



Nomophobia among undergraduate: Predictive influence of personality traits

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Abstract

It has been observed that students experience irrational fear whenever they are not close to their smart phones. This condition is technically known as Nomophobia, This study examined Personality traits as predictors of nomophobia among undergraduates of Nnamdi Azikiwe University Awka. The researchers selected 181 participants from two faculties (Education and Social Sciences), comprising of 43 (23.8%) males and 138 (76.2%) females. The ages of these participants ranged from 18- 27 years, with a mean age of 21.96 and standard deviation of 2.91. Two instruments were used in the study. They included Big Five Personality Inventory developed by Donahue and Kentle (1991) and 20- item Nomophobia Questionnaire (NMP-Q) by Yildirim (2014). The design employed was a predictive survey study and a multi-factor design hence multiple linear regression was used as statistical tool to analyze the data. The result showed that extraversion ($B = .82, T = 2.46, P < .05$) positively and significantly predicts Nomophobia; agreeableness ($B = -.15, T = -.48, P > .05$) do not significantly predicts nomophobia; Conscientiousness ($B = -.52, T = -.182, P < .05$) Significantly predicts nomophobia; Neuroticism ($B = .68, T = 2.48, P < .05$) positively and Significantly predicts nomophobia. Finally openness to experience ($B = .64, T = 2.36, P < .05$) positively and significantly predicts nomophobia.

Keywords: *Personality, traits, Nomophobia, Undergraduates.*

Introduction

Since the dawn of human civilization, human beings have continually been innovative, testing ideas and building machines, all with the sole purpose of meeting up with the ever changing demands of existence. One of such innovation is the “mobile phone”. Today, with the advent of cell phones, especially smart phones, the problem associated with communicating with friends and families across a wide range has been solved. People nowadays can easily keep in touch with families, chat up with friends, fix appointments with business associates or even access their e-mails or the internet. However, this sophisticated up to- date technology, comes with some consequences. According to Bivin, Preeti, Praveen & Jinto (2013), smart phones had been associated with some physical conditions (e.g. headache, earache, blurring of vision) and psychological (e.g. irrational fear

of being without a mobile phone) as a result of radiations from the Screens of this device due to long use.

Moreover, mobile phone addiction may now be one of the biggest behavioural addictions. This can be seen in the daily activities of majority of undergraduates, who most of the times are engaged with their mobile phones. The mobile phone use may be problematic like addiction to alcohol, drugs or gambling and as such, its danger should not be taken lightly (Anna, Alexandre, Adriano, Federica, Sergio & Antonio, 2014).

Nomophobia appears to be a new disorder that merits inclusion in the new classification system of ICD-X1 and DSM- V (Bivin, et al 2013). Nomophobia is a catchy contraction for “no mobile phone “and mobile phone addiction. It refers to the discomfort, anxiety and nervousness caused as a result of dependence on such technology as a driver of modern life (King, Valencia & Nardi, 2010). It represents an example of “a paradox of technology that is both freeing and enslaving, by being out of contact with a mobile phone (Bivin, et al, 2013). King, Valenca, Silva, Baczynski, Carvalho and Nardi (2013) define nomophobia as a disorder of the modern world and has recently been used to describe the discomfort or anxiety caused by non- availability of mobile phone or any other virtual device to individual who use them habitually. Study by King, Valencia, Silva, Sancassiani, Machado and Nardi (2014) showed that nomophobia is fear of being unable to communicate through a mobile phone or the internet. Essentially, nomophobia is a term that refers to a collection of behaviours or symptoms related to mobile phone use. The name was coined from “No- mobile-phone and it represents a form of situational phobia.

Furthermore, Shambare, Rugimbana and Zhoua (2012), observes that cell phones are possibly the biggest non- drug addiction of the 21st century. Also, according to Neelima, Pooja, Sharma & Wavare (2015), hold that most of the nomophobias experience “ Ringxiety”. Ringxiety (a portmanteau of ring and anxiety) is also known as phantom vibration syndrome, phantom ringing, or hypovibrochondria; which means a false sensation of the ringing of mobile phones.

Nomophobia has varied Clinical characteristics like using regularly a mobile phone and spending considerable time on it, always carrying a USB Cord or a Power bank or a Charger with oneself, feeling anxious and nervous at the thought of losing one’s handset or when the mobile phone cannot be used due to inadequate airtime, poor network or no battery; to look at the phone screen to see whether messages or calls have been received, to sleep with the mobile



device in bed, to have few social face- to – face interaction with humans instead of the preference to communication using the new technology and to incur debts or great expense from using the mobile phone; all features of mobile phone dependence.

