

The Identification of No Mobile Phone Phobia (Nomophobia) Level in Aceh

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Abstract: This study aims to identify the level of nomophobia in Aceh. This study uses a quantitative design with survey design methods, the sample in the study amounted to 497 samples with some characteristics which are as a part of the population of Aceh province with an age range of 18-54 years who use smartphones. The results showed that the level of dominant nomophobia was at a moderate level. The chi-square test results showed that the routine variable checking a smartphone in a day and the total time of smartphone use in a day had a significant influence on the level of individual nomophobia tendencies ($p=0,000$, $p<0,05$). Analysis shows that as many as 54.1% of individuals feel anxious when unable to communicate via smartphone, 52.7% of individuals feel anxious when they lose their connection through smartphones, 51.1% of individuals feel uncomfortable due to being unable to access information through smartphones, and as much as 46.7% of individuals feel uncomfortable when they have to give up the convenience provided by a smartphone. This means that most individuals feel anxious and uncomfortable when they cannot use a smartphone.

1 INTRODUCTION

The advantages and conveniences provided by smartphones make smartphones the most popular technological devices in various circles, ranging from students, college students, workers, and housewives (Asosiasi Penyelenggara Jasa Internet Indonesia (APJII), 2016). This popularity occurs because smartphones allow users to be able to carry out various daily activities on one device (Gezgin & Çakır, 2016), such as can make calls, send messages, MMS (Multimedia Messaging Service), e-mail, video, photography, bluetooth, can connect to the internet at high speed using 4G LTE (Fourth Generation Long Term Evolution), download various applications other than the default application, playing games, having motion sensors, navigation, online payments, listen to the radio and music, schedule appointments, online shopping, use social networks, read and write documents, store various data and more (Nath & Mukherjee, 2015; Gezgin, Sumuer, Arslan, & Yildirim, 2017).. This convenience also encourages users to spend more time using their smartphones. When users consider smartphones as part of themselves, users tend to become attached to these devices, which then directs

users to nomophobia (Han, Kim, & Kim, 2017). Nomophobia, or the abbreviation for no-mobile-phone phobia, is fear when you can't use a cellphone (SecurEnvoy, 2012).

Yildirim and Correia (2015) describe nomophobia as a form of side effect from the interaction between humans and information technology and mobile communication which is currently one of the developing problems in various countries. Based on a survey conducted by SecurEnvoy (2012) on 1000 employees in the UK showed results that the number of people who experiencing nomophobia increased from 53% in 2008 to 66% in 2012. SecurEnvoy (2012) found that the age group of 18-24 years was a group which has the highest nomophobie (individual nomophobia) with 77%, followed by the 25-53 years age group with 68% nomophobie.

Another problem with nomophobia was also found in a study conducted by Gezgin, Sumuer et al. (2017) in Turkey with 818 intern teachers. The results of the study indicated that the nomophobia behavior in the apprentice teacher is at a level higher than the average level of nomophobia behavior, with a mean value on the nomophobia scale of 3.96. Other research related to nomophobia was also conducted by Gezgin and Çakır (2016) on 475 high school students in Izmir and Edirne, Turkey. The results

showed that the behavior of nomophobia in high school students was at a slightly higher level than the average level of nomophobia behavior, with a mean value of nomophobia scale of 3.72. Other studies related to nomophobia (Dixit, et al., 2010; SecurEnvoy, 2012; King, Valenca, Silva, Sancassiani, et al., 2014; Mayangsari & Ariana, 2015; Pavithra, Madhukumar, & Murthy, 2015; Yildirim & Correia, 2015; Gezgin & Çakır, 2016; Prasetyo & Ariana, 2016; Rossa, 2016; Gezgin, 2017; Gezgin, Sumuer, et al., 2017; Han, et al., 2017; Kanmani, Bhavani, & Margatham, 2017; King, Guedes, et al., 2017; Salloju, 2017; Wahyuni & Harmaini, 2017) showed the results that although each individual owns and uses a smartphone in his daily life, these individuals are classified at different levels of nomophobia. Research conducted by Yildirim and Correia (2015) explains that nomophobia can be divided into four different levels, namely the first level is the lowest level that does not have nomophobia, the second level is the level of mild nomophobia, the third level is the level of moderate nomophobia, and the level fourth is the level of severe nomophobia.

