Self Esteem and Problematic Internet Use during The COVID-19 Pandemic. Does it Matter?

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Abstract

The COVID-19 Pandemic has significantly impact for global activity. In particular, problematic internet use to be a serious issue among college student. Internet must to used for online school from home. Intensity to access internet for everyday can appear problematic internet use. Government rules to stay at home have escalated the consumption of digital entertainment. In some cases, this leads to ones inability to control behavior, thought, and feelings in cyberspace, where individuals feel more confident because they are protected by anonymity and make new relationship in a short time can attract those who have low self esteem and low social skills to switch to the internet. Therefore, this study aims to determine the relationship between self esteem and problematic internet use among Indonesian college student during COVID-19. This is quantitative research. The technique sampling used was cluster random sampling. The research data was taken using two modification scales, namely PIU scale and self esteem scale. The result of this research indicate there is a negative relationship between self esteem and problematic internet use in Indonesian college student. Based on the result, the researcher can prevent or attempt to intervene in this problem.

Keywords: College Student, COVID-19, Problematic Internet Use, and Self Esteem

1. Introduction

The massive spread of COVID-19 forced the WHO (World Health Organization) to declare this virus a pandemic on March 11, 2020. Governments in several countries have decided to implement lockdowns. Similar to this decision, Indonesia applies a physical/social distancing policy. It is hoped that by maintaining physical distance between humans, the transmission rate of COVID-19 will reduce (Siswati et al., 2020). This policy certainly brings impact of changes in various sectors of life, including education.

Since the implementation of the physical/social distancing policy, Indonesia has applied an online learning system, starting from the lowest level (Playground and Kindergarten) to the highest (University). Online learning has its advantages, such as easy access to learning material and its implementation is not limited by place or time. However, apart from these advantages, certainly there are also disadvantages during the process.

One of the problems is the use of devices to access the internet which has become unlimited and difficult to control. On the pretext of doing assignments, many students do not access the internet for academic purposes. This condition is known as academic cyber slacking (Akbulut et al., 2016). The results of the preliminary study showed that 12 out of 32 students of Universitas Negeri Semarang used their smartphones to access the internet for other uses rather than their academic needs such as chatting, playing Instagram or even online games.

Students who show a tendency to do academic cyber slacking will be involved in multitasking. Instead of focusing on doing assignments, they actually access content other than their learning needs, such as Facebook, checking out e-mails, chatting with a classmate, shopping, and online news (Varol & Yıldırım, 2018, 2019). Students inability to control themselves when using devices and the internet can cause further problems which is called problematic internet use (PIU). This is in line with (Greenfield, 1999) statement that 6% of internet users potentially have problematic internet use (PIU) as a result of the rapid development of the internet which is accessible anywhere and anytime. In addition, there is also evidences that those who are socially isolated tend to have higher levels of internet use and problematic outcomes (Scott E Caplan, 2003).
The initial study was conducted by using Google Form, involving 102 respondents aged 18-21 years. The result showed that 87.3% of respondents accessed the internet for more than 2 hours in 1 day either to communicate or open the social media, do the assignments, to just to find entertainment or play online games. The result also stated that 57.8% of respondents can not really or unable to control the desire to continuously surf in cyberspace activities using various applications.

Recently, many studies have been conducted on the relationship between self-esteem, psychological well-being, and their effect on problematic internet use (PIU). For example, a study by (Joinson, 2004) reported that users who have low self-esteem show a significant preference for e-mail communication compared to users who have high self-esteem. An experimental study conducted by (Calderwood et al., 2014) discovered that students who did many online activities that caused problematic internet use tended to show lower learning performance. The low learning performance also correlated with deteriorating self-esteem (Mangero & Mutji, 2020). Positive self-esteem is a supporting factor so that every individual's ability can function optimally, including the ability of self-control. Likewise, for the use of devices and the internet, a person must be able to control his/her thoughts, feelings and actions so that the use of the device does not impact negatively. Based on the analysis above, researchers are interested in raising the topic of self-esteem and problematic internet use (PIU) during the COVID-19 pandemic for the study.

1.1 Objectives
This research aims to:
1. Know the relationship between self-esteem and problematic internet use in the students of Universitas Negeri Semarang during the COVID-19 pandemic
2. Have a descriptive description of problematic internet use on the students of Universitas Negeri Semarang during the COVID-19 Pandemic.
3. Have a descriptive description of self-esteem withing the students of Universitas Negeri Semarang during the COVID-19 Pandemic.

