A Correlational Study on Nomophobia and Physical Health of Panaboans across Age Groups

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***Abstract*- Nomophobia is a growing fear of this modern generation. Technologies such as a mobile phone are most frequently used in this modern era through its advantages but there are also disadvantages. This paper examines the relationship between nomophobia and the physical health of Panaboans across age groups. For this purpose, the sample was drawn from the citizen of Panabo City, which is currently online on social media using a convenient sampling method. The sample comprised of one hundred twenty (N=120), i.e., sixty-three males and fifty-seven females from the age range of 8-25, 26-40, 41-55, and 56-74. The questionnaire was administered to them after procuring informed consent.**

The techniques of Pearson r Correlation, Independent T-test, and ANOVA were employed to analyze data. The tool used to calculate the data was SPSS. The results explained that the relationship between nomophobia and physical health status has a negative correlation with an R-value = *-0.005.* Therefore, the physical health status of Panaboans mainly has minimal evidence of health-related issues about the cause of nomophobia. This research study influences researchers to furthermore investigate its assumptions of nomophobia.

Keywords: **Correlational Research, Nomophobia, Physical health, Panabo City**

I. INTRODUCTION

A. Background of the Study

Society today depends on technology people often use technology as a way of life and living. Still, in different stories, individuals, such as teenagers, adults, and children today, currently have their own handheld devices, which is more common because of mobile phone devices.

Mobile-phone devices can cause anxiety in specific individuals. Some of them were anxious about losing their mobile phone or even when it suddenly damaged, ran out of battery, lost network coverage, and also the anxiety on how to communicate with their friends and family. To prove these facts, A Indian study says that this effect can cause nomophobia. It is a term describing “a growing fear in today’s world” individuals such as teenagers, adults, and children can have this kind of phobia. No-mobile phone devices or nomophobia can affect their mental, psychological, and physical health[1].

Nomophobia is a fear without mobile phone devices and sometimes known as Smartphone addicts. Mobile phone devices is a technology or handheld devices that use by people around the world. People use mobile phone devices to communicate with friends and relatives, which is part of our lifestyle. The use of mobile phone devices today can affect lifestyle and health, and its effect called mobile phone addiction[2].Mobile phone addiction can affect physical, psychological, and mental health through its daily usage[3]. Physical health is defined as the condition of your body, taking into consideration everything from the absence of disease to fitness level. Physical health is critical for overall well-being and can be affected by lifestyle: diet, level of physical activity, and behavior[4].

The adverse effects of nomophobia on physical health describes by the developing research of psychologists and sociologists about the effects of nomophobia on society. As a methodology for identifying and challenging assumptions that underlie existing effects, generating research studies can lead to the development of more new and influential theories within the emerging technology of our generation.

B. Theoretical Framework

The theory used in this research is Media Ecology Theory. It was developed by Marshall McLuhan in 1964, while the term media ecology was first formally introduced by Marshall McLuhan in 1962. and it was used to study media, technology, and communication and how they affect human environments. For instance, it looks at how the media of communications affect human behavior, feeling, understanding, and importance; on how our interaction with media. This theory indicates that ecology refers to the environment in which the medium is used – what they are and how they affect the society. McLuhan is famous for coining the phrase, "the medium is the message," which is an often-debated phrase believed to mean that the medium chosen to relay a message is just as important (if not more so) than the word itself.

McLuhan proposed that media influence society's progression and those significant periods and growth can be categorized by the rise of a specific technology during that period. Additionally, scholars have compared media broadly to a system of infrastructure that connects the nature and culture of society with media ecology being the study of "traffic" between the two. As applied to this research, this theory holds that we would expect that the independent variable or

nomophobia with it indicators such as; not being able to communicate, Losing Connectedness, not able to access information and Giving up convenience influence the physical health in terms of headache, sleep disturbance, Gastrointestinal Problems, and Respiratory Infections because this theory is essential to this study as it is focusing on explaining the vast usage of media in our generation and how it affects people and their society.