The problem emergence of nomophobia is also inseparable from the use of the internet by smartphone users. Asosiasi Penyelenggara Jasa Internet Indonesia and Pusat Kajian Komunikasi UI (APJII and PusKaKom) (2016) reported that the college students were the highest group of internet users in terms of the type of work, then followed by group of student on the second, and worker on the third place. The use of smartphones in various age groups and types of work, and the availability of internet service can lead to an increase in the number of smartphone users who have a tendency to nomophobia (Gezgin & Çakır, 2016; Mulyar, 2016), which is one of the locations with potential nomophobia is in Aceh. The purpose of this study is to identify the level of nomophobia tendencies in Aceh.

2 LITERATURE REVIEW

Nomophobia refers to agoraphobia-associated situational phobia (fear of losing control, fainting, being crowded and feeling uncomfortable in public places, therefore the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) includes agoraphobia-associated panic disorder among its list of anxiety disorders), including fear when sick and unable to get help immediately (King, Valenca, Silva, Sancassiani, dkk., 2014). If an individual cannot be

connected to his or her cell phone for 24 hours, the individual will develop anxiety and panic symptoms. And those, anxiety or discomfort in the 24-hour without the use of cellphones, computers, or other virtual communication devices in individuals who are used to them, is referred to by King, Valenca, Silva, Baczynski, et al. (2013) as a sign of nomophobia. Nomophobia negatively affects individuals' daily lives, both psychologically and physically. Nomophobic individuals will feel anxious, sad, and uncomfortable (King, Guedes, et al., 2017) if they forget the cell phone at home, run out of battery, or when the cell phone loses signal (Gezgin, Sumuer, et al., 2017) and this can disrupt and reduce individual concentration (Dixit, et al., 2010). Nomophobia causes an individual to feel incomplete or empty without a cellphone, individuals constantly check their cellphone even when the cellphone is with them, feel hopeless when the battery runs out, and are afraid to forget the cellphone somewhere, dead or unable to use it (Gezgin, Sumuer, et al., 2017), and individuals also become more easily distracted and unfocused on learning and working.

Yildirim and Correia (2015) define nomophobia as fear of not being able to use a smartphone or cellphone and/or the services it offers, and referring to the fear of not being able to communicate, losing the connection provided by a smartphone, not being able to access information via smartphone, and submitting the facilities provided by smartphone. Furthermore, Yildirim and Correia (2015) explain that individuals with nomophobia (nomophobie) have irrational fears and feel strong anxiety and sadness when they cannot use their smartphone and individuals will try to reduce the possibility that makes it unable to use a smartphone. Yildirim and Correia (2015) stated that nomophobia has four main dimensions, namely not being able to communicate, losing connectedness, not being able to access information, and giving up convenience.

3 RESEARCH METHOD

This research used a quantitative research design with survey design methods. The study involved 497 samples with some characteristic limitations, which were the population of the province of Aceh, in the age range of 18-54 years, and using smartphones. The results of research conducted by Rossa (2016), at one of the faculties at the Syiah Kuala University in Banda Aceh, showed that more than half of the students used as research samples were at the level of moderate to severe nomophobia. Along with this

result, researchers felt the need to conduct research in order to detect the problem of nomophobic tendencies in Aceh. Based on the data from APJII (2016), the age ranges categorized by the three highest groups who mostly use internet. The study used the NMP-Q scale which was compiled and developed by Yildirim and Correia (2015) based on four dimensions of nomophobia that consists of 20 favorable items. Research data was collected through online and manual scale dissemination. The validity of the NMP-Q scale was tested using construct validity between NMP-Q and MPIQ with correlation coefficient (r)= 0.710, and reliability tested with SPSS showed that the coefficient of alpha cronbach is 0.896.

