HOW EXCESSIVE USE OF SMARTPHONE ARE BECOMING LONELINESS IN YOUNG ADULT

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ABSTRACT

Arguing that maintaining a separate relationship at a distance is closer, the consequences of excessive use of smartphones can actually reduce physical closeness by making people who are physically close to further. Loneliness is the subjective psychological discomfort people experience when their network of social relationships is significantly deficient in either quality or quantity. The objective of the present study was to investigate the relationship between smartphone addiction and loneliness among young adults. The population in this study were young adults of Aceh. These samples included 400 young adults in Aceh. The sampling technique used was unrestricted self-selected surveys. Data collection tools used are Smartphone Addiction Scale and University of California Los Angeles (UCLA) Loneliness Scale Version 3. The reliability of the scale of smartphone addiction and loneliness in this study .912 and .888. The analysis used in the parametric method was product-moment correlation analysis. The result showed there was a positive and significant correlation between smartphone addiction and loneliness (r = .432, p<.05).

Keywords: Smartphone Addiction, Loneliness, Young Adult

ABSTRAK

Scale dan Loneliness Scale dalam penelitian ini adalah 0,912 dan 0,888. Analisis yang digunakan dengan metode parametrik adalah analisis korelasi product-moment. Hasil penelitian menunjukkan ada hubungan yang positif dan signifikan antara kecanduan smartphone dan kesepian \( r = 0,432, p<0,05 \).

Kata Kunci: Adiksi Ponsel Pintar, Dewasa Muda, Kesepian

INTRODUCTION

Today, the fourth industrial revolution – innovative qualitative characteristics – is happening. Technology brings many changes: the way in which businesses create and capture value, when, where and how people do their work and ways in which individuals interact and communicate with each other (Schwab, 2016). Try to remember in recent days, how would you feel if you know your smartphone, it turns out not connected to the internet? Anxiety will envelop the feeling of knowing that a smartphone is not connected to the internet? It's only natural, considering that a smartphone is a cell phone that has a function as a computer, usually has a touch screen display, equipped with internet access makes it easy to run applications. These features can facilitate us in carrying out various daily activities. As of 2012, there are three growing trends in the national telecommunications industry, namely the development of smartphone technology, the growing number of social network users, and the increase in internet infrastructure.

Publication of data from the Community Life Survey (CLS) between August 2016 and March 2017 states that 5% of adults in the UK report feeling lonely "often" or "always". Younger adults aged 16 to 24 report feeling lonely more frequently than older age groups (Pyle & Evans, 2018). According to APJII (2017), the majority of individuals who access the internet through smartphones are working individuals or entrepreneurs and students, ranging in age from 21 to 30 years and found as many as 60% of internet users from that category access the internet through smartphones. However, do not close your eyes that in addition to the majority group, other age
groups that are not less experienced penetration by age based on 2017, which is as much as 22.95% of the age range of 35-54 years, then followed by as much as 16.68% of the age range of 13-18 years, and the last in the group is the age range of more than 54 years by 4.24%. Overall, when viewed from the social-economic strata, internet users are dominated by individuals who are in the lower middle social-economic strata, amounting to 74.62%, then the upper-middle social-economic strata, amounting to 16.02%.

Regarding technological features, Oulasvirta, Rattenbury, Ma, and Raita (2012) say that the use of smartphones is triggered by accessibility, portability, ease of operation, the connectedness of the user interface, music and video player, navigation, and so on. Supporting this, notifications or notifications such as ringtones or notification lights emanating from social applications such as Email, Facebook, Instagram, Snapchat, and Twitter can trigger individuals to divert attention from the activity being done so that they immediately look at the screen of a smartphone and respond.

With a variety of reasons in its use of smartphones, we have been in a condition where it always tries to control so as not to use a smartphone but always fails to do so, this is what is called tolerance. Conscious or unconscious, when you use your favorite smartphone, there will be several negative impacts or risks of excessive use of a smartphone in life. The negative impact that will be experienced and felt, physical pain. Like brain cancer due to radiation signals emitted by smartphones, pain in the wrist and behind the neck, vision becomes blurry.

Virtual relationship. Addiction to social media, dating applications, and sending messages, can lead to a feeling that an individual's relationship with online friends is interesting rather than a relationship with friends in the world of reality. Although the Internet can be a great place to meet new people, reconnect with old friends, or even start romantic relationships, online relationships are not a good substitute to be applied
in real life. Compulsive use of dating applications can change your focus to short-term relationships instead of developing long-term relationships.