Personality according to Costa and McCrae (1989) refers to the characteristic reaction of an individual under different situation that is enduring and consistent. Individual's behaviour reflects the person's personality. Evidences have implicated personality traits in the development of anxiety (Costa et al, 1998; David & Suls, 1999). Indeed, personality is that dynamic and organized set of characteristics possessed by a person, which uniquely influences his or her cognitions, emotions, motivations and behaviours in various situations. Eysenck (1977) argued that personality influences behavior.

Ramalingan (2006) opined that personality refers to the sum total psychological characteristics of a person that all common and unique. It represents the integrated and dynamic organization of the physical, mental moral and social qualities of the individual, as it manifest itself to other people in the give and take of social life.

Theoretically, psychologists have adduced theoretical explanations for the nomophobia. According to Pavlov (1972) in his conditioning theory, any conditioned stimulus should lead to the development of anxiety when it is accompanied by unconditioned stimulus that naturally provokes anxiety. Watson and Rayner (1920), Maintained that the conditioning model accounts for the development of fears and phobias, and later behaviourists generalized this concept to explain the development of neurosis (Eysenck & Pland, 1997). In essence, this theory explains that nomophobia is a conditioned response people experience with their smart phone. The theory postulates that the reinforcing messages and chats people receive from their mobile phone make them to develop irrational fear when not with their mobile phones.

The modeling theory by Bandura and Rosenthal (1966) points that nomophobia is acquired by simple observation. An individual observed the way others behave when they are not in contact with their mobile phone and copy such behaviour. Also, Seligman (1971), in his preparedness theory suggests that species are biologically programmed to be more easily conditioned to stimuli that endangered their existence throughout evolution. Thus, this theory implied that nomophobia may result because people are biologically programmed to be more easily conditioned to stimuli that posses risk to their existence throughout evolution, such as not being out of reach of reach and feeling insecure Also,

student's smart phones incorporate various data that sustains them and keeps them moving with campus activities and other social relationships. This view aligned strongly with the biological theory which explains that some people are genetically predisposed to experience irrational fear when not in contact with their smart phones. It is argued that depending upon the degree to which their autonomic nervous system is aroused by the wide range of stimuli, people may react differently to the same environmental situation.

Empirical studies have also been carried out to support the existence of nomophobia as an emerging psychopathology. Recent study by Yildirim (2014) evaluated the relationship between Big Five personality and nomophobia among 243 Turkish college student; comprising of 118 males and 125 females. Findings revealed that 99% of the students owned a mobile phone. More than half (55.6%) talk less than 30 minutes a day on the cell phone while 20.4% talk more than one hour a day. More than one half (59.5%) reported that they would buy another one once the mobile phone breaks down. Furthermore, the results showed that more than one half (57.8%) of the group reported that their existing relationships were strengthened; 21.1% reported that their family bond has increased and 14.3% reported that their social network has expanded due to mobile phone use. Moreover, Females consider the mobile phone as more important than Males and also spend more time on their mobile phones. The personality result showed that extraversion positively and significantly relates with nomophobia, agreeableness do not relate with nomophobia; conscientiousness do not relate with nomophobia, neuroticism is positively related with nomophobia, while openness to experience do not correlate with nomophobia.

Nidhim, Janet & Sheela (2014) conducted a descriptive study to evaluate the relationship between personality traits and mobile phone addiction among 160 students from Belarus University; comprising 74 males and 86 females. The data was collected using a questionnaire which also included the test of mobile phone addiction. The result revealed that only 28.8% had knowledge about nomophobia and 10.4% of the students had the symptoms of addiction. Majority (68.11%) of the students belonged to the age group of 18-20 years; and 68.11% of them had two mobile phones. Nearly half (41.16%) of the sample had knowledge about mobile phone addiction. The result further showed that extraversion, conscientiousness and neuroticism positively correlated with nomophobia respectively while agreeableness and openness to experience did not correlate with nomophobia.



In the same vein, Yu-Kang, Cheun- Tuan and Zhao- Hong (2014) investigated the dark side of the smart phone trend. They examined the link between psychological traits and the compulsive behaviours of smart phone users; and also looked further into stress caused by those compulsive behaviours. They employed 325 participants where they compared structural users. The result suggests that compulsive usage of smart phones and techno- stress are positively related to personality traits.