Media ecology looks into how media of communication affects human perception, understanding, feeling, and value; and how our interaction with media facilitates or impedes our chances of survival. The word ecology implies the study of environments: their structure, content, and impact on people. An environment is, after all, a complex message system that imposes on human beings specific ways of thinking, feeling, and behaving.

C. Conceptual Framework

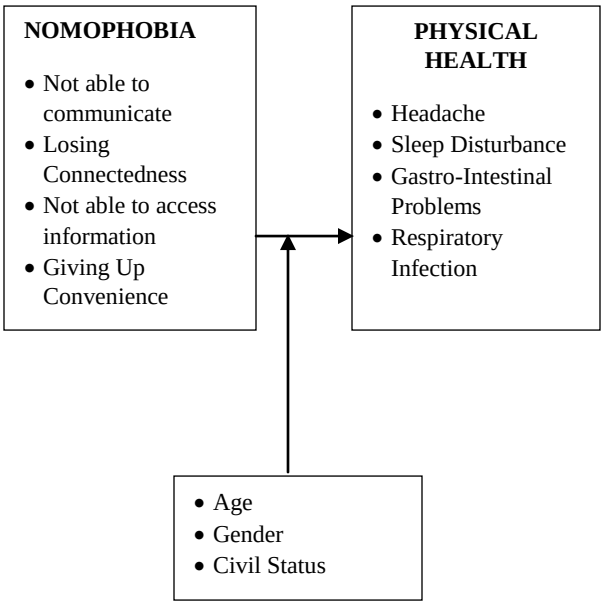

Figure 1. Conceptual Framework of the study

Figure 1. shows that the independent variable is nomophobia, the fear of no mobile phone. It has the following indicator, such as not being able to communicate, losing connectedness, not being able to access information, and giving up convenience.

Physical health is the dependent variable of this study with the variables such as low mood and anxiety. The moderating variables of this study are Age and Gender.

D. Research Questions and Null Hypothesis

This study aimed to ascertain the effects of nomophobia on the physical health of Panaboans and to identify the implication of the nomophobia on the physical health of the Panaboans. Specifically, it sought answers to the following questions:

RQ1. What is the demographical profile of the participants of the study in terms of:

1.1. Age
1.2. Gender
1.3 Civil Status

RQ2. What is the level of nomophobia in terms of:

2.1. Headache
2.2. Sleep disturbance
2.3. Gastrointestinal Problems
2.4. Respiratory Infections

RQ3. What is the level of Physical Health in terms of:

3.1. Not being able to communicate
3.2. Losing Connectedness
3.3. Not able to access information
3.4. Giving up convenience

RQ4. Is there a significant difference in the level of nomophobia when grouped according to:

4.1. Age
4.2. Gender
4.3 Civil Status

RQ5. Is there a significant difference in the level of Physical Health when grouped according to:

5.1. Age
5.2. Gender
5.3 Civil Status

RQ6. Is there a significant relationship between the level of nomophobia and the level of Physical Health?

RQ7. Do nomophobia significantly influence the Physical Health of Panaboans?

Null Hypothesis

Ho1: There is no significant difference in the level of nomophobia when grouped according to age, gender, and civil status.

Ho2: There is no significant difference in the level of nomophobia when grouped according to age, gender, and civil status.

Ho3: There is no significant relationship in the level of nomophobia and the level of Physical Health.

Ho4: The Nomophobia does not significantly influence the Physical Health.

II. METHODOLOGY

2.1 Research Design

The study employed a quantitative non-experimental research design utilizing the correlational technique. Correlational research is research designed to discover relationships among variables. This study determined the relationship strength and direction between physical health

and nomophobia in the age-level group. It also explored the significant difference between students grouped according to age, gender, and civil status. It further investigates how can nomophobia affects the physical health of Panaboans in terms of having no network coverage, absence of phone, loss of phone, and damage to its phone.

2.2 Research Locale

Figure 2. Research Locale

This study was conduct at Barangay, San Vicente, located at Panabo City, Davao Del Norte, approximately 7.3018, 125.7129, on the island of Mindanao. Elevation at these coordinates, estimated at 5.7 meters or 18.7 feet above mean sea level. Besides, it also locates between Barangay Salvacion and Lapaz. According to the Census, the latest population of Barangay, San Vicente, is 14,449, which is vast.

