

RELATIONSHIP OF PROBLEMATIC INTERNET USE, FEAR OF MISSING OUT, LONELINESS AND NOMOPHOBIA AMONG FILIPINO NURSING STUDENTS

Megumi Ayagail I. Hoseña¹, Pamela Remle Irish J. Mallorca¹, Yvanna Monique R. Muyot¹, Iris Nicole M. Tan², Kathyrine A. Calong Calong³, and Gil P. Soriano^{4*}

1. Philippine Nurses Association
2. St. Luke's Medical Center, Quezon City, Philippines
3. College of Nursing, San Beda University, Manila, Philippines
4. Department of Nursing, College of Allied Health, National University, Manila, Philippines

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*Corresponding Author

Gil P. Soriano
gpsoriano@national-u.edu.ph

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ABSTRACT

The dominance of technology use has brought growing concerns regarding its influence on human living phenomena such as problematic Internet use, fear of missing out, and nomophobia. Hence, the study aimed to determine the relationship between problematic use of the Internet, fear of missing out, loneliness, and nomophobia among nursing students. A descriptive-correlational research design was conducted with 117 nursing students selected through purposive sampling. Data were collected using an online questionnaire consisting of the Generalized Problematic Internet Use Scale 2, Fear of Missing Out Scale, Nomophobia Questionnaire, and the UCLA Loneliness Scale. Data were analyzed using frequency distribution and percentages, means, standard deviations, and Pearson's r correlation. Results showed that problematic internet use significantly correlated with fear of missing out ($r=0.223$, $p=0.015$) and loneliness ($r=0.289$, $p=0.002$). In contrast, fear of missing out was revealed to have a significant negative relationship with nomophobia ($r= -0.233$, $p=0.011$). Despite the rise in digital activities among distance learning nursing students, loneliness and fear of missing out scores are low. However, higher nomophobia scores and strong relationships between concepts necessitate being alert to potential issues, keeping an eye on things, and adopting safety measures.

Keywords: *Fear of missing out; loneliness; nomophobia; problematic internet use*



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INTRODUCTION

The internet offers a novel means of communication, enabling access to information on various subjects. The rapid progress of the internet has brought both positive and negative effects on society, particularly on its users. Scholars have investigated the consequences of internet usage, specifically when it is excessive, and the findings indicate issues such as problematic internet use, internet dependence, and pathological computer use (Liu, et al, 2020).

With this, nomophobia has been described as a relatively new psychological phenomenon that refers to discomfort, anxiety, nervousness, or anguish caused by dependence on mobile devices (Cain & Malcon, 2019). It occurs among

individuals who habitually use Internet-based communication devices experience anxiety and distress when mobile devices are not available. They frequently fear not having access to the Internet as it opens the possibility of becoming unaware of messages, recent events, and various experiences shared on social media (Ayar et al., 2018). This may in turn cause feelings of distress and impair the function of the individual to perform daily activities (Yellowlees-Nissim, 2018) which is termed Problematic Internet Use or internet addiction.

Internet addiction may impair an individual's mental state of being, and its severity may be attributed to the well-being, self-esteem, and self-control of an individual (Roser et al., 2019). It has been revealed to be common among adolescents in Asian countries such as China, Hong Kong,

Japan, South Korea, Malaysia, and the Philippines, whereas its prevalence was highest in the Philippines with more than half (51%) of the population of the students having this problem (Mak et al., 2014). Social media allows individuals to manage and articulate their emotions, as many people involve themselves in social platforms to escape negative emotional states, such as feelings of loneliness. (Bottaro & Faraci., 2022). However, there have been concerns expressed regarding the potential for social media to cause lousy body image (harriger et al., 2023), increasing the risk of addiction and cyberbullying (Naslund et al., 2020), encourage phubbing practices (Chi et al., 2022), and harming mood. In addition, the excessive time spent on social networks due to the fear of not being able to keep abreast of developments in social networks reveals the Fear of Missing Out (FOMO) as a new type of addiction, especially the smartphones and other types of technology have developed (Gezgin et al., 2018).