2. Literature Review
2.1 Problematic Internet Use
Problematic internet use is a syndrome with cognitive, emotional, and behavioral symptoms in which a person has difficulties in managing offline life (S E Caplan, 2005; Scott E. Caplan, 2002, 2005; Scott E Caplan, 2003; Davis et al., 2002; Morahan-Martin & Schumacher, 2003). Meanwhile, (Barak, 2008) defines problematic internet use as the use of the internet which can cause difficulties or disruption in social, school, and psychological activities in one's daily life.

According to (S. Caplan et al., 2009) problematic internet use has several affecting factors, which are: 1.) Introversion and loneliness, which is a condition when one feels more comfortable to keep the problems at hand. This condition can be one of the triggers for low self-esteem or a feeling of not being valuable than others; 2.) Depression, Substantialion, Addiction, and Behavioral Addiction, which is a condition when one is experiencing mental disorders shown by the decreasing enthusiasm to live and the increasing desire to use the internet continuously; 3.) Physical and Verbal Aggression, which is a situation where someone will use physical and verbal aggression in order to use the internet; 4.) Deriving a Sense of Community from Classmates and Co-Workers, which is a condition when a person becomes interested in using internet continuously because of the influence of classmates or co-workers. (Scott E Caplan, 2003) mentioned 4 aspects in describing problematic internet use in a person. They are 1.) POSI (Preference for Online Social Interaction), defined as a cognitive symptom in the belief that a person feels safer, more effective, more confident, and more comfortable interacting online with other people than face-to-face; 2.) Mood Regulation, is a general cognitive symptom that describes a person's motivation to use the internet in order to improve mood. In terms of social, individuals who experience anxiety in interpersonal interactions will choose interactions via the internet to reduce anxiety; 3.) Deficient Self-Regulation, a condition of a failure experienced by someone when trying to control themselves or evaluate themselves in using the internet (Shofwan et al., 2019). This happens when someone tries to adjust or to reduce internet usage. However, in reality, the person actually accesses the internet longer than the what is planned; 4.) Negative Outcomes, which are negative impacts arising from the use of the internet, such as having difficulty in managing life or experiencing disturbances in social life. Individuals who experience PIU are more interested in social media functions that refer to online interactions such as online chat in the form of text, audio, photos, or videos.
This study will use the PIU aspects proposed by (Scott E Caplan, 2003) to serve as a reference for making instruments or measurement tools.

2.2 Self Esteem
According to (John W. Santrock, 2017), self-esteem is a dimension of a comprehensive assessment or evaluation of an individual. Self-esteem is also known as a self-image. Individuals who have healthy self-esteem will have self-respect. On the other hand, those who have bad self-esteem will have low self-respect and are not sure about the actions or decisions they make. The same opinion was conveyed by (Coopersmith, 1967), that self-esteem is a general self-assessment which relates to one's abilities, to have something valuable, and becomes valuable in the others perspective.

The self-esteem aspect consists of self-acceptance and self-respect (Rosenberg, 2015). Self-acceptance describes how individuals can accept themselves as they are, both from the positive or even the negative side. Then, self-respect is how individuals can appreciate and respect their existence, either alone or when together with others. These two aspects of self-esteem by (Rosenberg, 2015) will be used in this study.

3. Methods
The research design used in this study is correlational quantitative research. The sampling technique used was cluster random sampling. The data analysis technique in this research is Correlation Product Moment. This population in this study is active as a University student at Universitas Negeri Semarang among 18-21 years old (because this is transition period from teenager to early adulthood). Access the internet for more than 2 hours non stop a day, and accessing the internet is not for academic but for other purpose.

4. Data Collection
The data collection in this study used a psychological scale method. Items on a psychological scale were arranged based on indicators that revealed psychological attributes. The scales used in this study were the scale of problematic internet use and scale of self-esteem. The problematic internet use scale contained of 22 favourable and unfavourable statements. The scale was in the form of a Likert scale which contained four answer choices indicating the frequency of the study, which consisted of Very Appropriate (VA), Appropriate (A), Not Appropriate (NA), and Very Inappropriate (VI). Meanwhile, there were 18 items of psychological scale used to measure self-esteem which were divided into favourite items and unfavourable items. This self-esteem scale was also in the form of a Likert scale which contains four answer choices, consisting of Very Appropriate (VA), Appropriate (A), Not Appropriate (NA), and Very Inappropriate (VI).

The scale used to measure Problematic Internet Use was structured based on the aspects stated by (Scott E Caplan, 2003), namely POSI (Preference for Online Social Interaction), Mood Regulation, Deficient Self-Regulation, and Negative Outcomes. Afterwards, the measuring tools used to measure Self-Esteem was made based on the aspects put forward by (Rosenberg, 2015), namely self-acceptance and self-respect. In total, there were 287 copies of scales collected that were filled in by the respondents. The scale is then further processed for data processing.

