The Relationship Between Nomophobia And Loneliness Among Young Adults In Kerala

Dissertation submitted in partial fulfilment of the requirements for the award of

Bachelor of Science in Psychology

By

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CERTIFICATE

This is to certify that the dissertation entitled, "The Relationship Between Nomophobia And Loneliness Among Young Adults In Kerala", is a bonafide record submitted by Barkathul Kubra M P Reg.no: SB22PSY034, of St.Teresa's College, Ernakulam under the supervision and guidance of Ms. Ann Maria Johnson and that it has not been submitted to any other university or institution for the award of any degree or diploma, fellowship, title or recognition before.

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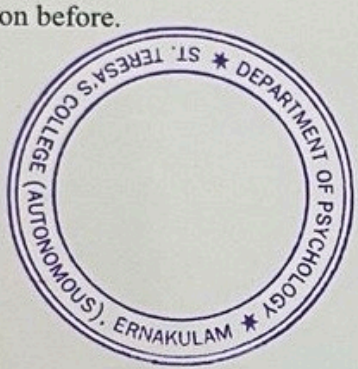

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DECLARATION

I, Barkathul Kubra M P, do hereby declare that the work represented in the dissertation embodies the results of the original research work done by me in St. Teresa's College, Ernakulam under the supervision and guidance of Ms. Ann Maria Johnson, Assistant Professor, Department of Psychology, St. Teresa's College, Ernakulam, it has not been submitted by me to any other university or institution for the award of any degree, diploma, fellowship, title or recognition before.

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Abstract

Advancement in technology has increased our dependence on mobile phones. This over dependence is alienating us from other social beings. This alienation can lead to feelings od loneliness. The present study aims to find the relationship between nomophobia and loneliness among youth in Kerala and also to study if these variables differ between employed and unemployed youth. Nomophobia was measured using Nomophobia Questionnaire (nmp-q) by Yildirim and Correia (2015). Loneliness was measured using The UCLA Loneliness Scale, developed by Russell, Peplau, and Ferguson (1978), Thw data was collected using google forms from 400 young adults aged 20-35 and analysed using Jamovi. Spearman's correlation was used to measure the relationship between nomophobia and loneliness. Mann-Whitney U-test was used for comparison of nomophobia and Welch's t-test for comparison of loneliness among working and non-working individuals. The findings indicate a significant positive relationship between nomophobia and loneliness and no difference between working and non-working individuals. Result emphasize the requirement of mental health interventions on healthy smartphone usage for decreasing social isolation. Awareness programs on proper use of the digital world by schools and working environments can avoid negative emotional consequences due to over-dependence on smartphones.

Key words: Nomophobia, Loneliness

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Chapter 1

Introduction

The Relationship Between Nomophobia And Loneliness Among Young Adults In Kerala

Background Of The Study

The advancement of technology has brought about significant changes in people's lives, particularly in recent years. Today's smartphones are a part of everyday life and have even become a necessity (Salehan & Negahban, 2013). Nowadays, everyone is using smartphones for various purposes. Students use smartphones for studies, gaming, and connecting with family and friends, while adults use them for work purposes, as well as for staying in touch with family and friends. The rising enthusiasm for new mobile communication technologies is significantly on the rise. Studies indicate that there were about 4.78 billion mobile phone users globally in 2020, with 3.8 billion of those using smartphones for communication (Statista, 2019). This number is expected to continue rising in the years ahead (Statista, 2019).

The growing prevalence of virtual communication and emerging technologies, such as smartphones, tablets, and personal computers, has resulted in shifts in individuals' everyday behaviors and routines and has given rise to various bio-psychosocial issues alongside these changes. Internet addiction, internet anger, ego surfing, emotion regulation difficulties, academic failure, virtual laziness, unhappiness, loneliness, insomnia, eating disorders, digital hoarding, digital addiction, photolurking, stalking, Youtube narcissism, cheesepodding and anxiety disorders are some of these problems (Sarıbay & Durgun, 2020, p. 281). One of the most significant issues is certainly the problems arising from the use of smartphones in a person's physical, psychological, and social life. Mobile phone technology, which used to facilitate verbal and written communication, has evolved into a compact computer with internet access. Now, it's possible to engage in online gaming, utilize social media, send emails, shop, watch TV shows/movies, conduct meetings, and

perform numerous other tasks through smartphones. The extensive use of various platforms and the engagement in activities solely through smartphones have led to the emergence of certain negative effects or anxieties.