FOMO has been described as the apprehensiveness that others might be experiencing fortunate events that are absent from the particular individual (Oberst et al., 2016). Its symptoms have been described as related to depression, less mindful attention, and other physical symptoms that affect an individual's physical, emotional, and cognitive health (Baker et al., 2016). Moreover, it is considered one of the underlying factors why individuals use social networking sites to constantly communicate and connect with friends, families, and other types of acquaintances (Muench & Muench, 2020). However, studies suggest that excessive use of smartphones resulting in nomophobia is correlated with loneliness. Loneliness has been defined as the outcome of a deficient social relationship that an individual experiences and a risk factor that may constitute a distressing affective experience and quality of life of a person in the future. People can feel lonely with or without being alone in a crowd. They spend less time on social activities, tend to talk less, and their attention and accession levels are significantly low (Gezgin et al., 2018).

The weight of this problem is now increasing globally at the same pace as the influence of technology on society. Therefore, the study was conducted to determine the relationship between Problematic Internet Use, FOMO, Loneliness, on Nomophobia Levels among nursing students.

METHOD

Study design

The study utilized a descriptive correlational approach. An online questionnaire was administered to the participants using a Likert-type scale to collect needed data. The data were collected from August 2021 to November 2021.

Sample/ Participants

The study utilized a purposive sampling technique involving nursing students selected Colleges of Nursing in Metro Manila, Philippines. A total of 117 nursing students between the ages of 18 to 21 participated in the study.

A priori analysis for a Pearson's r correlation was conducted using the statistical power analysis software G * Power (version 3.1). Sufficient sample size using an alpha of 0.05, a power of 0.95, and the required sample size was 115 based on the assumptions.

The study included male or female students with ranging from 18 to 22 years old and those who agreed to participate in the study. Students who are not regularly enrolled were excluded from the study.

Instrument

The study utilized a five-part questionnaire to determine the relationship between PIU, FOMO, Loneliness, and Nomophobia among selected nursing students. The following data-generating instruments were administered:

Personal Information sheet. This sheet includes information on the participants' year level, age, sex, place of residence, estimated family income, smartphone ownership, hours spent using a smartphone per day, data plan ownership, frequency of checking, number of phone calls made per day, number of phone calls received per day, number of text messages made per day, number of text messages received per day, number of applications on the smartphone, the context in which smartphone is used, and cause of fear when unable to use the smartphone.

Nomophobia Questionnaire (NMP-Q) was developed to explore the dimensions of nomophobia through a validated self-reported questionnaire (Przybylski et al., 2013). This tool has 20 items that use a 7-point Likert scale, which can be interpreted as 1 "Strongly Disagree" and 7 "Strongly Agree." The Cronbach's alpha for the NMP-Q is 0.945. The self-reported questionnaire includes four subscales such as not being able to communicate for items 10 to 15, losing connectedness for items 16-20, not being able to access information for items 1 to 4, and giving up convenience for items 5 to 9.

Generalized Problematic Internet Use Scale 2 (GPIUS2) was developed by Caplan to create a standardized tool to measure the five-factor model of PIU. This tool consists of 15 items to be rated on a 5-point scale with a Cronbach's alpha of 0.86. This instrument consists of five subscale including Preference for Online Social Interaction (POSI) for items 1, 6 and 11, Mood Regulation (MR) for items 3,8 and 13, Cognitive Preoccupation (CP) for items 5, 10 and 15, Compulsive Use (CU) for items 4, 9 and 14, and Negative Outcome (NO) for items 2,7 and 12 (Caplan, 2010).

Fear of Missing Out Scale was developed by Przybylski et al. (2013) to create robust individual differences to measure FOMO. It is a 10-item survey, with no corresponding subscale, that can be interpreted by computing the average of the individual responses (Przybylski et al., 2013). The instrument is a 5-point Likert scale, which can be interpreted as follows: 1=Not at all true of me, 2=Slightly true of me, 3=Moderately true of me, 4=Very true of me, and 5=Extremely true of me. The Cronbach's alpha of the questionnaire is .87 to .90.

UCLA Loneliness Scale (Version 3) was designed to measure the subjective feelings of loneliness and social isolation (Russell, 1996). It is a 20-item scale with no corresponding subscale, respondents rate each item on a scale from 1 (Never) to 4 (Often). The coefficient alpha is in the range of 0.89 to 0.94.

