research findings conducted by Leung (2007) which states that there is an influence between Self Esteem and Smartphone Addiction. In line with this research, the influence of Self Esteem on Smartphone Addiction is inversely proportional, meaning that the higher the Self Esteem an individual has, the lower the individual's level of addiction to using a Smartphone. On the other hand, if Self Esteem is lower, the higher the individual's level of addiction to using Smartphones.

Then, if we look at the relationship between the influence of Self Esteem on Academic Stress in this research, it is in line with the results of previous findings conducted by Nikhita S, Jose & Valsaraj (2014) which stated that there is a significant, inversely proportional

influence between Self Esteem on Academic Stress. This means that the higher the Self Esteem an individual has, the lower the level of Academic Stress. Conversely, if Self Esteem is lower, the higher the level of Academic Stress experienced.

Then, regarding the influence of Academic Stress on Smartphone Addiction in this research, this is in line with the findings of previous research conducted by Abram Karuniawan & Ika Yuniar Cahyanti (2013) which stated that there is a directly proportional influence between Academic Stress. This means that the higher the Academic Stress, the higher the level of individual addiction to using Smartphones. On the other hand, if the Academic Stress experienced is lower, then the level of addiction to using Smartphones will be lower.

*Self Esteem*can influence Smartphone Addiction through Academic Stress. According to Pandey & Chalise NH (2015), individual Self Esteem has a correlation with Academic Stress. Then, according to Yuwanto (in Iqbal & Nurdianti, 2016) Smartphone Addiction is influenced by external factors, one of which is stress and Yuwanto added that apart from stress, smartphone addiction is influenced by internal factors, one of which is self-esteem.

The categorization results in this research show that the Self Esteem score is in the "medium" category. The Academic Stress score is in the "medium" category. Then the Smartphone Addiction score is in the "medium" category.

CONCLUSION

From the research results, several conclusions can be drawn that: There is an influence between Self Esteem (IV) on Smartphone Addiction (DV) in class XI students who use Smartphones at SMA Negeri 12 Jakarta. This influence is negative, meaning that the lower the Self Esteem an individual has, the higher the level of addiction to using a Smartphone.

Then, there is an influence between Self Esteem (IV) on Academic Stress (VI) in class XI students who use smartphones at SMA Negeri 12 Jakarta. This influence is negative, meaning that the lower the Self Esteem an individual has, the higher the level of Academic Stress they experience.

Then, there is the influence of Stress Addiction (DV) on class XI students who use smartphones at SMA Negeri 12 Jakarta. This influence is positive, meaning that the higher the Academic Stress, the higher the level of individual addiction to using Smartphones.

Also, Self Esteem can directly influence Smartphone Addiction, but Self Esteem can also influence Smartphone Addiction with other predictors such as Academic Stress. This is because Academic Stress is a partial mediator variable.

REFERENCES

Andarini, Sukma Susandari, & Dewi Rosiana. (2012). "Hubungan antara Self Esteem dengan Derajat Stress Pada Siswa Akselarasi SDN Banjarsari 1 Bandung". Jurnal Sosial, Ekonomi dan Humaniora. Vol. 3 (1). 217-224

Archarya, Pandey R. & Chalise HN. (2015). "Self-Esteem and Academic Stress among Nursing Students". Kathmandu University Medical Journal. Vol 13 (4). 300.

Baron, Robert A. & Byrne, Donn. (2003). Psikologi Sosial. Edisi kesepuluh, jilid 1 Jakarta : Erlangga

Bian, M. & Leung, L. (2007). "Linking Loneliness, Shyness, Smartphone Addiction Symptoms, and Patterns Of Smartphone Use to Social Capital" Social Computer and Review. 1-19

Bianchi, A & Phillips, J.G. (2005). "Psychological Predictors of Problem Mobile Phone Use" CyberPsychology & Behavior. Vol 8 (1). 41.

Cahyanti, Ika Yuniar dan Abram Karuniawan. (2013). "Hubungan antara Academic Stress dengan Smartphone Addiction pada Mahasiswa Pengguna Smartphone". Jurnal Psikologi Klinis dan Mental. Vol 2 (1). 16-21

Griffiths, M. (2005)." A 'components' model of addiction within abiopsychosocial framework". Journal Subtance of Use. Vol 10 (4). 191-197

Iqbal, Muhammad & Nurdiani, Gadis (2016). "Is Smartphone Addiction Related To Loneliness?". Specialty Journal of Psychology and Management. Vol 2 (2) 1-6.

Kasetyaningsih, Sufia Widi. (2015). "Pengaruh Aplikasi Islami di Gadget Terhadap Sisi Religiousitas Mahasiswa". Vol 9 (2). 19-27.

Noor, Achmad Rouzmi. (2015). Begini Profil Pengguna Smartphone di Indonesia. (diakses 10 April 2017). https://inet.detik.com/cyberlife/d-3083415/begini-profil-pengguna-smartphone-di-indonesia

Santrock, J.W. (2006). Life Span Development. New York : Mc Graw Hill

Sarafino, Edward P. & Smith, Timothy W. (2012). Health Psychology: Biopsychosocial Interactions. Seventh Edition. Danvers : John Wiley & Sons

Sarwar, Muhammad. & Soomro, Tariq Rahim. (2013). "Impact of Smartphone's on Society". European Journal of Scientific Resarch. Vol 98 (2). 216-226

Taylor, Shelley E. (2012). Clinical Health Psychology Attitude to Health Disease—Psychology Psycholophysiologic Disorders. New York : Mc Graw Hill

Tran, D. (2016). "Classifying 1-23 Nomophobia as Smart-Phone Addiction Disorder" UC Merced Undergraduate Research Journal. Vol 9 (1).