The Effects of Adolescent-Parent Attachment, Emotion Regulation, and Self-Esteem on Problematic Internet Use (PIU) among Adolescents

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Article Info

Abstract

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Technological developments, including the internet, are experiencing rapid progress. However, the internet can have a negative impact when its use is inappropriate or called as problematic internet use (PIU). This study aimed to analyze the effects of parent-adolescent attachment, emotional regulation and self-esteem on problematic internet use (PIU). It involved 120 adolescents at public high schools throughout Tasikmalaya City using a purposive sampling technique. The questionnaires used in this study were the Adolescent Attachment Questionnaire (AAQ), Emotion Regulation Questionnaire (ERQ), Rosenberg Self-Esteem Scale (RSES), and Generalized Problematic Internet Use Scale 2 (GPIUS 2). In analyzing the data, descriptive and multiple linear regression tests were used. The results of this study proved that parent-adolescent attachment had a positive effect on problematic internet use (PIU), emotional regulation had a positive effect on problematic internet use (PIU), self-esteem had a positive effect on problematic internet use (PIU). Lastly, it was revealed that parent-adolescent attachment, emotional regulation and self-esteem simultaneously had positive effects on problematic internet use (PIU). Further, implications and limitations of this study are discussed in the discussion.

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INTRODUCTION

The development of 4.0 revolution industry in Indonesia seemingly brings significant changes and improvement, including technology. Nowadays, the combination of automatic technology and cyber brings pretty some changes in life (Rojko, 2017).

Indonesia is a country whose internet users are large. Based on the result of a survey in 2022 by the Association of Indonesian Internet Service Providers (APJII), the number of Internet users in Indonesia was 210 million with an internet penetration rate of 77.02%. This number increased 3.32% from the previous year in the period of 2019-2020, namely 198 million of people.

Previous data prove Indonesian people have relied on the internet for their daily lives with people aged 13-18 years ranked 1st and performed 99.16% of internet penetration in 2022. In details, the internet was mostly used by high school students with the percentage of 93.75% (APJII, 2022).

Based on a study by Rismala, et al (2021), Indonesian people demand on the internet increase, so do internet addiction. Cao, Peng, and Xu (2011) found the communication on the internet is dominated by adolescents. It has become the an indispensable tool for information, communication, and entertainment among adolescents.

Morahan & Schumacer (1998) state excessive internet use can bring negative impact on social, academic, family, and work. Some of the negative symptoms are addition, inability to control, lying or hiding their behavior, psychological withdrawal, and continuing to use the internet even though it has a bad impact. Excessive internet use, which is also called uncontrolled internet use or pathological Internet use or internet addiction causes problems at work/school and in social life (Pallanti, Bernardi, & Quercioli, 2006).

Problematic internet use (PIU) can be caused by two factors, namely environmental and personal factors. Based on Durkee et al., (2012) environmental factors become strong predictors of the emergence of negative behavior towards the internet. These cover lack of parental involvement, unemployed parents, or adoptive parents. It is supported by Bronfenbrenner's theory (1979) which states that adolescents, are the center of a human ecological system, so there are much influenced by surrounding environment, including parents. Furthermore, a study conducted by Odaci and Çıkrıkçı (2014) found that there is a positive relationship between parent-adolescent attachment and problematic internet use. Here, the parent-adolescent attachment becomes the important predictor of adolescents. Families with a lot of conflicts originating from the father or mother can cause a gap in the adolescent-parent attachment, so the adolescents can be at higher risk of experiencing problems using the internet (Cacioppo et al., 2019).

Furthermore, personal factors that contribute to problematic internet use are individual abilities in emotion regulation (Schreiber, Grant, & Oudlaug, 2012; Yu, Kim, & Hay, 2013). According to Gross and Thompson (2007), emotion regulation is a series of strategies where emotions are regulated according to individual goals, covering efforts to influence, strengthen, or maintain the emotions being felt. Individuals who have poor emotion regulation tend to have high levels of obsessive and compulsive behavior (Schreiber, et al., 2012). The obsessive and compulsive are symptoms of problematic internet use (Caplan, 2010). In line with this, Yu, et al. (2013) state that individuals with low emotion regulation can lead to problematic internet use in adolescents.

