

RESEARCH PAPER

Big Five Personality Traits, Nomophobia and life Satisfaction among Emerging adults Correlational Study

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ABSTRACT

The study investigates how the big five personality traits relate to nomophobia and their effect on its prevalence and on life satisfaction. Concerns about nomophobia in Generation Z indicate heavy reliance on smartphones, potentially associated with specific personality traits, but research on these aspects in South Asian cultures is scarce. Cross-sectional and correlational research involving 350 participants aged 18 to 27 utilized the Big Five Inventory, Nomophobia Questionnaire, and Life Satisfaction Scale to examine the relationships between variables through Pearson correlation analysis. Conscientiousness, extraversion, and openness are positively correlated with nomophobia, while life satisfaction is not significantly correlated. Conversely, extraversion, neuroticism, conscientiousness, agreeableness, and openness have weak positive correlations with life satisfaction. Recommendations suggest psychological interventions to improve emotional regulation in emerging adults with high neuroticism specifically targeting anxiety associated with nomophobia.

KEYWORDS Emerging Adults, Nomophobia, Life Happiness, The Big Five Personality Qualities

Introduction

In the digital world, phones have become an integral part of it and it is especially true for the Generation Z population, who are constantly accessorized to the technology. However, due to this reliance, we run the risk of developing nomophobia which is fear of not being in possession of the mobile phone (Yildirim & Correia, 2015). Individual personality characteristics are conscientiousness, extraversion, agreeableness, neuroticism and openness as defined in the 5 Factor Model (FFM) impact on technology usage and perceived well-being (McCrae & Costa, 1999). Recent studies suggest that the higher the level of neuroticism higher the relation to nomophobia while other factors such as conscientiousness and emotional stability can help in decreasing the impact of nomophobia (Choi & Lee, 2021).

The Five-Factor Model of personality as described by McCrae & Costa (1999), shows that there are five core traits that have significant effect on smart phone use and they are neuroticism, conscientiousness and extraversion. Neuroticism is when people are emotionally unstable in their minds and tend to experience negativity to the point where they may use their smart phones as a coping mechanism and hence increasing the risk for nomophobia (Choi & Lee, 2021). On the other hand conscientiousness refers to the variation of self-discipline and self-regulation, which is related to the amount of mobile phone usage (Arpacı et al. 2017). Being sociable and wanting to interact with other people are the attributes of extraversion thus, extroverts will use their smartphones to maintain their wide networks of relationships (Choi & Lee, 2021). This model gives special attention to the interaction between the personality traits and the need for mobile devices.

Nomophobia which is a behavioural addiction providing the definition as, it is a psychological condition characterised by fear or anxiety when they are disconnected from their mobile phone connectivity (Yildirim & Correia, 2015). This phenomenon has become of growing interest with the prevalence of smart phones in almost all areas of daily

functioning by emerging adults. The repercussions of excessive dependence on smartphones could have significant implications on the level of life satisfaction which is the individual's subjective estimate of his/her total quality of life including his/her relationship, work and health conditions (Diener et al., 1999). Research shows overuses of the smartphone affects daily routines and making psychological distresses get worse which affects the quality of life eventually (Samaha & Hawi, 2016).

The aim of this study is to examine the relations between personality characteristics of emerging adults, nomophobia and life satisfaction. While previous research has looked at each of these variables individually, limited research has been conducted simultaneously looking at all three constructs in one model within this population. This study uses a cross-sectional correlational approach while looking at the prediction of nomophobic tendencies and subjective well-being based on certain personality variables (in this case neuroticism and conscientiousness). Furthermore, the research considers factors as demographic in order to allow us to have a more nuanced understanding of these patterns in psychology.

Activity theory goes on to say that these on-line experiences have a direct impact in mental states (Schwaiger & Tahir, 2022). Furthermore, Attachment theory implies that individuals are able to form emotional relations with technologies that are similar to the relations that are formed with caregivers that, in turn, lead to separation anxiety (Arpacı et al., 2017).