Data obtained were analyzed using descriptive statistical analysis methods, Crosstab, and Chi-Square Test for Independent. Crosstab and Chi-Square tests were conducted to see the relationship between nomophobia levels and demographic data such as gender, age group, the routine of checking smartphones, and the total active time of smartphone use in a day.

4 RESULT

This study aims to identify the level of nomophobia in Aceh. Based on the results of the analysis that has been carried out, it is found that the level of nomophobia on the subject is spread at each level of nomophobia. Based on the data obtained, most subjects occupy the level of moderate nomophobia with a percentage of 63.4% or equivalent to 315 subjects and then the second highest position is at the level of severe nomophobia with a percentage of 27.2% or equivalent to 135 subjects. The third position is at the level of mild nomophobia with a percentage of 9.1% or as many as 45 subjects, and in the last position that is at the level of no nomophobia there are only 2 subjects or equal to 0.4%. The distribution of subject data at each level can be seen in the table below:

Table 1: Nomophobia Level

NOMOPHOBIA LEVEL	SUBJECTS	(%)
NO NOMOPHOBIA	2	0.4
MILD NOMOPHOBIA	45	9.1
MODERATE NOMOPHOBIA	315	63.4
SEVERE NOMOPHOBIA	135	27.2

5 DISCUSSION

The result show that each nomophobia level shows differences in individual behavior related to smartphone use. At the level most dominated by the subject of research, which is the level of moderate nomophobia, individuals show behavior as checking notifications on smartphones quite often as approximately every 30 minutes, checking and using a smartphone in inappropriate situations, such as using a smartphone during study hours or while talking with other people, and feel anxious and uncomfortable if they cannot use a smartphone for a long time (Dixit, et al., 2010; Pavithra, et al., 2015; Yildirim & Correia, 2015; Prasetyo & Ariana, 2016; Kanmani, et al., 2017). The results of the analysis also showed that as many as 269 subjects (54.1%) experienced anxiety when unable to communicate via smartphone, 262 subjects (52.7%) were anxious when they lost their connection through smartphones, 254 subjects (51.1%) felt they were uncomfortable due to not being able to access information through a smartphone, and as many as 232 subjects (46.7%) felt uncomfortable when they had to surrender the convenience provided by a smartphone.

The results also found that the distribution of subjects at each level of nomophobia on gender variables showed different results, which the frequency of the largest subjects was at the level of moderate nomophobia, namely male as many as 135 subjects (67.2%), and women as many as 180 subjects (61.2%). The lowest frequency of subjects was found at the level of mild nomophobia with male subjects as many as 24 subjects (11.9%) and women as many as 21 subjects (7.1%). In the age variable, the frequency of the largest subjects was in the age group of 22-39 who had moderate nomophobia with a total of 158 subjects (64.5%), the lowest frequency of subjects was in the age group of 40-54 who were at the level of severe nomophobia with number of 3 subjects (9.1%).

The highest frequency of variable routine checking smartphone in a day, was in the group who check smartphone every less than 10 minutes and others which at the level of moderate nomophobia with 99 subjects (60.4%) and the lowest frequency was in the group who check smartphone less than 10 minutes and others which at the level of mild nomophobia with 5 subjects (3.0 %). Variable total time of smartphone use has the highest frequency in groups with a total usage time of 3-5 hours and was at the moderate nomophobia level of 120 subjects (71.0%), the lowest frequency was in the group with

total usage time more than 10 hours, which was a number of 2 subjects (2.0%).

The highest number of subjects on variables the routine checking smartphones and total active time of smartphone use in a day can occur due to the strong attachment subject to the smartphone that enacts subject make the smartphone as an extension of itself (extended self) (Han, et al., 2017). Mobile communication devices that facilitate the daily activities of the subject and as a place to store personal memories of the subject, direct the subject to check smartphone more frequently with a longer duration of usage (Arif et al., 2016; Ting, Lim, Patanmacia, Low, & Ker, 2011; Gezgin & Skill, 2016; Gezgin, 2017; Han, et al., 2017).