Information overload. Compulsive surfing through smartphones, such as watching videos, playing games, or checking news feeds can cause lower productivity at work or school and isolate you for hours. Compulsive use of internet and smartphone applications can cause you to neglect other aspects of your real life, hobbies, and social activities because you spend too much of your time with smartphones.

Cybersex addiction. The use of smartphones to compost pornographic content or adult messaging services can harm intimate relationships and your true overall emotional health. While pornography is accessed online and cybersex addiction is a type of sexual addiction that makes it more accessible, relatively anonymous, and very comfortable. It's easy to spend hours and hours involved in fantasies that are even impossible to realize in real life. Excessive use of dating applications can facilitate sexual intercourse, making it difficult for you to develop long-term intimate relationships or damage existing relationships.

Later, the lonely phenomenon was seen as a result of the problem of excessive use of smartphone communication technology (Peper & Hervey, 2018). Loneliness is an unsatisfactory situation when individuals compare their current social relationships with those expected, both quantitatively and qualitatively (Peplau & Perlman, 1982). Quantitatively, it is interpreted as a change in social contact in individual social relations. Whereas qualitatively, in addition to the absence of social contacts and the frequency of social interactions, it turns out that someone in social interaction also requires a quality relationship that is in-depth.

Peper and Hervey explain the phenomenon of loneliness through a neuroscience point of view, that excessive use of smartphones begins to form neurological connections in the brain in a manner similar to how opioid addiction is experienced by individuals who consume oxycontin to relieve pain gradually. Individuals who use smartphones over-limit time to give nerves the chance to rest and
regenerate, because the nervous system has the same function as a muscle growth system that will develop when there is an opportunity for regeneration after individuals face stress triggers, so there is no opportunity to regenerating will lead to disease and nerve dysfunction.

Based on an explanation of the process in neuroscience, then Peper and Hervey (2018) say that biologically instinctively humans realize that there is a basic need to interact personally that is obtained face to face, but excessive use of smartphones makes factors such as body language and other signals that usually visible now is not obtained. Kraut et al (1998) added that internet use, including excessive use of smartphones, could potentially reduce physical closeness in creating and maintaining social relations. Therefore, excessive use of smartphones can trigger loneliness (Peper & Harvey, 2018).

Supporting the statements expressed by Peper and Harvey, Tan, Pamuk, and Donder (2013) say that individuals involved in the use of smartphones can continuously be exposed to reduced time allocated to social relationships that require direct interaction (face-to-face). Turkle (2012) added that when using smartphones individuals put expectations on smartphones, namely the expectation that virtually smartphones can bring people apart from a distance closer, but the fact that smartphones can physically close people is further (Rotondi, Stanca & Tomasuolo, 2017).

Although it has become a part of life, Subagio and Hidayati (2011) assess that the presence of smartphones has brought changes to the culture, norms and habits of the people. This can be seen from a survey conducted by International Data Corporation (2013) that 4 out of 5 people check smartphones before starting activities, and nearly 80% of users check smartphones in the first 15 minutes after waking up. The same thing was also found by Andrews, Ellis, Shaw, and Piwek (2015) that the average individual spends 5 hours per day using a smartphone, this makes the smartphone a sought-after tool when waking up and the last used device before sleep.
Research conducted by Van Deursen, Bolle, and Hegner (2015) found that the use of smart phones for social purposes is one of the risk factors that increase the addiction of smartphones. A study of the effects of this type of content on smartphone addiction shows that in addition to educational content, a significant predictor of smartphone addiction comes from the type of entertainment content, social network services (SNS) (Jeong, Kim & Yum, 2016).

Based on the description above, the formulation of the problem raised in this paper is how excessive use of smartphones are becoming loneliness in young adult?

**LITERATURE REVIEW**

*Smartphone Addiction*

About 25 years ago, the community of clinical psychologists focused on the phenomena of compulsive gambling behavior, overeating problems, sexual compulsive behavior and so on. Then in the past two decades, the development of technology has been so rapid, it has an impact that touches all aspects of human life. The most obvious thing is seen from the rapid method of communication between humans. At the time before the development of communication technology, people can only communicate with other people face-to-face, but as time goes on and communication technology develops, the communication process can be carried out without limitation of time, distance, and place. Nevertheless, the use of smartphones that are not controlled by their functions can cause psychological problems that cannot be underestimated.