2.3 Participants of the Study

The respondents are selected through a random convenient sampling strategy wherein respondents are pre-selected, particularly those who are residents of Panabo City. The respondents were pre-selected and categorized across age groups. The researchers chose 30 respondents in each group and came up with a total of 120 respondents from the four (4) categorized age groups.

According to[5] this research strategy is considered as a form of a non-probability sampling technique wherein researchers depend or rely on their judgment in selecting the respondents in the population to participate in the survey of the study.

2.4 Sampling Techniques

During the sampling process, the researcher used a non probability sampling technique in selecting the respondents. The Convenient random sampling was utilized wherein the researcher chose a sample of subjects/units from a population [6]. We chose convenient sampling because the researchers only surveyed people whom they can access during no to low movement due to COVID-19 situation. The respondents came from target populations that meet specific criteria such as geographical proximity, easy accessibility, willingness to participate, and has a probability of being chosen as respondents concluded for the study and especially the availability at a given time [7].

Moreover, the researcher provided a type of survey questionnaire due to the Pandemic outbreak/COVID-19 that leads to the inflexibility of the researcher to survey with an online survey questionnaire to apply and manipulate in distributing and collecting the data through google forms and survey monkey in which the active people have a chance to be chosen as the respondents to have quick and immediate response for the survey. In addition, a convenient sampling technique was useful and was utilize in the handpicking of subjects or the respondents.

A total of every subgroup consist of 30 respondents would be the bases for picking and selecting for the sample size of 120 respondents in a total population of N among residents in Panabo City. This type of sampling technique was useful to prevent classification error. This also makes the data collected easy to interpret. Because of the sampling technique simplicity, it become less costly due to the convenience of randomly distributing and collecting the items. The selected sampling technique is suitable for this study. It allows researchers to draw valid external conclusions about the entire population based on the sample.

2.5 Statistical Treatments

The statistical treatment used in the study was frequency percentiles to identify occurrences and the percentage of the data. The mean average use to elaborate the whole data set. Independent t-test and ANOVA to test the significant difference and analysis of variance for the difference of a group of means in the data or the variation between the measured data in the study. Pearson r was applied to measure the strength of the association between the two variables.

2.6 Data Collection Procedure

The researchers used the materials and instruments for gathering data were the online survey questionnaires and the collaboration of Google form. In the conduct of the study, the researchers asked the approval of the respondents wherein respondents are online. The selected respondents that were online within Panabo City were selected. They were proposed according to the questions given by the online survey questionnaires.

Online Surveys are one of the most widely utilized survey methods. An online survey is the systematic gathering of data from the target audience characterized by the invitation of the respondents and the completion of the questionnaire over the Internet [8].

Google Forms is a cloud-based data management tool used for designing and developing web-based questionnaires. This tool is provided by Google Inc., and freely available on the web to anyone to use and create web-based surveys.

2.7 Ethical Considerations

For the period of bearing this study, there will be ethical issues and concerns to be reflected by the researchers to adequately fulfill the right to conduct a study with discretion and secrecy. The researchers will discern and tail full study procedure assessments and standards conditions mostly in gathering and supervision the population and data such as, but not restricted to:

Voluntary Participation through Online Communicating

Before obtaining relevant inputs from the chosen respondents among the age groups. Utilizing online platforms (google form), the researchers clarified first to them the purpose and goal of the study before leasing them decide to participate or be involved with the investigation, particularly in subsidizing the research frame of knowledge. All of the information and instructions were clearly stated in the Google platforms. The decision of the respondents is being respect and value.

Privacy and Confidentiality

The information gathered by the researchers will be kept private and with maximum secrecy. The rest will gradually be guaranteed that all data will be utilized and exploited only for the completion of this study.

Benefits

The result of the study benefits all either a male or a female among the age groups, particularly the group of teenagers in society.