This research examines the connection between nomophobia (the anxiety of being without a cell phone) and feelings of loneliness among adults residing in Kerala, specifically highlighting the contrasts between employed and unemployed individuals. Gaining insight into how these elements affect one another will offer important understanding of the mental health issues linked to smartphone dependency and social isolation, particularly in relation to the varied experiences of those who are employed compared to those who are unemployed. The research is specifically focused on Kerala, a state recognized for its collectivist culture. This cultural environment will facilitate an investigation into whether there exists a distinct connection between nomophobia and loneliness within such a collectivist setting. Furthermore, by incorporating both employed and unemployed individuals, this research seeks to comprehend how these two elements nomophobia and loneliness impact people in varying life situations. Given that working and non-working individuals possess different backgrounds, lifestyles, and social interactions, these variations may affect the way nomophobia and loneliness are experienced in each group. Moreover, this research focuses on individuals between the ages of 20 to 35. Within the workforce, this demographic often enjoys better access to smartphones and possesses a greater level of tech-savviness compared to older adults. Since young adults are typically more adept at using smartphones, this cohort is crucial for exploring the effects of mobile phone usage on mental well-being.

Nomophobia (No Mobile Phone Phobia) can be definned as an involuntary fear and a state of panic that occurs when an individual is out of contact with his or

her mobile device or fails to communicate via the mobile device (Dixit et al., 2010; King et al., 2010; Yildirim & Correia, 2015). Another definition of Nomophobia is that refers to the fear and anxiety that a person feels when they do not have access to a mobile phone, and it is seen as one of the adverse consequences of technology in today's world. Nomophobia is a shortened version of "no-mobile-phone phobia." This term was first introduced in a study conducted in 2008 that was initiated by the UK Postal Office.

King, Valença, and Nardi (2010) suggested that nomophobia is a contemporary type of phobia, which is a result of the exchange between people and new technologies. However, no mutual agreement exists on what kind of addiction nomophobia is (Argumosa-Villar, Boada-Grau, & Vigil-Colet, 2017). According to King et al. (2013), it is a situational phobia, while Salehan and Negahban (2013) define it as a behavioral addiction to mobile phones that manifests as symptoms of psychological and physical addiction.

Nomophobia is considered as a special type of phobia based on definitonns given in DSM-IV. However, nomophobia does not appear in the current DSM-V (Bragazzi, & Puenete, 2014). Because of which nomophobia is considered as a present age phobia introducedin in to our lives as a result of the interaction between people and mobile information and communication technologies, especially smartphones (Yildirim & Correia, 2015, p. 130). The increased use of mobile internet results in increased levels of nomophobia (Gezgin, Cakir, & Yildirim, 2017).

Nomophobia is recognized as a modern-day phobia that has become prevalent. As a result, there has been a surge in the number of studies focused on nomophobia in the academic literature. To investigate the factors leading to and reveal the variables associated with nomophobia, academic studies have frequently analyzed demographic

features (Burucuoğlu, 2017; Yildirim, Şumuer, Adnan & Yildirim, 2016) one's different ways of using one's smartphone (Walsh, White and Young, 2010), nomophobic behaviour patterns (Dixit et al., 2010; Bragazzi and Del Puente, 2014; Kaplan Akıllı & Gezgin,2016; Tavolacci et al., 2015) and psychological problems (King et al., 2013; Uysal, Özen & Madenoğlu, 2016; Yıldız Durak, 2018). Based on insights gathered from these scientific studies, several conclusions have been established regarding nomophobia. The extensive use of smartphones, along with an increase in time spent on these devices specifically for accessing social media, appears to heighten the likelihood of developing nomophobia. Research has shown that younger individuals are more vulnerable to nomophobia compared to older individuals, with females also exhibiting a higher propensity for this condition than males.

Furthermore, it has been noted that those who experience nomophobia often display symptoms when they are unable to turn off their smartphones at night or when they use their phones just before sleep, carrying a charger and a power bank to bed with them. Another significant finding from these studies is that people who struggle with loneliness are more likely to develop nomophobia. According to research, those who suffer from nomophobia are more likely to feel socially isolated and emotionally reliant on their electronics, which may be major factors in loneliness (Yildirim & Correia, 2015; Elhai et al., 2017). These results suggest that an over-reliance on mobile devices may reduce in-person connections, which would feed the loneliness cycle.