Beginning with Griffiths’s view in 1995, which says that humans have been blinded by excessive use of technology, Griffith termed it with technological addiction, namely non-chemical addiction in the form of behavior that includes human interaction with a machine. In the American Psychological Association (APA) itself there is no mention of addiction, so when Young introduced the term internet addiction in 1996, it caused debate between academics and science scientists, because they considered
that the internet was part of the needs in the current era of technological literacy. Then Young said that internet addiction is an addiction that is no longer addicted to a chemical contained in a substance, Young calls internet addiction non-chemical addiction which has the same negative impact as addiction behavior described in APA at the time.

According to Beard and Wolf (2001), Young's research focuses on factors related to Internet addiction. From empirically validated studies, Young's research is the most methodologically appropriate. Although there are limitations to the methodology of the research conducted by Young, he has made greater efforts than the one to obtain a large and representative sample. In addition, his investigation of internet addiction has been reviewed through published articles and in papers presented at the 105th and 105th annual meetings of the American Psychological Association.

According to Young gambling compulsive behavior has similarities to internet addiction behavior. So in the process, Young modified the compulsive gambling criteria as a basic reference for further research on internet addiction criteria, resulting in a questionnaire with eight short items. According to Young, individuals who answered "yes" to five or more of the items provided were classified as individuals who were addicted to the internet.

The term 'addiction' is defined in the dictionary as: (1) abnormalities in bodily functions caused by food poisons or pharmaceuticals; (2) pathological conditions that cannot be tolerated without the continuous administration of alcohol or drugs; and (3) unable to judge or distinguish rationally because of certain ideas or objects. Formerly the term addiction was limited to drug or substance addiction, but now it is also applied to gambling, the internet, games, the use of smartphones and other behavioral addiction. Then, a website called Crackberry.com, an online forum that has thousands of Blackberry brand users discussing the perception of being addicted to smartphones. So that referring to the evidence of the self-report, shows that a large number of users
may experience unwanted dependence on smart phones but always fail to do so (Kwon dkk, 2013).

_Loneliness_

Peplau and Perlman (1982) stated that there are three factors that affect loneliness. First, shy individuals have a tendency to avoid social interactions and also fail to participate in appropriate social situations. Second, individuals with low self-esteem tend to feel uncomfortable in situations that are socially risky, thus motivating individuals to reduce their social contact and it is increasingly difficult to build a social relationship and will feel lonely. Third, individuals with low social skills will focus on themselves and non responsiveness, this has a detrimental effect on the formation and maintenance of relationships. Peplau and Perlman (1982) found three things related to the perspective of loneliness, namely that loneliness is the result of a lack of individual social relationships, is a result of subjective experience, and is not an equation of subjective social isolation and lonely experiences are unpleasant and suppress feelings of the individual. Besides that, the main concept is to understand the loneliness of unidimensional perspectives which looks more at the intensity of loneliness in addition to diverse causes with a comprehensive context.

**METHOD**

*Participants*

This study uses a quantitative approach that uses non-probability sampling with unrestricted self-selected surveys techniques, namely sampling techniques based on individual freedom deciding their participation in research, because it is open to anyone involved. Nevertheless, the sampling technique has a scope that selects respondents with a criterion (Fricker, 2008). Subjects in the study amounted to 400 people with the following subject criteria: aged 20-40 years, and using smartphones.
Measures

Data collection in this study uses two scales. The first scale is the Addiction Scale Smartphone (SAS) with a total of 33 items (α=0.912) and the University of California Los Angeles (UCLA) Loneliness Scale version 3 with a total of 20 items (α=0.888). The second form of the scale is Likert which consists of 6 answer choices for Smartphone Addiction Scale (SAS) 4 answer choices on the University of California Los Angeles (UCLA) Loneliness Scale version 3.

Data Analysis

The data analysis method used for the normality test in the study is the one sample Kolmogorov-Smirnov test. Next to the linearity test in the study is a test for linearity. Then to test the hypothesis in this study is Product-Moment Correlation in the data that meets the assumption test requirements (normal and linear).