Plagiarism

The study will stand no evidence of the mix-up of someone else work as his own. This study will undergo a plagiarism detector like https://www.duplichecker .com/ to avoid such a thing.

Forgery

The study has no trace of tenaciously distorting the work to adequate a model or theoretical anticipation. The research doesn't have evidence of over claiming or embroidery.

Fabrication

The study has no content of fiction. There will be no putting up of inaccurate data.

Deceit

The study has no trace of misleading the respondents to any potential harm.

Authorship

The researchers of the study are students of Davao Del Norte State College and taking up the course Bachelor of Information System. The researchers of the study undergo a sequence of revisions paper as advised and recommended by their adviser.

III. RESULTS AND DISCUSSIONS

The gathered data has been carefully analyze in this study. The following are the results of the collected data of the Socio-demographic profile of respondents.

Table 1. Demographic Profile

Characteristic (n=120)	***Level***	***No.***	***%***
Gender	Male	63	52.5
	Female	57	47.5
Civil Status	Single	48	40.0
	Married	60	50.0
	Widowed	12	10.0
Age Group	Generation Z	30	25.0
	Generation Y	30	25.0
	Generation X	30	25.0
	Baby Boomers	30	25.0
Educational Attainment	Elementary Level	1	.8
	High school Level	3	2.5
	High school Graduate	12	10.0
	College Level	37	30.8
	College Graduate	45	37.5
	Others	22	18.3

Table 1.Shows above are the number of respondents and the percentage of the social demographic profile. In which, the respondents are, 52.5% were male, and 47.5% were female. Besides, it states in the socio-demographic profile characteristics of the study population. The sample size of (N= 120) was in the age group according to generation. Most of the study subjects, 40.0% were single, 50.0% were married, and 10.0% widowed.

Table 2. Level of Nomophobia

Indicators	***Mean***	***SD***	**Description**
Not being able to access information.	3.66	.648	High
Giving up convenience	3.53	.692	High
Not able to Communicate	3.78	.519	High
Not able to Communicate	3.51	.872	High
Overall	**3.62**	**0.68**	High

Table 2. shows the means and standard deviation of each indicator of nomophobia. The respondents' overall response has a mean score of (M = 3.62) and standard deviation (SD =0.68), which denotes that the respondents were highly attached to technology such as mobile phone devices.

Its indicators which include the not being able to access information, Giving up convenience, Not able to Communicate, Not able to Communicate and obtained a mean score of (M= 3.66, SD=.648), (M=3.53, SD=.692), (M=3.78, SD=.519) and (M= 3.51, SD=.872) respectively which can be interpreted that the respondents alter the conscience of psychological and mental characteristics of nomophobia.

The result implies that the respondents have nomophobia symptoms; this means that the level of nomophobia highly interacts with people by technology. The effects of the socially attach person with its use of technology, such as mobile phone devices, can acquire the characteristics of nomophobia [9].

Table 3. Physical Health Status

Indicators	***Mean***	***SD***	**Description**
Sleep Disturbance	3.01	.574	Fair Condition
Headache	2.87	.601	Fair Condition
Gastro-Intestinal Problems	3.78	.805	Good Condition
Respiratory Infection	3.51	.849	Good Condition
Overall	**3.29**	.707	Fair Condition

Table 3. indicates the physical health status of the respondents. The respondents' overall response has a mean score of (***M=3.29***) and a standard deviation of (***M=.707***), which results in a fair condition. Its indicators which include the Sleep Disturbance, Headache, Gastro-Intestinal Problems, and Respiratory Infections and obtained mean scores of (***M=3.01***), (***M=2.87***), (***M=3.78***) and (***M=3.51***) respectively which can be interpreted that the weighted means of the two indicators of dependent variables drawn above have shown signs of sensitive health issues of respondent's condition in terms of sleep disturbance and headache.

The result implies that the respondents and their physical health status were more vulnerable toSleep Disturbance and Headache. This represents that long-term use of the mobile phone can cause headaches and other forms of symptoms [10].

However, according to[11] mobile phones in regular use may affect the health of the user, but frequent use may have poorer health issues. The remaining indicators of the dependent variables, such as Gastro-Intestinal Problems and Respiratory Infection show an excellent health condition of the respondents.