Present Study

Nomophobia is a relatively new condition and for that fact, there is utmost need to research on the concept. Available evidence shows that only a little research has been carried out in this area in Nigeria. Furthermore, recent observations have shown that students (undergraduates) use their smart phones without being conscious of the 21st century maladaptive behaviour of irrational fear of not being with smart phone (nomophobia) and their behavioural consequences. According to Rubinstein (2013), the average person checks his or her smart phone 150 times per day, and also an average undergraduate would rather lose a pinky- finger than a cell phone. Observation has also shown that many an undergraduate cannot get through a lecture without a quick check on his or her facebook profile, Instagram, whatsapp or email. Some would be walking down the busy road with their head down pressing the smart phone. Some undergraduates rely on their smart phones to do everything from saying “I Love you” to breaking up, from checking bank balances to withdrawing money, from sharing photos to sexting (sex chatting). Majority of undergraduates suffer anxiety if they are not with their smart phones. Indeed, in line with previous studies on nomophobia elsewhere, there is need to also examine if dispositional factor (personality traits) could predict nomophobia among Nigerian sample. Based on the foregoing, the study provided answers to the following questions:

1. Would extraversion significantly predict nomophobia among undergraduates of Nnamdi Azikiwe University Awka?
2. Would agreeableness significantly predict nomophobia among undergraduates of Nnamdi Azikiwe University Awka?
3. Would conscientiousness significantly predict nomophobia among undergraduates of Nnamdi Azikiwe University Awka?
4. Would neuroticism significantly predict nomophobia among undergraduates of Nnamdi Azikiwe University Awka?
5. Would openness to experience significantly predict nomophobia among undergraduates of Nnamdi Azikiwe University Awka?

METHOD

Participants

One hundred and eighty one (181) participants selected from two faculties (Faculty of Education and Social Sciences) in Nnamdi Azikiwe University took part in the study. Males were 43 (23.8%) while females were 138 (76.2%). The researchers employed the simplified formula of proportion for reducing population as provided by Yamene (1967) to select the participants. Two Departments were selected using multistage sampling techniques; students from the Department of Vocational Education were 69 (38.1%) while students from the Department of mass Communication were 112 (61.8%38.1%). The ages of the participants ranged from 18- 27 years with a mean age of 21.96 and standard deviation of 2.91.

Instruments

Two instruments were used for collecting data.

Big – Five Personality Inventory

This was developed by John, Donahue and Kentle (1991) and it contains 44 items which has five subscales (openness = 10, conscientiousness = 9, extraversion= 8 and agreeableness = 8). The response pattern is in 5-point rating ranging from 1 = strongly disagree to 5 = strongly agree. The Cronbach's alphas of the subscales ranges from .70 to .80.

Nomophobia Questionnaire (NMP-Q)

This was developed by Yildirim & Correia (2015) and it is a 20- item scale. All 20 items in NMP-Q are rated using a 7-point Likert scale, with 1 = Strongly Disagree and 7 = Strongly Agree. The Cronbach's alpha according to Yildirim & Correia (2015) is .94 and the alpha for the present study is .84.

Procedure

After creating the necessary rapport, the researchers explained the reason for the study to the selected participants. The researchers also encouraged the students to answer all the questions honestly and guaranteed them their confidentiality. Out of 189 copies of the questionnaires that were administered, 181 were properly completed and returned, showing return rate of 95.7%.

Design and Statistics

The study utilizes multi-factorial predictive design which permitted the use of Multiple Linear Regression Statistics for data analysis.



RESULT

Table 1: Summary table of descriptive statistics for Personality domains and nomophobia

Variables	Mean	SD
1. Extraversion	24.00	3.89
2. Agreeableness	33.07	5.15
3. Conscientiousness	32.61	5.84
4. Neuroticism	21.36	4.97
5. Openness to experience	34.70	6.11
6. Nomophobia	57.71	16.69

Table 1 above shows that the mean scores *M* for extraversion is 24.00 with Standard deviation (*SD*) of 3.89, for agreeableness *M*= 33.07 with *SD* of 5.51, conscientiousness *M*=32.61 with *SD* of 5.84, neuroticism *M*=21.36 with *SD* of 4.97, openness to experience *M*=34.70 with *SD* of 6.11, while the mean score for nomophobia is 57.71, with standard deviation of 16.69.

