Original Research

The Relationship between Internet Addiction and Insomnia in Student Class IX

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ABSTRACT

Introduction: Internet addiction can cause unfulfilled hours of sleep, which if left unchecked will lead to disruption of sleep patterns often called insomnia. The purpose of the research was to determine the relationship between internet addiction and insomnia.

Methods: The design of the research was descriptive-analytic with a cross-sectional approach. The population in the research consisted of as many as 217 respondents with a sample size of 141 respondents. The variables used in the research were insomnia as the dependent variable and internet addiction as the independent one. The instrument used was a questionnaire with a univariate and bivariate analysis.

Results: The results of the study used the Spearman Rho test with a value of p = 0.000.

Conclusion: From these results, it could be concluded that there is a relationship between internet addiction and the incidence of insomnia. Internet addiction can cause unfulfilled hours of sleep, which if left unchecked will lead to disturbed sleep patterns often called insomnia. The research suggests that students pay more attention to their health by limiting or reducing the use of the internet for unimportant issues as it can reduce learning productivity and academic value and cause insomnia.

INTRODUCTION

The development of science, technology, and information is rapidly increasing at this time, making people inseparable from the use of the internet. Along with the development of the internet, the development of social media is also widely spread in the community. The rapid development of the internet and social media has a significant impact on all communities throughout the world (Sumedi, T., & Kuswati, 2010).

Data from the Ministry of Communication and Information Technology (Kemenkominfo) states that internet users in Indonesia in 2013 reached 63 million people. Of that number 95 per cent use the internet to access social networks. The most accessed social networking sites are Facebook and Twitter. Indonesia ranks 4th as the country with the most Facebook users in the world, with 65 million active users after the USA, Brazil, and India. Indonesia ranks fifth as the country with the most Twitter users in the world, with 19.5 million active users after the USA, Brazil, Japan, and the United Kingdom. In addition to Facebook and Twitter, other social networks known in Indonesia is Path with 700,000 users in Indonesia, Line with 10 million users, Google+ 3.4 million users and Linkedin with 1 million (Kominfo., 2015).

The results of the social survey conducted in Singapore in 2017 showed that the Indonesian population using social media reached 106 million out of a total population of 262 million. The popularity of the internet as a medium of communication has made it a part of everyday life for many people and led to an increase in the use of the internet by individuals. The number of internet users in Indonesia in 2017 reached 143.26 million from a...
The experts agree that the use of the internet deserves serious attention given its usage in adolescents where there is an increasing tendency which tends to be excessive, and in the long run can lead to mental disorders in users such as antisocial disorders, anxiety disorders, and stress disorders (Dewi, N & Trikusumaadi, 2017; Raj, 2017).

Internet addiction can cause unfulfilled hours of sleep, which if left unchecked will lead to disturbed sleep patterns often called insomnia. Case studies from Young also found that people with internet addiction could spend up to 70 hours a week accessing the internet (Nur Rahmawati, 2018). Most internet users are educated people, namely students. The development of the current era of globalization is encouraging the next generation, especially students of class IX. This study uses a descriptive analytic research design where the researcher makes direct observations on respondents and distributes questionnaires using a cross-sectional approach to determine the relationship between internet addiction and insomnia in students class IX. This research was conducted at one of the campuses in Maluku on 7-28 August 2019. This study uses a stratified random sampling technique, which was a random sample selection concerning strata levels in the population, namely students of class IX, amounting to 141 people.

The ethical principles implemented in this study include the recruitment of respondents with awareness, without coercion, with informed consent, benefits for the subject, and confidentiality.

RESULTS

Table 1 shows that of the 141 respondents, the majority were respondents age 21 with a total of 63 respondents (44.7%), and the least were respondents age 22 with a total of 5 respondents (3.5%). There were 51 male respondents (36.2%) and 90 female respondents (63.8%).