5. Results and Discussion
5.1 Correlation
Below will be elaborated on the results of the study and also the discussion related self esteem and problematic internet use during COVID-19:

<table>
<thead>
<tr>
<th></th>
<th>PIU</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>Pearson Correlation</td>
<td>-329**</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>Sig. (2-tailed)</td>
<td>1</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td></td>
<td>287</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td></td>
<td>287</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
Table 1 shows the Pearson correlation coefficient figure of -0.329. This means that the correlation between self-esteem variables and problematic internet use is 0.329. The two stars sign (**) shown below the table means that the correlation is significant at the 0.01. The relationship between the two variables is significant because the significance value is 0.000 < 0.01. Furthermore, since the correlation coefficient leads to negative, the correlation is inversely proportional. It can be concluded that if the self-esteem is low, then the problematic internet use is high and vice versa. This study results are in line with the research conducted by (Kircaburun, 2016) which states that PIU was negatively associated with self-esteem (t = -4.93, standardized = -0.13). It means, individuals who have low self-esteem are avoiding real interactions and escape to virtual world where they can behave anonymously and act as whoever they want.

5.2 Descriptive Statistic Problematic Internet Use

Table 2 shows a descriptive summary of all aspects of the problematic internet use variables.

<table>
<thead>
<tr>
<th>No.</th>
<th>Problematic Internet Use Aspect</th>
<th>Category (%)</th>
<th>Theoretic Mean</th>
<th>Empiric Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Very High</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>1.</td>
<td>Preference of Social Interaction</td>
<td>3.8</td>
<td>26.1</td>
<td>37.3</td>
</tr>
<tr>
<td>2.</td>
<td>Mood Regulation</td>
<td>7.7</td>
<td>19.5</td>
<td>36.2</td>
</tr>
<tr>
<td>3.</td>
<td>Deficient Self-Regulation</td>
<td>6.6</td>
<td>16.7</td>
<td>47.4</td>
</tr>
<tr>
<td>4.</td>
<td>Negative Outcome</td>
<td>3.8</td>
<td>2.8</td>
<td>32.1</td>
</tr>
</tbody>
</table>

The first aspect from Problematic Internet Use is Preference of Social Interaction during COVID-19 show 3.8% in very high category, 26.1% in high category, 37.3% in moderate category, 25.1% in low category, and 7.7% in very low category. So it can be concluded that Preference of Social Interaction aspect among student of Universitas Negeri Semarang is in the medium category. Second, Mood Regulation aspect show 7.7% in very high category, 19.5% in high category, 36.2% in medium category, 30.7% in low category, and 5.9% very low category. So it can be concluded that Mood Regulation aspect among student is in the medium category. Third, Deficient Self Regulation aspect show 6.6% in very high category, 16.7% high category, 47.4% in medium category, 25.1% in low category, and 5.2% in very low category. It concluded that Self Regulation aspect is in the medium category. And the last, Negative Outcome aspect show 3.8% in very high category, 2.8% in high category, 32.1% in medium category, 57.3% in low category, and 7.7% in very low category. So it can be concluded that Negative Outcome aspect is in low category.

Based on Table 2 above, the average problematic internet use among students is in medium category. More details can be read using the following descriptive problematic internet use bar chart:
5.3 Descriptive Statistic Self Esteem

Next is a descriptive description of all aspects of the self-esteem variables:

Table 3. Descriptive Description Self Esteem

<table>
<thead>
<tr>
<th>No.</th>
<th>Self Esteem Aspect</th>
<th>Category (%)</th>
<th>Theoretic Mean</th>
<th>Empiric Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Very High</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>1.</td>
<td>Self Acceptance</td>
<td>19</td>
<td>38</td>
<td>29.2</td>
</tr>
<tr>
<td>2.</td>
<td>Self Respect</td>
<td>2.8</td>
<td>42.2</td>
<td>40.4</td>
</tr>
</tbody>
</table>

Table 3 show that Self Acceptance aspect show 19% in very high category, 38% in high category, 29.2 in medium category, 13.5% in low category, and 0.3% in very low category. It can be concluded that Self Acceptance aspect is in high category. Then, Self Respect aspect show 2.8% in very high category, 42.2% in high category, 40.4% in medium category, 13.6% in low category, and 1% in very low category. So it can be concluded Self Respect aspect is in high category.