Data collection Procedure

The study involved primary data collection using self-administered questionnaires through online surveys using Google Forms. A letter of request to conduct the study was forwarded to the Office of the Dean. When approval had been obtained and ethical clearance had been secured, the researcher collected the data from the respondents using Google Forms. No face-to-face contact was involved in the data collection process. Further, the students' responses of the students in the questionnaires were collected.

Data analysis

The data were analyzed using frequency, percentage distribution, mean, standard deviation, and Pearson's *r* correlation. A Kolmogorov-Smirnov test was conducted and was revealed to be not significant (>0.05).

Ethical consideration

The study has conformed with the ethical standards of conducting research involving human participants. The study was approved by the San Beda University – Research Ethics Board (SBU-REB) with Protocol No. 2020-020

RESULTS

Demographic profile of the participants

Table 1 shows the demographic profiles of the participants. It can be seen that the mean age of the participants was 20.22 (± 1.49). In addition, most of the participants were female (73.5%), single (66.7%), living in an urban area (69.23%), had prepaid data plan ownership (60.68%), and spent an average hour of 6.71 (± 3.25) per day.

Table 1. Demographic Profile of the Respondents (n = 117)

Profile	n (%)	Mean (SD)
Age (Years)		20.22 (± 1.49)
Sex		
Male	31 (26.5%)	
Female	86 (73.5%)	
Place of Residence		
Urban/City	81 (69.23%)	
Rural/Town	36 (30.77%)	
Data plan ownership		
Prepaid	71 (60.68%)	
Postpaid	46 (39.32%)	
Hours spent on smartphone		6.71 (± 3.25)

The PIU, FOMO, Loneliness, and Nomophobia mean scores among the participants are shown in Table 2. It was revealed that the mean scores among the participants were 4.10 (± 1.17) for PIU, 2.32 (± 0.67) for FOMO, 45.23 (± 10.30) for loneliness, and 82.78 (± 22.19) for nomophobia.

Table 2. Problematic Internet Use, Fear of Missing Out, Loneliness, and Nomophobia among the participants (n=117)

	Mean	Standard Deviation
Problematic Internet Use	4.10	± 1.17
FOMO	2.32	± 0.67
Loneliness	45.23	± 10.30
Nomophobia	82.78	± 22.19

The relationships among PIU, FOMO, Loneliness, and Nomophobia were determined using Pearson's *r* correlation. Results showed that PIU is significantly.

Table 3. Relationships among Problematic Internet Use, Fear of Missing Out, Loneliness, and Nomophobia

	FOMO	Loneliness	Nomophobia
Problematic Internet Use	0.223*	0.289*	0.089
r coefficient	0.015	0.002	0.336
p-value			
FOMO		0.040	-0.233*
r coefficient		0.664	0.011
p-value			
Loneliness			0.061
r coefficient			0.512
p value			

*p value is significant at 0.05 level

DISCUSSION

This study was conducted to determine the revealed relationship among PIU, FOMO, Loneliness, and Nomophobia Levels among University Nursing Students.

One of the significant findings of this study was that selected nursing students developed PIU, FOMO, and loneliness as a response to their social needs. The positive correlation of PIU with FOMO is supported by the study of Reyes et al. (2018) wherein it was found that the growing incidence of Internet dependence among people is precipitated by their need to satisfy their uncontrollable urge to engage with others to avoid missing out. The social interaction that students obtain from technological means is perceived to have significantly contributed to their state of feelings. Results also showed that the components of PIU have high statistical significance with FOMO. The link between internet use and FOMO is beneficial, as FOMO may positively enhance well-being if social media is used to increase social engagement (Roberts & David, 2020). However, psychopathology and addictive behavior which may predispose to excessive internet use, are rooted in FOMO and its associated negative affectivity (Alt, 2015; Blackwell et al., 2017; Elhai et al., 2020). This condition creates dependent behavior among internet users, which hinders their daily activities. Also, this can serve as an emerging threat to the social, mental, as well as physical health of nursing students. Nursing students also positively accept the peer learning experiment as a social environment (Hamzah et al., 2019)