The analysis also found that differences in nomophobia levels were found in variables routine checking smartphones and the total active time of smartphone use in a day with a significant difference of 0,000 ($p=0,000$, $p<0,05$) however, differences were not found in sex variables and age. The results related to the routine of checking smartphones a day in this study were in line with the results of research conducted by Gezgin (2017) and Gezgin's, Sumuer, et al. (2017). The results of the study indicate that there were significant differences in the number of times a smartphone checks a day for individuals. This study also found that there were significant differences ($p=0,000$, $p<0,05$) regarding the routine of checking smartphones a day for each individual. The results of this study indicate that the period of checking a smartphone for 30 minutes was the time most often done by individuals. Gezgin (2017) states that the level of nomophobia tends to be higher in individuals who have a routine of checking smartphones more often in a day.

The results of this study related to the total time of active smartphone use in a day in line with the research conducted by Gezgin, Sumuer, et al. (2017) and Gezgin, Cakir, et al. (2018) which stated that the longer the duration of smartphone use, the higher the tendency of individuals to experience nomophobia. The results in this study indicate that there were significant differences ($p=0,000$, $p<0,05$) related to the total time of active use of smartphones in a day to individuals toward the level of nomophobia. These results illustrated that the more the total time of smartphone use in a day for individuals, the higher level of nomophobia tendency experienced by individuals.

6 CONCLUSIONS

The results of the study show that individuals were spread at every level of nomophobia. Most of the research samples were at the level of moderate nomophobia, which means that individuals tend to show the behavior of checking notifications on smartphones quite often, checking and using smartphones in inappropriate situations, such as using a smartphone during study hours and feeling anxious and uncomfortable if cannot use a smartphone for a long period. The results also showed that the demographic variables of routine checking smartphones and the total time of smartphone use in a day had a significant influence on the level of individual nomophobia tendencies. Nomophobia may harm the daily lives of individuals, so it would be better if individuals were aware of the dangers of nomophobia and reduced the risk behaviors that increasing the level of nomophobia.

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REFERENCES

- Arif, I., Aslam, W., & Ali, M. (2016). Students' dependence on smartphones and its effect on purchasing behavior. *South Asian Journal of Global Bussiness Research*, 5(2), 285-302. <http://dx.doi.org/10.1108/SAJGBR-05-2014-0031>.
- Asosiasi Penyelenggara Jasa Internet Indonesia (APJII) & Pusat Kajian Komunikasi UI (PusKaKom). (2016). *Infografis Penetrasi dan Perilaku Pengguna Internet Indonesia*. Diakses pada tanggal 3 Oktober 2017 melalui <http://apjii.or.id>.
- Dixit, S., Shukla, H., Bhagwat, A. K., Bindal, A., Goyal, A., Zaidi, A. K., & Shrivastava, A. (2010). A study to evaluate mobile phone dependence among students of a medical college and associated hospital of central India. *Indian Journal of Community Medicine*, 35(2). <http://dx.doi.org/10.4103/0970-0218.66878>.
- Gezgin, D. M. (2017). Exploring the influence of the patterns of mobile internet use on university students' nomophobia level. *European Journal on Education Studies*, 3(6), 29-53. <http://dx.doi.org/10.5281/zenodo.572344>.
- Gezgin, D. M., & Çakır, Ö. (2016). Analysis of nomophobic behaviors of adolescents regarding various factors.