Based on table 3, the average self-esteem of students is in the high category. Here is the bar chart:

![DESCRIPTIVE DESCRIPTION SELF ESTEEM](image)

Figure 2. Descriptive Description Self Esteem

There have been several research results that reveal the relationship between self-esteem and problematic internet use, but novelty in this research is this research conducted during COVID-19. The problematic internet use during COVID-19 of students of Universitas Negeri Semarang (UNNES) is in the medium category. In this study, an indication of deficient self-regulation is shown by the behavior of students who can not really refrain from accessing the internet for things that are not related to college, or when working on assignments, these students actually procrastinate because they feel that the submission deadline is still long/academic procrastination (Rahmawati & Als, 2011). This is related with (Anggunani & Purwanto, 2019) research that there is a positive relationship between problematic internet use and academic procrastination.

Students enjoy spending their time surfing in cyberspace more. For example, they actually spend their time opening social media, replying to WhatsApp and telegram, opening Instagram, Facebook, Twitter, playing online games, or just browsing e-commerce. This is supported by the study results by (Vink et al., 2016) which state that problematic internet use may be predicted specifically to impulsive activities, where boys spend more time playing games while girls spend more time on social networking sites and chatting.

In general, the self-esteem of UNNES students during COVID-19 is categorized as high. Based on research data, the level of evaluation or self-subjective assessment of most UNNES students tends to be positive and is sufficient for
their daily lives. This is in accordance with the research conducted by (Amir, 2019) which states that self-esteem acts as a filter in every interaction with other people. In this case, self-esteem determines how individuals perceive, respond to, and interpret messages.

Based on the results of this study, self-respect has a major influence on the self-esteem of UNNES students. The self-respect in this study can be indicated by the way individuals perceive themselves positively, such as having a good opinion about their own strengths and also thinking that their existence as a human being is meaningful and has equal with other people. Subjects who enter into early adulthood are in a transitional period that brings a number of psychological, physiological and cognitive changes in their life. In this vulnerable period, dangerous factors such as depression and low self-esteem can affect negatively to one’s self (Kanto et al., 2020; Kircaburun, 2016; Nuraini et al., 2019).

This study has limitations, because the researcher does not provide limitations on the characteristics of the research subject, between college student with problematic internet use and college student with symptoms of internet addiction. So, that it can be conducted for future researcher.

Suggestion for the next study, future researcher can carry out similar research with different methods of analysis. And the next researcher can conduct research about how to prevent or attempt to intervene about problematic internet use case.

6. Conclusion
This study proves that there is a significant negative relationship between self-esteem and problematic internet use in UNNES students during COVID-19. The higher the student's self-esteem, the lower the problematic internet use they experience. Likewise, the lower the student's self-esteem, the higher the problematic internet use. Furthermore, the problematic internet use among UNNES students during COVID-19 is in the medium category and the students’ self-esteem is in the high category.

References


### Biography

**Dyah Ayu Rahmawati,** born in Semarang, May 15, 1986. Dyah Ayu Rahmawati took a Bachelor in Psychology Study Program, Faculty of Medicine, Universitas Diponegoro in 2009 and completed her Master of Science in Educational Psychology at the Faculty of Psychology, Universitas Gadjah Mada in 2012. Currently, Dyah Ayu Rahmawati is a lecturer at the Department of Psychology, Universitas Negeri Semarang majoring in Educational Psychology. Dyah Ayu Rahmawati’s research interests are around the development of education, school wellbeing, and life span development. The author can be contacted via email at dyahayurahmawatifip@mail.unnes.ac.id.

**Fatma Kusuma Mahanani** is a lecturer in psychology department at the Faculty of Education, Universitas Negeri Semarang, Indonesia. She conducted various online psychoeducation during the Covid-19 pandemic, both in the form of teaching, research, and community service. In teaching, she supervises students to design a psychoeducation module aiming at providing intervention for psychological problems experienced by students, parents and teachers during a pandemic. Through research, she and her team developed a sociocultural scale for the state civil servants in the context of the Covid-19 pandemic. In addition, she provides community service through the Kawan Dengar community to improve online counseling skills as an effort to participate in helping reduce mental health problems during a pandemic, including this research. The author can be contacted via email at fatma.psi@mail.unnes.ac.id.

**Andromeda** is a lecturer as well as psychologist who teaches and opens a clinic at the Department of Psychology, Faculty of Education, Universitas Negeri Semarang. She completed her undergraduate studies at the Psychology Faculty of Universitas Katolik Soegijapranata Semarang, Central Java. Likewise, with post-graduate studies, Mrs. Andromeda continued his studies at Universitas Katolik Soegijapranata, taking a Professional Psychology Master Program and graduated as a master as well as a psychologist majoring in the child clinical. Apart from teaching and providing psychology service, she is also actively involved in the management of the HIMPSI (Himpunan Psikologi Indonesia /Indonesian Psychological Association) professional organization of Central Java Region. Mrs. Andromeda is passionate about family and community mental health development as well as psychological intervention and
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