Nomophobia is often conceptualized in terms of a behavioral addiction model where there is withdrawal and compulsive checking behavior which can be worsened by the 'fear of missing out' (FOMO) (King et al., 2015; Przybylski et al., 2013). Despite Extensive research on personality and smart phone use limited empirical work have simultaneously examined big five traits, nomophobia and life satisfaction in a single model among South Asian emerging adults.

Literature Review

The emerging selfies-and the psychological problems that have occurred such as nomophobia towards Generation Z this literature review investigates the relationships of Big Five personalities, digital dependency, and life satisfaction to find the mechanism and predictors behind developing a good intervention (Yıldırım and Correia, 2015).

The researcher used a correlational design in order to investigate the relationship between nomophobia and smartphones usage patterns and Big five personality traits using a sample of 414 undergraduate (254 females and 160 males) students from Yeditepe University with the Nomophobia Questionnaire (Yıldırım, Correia, 2015; Yıldırım et al., 2016), Big Five Inventory (John et al., 1991; Schmitt et al., 2007) and a Demographic form.

Via Pearson correlation, One-Way Analysis of Variance (ANOVA) and Independent Samples Test, the research showed that the levels of nomophobia have significant relations with extraversion, neuroticism, openness, gender, department type and all smartphone using patterns and confirmed the critical insights in order to produce more effective psychological intervention programs (Yögurtçu, 2018). While previous research which investigated the inconsistency of relationship between personal traits and nomophobia, Ji et al. (2024), in a bid to fill the gap in this study, employed the latent class analysis techniques by lumping people with different personality for a more severe analysis.

Throughout Asian samples of universities, it has been discovered that neuroticism is the most significant predictor of nomophobia while conscientiousness has a protective effect (Choi & Lee, 2021; Nguyen & Tran, 2017). Findings for extraversion and openness are still not consistent, which may indicate moderation of culture . There are studies of nomophobic behaviours with students in Vietnam and Turkey which shows that

nomophobe behaviours were much more common with those who have a high degree of neuroticism and low degree of conscientiousness (Nguyen & Tran, 2017), much more strongly predicted by social media addiction than by gaming addiction, social connectedness, or overall life satisfaction (Tuzgöl Dost & Çirak, 2022).

Another literature has suggested that people with inflexible, intrusive thought patterns and excessive extraversion are most vulnerable to digital anxiety, and that proves that nomophobia is a multidimensional problem most characterized by the interplay between long-term traits and maladaptive cognitive schemas," Garcia-Masip et al. discussed in their journal.

Model of Current Research

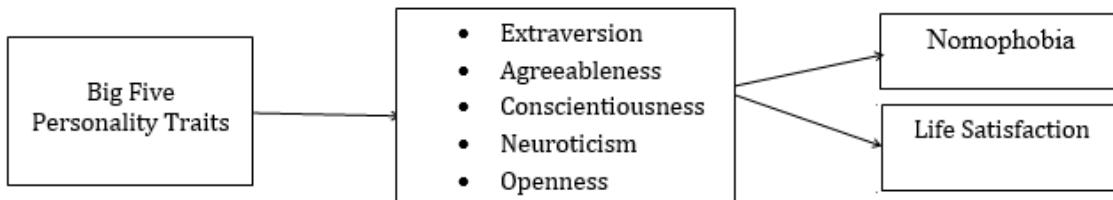


Figure 1. Hypothetical Conceptual Framework of Current Research.

The proliferation of smart phones is skyrocketing and digital technology is a basics of life for emerging adults. This constant reliance, however, is all too often an issue of nomophobia, a psychological condition in which one comes to develop a fear or anxiety when disconnected from his or her mobile connectivity. Despite the prevalence of this phenomenon, little empirical work has been done investigating the Big Five personality traits, nomophobia and life satisfaction simultaneously in the same model especially among South Asian populations. This research tends to fill this gap by examining the link between the long-lasting personality traits and its role in predicting nomophobic tendencies. Furthermore, it aims to investigate the relationship between these nomophobia and overall life satisfaction to determine the extent of the effect of technology reliance on level of subjective well being in a technology-driven environment. By measuring these constructs at the same time, the research offers important understanding needed to design culture sensitive interventions and support healthier digital behaviors in young adults (18 to 27 years old).