RESULTS

This study involved young adult individuals aged 20-40 years in Aceh province with a total of 400 respondents. The results of this study found that the majority of respondents with the latest education status S1 (Bachelor) (48.0%) and students (42.3%) Meanwhile, individuals with educational status as Masters (4.75%), and the majority of early adults used smartphones with a duration of > 4 hours, namely 336 early adults (84%), followed by a duration of 2-4 hours, namely 45 early adults (11.25%), <2 hours as many as 19 early adults (4.75%), then the findings of the study show that the main reasons for using smartphones are to access the internet (50.0%), for social media (40.5%), for telephones (5.3%), and to play games (4.3%), it was found that the majority of early adult individuals used smart phones in bed at night (n = 341, 85.3%). Also, the highest age of study respondents was in the age range of 20
years to 24 years, had an educational status as a graduate (bachelor) (48.0%) and students (42.3%). The results of the normality test using Kolmogorov-Smirnov show that data on smartphone addiction and lonely scale are normally distributed. On the scale of smart phone addiction, the significance value is .161 (p> .05), and on the lonely scale the significance value is p = .374 (p> .05). Then, the results of the linearity test through ANOVA test for linearity on the scale of smart phone addiction with loneliness showed a significance value of p = .00 (p <.05). Finally, hypothesis testing using Pearson correlation analysis shows the correlation coefficient of r = .432, with a significance value of p = .000 (p <.05).

Table 1
Demographic Characteristic of Respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>323</td>
<td>80,75%</td>
</tr>
<tr>
<td>25-29</td>
<td>47</td>
<td>11,75%</td>
</tr>
<tr>
<td>30-34</td>
<td>11</td>
<td>2,75%</td>
</tr>
<tr>
<td>35-39</td>
<td>17</td>
<td>4,25%</td>
</tr>
<tr>
<td>40-44</td>
<td>1</td>
<td>0,5%</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>169</td>
<td>42,3%</td>
</tr>
<tr>
<td>Diploma I</td>
<td>1</td>
<td>0,3%</td>
</tr>
<tr>
<td>Diploma III</td>
<td>14</td>
<td>3,5%</td>
</tr>
<tr>
<td>Diploma IV</td>
<td>5</td>
<td>1,3%</td>
</tr>
<tr>
<td>Bachelor</td>
<td>192</td>
<td>48,0%</td>
</tr>
<tr>
<td>Magister</td>
<td>19</td>
<td>4,8%</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>354</td>
<td>88,5%</td>
</tr>
<tr>
<td>Married</td>
<td>46</td>
<td>11,5%</td>
</tr>
<tr>
<td><strong>Job Status</strong></td>
<td></td>
<td></td>
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<tr>
<td>Worked</td>
<td>130</td>
<td>32,5%</td>
</tr>
<tr>
<td>Does Not Worked</td>
<td>57</td>
<td>14,3%</td>
</tr>
<tr>
<td>College student</td>
<td>213</td>
<td>53,3%</td>
</tr>
</tbody>
</table>
DISCUSSION

The results of the study show that the hypothesis is acceptable, that is, there is a relationship between the addiction of smartphone and loneliness in young adult. The association of smartphone addiction with loneliness in early adults shows that smartphone addiction is one of the risk factors for experiencing loneliness in young adulthood. The results of this study are in line with some of the results of previous studies which found that the phenomenon of loneliness was seen as a result of the problem of excessive use of smartphone communication technology (Peper & Hervey, 2018; Tan, Pamuk & Donder, 2013). That is, when using smartphones individuals allocate less time to face-to-face relationships, because face-to-face interactions have been replaced by using smartphones. Because its excessive use can reduce the capacity of individuals to build and or maintain social relationships with others (Ezoe & Toda, 2013, Kraut et al., 2002, Underwood & Findlay, 2004), and experience feelings of loneliness (Zhang et al, 2018).

According to Samantray (2017) that virtual relationships formed through online do not have nonverbal communication elements, such as tone, facial expression, movement, and touch, so that it has created a large gap in face-to-face interactions in everyday real-life relationships. When interacting online, individuals use imagination to make the relationships that are built as perfect as possible. The imperfections of other people in the real world can create distance and undermine the need for communication and intimacy with friends in real life.

According to Walther (1996; 1997) to achieve a higher level of intimacy for individuals who have never met other people previously obtained through online interaction. Strengthening the findings of Hian, Chuan, Trevor, and Detenber (2004) says that developing intimacy is the result of fast and intense frequency of online interactions, so that in turn, intimacy is a major component in developing relationships, where high intimacy can contribute to satisfaction relationship in online relationships.
In addition, the similarity, intimacy, trust, and communication satisfaction are characteristics of online relationship satisfaction (Anderson & Emmers-Sommer, 2006). The similarity with others has been shown to affect relationship satisfaction, namely the extent to which individuals consider themselves similar to others (Byrne in Anderson & Emmers-Sommer, 2006). Barnes (in Anderson & Emmers-Sommer, 2006) suggests that there are similar interests and hobbies with other people that can satisfy individual needs. Then Muhammadin and Christia (2014) added that individuals who use smartphone excessively will focus more on the relationships that are established online. This happens because online relationships can satisfy individual needs to communicate about self-interest and exploration that cannot be explored and ignored in face-to-face relationships, and to share personal feelings information makes individuals get social support and emotionally close relationships that are easily obtained from friends in online world than friends in the real world (Underwood & Findlay, 2004).