Loneliness can be considered as an experience which is unpleasant that occurs when a person's social and inter personal connections are deficient in some important way, either quantitatively or qualitatively (Perlman & Peplau, 1981, p.31), an

experience involving a total and often acute feeling that constitutes a distinct form of self-awareness signaling a break in the basic network of the relational reality of self-world (Sadler & Johnson, 1980, p. 39), and a developmental risk factor for future well-being during childhood which affects current quality of life of the individual and a distressing affective experience (Margalit, 2010). People can also feel lonely without being alone or alone in a crowd (Peplau & Perlman, 1976). Lonely people spend less time on social activities and are mostly alone (Spitzberg & Canary, 1985), and tend to talk less, and their attention and accession levels are highly low (Solano, Batten, & Parish, 1982).

Loneliness is a multifaceted emotional experience that can affect individuals in different ways, extending beyond just physical isolation. It can result from a lack of meaningful relationships, feelings of alienation, or a sense of being misunderstood, even in the presence of others (Cacioppo & Patrick, 2008). Chronic loneliness has been linked to various negative outcomes, such as increased risks of mental health issues like depression and anxiety, as well as physical health problems, including cardiovascular diseases (Hawkley & Cacioppo, 2010). While some people may experience temporary loneliness, for others, it becomes a persistent struggle that significantly impacts their overall well-being (Russell, 1996). The rise of social media has reshaped how people experience loneliness, as online interactions often fail to provide the emotional depth of face-to-face connections, leading to feelings of emptiness or disconnection (Primack et al., 2017). Despite its prevalence, loneliness is frequently underrecognized and can be difficult to address, often requiring both personal effort and external support to alleviate (Heinrich & Gullone, 2006).

Loneliness is typified by emotions of solitude despite craving social relationships. Situational factors like physical isolation, relocation, and divorce are

among the contributing factors to loneliness. It can be a sign of a psychological disorder such as depression. Social withdrawal or self-isolation is often considered a sign of depression. Lacking self-confidence can often manifest itself as feelings of unworthiness of attention or regard from others, which can lead to isolation and chronic loneliness. Personality characteristics also significantly impact how people perceive loneliness. Extraverts, who are outgoing and enjoy socializing, generally experience lower levels of loneliness, while individuals with high neuroticism, who are susceptible to negative feelings, often feel lonelier. Those who are agreeable, characterized by empathy and collaboration, usually develop strong social connections, which helps alleviate feelings of isolation. Conversely, individuals with low self-esteem or an external locus of control may face challenges with loneliness due to difficulties in engaging socially or feelings of inadequacy. Therefore, personality traits affect both the probability and severity of loneliness, with traits such as extraversion and agreeableness serving as protective influences.

Theoretical framework

In the latter part of the 20th century, social needs and cognitive perspectives became prominent. Robert S. Weiss discussed the social needs perspective on loneliness in 1973. This idea, influenced by Bowlby's attachment theory from 1969, posits that loneliness arises when a person's essential need for social connections is unmet. In 1974, Weiss identified six additional components of social relationships: attachment, social integration, guidance, validation of self-worth, dependable alliance, and opportunities for nurturing. Deficiencies in any of these aspects lead to loneliness. Weiss also made a distinction between two types of loneliness, each defined by different social interaction gaps. The first type, social loneliness, involves a lack of integration, such as friendships. The second type, emotional loneliness, pertains to the

absence of a close, emotionally-supportive relationship. A limitation of the social needs approach is its focus on the direct correlation between loneliness and the availability of specific social resources, neglecting the idea that individuals may seek different social connections or that two people may react differently to the same social shortcomings.

The cognitive perspective on loneliness highlights how people's perceptions and interpretations influence the link between social connections and feelings of loneliness (Peplau & Perlman, 1981; Perlman & Peplau, 1982). While the social needs approach views social connections as a means to satisfy fundamental emotional requirements, the cognitive perspective focuses on how people evaluate their social ties. It posits that loneliness emerges when individuals sense a discrepancy between the level of social engagement they desire and what they actually experience. People have varying preferences regarding the quality and quantity of social interactions they seek. A gap can occur when social connections fall short of meeting these expectations or, alternatively, when they surpass them.

According to the Evolutionary model of loneliness (Cacioppo et al., 2006), being part of a close-knit social group promotes collaboration, protection, and resource sharing, which are essential for the healthy development of children. As such, disconnection from the social group negatively impacts individuals' ability to pass on their genetic material. A person who experiences social isolation as distressing is likely to be more driven to achieve social belonging, thereby enhancing their contribution to the gene pool. The constant awareness of social dangers leads lonely individuals to develop a cognitive bias, perceiving the world as more perilous than those who are not lonely. Lonely individuals create a self-fulfilling prophecy that establishes a self-reinforcing cycle of loneliness and the avoidance of social

interactions due to past negative experiences and pessimistic expectations regarding social engagement (Hawkley & Cacioppo, 2010). Although Weiss depicted loneliness as lacking any positive attributes, Cacioppo and his team propose that awareness of loneliness motivates individuals to take constructive steps to restore broken social connections (Cacioppo et al., 2014).