The relationship between problematic internet use (PIU) and self-esteem has been discussed in some studies (Greenberg, Lewis, & Dodd, 1999). In another study, personality traits, self-esteem and other psychiatric disorders have been predicted to be associated with problematic internet use (PIU) (Griffiths, 2000). Then, self-esteem has emerged as a factor associated with Internet use (Jackson, von Eye, Fitzgerald, Zhao, & Witt, 2010) and problematic internet use (PIU) (Kim & Davis, 2009). Douglas et al (2008) conclude low self-esteem is

a factor causing problematic Internet use (PIU). It is strengthened by Rayahu, S. (2020) that there is a negative relationship between self-esteem and problematic internet use (PIU in individuals, meaning that the higher the individual's self-esteem level, the lower the individual's problematic internet use (PIU) and vice versa.

It is expected that he results of this study can be a reference for counselors in developing guidance and counseling services for students, particularly in the development of student's personal services regarding the variables in this study.

METHODS

Respondents involved in this study were 120 students from 4 public senior high schools in Tasikmalaya City, West Java. They were selected using a purposive sampling technique with the criteria of nuclear family and using the internet at least almost every day.

Primary data including adolescent characteristics (gender and age), adolescent-parent attachment, emotion regulation, self-esteem, and problematic internet use (PIU) were used as the data source. Those were collected only using a questionnaire with four variables on google form website.

Adolescent-parent attachment is an emotional bond formed by adolescents and their parents through interactions. It was measured using an instrument called Adolescent Attachment Questionnaire (AAQ) developed by West, et al (1998) which was adopted from English into Indonesian. The instrument covers three dimensions, namely availability (adolescent's confidence in the attachment figures), angry distress (anger at the attachment figures), and goal-oriented (adolescents' empathy in the needs and feelings of the attachment figures). In terms of reliability, this instrument got the score of 0.631 for the nine statement items. These items are scored using four answer choices from strongly disagree to strongly agree. Finally, the adolescent-parent attachment is considered strong when the score is high.

In this study, emotion regulation was measured using Emotion Regulation Questionnaire (ERQ) designed by Gross, J.J., & John, O.P. (2003). Similar to the previous instrument, the current instrument was also adopted through a back translation process to get the Indonesian version. Generally, Gross & John (2003) distinguish two emotion regulation strategies, namely cognitive reappraisal and expressive suppression. Its reliability score was 0.645 for 10 statement items measured using seven options from strongly disagree and strongly agree. In addition, emotion regulation is considered high when the score is high.

The next instrument to measure self-esteem was Rosenbeg Self-Esteem Scale (RSES) compiled by Rosenberg (1965). It has two aspects, namely self-acceptance and self-respect. Moreover, to be in line with Indonesian culture, this instrument was back translated. Following the reliability test, it got 0.818 for 10 items scored using four answer choices from strongly disagree to strongly agree. Self-esteem is said high when its score is high, and vice versa.

Lastly, the Problematic Internet Use (PIU) variable in this study was assessed using using the Generalized Problematic Internet Use Scale 2 (GPIUS 2) developed by Caplan, S. E. (2010). Then, the instrument was modified from English to Indonesian. This instrument consists of four dimensions in describing someone's PIU (problematic internet use), including POSI (Preference for Online Social Interaction), mood regulation, deficient self-regulation, and negative outcomes. The reliability coefficient on this instrument was 0.906 for 15 questions with eight answer choices ranging from strongly disagree to strongly agree. Problematic Internet Use (PIU) is considered high if it gets a high total score, and vice versa.

A descriptive analysis was used to identify the characteristics of adolescents, family, adolescent-parent attachment, self-esteem, and problematic internet use. In terms of correlational analysis, this study used a multiple linear regression analysis. Further, the analysis

of the effects of parent-adolescent attachment to problematic internet use (PIU), the influence of emotion regulation on problematic internet use (PIU), the effect of self-esteem on problematic internet use (PIU) were analyzed using the T test (partial). Meanwhile, the analysis of the effects of parent-adolescent attachment, emotion regulation, and self-esteem on problematic internet use (PIU) was analyzed using the F test (simultaneous correlation).

RESULTS AND DISCUSSION

This study invited 120 adolescents with a higher proportion of female subjects (58%) than males (42%). Adolescents in this study ranged in age from 16 to 18 years, with an average age of 17.30.