Table 2: Summary table of Multiple Linear Regression Analysis for Personality and Nomophobia

Variables	<i>R</i>	<i>R</i> ²	<i>F</i>	<i>B</i>	<i>T</i>	<i>P</i>
	.33	.11	.5.73			<.05
Extraversion				.82	2.46	<.05
Agreeableness				-.15	-.48	>.05
Conscientiousness				-.51	1.82	>.05
Neuroticism				.68	2.48	<.05
Openness to experience				.70	2.34	<.05

Table 2 above showed that extraversion (*B*= .82, *t*= 2.46, *P*<.05) positively and significantly predicts nomophobia; agreeableness (*B*= -.15, *t*= -.48, *P* > .05) do not significantly predict nomophobia, conscientiousness (*B*= -.52, *t*= -1.82, *P*>.05) do not significantly predict nomophobia, neuroticism (*B* = .68, *t*= 2.48, *P*<.05) positively and significantly predicts nomophobia, and openness to experience (*B*=.64, *t*= 2.36, *P*<.05) positively and significantly predicts nomophobia among undergraduates of Nnamdi Azikiwe University Awka.

Discussion and Conclusion

The result of the study showed that extraversion positively and significantly predicted nomophobia among undergraduates. This result is consistent with the findings of Nidhim, Janet & Sheela (2014) where they found that extraversion positively correlated with nomophobia. Furthermore, the findings of Yildirim (2015) supported the result of the study. They found that extraversion positively and significantly relates with nomophobia. In the researchers opinion, extraverts are naturally sociable, fun-loving and affectionate. Explaining it from biological theory perspective, technologies may produce behavioural changes, affects emotion and may be addictive; they alter mood and often trigger enjoyable feelings (King, Valenca, Silva, Sancassiani, Machado & Nardi, 2014). Thus, anything that alters this state of enjoyment from the use of smart phone could cause anxiety. Agreeableness, do not predict nomophobia among undergraduates. The result is also in consonance with Nidhim et al (2014) and Yildirim (2015) in their separate studies which revealed that agreeableness do not significantly relate with nomophobia. In the researcher opinion, people with agreeableness traits are usually trusting and may not give in to irrational anxiety.

Conscientiousness, do not significantly predict nomophobia among undergraduates. This finding is also consistent with the study of Yildirim (2014), who found that conscientiousness do not correlate with nomophobia but disagreed with the findings of Nidhim et al (2014) who found that conscientiousness positively correlates with nomophobia. The finding maybe attributed to the different cultural settings where the studies were carried out. Furthermore, it could be explained that the technology of smart phone is relatively new in Nigeria, thus people are still getting conditioned to it and its importance.

Again, Neuroticism positively and significantly predicts nomophobia among undergraduates. This result was supported by the works of Yildirim (2014) and Nidhim et al (2014), who found that Neuroticism have significant and positive relationship with nomophobia. In the researchers opinion, looking at it from the biological theory people with neurotic personality are naturally anxious, insecure, and self-pitying and therefore may quickly react with anxiety whenever they are not with their smart phone. This situation may create insecurity among such persons.

Finally openness to experience positively and significantly predicts nomophobia among undergraduates. The findings is not consistent with that of Yildirim (2014) and Nidhim et al (2014) who found that openness to experience do not correlate significantly with nomophobia. The implications of the study showed that personality domains, significantly predicts nomophobia among



undergraduates of Nnamdi Azikiwe University Awka. Also, independently extraversion, neuroticism and openness to experience positively and significantly predicts nomophobia among undergraduates. On the other hand, conscientiousness and agreeableness do not significantly predicts nomophobia among undergraduates. This study continues to affirm that inherent trait of personality accounts for some variance in human behaviour and actions.

Conclusion

The study examined the predictive influence of personality traits on Nomophobia among undergraduates of Nnamdi Azikiwe University Awka. From the findings, extraversion, neuroticism and openness to experience positively and significantly predicted nomophobia, while conscientiousness and agreeableness do not significantly predict nomophobia among the studied participants. The findings further confirmed that dispositional factors (personality domains) determine behaviour. Based on the findings, the researchers recommend that students should be enlightened on the new sources of anxiety prevalent in the society. Although it have been argued that personality is not malleable but humans are adaptable when appropriate awareness or consciousness is created about them and behavior(Hawes & Dadds ,2007).

Therefore, Awareness could be created about this deadly new form of anxiety (nomophobia) with important emphasis on the type of personality that are more liable to it. Perhaps, such awareness can inoculate these liable individuals against nomophobia.

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