McKenna and Bargh (1999) say that the convenience of individuals when interacting and revealing more personal information in public spaces will lead to the consequences of online interactions, namely intimate and close relationships in the online world. Supporting these findings, McKenna and Bargh found that one characteristic of online relationships is the high level of personal information disclosure of information that is risky and emotional in nature, in the hope that predictability of relationships with certain people or networks targeted by communication can increase.

This then becomes the basis of understanding that the close relationship felt in the real world is no longer felt deeply (Muhammadin & Christia, 2014), and there is a change in behavior, then bring people to realize that biological instincts have basic needs that must be met, namely personal interactions that are obtained face-to-face (Peper & Harvey, 2018), such as the need to spend quality time with others, get advice during difficult times and to share an individual's deepest feelings with others.
(Samantray, 2017), but Excessive use of smartphones makes factors such as body language and other signals now invisible (Peper & Harvey, 2018).

The results of this study, found the majority of respondents with the latest education status S1 (Bachelor) (48.0%) and students (42.3%). According to Aljomaa et al., (2016) individuals with low levels of education tend to become smartphone addiction, because by using a variety of applications, individuals can have more free time for entertainment and seek emotional connections. Meanwhile, individuals with educational status as master graduates (4.75%), are psychologically stable a.p early adults (84%), followed by a duration of 2-4 hours which is as much as 45 early adults (11.25%), <2 hours as many as 19 early adults (4.75%). According to Demirci et al., (2014) individuals who spent more than 16 hours using high-powered smartphones produced a higher average score for smartphone addiction than individuals who used smartphones for less than 4 hours. Cha and Seo (2018) added that the duration of using a smartphone in a day is one of the significant indicators of smartphone addiction.

Oulasvirta, Rattenbury, Ma, and Raita (2012) say that the use of smartphones is triggered by accessibility, portability, ease of operation, and so on. This is in line with the research findings, that the main reason for using smartphones, to access the internet (50.0%), for social media (40.5%), for telephone (5.3%), and for playing games (4, 3%). The reason for using smartphones seems to be a significant predictor for individuals to become smartphone addiction (Salehan & Negahban, 2013), and that smartphone addiction behavior has a significant influence on interpersonal and lonely relationships (Bian & Leung, 2014).

In this study, the majority of young adult individuals found smartphones in bed at night (n = 341, 85.3%). When individuals have poor sleep quality, it will have an impact on decreasing daily productivity (Demirci et al., 2015). Therefore, the time spent every day using a smartphone can increase the rate of addiction of smartphones (Dikeç & Kebapçı, 2018).
In this study, the highest age of study respondents was in the age range of 20 years to 24 years, had an educational status as a graduate (bachelor) (48.0%) and students (42.3%). According to Strauss and Howe (1991) these individuals enter into the 'Generation Z', namely the first global generation born from the era of the mid-1982 and early 2000s. That generation has created a new and different social environment by sharing personal life online through Facebook, Twitter, Instagram and others who have reached a level closer to social life built through online than real life (Ozkan & Solmaz, 2015). Therefore, young adult individuals specifically emerged as adopters of smartphone use which is considered very risky for developing smartphone addiction (Jeong et al., 2016, Kwon et al., 2013).

CONCLUSION

Based on the results of the analysis of research data, it can be concluded that there is a positive relationship between smartphone addiction and loneliness in young adults. Then the researchers suggested young adults pay attention to physical, cognitive, and social changes in individuals as a result of excessive use of smartphones, because if it is maintained it can become an addiction that allows social problems to disrupt daily activities. In addition, it is important to focus on how to prevent abuse of smartphones rather than preventing their use. Then the next researcher is expected to be able to dig deeply into the data needed through literature, discussion and interviews with the target respondents in order to reveal the psychological dynamics in young adulthood related to smartphone addiction. Then further research is recommended in the middle adult population.

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