Table 2 shows that of the 141 respondents studied, the respondents belonging to normal internet use were 28 (19.9%), as many as 56 respondents (39.7%) were classified as light, 53 as medium (37.6%) and 4 were severe (2.8%). There were 69 (48.9%) respondents who experienced insomnia and 72 (51.1%) other respondents who did not. 28 respondents used the internet normally, whereas 2 (7.1%) experienced insomnia and as many as 26 (92.9%) other respondents did not experience. 56 respondents were addicted to the internet, categorized as mild; there were 17 (30.4%) respondents who experienced insomnia and as many as 39 (69.6%) other respondents who did not. Of the 53 respondents who were addicted to the internet in the middle category, there were 46 (86.8%) respondents who experienced insomnia and 7

Table 1. Respondents’ Characteristics (n=141)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>19 year</td>
<td>21</td>
<td>14.9</td>
</tr>
<tr>
<td></td>
<td>20 year</td>
<td>52</td>
<td>36.9</td>
</tr>
<tr>
<td></td>
<td>21 year</td>
<td>63</td>
<td>44.7</td>
</tr>
<tr>
<td></td>
<td>22 year</td>
<td>5</td>
<td>3.5</td>
</tr>
<tr>
<td>Gender</td>
<td>Man</td>
<td>51</td>
<td>36.2</td>
</tr>
<tr>
<td></td>
<td>Woman</td>
<td>90</td>
<td>63.8</td>
</tr>
</tbody>
</table>

Source: primary data 2019

Table 2. Relationship between Internet Addiction and Insomnia (n=141)

<table>
<thead>
<tr>
<th>Internet Addiction</th>
<th>Incident Insomnia</th>
<th>No Insomnia</th>
<th>Total</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Normal</td>
<td>2</td>
<td>28</td>
<td>26</td>
<td>18.9</td>
</tr>
<tr>
<td>Mild</td>
<td>17</td>
<td>56</td>
<td>39</td>
<td>27.8</td>
</tr>
<tr>
<td>Intermediate</td>
<td>46</td>
<td>53</td>
<td>7</td>
<td>4.9</td>
</tr>
<tr>
<td>Severe</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Totally</td>
<td>69</td>
<td>48.9</td>
<td>72</td>
<td>51.1</td>
</tr>
</tbody>
</table>

Source: primary data 2019
(13.2%) did not. 4 respondents who were in the severe category were known to have overall insomnia.

Based on the results of the Spearman Rho test, the value of sig (2-tailed) is value = 0.000 which indicates p <α or 0.000 <0.05. The analysis shows that there is a significant relationship between internet addiction and the incidence of insomnia in class IX students.

**DISCUSSION**

There is a significant relationship between internet addiction and the incidence of insomnia experienced by students of class IX. Internet addiction can cause unfulfilled hours of sleep, which if left unchecked will lead to disturbed sleep patterns often called insomnia. There were 28 respondents with a normal use of the internet, 2 (7.1%) respondents experienced insomnia and as many as 26 (92.9%) others did not.

Teenagers have an unstable and egocentric behavior so teens have not been able to filter out good or bad things from the internet which means adolescents are vulnerable to its negative effects. Among the negative effects of internet use are decreased adolescent learning discipline, stress and anxiety, and loss of self-concept (Altamirano-Bustamante & Altamirano-Bustamante, 2016; Sumter, Bokhorst, Steinberg, & Westenberg, 2009).

Of the 56 respondents who were addicted to the internet categorized as mild, 17 (30.4%) experienced insomnia and as many as 39 (69.6%) did not. Of the 53 respondents who were addicted to the internet in the middle category, 46 (86.8%) experienced insomnia and as many as 7 (13.2%) did not. Whereas 4 respondents who were in the severe category were known to have overall insomnia.

The progress of science and technology is currently a very big influence in the community, especially among adolescents. The cell phone features that are often used by teenagers are video calls, social media and various social media sites such as Facebook which are very helpful as multifunctional tools, because these multifunctional teens use technology positively or negatively (Griffiths, 2000; Landtblom & Engström, 2014).

There is a relationship between the duration of social media use and the incidence of insomnia in adolescents in Public Senior High School Manado (Lombogia, B. J., Kairupan, B. H. R., & Dundu, 2018). Suggestions include reducing the use of social media and being able to manage sleep time. One of the negative effects of internet use was smoking addiction and the incidence of insomnia experienced by adolescents. Further research needs to be done with a qualitative approach on the experience of families with teenagers who are internet-addicted.

**CONCLUSION**

There was a relationship between internet addiction and the incidence of insomnia in class IX students. Most respondents were in the moderate internet addiction category; however, some were included in the severe category. The higher the level of internet addiction, the higher the problem of insomnia experienced by adolescents. Further research needs to be done with a qualitative approach on the experience of families with teenagers who are internet-addicted.

**CONFLICT OF INTEREST**

The authors declare that there is no conflict of interest.

**ACKNOWLEDGEMENT**

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