It was also revealed that PIU was correlated with loneliness, which was supported by several studies (Kim et al., 2017; Simcharoen et al., 2018). This finding means that the higher the problematic internet use, the higher the loneliness among the participants. It will lead young adults to look for other ways to interact socially with other individuals who are not able to be owned when undertaking face-to-face social interactions. Utilizing social media on the Internet is one method. Costa et al. (2018) revealed that those who are lonely prefer to use the Internet for social contact provides credence to this. The use of social media, in particular, as a replacement for in-person social engagement can lead to young adults having trouble using the Internet. This is consistent with research by Reinaldo and Sokang (2016), which discovered that young adults with highly problematic Internet use are those who use the Internet more frequently than usual for social media access and other online activities.

Fear of Missing Out was also found to be significant with nomophobia, However, there needs to be more studies that looks at how FOMO affects nomophobia in the literature. Nonetheless, research findings that investigate the

relationships between the concepts either directly or indirectly can be obtained. For example, studies have reported that as the duration of smartphone use increases, the level of Internet addiction also increases (Erbil et al., 2020; Yayan et al., 2018), an increase of 1 h in Internet use elevates the risk of internet addiction by 10 % (Gunay et al., 2018), or students who use the Internet for >3 h a day are more at risk in terms of internet addiction (Anand et al., 2018). When this data is combined with the finding that students most commonly utilize mobile Internet to access the internet, it becomes even more significant. It is evident from the data that smartphone and internet addiction increased with the spread of the pandemic, as did the use of cell phones and excessive Internet usage. Specifically, the trend of distance learning has led to more people using cell phones and spending more time online (Eskin Bacaksiz et al., 2022). Hence, it is necessary to promote efficient and healthy use of mobile technology in learning spaces, to avoid the emergence of nomophobia and its consequences.

The current population has an abundant dependence on these devices, which makes them more vulnerable, with the adolescent population presenting a more significant risk factor. However, other literature revealed FOMO to have an association with nomophobia, but this study has shown to have a significant negative relationship between the two concepts. Results showed that regardless of not getting anxious when other people have fun without them, they still like to check on what others are doing. This justifies that the effects of FOMO on nomophobia remain understudied. Simply stating that similar fears were raised when the other technologies were introduced is not sufficient: the immersive and shared qualities of the virtual world, and its sheer penetrance, make it potentially more consequential.

It is noteworthy to reveal that the study's result showed that there was no significant relationship between loneliness and nomophobia. Although this study's outcome is not consistent with several studies (Yıldız-Durak, 2018; Özdemir et al., 2018), it is accordance with the results of the studies of Çelebi et al. (2020) and Chethana et al. (2020). One of the possible reasons is that the majority of smartphone use is intended for communication. Additionally, it makes their lives easier by giving them access to many programs that help them quickly maintain everyday needs. In other words, individuals may experience nomophobia not because they are lonely but as smartphones facilitate their work and ease their lives.

Another key finding revealed that loneliness was not significantly correlated with nomophobia and FOMO. This coincides with the study by Twenge that the relationship between the increasing number of smartphone and internet use and loneliness has yet to be proven, but its rapid spread may be connected with the rise in loneliness (Twenge et al., 2021). Thus, the relationship between FOMO on nomophobia remains understudied. Simply stating that similar fears were raised when the other technologies were introduced is not sufficient: the immersive and shared qualities of the virtual world and its sheer penetrance, make it potentially more consequential.

In light of the findings of the study, there were also several limitations. First, the study only included nursing students as the sample, including other students from other programs and people of different ages would confirm the psychological basis of the variables under study. Second, the data were collected during the peak of the COVID-19 pandemic when there was a community lockdown in our country. Hence, this affected the internet-related activities of the participants as

therewere no other ways to communicate with their friends and other family members.

CONCLUSION AND RECOMMENDATION

The study concluded that PIU is significantly correlated with FOMO and loneliness while, FOMO has a significant negative relationship with nomophobia. Despite the rise in digital activities among distance learning nursing students, loneliness and fear of missing out scores are low. However, higher nomophobia scores and strong relationships between concepts necessitate being alert to potential issues, keeping an eye on things, and adopting safety measures.

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