Based on the descriptive analysis, the mean and standard deviation of adolescent-parent attachment was (M = 25.14; SD = 5.166), emotional regulation was (M = 40.63; SD = 4.333), self-esteem was (M = 25.14; SD = 5.167) and problematic internet use was (M = 78.52; SD = 7.580). In detail the data are presented in table 1.

Table 1. Data Description

Variable	N	M	SD
Adolescent-parent attachment	120	25.14	5.166
Emotion regulation	120	40.63	4.332
Self-esteem	120	25.14	5.167
Problematic Internet Use (PIU)	120	78.52	7.580

Based on the results of the analysis, it was known that the level of adolescent-parent attachment was at a medium level. In details, 6 respondents had a low category with a percentage of 6.7%, 99 respondents had a medium category with a percentage of 82.5% and 13 respondents had a high category with a percentage of 10.8%.

Regarding the analysis, the adolescents' emotion regulation was at a medium level. In details, there were 22 respondents were categorized low with a percentage of 18.3%, 68 respondents were categorized medium with a percentage of 56.7%, and 30 respondents were categorized high with a percentage of 25%.

The results of the self-esteem showed that adolescents were mostly at a medium level. Based on the data, 15 respondents had a low category with a percentage of 12.5%, 85 respondents had a medium category with a percentage of 70.8% and 20 respondents had a high category with a percentage of 16.7%.

In terms of self-esteem, the adolescents were mainly at a moderate level. Related to the data 12 respondents had a low category with a percentage of 10%, 85 respondents had a medium category with a percentage of 70.8% and 23 respondents had a high category with a percentage of 19.2%.

Following the above results, hypothesis testing was carried out using multiple linear regression analysis and obtained the following results:

Table 2. Effects of parent-adolescent attachment, emotion regulation and self-esteem on problematic internet use (PIU)

Predictor	B	T	P
Adolescent-parent attachment	0.427	2.367	<0.01
Emotion regulation	0.535	3.742	<0.01
Self-esteem	0.472	3.690	<0.01
R		0.416	
R^2		0.173	
F		8.098	
P		<0.01	

With regard to table 2, parental attachment had a positive effect on the problematic internet use (β = 0.427, p <0.01). It could be assumed that if adolescents have high attachment to their parents, their problematic internet use (PIU) tends to be low.

Another results was there found a positive effect of emotion regulation on problematic internet use (β = 0.535, p<0.01). It meant that if adolescents have high emotional regulation,

their problematic internet use (PIU) tends to be low.

A positive effect was also found in the relationship between self-esteem and problematic internet use (β = 0.472, p <0.01). It could be interpreted that if adolescents have high self-esteem, their problematic internet use (PIU) owned tends to be low.

Furthermore, the results of the analysis showed that parent-adolescent attachment, emotion regulation and self-esteem simultaneously had a positive effect on problematic internet use (R = 0.416; R2 = 0.173; F = 8.098). It indicated that if adolescents have parent-adolescent attachment, emotion regulation and high self-esteem, their problematic internet use (PIU) would be low.

The first finding of this study was there found a significant and positive effect of parent-adolescent attachment on problematic internet use (PIU). This finding is in line with a study conducted by Lan & Wang (2020) regarding the relationship between parental attachment and problematic internet use in adolescents in China with a total of 2677 respondents. They conclude that parental attachment has a significant role in reducing problematic internet use among adolescents in China. Based on this study, parental attachment is the main factor in the emergence of problematic internet use in adolescents.

Attachment built between parents and their children since childhood will be a mental model in relation to the social environment when individuals develop into adolescents and adults. Insecure attachment to parents reflects problems in managing emotions and results in several issues, such as feeling less comfortable interacting, being anxious to get closer and open up. Each other will not understand their emotions so that the emotional response is not quite right. Adolescents with less attachment will certainly experience problematic internet use (PIU) more easily.

In relation to the findings, counselors can provide guidance and counseling services to increase the attachment of adolescents to their parents and explain the importance of having an attachment to their parents. It can be done in the form of individual or group services as long as students able to realize the importance of having an attachment to their parents so as to reduce the level of problematic internet use (PIU).