Hypotheses

H1: There will be a positive relationship between neuroticism and nomophobia

H2: Conscientiousness will be negatively linked to nomophobia

H3: Nomophobic will be associated to life satisfaction in a negative manner

Material and Methods

The cross-sectional correlational research design with the quantitative research approach were utilized in testing the relationship among the variables under its condition without varying based on the variables directly. While this approach permits to identify significant associations and predictive trends by means of data collected at one instant of time, it does not allow to infer direct causality.

Sampling Technique

The sample size for this subject was 359 participants made up of males (140), females (219) coming from age of 18 to 27 years of age (Comrey and Lee, 2013, 300-500

cases for social science research). Participants were recruited from various colleges and universities so as to insure academic diversity. Participation was completely voluntary and under informed consent. This sample size and diversity lead to enhance the reliability of the study as well as the generalisability of the findings.

Assessment Measures

Satisfaction with Life Scale, SWLS (Diener et al, 1985)

The Diener et al (1985) developed the 5-item Satisfaction with Life Scale (SWLS) which is a self-report questionnaire for the measurement of overall life satisfaction. Each item is rated on a 7 point Likert scale with "strongly disagree" (1) to "strongly agree" (7) from 1 to 7 by participants. Examples are: "I am satisfied with my life" "My life is close to my ideal in most ways." With no subscales, the SWLS is a 1-dimensional measure of life satisfaction. Reduced life satisfaction is perceived as lower rated. According to Diener et al. (1985), the internal consistency coefficients (Cronbach's alpha) of the SWLS have been in the range of .79 to .89. 1 SWL Scale 35 Maximum possible score 5 Lowest possible score

Nomophobia Questionnaire (NMP-Q) (Yildirim and Correia, 2015)

Yildirim and Correia (2015) developed the 20 item nomophobia questionnaire (NMP-Q) as a self-report measure of nomophobia, fear of having no cell phone. Seven point Likert method (1 strongly disagree to 7 strongly agree) is used to record responses. NMP-Q: This has a minimum possible score of 20 and a maximum possible score of 140. Examples include "I spend more time on my phone than I intended" and "I get anxious when I don't have my phone with me". Subscales pertaining to compulsive behaviour and negative effects complement the scale. Greater degrees of the nomophobia are represented in the higher scores. The NMP-Q has internal consistencies (alpha) values which have been observed to be in the range of .92 to .95.

The Big Five Inventory - 10 item Scale (BFI-10) (Rammstedt and John, 2007)

Based on Rammstedt and John's (2007) Five Factor Model, the Big Five Inventory (BFI- 10) is a 10-item self-report questionnaire that evaluates five fundamental aspects of personality. A 5-point Likert scale, with 1 denoting "strongly disagree" and 5 denoting "strongly agree," is used to evaluate participant responses. On the BFI-10, a score of 10 is the lowest achievable and a score of 50 is the greatest.

Example items include: "I am someone who is very outgoing and sociable" (Extraversion) and "I tend to be disorganized" (Conscientiousness, reverse-scored).

The BFI-10 assesses five domains:

1. Openness to Experience
2. Conscientiousness
3. Extraversion
4. Agreeableness
5. Neuroticism

Higher scores reflect a stronger presence of each personality trait. The BFI-10 has demonstrated internal consistency (alpha) ranging from 0.60 to 0.80.

Operational Definitions

Big 5 Personality Traits

For this study, the Big Five Inventory (BFI) which measures the five general aspect of personality and these five aspects are neuroticism, agreeableness, extraversion, conscientiousness and openness (Rammstedt and John, 2007).

Nomophobia

The Nomophobia Questionnaire (NMP-Q) is an index of anxiety or discomfort caused by the separation from or ability to use one's mobile phone (Yildirim and Correia, 2015).