Shown in Table 4. is the significant difference in the level of nomophobia and physical health status when respondents are grouped according to gender wherein *p*-values are 0.691 and 0.208 >0.05. We do not reject the null hypothesis. When respondents are grouped according to gender, there is no significant difference in the level of nomophobia and physical health status.

Table 4. Significant Difference in the Level of Nomophobia and Physical Health Status when Respondents are Grouped According to Gender

Independent T-Test

Test Variables	***Gender***	***M***	***Std.Dev***	***F***	***Sig.***
Level of Nomophobia	Male Female	3.56 3.69	0.61 0.61	0.159	0.691
Physical Health Status	Male Female	2.72 2.61	0.50 0.57	1.605	0.208

The result implies that the level of nomophobia and physical health status has no logical outcome in age grouped according to gender. This means that there is no relationship between the risk factors or statistical treatment that is being studied. Then it assumed that there is an equal variance of the variables. Moreover, recent studies show that females have a lower level of risk in nomophobia than males [12].

Table 5. Significant Difference on the Level of Nomophobia and Physical Health Status When Respondents are Grouped According to Civil Status

ANOVA

Test Variables	***Gender***	***M***	***Std. Dev***	***F***	***Sig.***
Level of Nomophobia	Single Married Widowed **Total**	3.48 3.72 3.69 **3.62**	0.68 0.53 0.59 **0.61**	2.104	0.127
Physical Health Status	Single Married Widowed **Total**	2.80 2.67 2.12 **2.66**	0.49 0.54 0.40 **0.54**	8.551	0.000

Since the *p*-value for the Level of Nomophobia is 0.127>0.05, we do not reject the null hypothesis. There is no significant difference in the level of nomophobia when respondents are grouped according to Civil Status.

The result implies that the level of nomophobia when respondents group according to civil status denotes that there is no association between level of nomophobia when respondents group according to civil status this means that the level of nomophobia in each group such as single, married, and widowed has no occurrences of having nomophobia. The implication of the studies required existing research in order to investigate the findings further.

Besides, [13] suggests that married individual has no dependency on the mobile phone devices. However, the p-value for Physical Health Status is 0.000<0.05; then, we reject the null hypothesis. There is a significant difference in the physical health status when respondents are grouped according to Civil Status.

The results indicate that there is a significant difference in the physical health status when respondents are grouped according to civil status. The measured data show that the p-

value is less than the alpha level 0.05. It signifies that there are some occurrences of health issues that are related to the level of nomophobia.

Table 6. Significant Difference in the Level of Nomophobia When Respondents are Grouped According to age Groups

ANOVA

Level of Nomophobia x Age Groups	***Mean***	***Std. Deviation***	***F***	***Sig.***
Generation Z	3.57	0.64	1.435	0.236
Generation Y	3.56	0.57		
Generation X	3.81	0.37		
Baby Boomers	3.52	0.76		
Overall	**3.62**	**0.61**		

Since the *p*-value is 0.236>0.05, then we do not reject the null hypothesis. There is no significant difference in the level of nomophobia when respondents are grouped according to age groups.

In contrast, the age group in accords to the level of nomophobia has a similar means; therefore, the level of nomophobia in the age group is considered as they have a similar outcome of the nomophobia effect. Concerning these findings [14] states that no association between age and found similarly affects all ages.

Table 7. shows the significant difference in the physical health status when respondents are grouped according to age groups wherein the *p*-value is 0.000<0.05, then we reject the null hypothesis.

Table 7. Significant Difference in the Physical Health Status when Respondents are Grouped According to Age Groups.

ANOVA

Physical Health Status x Age Groups	***Mean***	***Std. Deviation***	***F***	***Sig.***
Generation Z	2.75	0.39	9.600	0.000
Generation Y	2.56	0.55		
Generation X	3.00	0.31		
Baby Boomers	2.35	0.62		
Overall	**2.66**	**0.53**		

There is a significant difference in Physical Health Status when respondents are grouped according to age groups. The results indicate that p-value is less than the alpha level of 0.05 means there is a statistically significant relationship between the physical health statuses in age group which age range according to generation, Generation Z (8-25), Generation Y(26-40), Generation X(41-55), and Baby Boomers(56-74).