Chapter II

Review of literature

Nomophobia and Loneliness

Hussien, R.L (2022) analyzed the relationship between nomophobia (fear of not having amobile phone) and loneliness in Saudi Arabia using a survey of 526 participants, which was conducted between March and April 2022. The research established that the majority of the participants spent 4 to 9 hours online per day, primarily for gaming and socialization..The study found a significant strong relationship between nomophobia and loneliness, especially with increased daily use of the internet. The research recommends the implementation of psychoeducational programs to increase awareness of the psychological impact of nomophobia, promote healthier internet browsing habits, and promote more effective communication.

Nomophobia and Loneliness

Gezgin and Ümmet (2021) investigated the relationship between social and emotional loneliness and nomophobia in university students. Using a sample of 692 students from Trakya University in Turkey, their study established that loneliness in family relationships was strongly associated with nomophobia. The findings indicate that whenever students felt emotionally distant from their families, they are likely to develop inappropriate smartphone reliance. The researchers emphasize the necessity of dealing with the role of family relationships on mental health and technology addiction, recommending this as an important target for future interventions in university environments.

Nomophobia and Loneliness

Gezgin, D.M, et al. (2020) conducted a study to find out the relationship between nomophobia and loneliness in adolescents and whether smartphone usage and internet availability influence this relationship. The Nomophobia (NMP-Q) and UCLA Loneliness (ULS-8) scales were used for collecting data from 301 participants.

The research showed a significant relationship between nomophobia and loneliness, indicating that loneliness could be the biggest contributor to developing nomophobia. This emphasizes the psychological consequences of smartphone addiction and warrants additional studies on its emotional impact on adolescents.

Nomophobia

Nasran and Abu Seman (2023) aimed to find out the relationship between personality traits and nomophobia in smartphone users. 244 participants from Klang Valley, Malaysia, filled out the Nomophobia Scale and the Big Five. The findings indicated that the majority of participants had moderate nomophobia. The analysis indicated that all five personality traits—extroversion, openness, neuroticism, agreeableness, and conscientiousness—were significantly correlated with nomophobia. The research reported some constraints, including sample size, self-report bias, and absence of qualitative data. The authors recommended that future studies could investigate nomophobia from other angles, including longitudinal studies and other variables for intervention.

Nomophobia

Yılmaz, F.J.K, et al. (2022) examined the correlation between smartphone addiction, nomophobia, depression, and social appearance anxiety in university students. There were 473 students (286 male, 187 female) who participated and utilized four scales: the Nomophobia Scale, Smartphone Addiction Scale, Social Appearance Anxiety Scale, and Beck Depression Scale. Nomophobia was shown to directly impact smartphone addiction, whereas social appearance anxiety was a major factor in both smartphone addiction and nomophobia. The research emphasizes the influence of mobile technology on the mental health of students and emphasizes the

need for initiatives to ensure college students' well-being while encouraging healthy digital behavior in higher education.

Nomophobia

Daraj, L. R., et al. (2022) performed an extensive review and meta-analysis to investigate the relationships between nomophobia, anxiety, smartphone addiction, and insomnia. Among 1,523 reviewed studies, 16 were selected for analysis. The findings revealed positive correlations between nomophobia and anxiety ($r = 0.31$), smartphone addiction ($r = 0.39$), and insomnia ($r = 0.56$). The study identifies the increasing prominence of mobile phones in everyday life, even for simple functions such as communication and education.

Nomophobia

Günlü and Uz Bas (2022) studied the mediation of self-control in the association between basic psychological needs and nomophobia among university students. The sample comprised 688 students and employed the Nomophobia Scale, Need Satisfaction Scale, and Self-Management Scale. The findings indicated the majority of students exhibited some degree of nomophobia, with only 0.4% not having a tendency. The research revealed need satisfaction to be positively associated with self-control, and self-control was a negative predictor of nomophobia. The study concluded that self-control completely mediates the association between basic psychological needs and nomophobia.