Life Satisfaction

The Satisfaction With Life Scale (SWLS) is a scale to measure the subjective level of happiness and satisfaction with one's life (Diener et al., 1985).

Procedure

The variables of Big five personality traits, nomophobia, and life satisfaction, including the study were measured by using the formally approved scales with the official permission of the original authors. Institutional sanction from Department of Psychology, Government College women University Sialkot (GCWUS). Data collection were focussed on students in the age group of 18-27 years old in different regional colleges and universities. After administrative approval from every particular institution, and people were recruited during off-time on campus. The researcher was informed about the purpose of the study and participants were assured of their voluntary participation, anonymity and confidentiality. Upon receiving informed consent, subjects were required to complete a demographic sheet and the assessment instruments under the supervision of the researcher to answer any queries in real-time. The resultant data set was processed and analyzed in the form of quantitative analysis using IBM SPSS Statistics, a standard software to handle complex data in social sciences.

Ethical Considerations

The research has been conducted following strict ethical norms. Formal authorisation was obtained from the heads of institutions and the original authors of scales used for the measurement of learning outcomes. Prior to collection of data participants gave written informed consent after being briefed about the purpose of the study and having the right to drop out from the study at any stage without penalty. To avoid identification of study subjects all data was anonymized and stored in such a manner that the primary researcher alone had access. Participants were assured that the answers solely will be used for academic research purposes. Furthermore, results were reported with a high level of accuracy; this ensured the integrity of the results and prevented the misrepresentation of the data.

Results and Discussion

Table 1
Correlation between big five Personality Traits, nomophobia and life satisfaction

	Nomophobia	Life satisfaction	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness	M	SD
Nomophobia	-	-.02	.17**	.104	.200**	.06	.19**	80.92	22.71
Life Satisfaction	-	-	.21**	.02	.05	.15**	.09	21.21	6.87

Extraversion	-	-	-	.46**	.38**	.26**	.27**	3.37	0.83
Agreeableness	-	-	-	-	.26**	.14**	.18**	3.30	1.00
Conscientiousness	-	-	-	-	-	.176**	.180**	3.46	0.92
Neuroticism	-	-	-	-	-	-	.15**	3.17	1.61
Openness	-	-	-	-	-	-	-	3.25	0.97

Correlation is significant at 0.01 level (2 tailed) Note. M=Mean; SD= Standard Deviation; $p<.01$ (2-tailed)

In order to investigate the relationship existing between nomophobia, life satisfaction and the Big five personality dimensions Pearson product-moment correlation analyses were performed. The calculation results of correlation coefficients and descriptive statistics are presented in Table 1. Conscientiousness ($r = .20$, $p <.01$), openness ($r = .19$, $p <.01$) and extraversion ($r = .17$, $p <.01$) were all significantly associated and positively associated with the nomophobia which means that with increased score in these parameters, the level of Nomophobia is also increased. Nomophobia and life satisfaction were not significantly correlated ($r = -.02$, $p >.05$).

The results showed that the variables of extraversion ($r = .21$, $p <.01$), neuroticism ($r = .15$, $p <.01$), conscientiousness ($r = .05$), agreeableness ($r = .02$) and openness ($r = .09$) had significant and positive relationship with life satisfaction although these three correlations were weak. The Big Five traits also were found to be highly correlated with one another, consistent with research on personality.