- Journal of Human Sciences*, 13(2), 2504-2519. <http://dx.doi.org/10.14687/jhs.v13i2.3797>.
- Gezgin, D. M., Cakir, O., & Yildirim, S. (2018). The relationship between levels of nomophobia prevalence and internet addiction among high school students: The factors influencing nomophobia. *International Journal of Research in Education and Science (IJRES)*, 4(1), 215-225. <http://dx.doi.org/10.21890/ijres.383153>.
- Gezgin, D. M., Sumuer, E., Arslan, O., & Yildirim, S. (2017). Nomophobia prevalence among pre-service teacher: a case of Trakya University. *Trakya Üniversitesi Eğitim Fakültesi Dergisi*, 7(1), 86-95.
- Han, S., Kim, K. J., & Kim, J. H. (2017). Understanding nomophobia: Structural equation modeling and semantic network analysis of smartphone separation anxiety. *Cyberpsychology, Behavior, and Social Networks*, 1-11. <http://dx.doi.org/10.1089/cyber.2017.0113>.
- King, A.L.S., Valença, A.M., Silva A.C., Sancassiani, F., Macadho, S., & Nardi A. E. (2014). "nomophobia": impact of cell phone use interfering with symptoms and emotions of individuals with panic disorder compared with a control group. *Clinical Practice & Epidemiology in Mental Health*, 10, 28-35.
- King, A., L., S., Guedes, E., Neto. J. P., Guimaraes, F., & Nardi, A. E. (2017). Nomophobia: Clinical and demographic profile of social network excessive users. *Journal of Addiction Research & Therapy*, 8(4), 1-6. <http://dx.doi.org/10.4172/2155-6105.1000339>.
- Mayangsari, A. P., & Ariana, A. D. (2015). Hubungan antara self-esteem dengan kecenderungan nomophobia pada remaja. *Jurnal Psikologi Klinis dan Kesehatan Mental*, 4(3), 157-163.
- Mulyar, B. K. (2016). Dinamika adaptif penggunaan smartphone mahasiswa fisip universitas airangga di kota Surabaya. *AntroUnairdotNet*, 5(3), 489-503.
- Rossa, E. (2016). *Hubungan Smartphone Addiction dengan Kecenderungan Nomophobia Pada Mahasiswa Fakultas Keperawatan Universitas Syiah Kuala*. Banda Aceh: Universitas Syiah Kuala.
- Securevoy. (2012). 66% Of The population suffer from nomophobia the fear of being without their phone. Diakses pada tanggal 30 September 2017 melalui <https://www.securevoy.com/blog/2012/02/16/66-of-the-population-suffer-from-nomophobia-the-fear-of-being-without-theirphone/>.
- Salloju, V. (2017). Cross sectional evaluation of nomophobia severity-mobile phone dependency among South Indian pharmacy college students. *Advanced Journal of Pharmacie and Life Science Research*, (5)1, 7-12. ISSN: 2454 3535.
- Pavithra, M. B., Madhukumar, S., & Murthy, M. T. S. (2015). A study on nomophobia – mobile phone dependence, among students of a Medical College in Bangalore. *National Journal of Community Medicine*, 6(2), 340-344. ISSN 0976 3325.
- Prasetyo, A., & Ariana, A. D. (2016). Hubungan antara the big five personality dengan nomophobia pada wanita dewasa awal. *Jurnal Psikologi Klinis dan Kesehatan Mental*, 5(1). 1-9.
- Ting, D. H., Lim, S. F., Patanmacia, T. S., Low, C. G., & Ker, G. C. (2011). Dependency on smartphone and the impact on purchase behavior. *Emerald Group Publishing Limited*, 12(3), 193-204. <http://dx.doi.org/10.1108/1747361111116325>.
- van Deursen, A. J. A. M., Bolle, C. L., Hegner, S. M., & Kommers, P. A. M. (2015). Modeling habitual and addictive smartphone behavior: The role of smartphone usage types, emotional intelligence, social stress, self-regulation, age, and gender. *Computer in Human Behavior*, 45, 411-420. <http://dx.doi.org/10.1016/j.chb.2014.12039>.
- Wahyuni, R., & Harmaini. (2017). Hubungan intensitas menggunakan facebook dengan kecenderungan nomophobia pada remaja. *Jurnal Psikologi*, 13(1), 22-29.
- Yildirim, C., & Correia, A. P. (2015) Exploring the dimensions of nomophobia: Development and validation of a self-reported questionnaire. *Computers in Human Behavior*, 49, 130-137. <http://dx.doi.org/10.1016/j.chb.2015.02.059>.