Therefore, respondents are more liable to symptoms, which indicates the health risk associated with phone dependency. Thus, respondents in the age group have appeared to be in a fair condition, which means phone dependency has some threat to human health. According to[15] that 18-25 years of age tend to have the highest phone dependency. Moreover, [16] states that all subjects in age groups show signs of health issues and symptoms.

Table 8. Correlations of Significant Relationship between Level of Nomophobia and Physical Health Status

Variables	***Mean***	***Std. Deviation***	***R***	**Decision**
Level of Nomophobia	3.62	0.61	-.005	HO is Accepted
Physical Health Status	2.67	0.54		

Table 8. Shows the negative correlation between the Level of Nomophobia and Physical Health Status. This implies that when the Level of Nomophobia increases, the Physical Health Status decreases. On the strength of the relationship between variables, with the value of *r=-0.005*, it has a Negligible Relationship. Thus, the null hypothesis is accepted. In addition, the respondents' level of nomophobia does not influence the respondents' physical health status.

Intensive international research has found no particular evidence that the mobile phone is not harmful in terms of health[17]. According to [18] suggest that there is no evidence about the threat to health in the mobile phone, but its high exposure may lead to different outcomes.

IV. CONCLUSIONS AND RECOMMENDATIONS

In this research study, we found no significant difference between the levels of nomophobia when respondents are group according to age groups in the treatment of ANOVA. We found there is a significant difference in the Physical Health status when respondents are group according to age groups in the treatment of ANOVA. However, Pearson r correlation analysis shows no association between the level of nomophobia and physical health status. Studies considering the factors could be stressed and in high demands, problematic mobile phone use, displacement of sleep, other behavioral factors, exposure to blue light at bedtime, or other unmeasured confounding factors. Further research is needed to clarify which aspects of mobile phone used are associated within. In conclusion, findings from this study are inconsiderable that the level of nomophobia in age groups is consider the same as the age group from mobile phone dependency. Still, it has a slight impact on the Physical Health status of the respondents.

Recommendations

Cellular phone/mobile phone is quite harmful and inevitable to ignore and to be disregarded because it is useful

due to its value, providing a large part, play a vital role, and essential in giving service to humans.

However, it has also an adverse effect in excessive usage of it even though the result and findings interpreted fair condition in terms of its indicator and line with the outcomes, result, and conclusion. It demonstrates and presents that it is not too harsh neither critical in health but then still has slight impacts and side effects particularly in health. Therefore, the proper and correct usage, management in the utilization of mobile phone consistently perform and practice. It is recommended when using of mobile phones the user should apply the practice of undertaking an interlude of using either 30 minutes or 1 to 2 hours break especially for gamers which are an excellent habit to restrain and minimize health-related problems and to take care of their health. Most of all.

It is also recommended the way that cigarette companies printing warnings to their products, hoping that same as in mobile phones, there are also precautions to safeguard their customers/clients in some symptoms in health-related issues. Moreover, it is also recommended during the time of using the device. Users should take a distance half meters away to avoid radiation and blue light from the device that can help to prevent eye problem issues.

ACKNOWLEDGEMENT

We would like to extend their gratitude first to God for providing life. Next would be for the statistician and grammarian Ms. Jevannel G. Borlio for the validity and technicality of the datain our research paper. We would like also acknowledge Mr. Mark Van M. Buladaco and Ms. Jevannel Borlio for constantly reviewing, giving comments on this paper and most especially in encouraging us to finish the paper.

We would like also to thanks for Mr. Yolly Maceda, Francis Estillore, and Kristian Monares for giving financial support, and data in order to finish the research. And also, to Mr. James Micheal Bangay for doing and giving all the time in lay out process of the research poster. We also deeply thankful to our family and love ones for the love, tenderness, and concern throughout the time and when we forgot to take a break for ourselves in making this work.

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