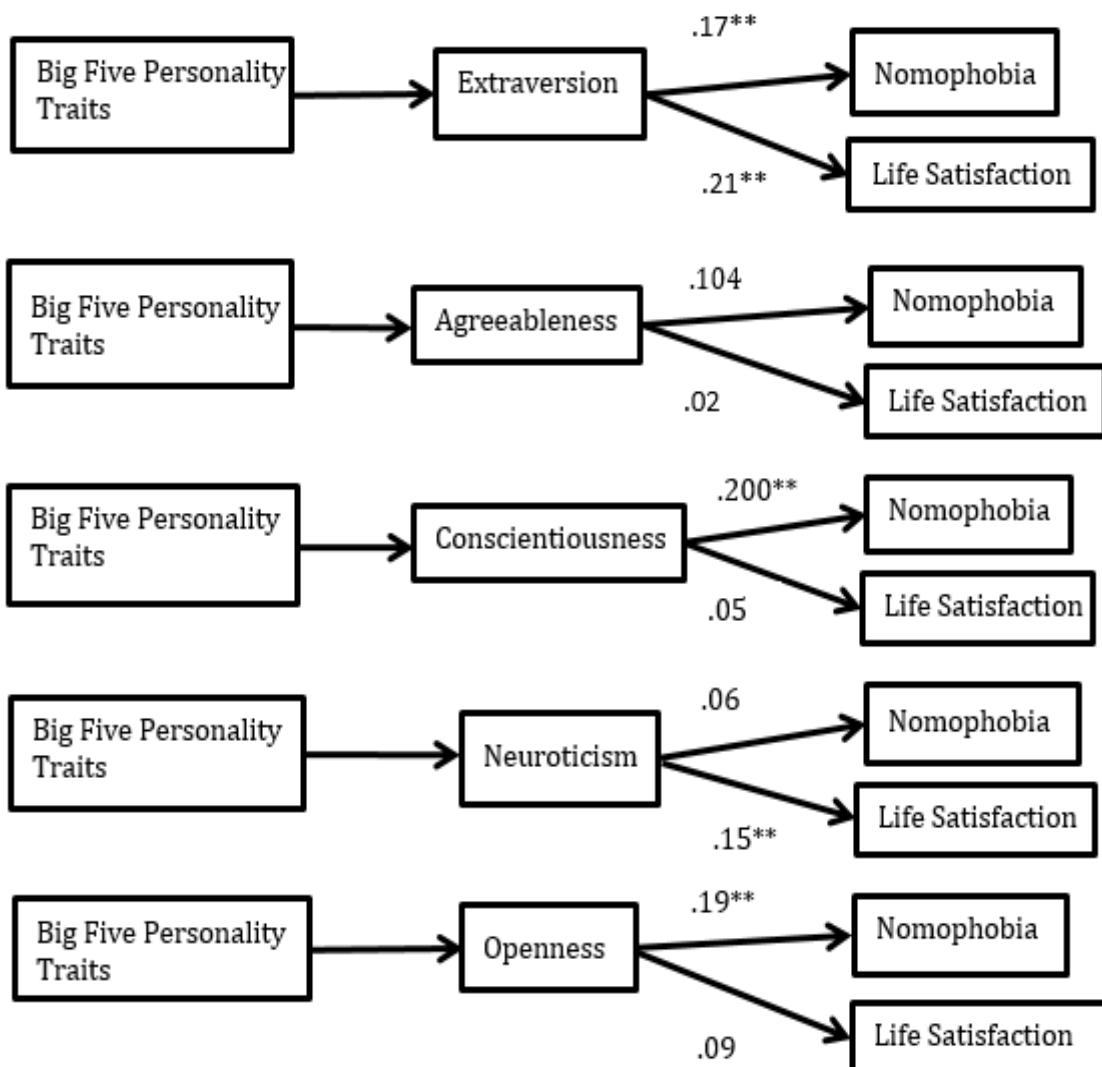


Figure 2. Hypothetical Conceptual Framework of Current Research.

Discussion

The Big Five personality variables, nomophobia and life satisfaction in emerging adults were all investigated by this research in an South Asian operational environment. The results indicate that individual differences in personality are significantly associated with patterns of digital reliance and levels of subjective well being, in keeping with personality-based models of behaviour (McCrae & Costa, 1999).

Conscientiousness, extraversion and openness were found to be significantly positively correlated with nomophobia. Despite the fact that conscientiousness is generally thought of a protective characteristic against maladaptive behaviours, it may highlight that the highly conscientious people depend more on smart phones for academic organisation, productivity and the management of goals, the fact that this study found a positive correlation between conscientiousness and nomophobia. Studies that suggests that the more flexible qualities are, the more technological engagement one has vs. less engagement have shown similar results (Choi and Lee, 2021).