The next finding from this study was the significant and positive effect of emotion regulation on problematic internet use (PIU). It is in line with the results of a study conducted by Chun (2016) regarding the effects of psychological problems, emotional dysregulation, and self-esteem on problematic internet use among Korean adolescents which involved 351 respondents. His study indicates a significant effect of emotional dysregulation on problematic internet use.

Basically, individuals who are able to regulate emotions well will manage their attention by focusing on problems that they can solve or modify so that they are able to accept, change their perceptions and determine responses that are acceptable to themselves and others. Individuals are able to control themselves by suppressing negative emotions or choosing situations that are less at risk of causing negative emotions.

According to Lawrence et al., (2010: 62) self-regulation not only includes activities to achieve goals, but also avoids environmental disturbances or emotional conditions that can hinder one's development. If individuals are able to organize themselves to stay focused on developing potential and can manage time to achieve the desired goals optimally, they are also assumed to able to avoid activities that can interfere with achieving goals such as positive internet use so that it can reduce the level of problematic internet use (PIU).

Counselors can provide guidance and counseling services to improve emotional regulation by explaining the importance of having good emotional regulation and ways to manage it. The provision of services can be in the form of individual services or group services that make students able to realize that increasing emotion regulation can avoid problematic internet use (PIU).

The next finding was about the relationship between adolescent-parent attachment, emotion regulation and self-esteem on problematic internet use (PIU). The analysis showed that there was a positive and significant relationship in that relationship. It is in line with a study done by B.R. Maia & P. Morgado (2022) related to the relationship between problematic internet use and emotion regulation and self-esteem. Their study involved 138 Portuguese adolescents and found a positive relationship between problematic internet use and self-esteem.

Adolescents with high self-esteem will learn effectively, develop a good relationship with parents and environments, and make use of job opportunities more productive. Therefore, they will concentrate more at school, be more liked by peers, and be able to get some achievements because they can manage time to be away from problematic internet use (PIU).

Regarding this finding, counselors can give guidance and counseling services to improve self-esteem by explaining the importance of it and how to improve it. It can be done through both individual and group services as long as students can be aware of the importance of self-esteem and ways to improve it so that their problematic internet use will get low.

The next discussion is about the effects of adolescent-parent attachment, emotion regulation, and self-esteem on problematic internet use. The findings showed positive and significant effects among those three variables on the problematic internet use.

Previous finding is in line with the results of a study conducted by Ballarotto, Giulia et.al (2018) which researched 1105 Italian adolescents who used the internet to examine any internet misuse, adolescent-parent attachment, peers, and psychology. It found that the adolescent-parent attachment has a significant effect on the use of internet. This finding is supported by a study done by Latifah, M & Zakiyyah, A (2022) which found that attachment between adolescents and parents has a significant and positive effect on self-esteem

and self-control, and self-esteem has a significant and positive direct effect on self-control. In addition, adolescent-parent attachment has a positive and significant effect on self-esteem. It is reinforced by B.R. Maia & P. Morgado (2022) regarding the problematic relationship of internet use with emotion regulation and self-esteem. This study involved 138 Portuguese adolescents.

According to the above studies, it is known that the adolescent-parent attachment, emotion regulation, and self-esteem become important aspects and are needed in dealing with an issue of problematic internet use (PIS) in adolescents.

Apart from the findings, this present study had some limitations. First, its coverage was limited to an exploration of adolescent-parent attachment, emotion regulation, and self-esteem on problematic internet use, so there was no intervention given. Second, the researchers did not specify the kinds of internet access used by the adolescents, such as online game, social media, or academic needs, so the cause of problematic internet use has not yet been determined. Third, the present study used adopted instruments. Fourth, the samples involved were limited to students at public senior high school in Tasikmalaya City selected using a purposive sampling technique.

CONCLUSION

With regard to the findings, it can be concluded that there are simultaneous effects of adolescent-parent attachment, emotion regulation, and self-regulation on adolescents' problematic internet use. It means that if adolescents have good attachment, emotion regulation, and self-esteem, their problematic internet use will be low. Moreover, counselors can employ both individual and group counseling services to help students improve their adolescent-parent attachment, emotion regulation, and self-esteem. By doing so, the adolescents' problematic internet use will get lower. Lastly, since this study was limited to general analyses on each variable, the future

studies are expected to do in-depth analyses on each indicator.

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