According to studies which links extraversion with increased usage of social media and communication-based mobile phones, extraverted people might be more susceptible to nomophobia as they use smartphones as a means of maintaining social relationships (Samaha & Hawi, 2016). Openness may also influence an exposure to anxiety related to smartphones in the sense it is indicative of an interest and involvement with digital activities (Yildrim & Correia, 2015).

Contrary to guesses however, there was no significant correlation between nomophobia and life satisfaction. This result implies that the fear of getting disconnected from their phones may not be upsetting enough to impact people's overall assessments of their lifestyles in this group. It's possible that smartphones are so entrenched into everyday life, nomophobic concerns are accepted and don't have a strong impact on wellbeing. Furthermore cultural aspects (e.g. strong offline social support networks and collectivist social structures) may buffer the potentially negative effects of digital anxiety (e.g. Diener et al., 1999; Tuzgöl Dustin & Cirak, 2022).

Extraversion, neuroticism, conscientiousness, agreeableness, and openness were all positively correlated with a measure of life satisfaction (although some of the correlations are small sizes). Extraversion and life satisfaction are positively linked which is consistent with a plethora of research emphasising the importance of social interaction for wellbeing (Diener et al, 1999). Despite seemingly contradictory, this positive correlation between neuroticism and life satisfaction may be attributed to the difference between culture in South Asia with the emerging adults in South Asian cultures might exhibit their emotions differently or use more adaptive ways of coping with circumstances thus requiring further research explorations (Choi & Lee, 2021).

Overall, the findings highlight the importance of the sociocultural context in examining the psychological adjustment of broad smartphone use, but back the use of personality factors in understanding digital dependence and wellbeing.

Conclusion

This study investigated the relations of Big five personality characteristics of the emerging adults to their nomophobia and happiness in life. The results show that there is significantly correlations between the subjective sentiments of well-being and the digital dependency and the personality characteristic. Conscientiousness, extraversion and openness were found to have a positive correlation with nomophobia, implying that socially conscious, organised and receptive people may be more likely to use cellphones at an everyday frequency. However, was not found to be any significant correlation between

nomophobia and level of life satisfaction that may suggest that the overall life ratings of this population are not directly affected by its fear of losing their cell phone.

This complex and context-dependent nature of well-being in the digital age was displayed by the positive links between life satisfaction and a number of personality characteristics, especially the big five personality characteristics of extraversion and neuroticism [Diener et al., 1999]. These results draw attention to the possible moderating influences of cultural and contextual factors in technology-related stress (Choi and Lee, 2021); and also helps to support the Five-Factor Model's position that stable personality factors influence the means of behavioural and emotional adaptation (McCrae and Costa, 1999). In order to further understand this dynamic relationship involving the personality, digital behaviors, as well as psychological well-being, future study reports in regard to longitudinal and culturally-sensitive frameworks provide a recommendation.

Recommendations

Based on the findings presented in this research, some recommendations are made to practitioners, educators and researchers. First of all, psychological interventions should be aimed at addressing the problems of emotional regulation and anxiety managing and particularly that of the emerging adults who are high in neuroticism as this trait was a significant predictor of the nomophobia. Mental health professionals should support "digital resiliency" efforts designed to help Gen Z people balance their online interaction with their offline well being around mitigating the fear of missing out (FOMO) and maladaptive cognitive schemas.

Educators and academic institutions should set guidelines or "tech-free zones" to avoid over-dependence of smart phones to interfere with academic focus and productivity. Furthermore, in view of the good correlation between conscientiousness and life satisfaction, it should be encouraged to promote strategies to instil self-discipline and goal-oriented behaviour in the effort of instilling a sense of accomplishment and well-being in the digital environments. Finally, future research has to engage in investigation into mediating variables such as social support, self-esteem and certain ones caused by technological habits so as to better understand the complex interplay of personality and technological dependence.

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