Nomophobia

Durak, H.Y. (2018) examined the relationship between smartphone use and nomophobia among adolescents, with a focus on variables that affect nomophobic behavior. The study used 786 middle school students in grades 7 and 8 in the fall semester of 2016. The study employed several data collection instruments and

statistical procedures, such as regression analysis. Findings indicated a positive correlation between social media addiction and nomophobia, implying heavy social media utilization is a reason for smartphone addiction among adolescents. The study demands further investigation and practical strategies to combat smartphone addiction and its psychological effects on the youth, most importantly the escalating problem of nomophobia.

Nomophobia

Amiri, Z., & Thaghinejad, N. (2018). explored how the Big Five personality traits, self-esteem, and age predict nomophobia among Bandar Abbas students. The study included 378 participants (250 female, 128 male) in a correlational design using nomophobia, personality traits, and self-esteem questionnaires. Findings indicated higher self-esteem, conscientiousness, and older age were all negatively related to nomophobia and that neuroticism was positively predictive. Together, the predictors accounted for 19% variance in nomophobia, emphasizing the role of personality and age in explaining nomophobia among students.

Nomophobia

Mir, R., & Akhtar, M. (2017) discussed the effects of restricting the use of mobile phones on undergraduate university students with moderate nomophobia. In the study, 64 university students in Islamabad participated, and the quasi-experimental control group design was applied. Participants also filled in the State-Trait Anxiety Inventory (STAI) and Nomophobia Questionnaire (NMPQ). It was indicated by the findings that students became highly anxious when away from their phones as would be anticipated. The study concluded that nomophobia and mobile phone separation strongly influence students' anxiety, with minimal alleviation from usual distractions in the academic environment.

Nomophobia

Okoye, C. A. F., (2017) examined whether personality traits predict nomophobia (fear of not having a smartphone) among undergraduates from the faculties of Education and Social Sciences at Nnamdi Azikiwe University, Awka. The participants included 181 students (43 males, 138 females, aged 18–27). The Big Five Personality Inventory and the Nomophobia Questionnaire (NMP-Q) were used to identify that extraversion, neuroticism, and openness to experience were significant positive predictors of nomophobia, whereas conscientiousness was a negative predictor. Agreeableness, nonetheless, did not predict nomophobia significantly. The study indicates that some personality traits, particularly extraversion, neuroticism, and openness to experience, are primary in the formation of nomophobic behaviors for undergraduates.

Loneliness

Yakici, E., & Traz, Z. (2018) examined the prediction of psychological resilience in emerging adulthood by life satisfaction and loneliness. The study was conducted on 659 university students (82% female, 18% male), who were randomly selected using cluster sampling. The study used Pearson correlation and multiple regression analysis, and the findings indicated that life satisfaction and loneliness were significantly associated with various components of psychological resilience, including family cohesion, social competence, and perception of the future. The findings indicate that enhancing life satisfaction and combating loneliness are essential to enhancing psychological resilience among young adults.

Loneliness

Ozdemir, Y., et.al, (2014) examined the relationships between depression, loneliness, low self-control, and internet addiction among Turkish young people. The

research sample consisted of 648 undergraduate students with a mean age of 22.46 years. Participants filled in questionnaires assessing depression, loneliness, self-control, and internet addiction. With the use of structural equation modeling, the research established that loneliness, but not depression, was significantly related to internet addiction via low self-control. The findings emphasize the contribution of loneliness and self-control to the formation of internet addiction and propose practical intervention strategies based on these factors.

Loneliness

Al Khatib, S. A. (2012). investigated the interplay among loneliness, self-esteem,self-efficacy, and gender among UAE college students. In all, 495 students at Al Ain University of Science and Technology took part in the study, having a mean age of 21.8 years. Through the UCLA Loneliness Scale, Rosenberg Self-Esteem Scale, and General SelfEfficacy Scale, the study ascertained that female students were more lonely compared to male students. Poorer self-esteem and self-efficacy correlated with higher loneliness, and self-esteem was the best predictor, explaining 22.9% of the variance. Self-esteem, self-efficacy, and gender combined explained 29.4% of the variance in loneliness. The study stresses the need to deal with factors such as self-esteem and self-efficacy to assist in decreasing loneliness among college students.

Loneliness

Caplan, S. E. (2007). examined the inter correlations between loneliness, social anxiety, and problematic internet use. The research suggests that psychosocial well-being and both in-person and online communication perceptions are crucial factors in internet use. It concluded that social anxiety, and not loneliness, more

accurately accounts for why people prefer online contact and have problematic internet use.

Rationale

Since smartphone usage habits and social behaviors tend to vary between working and non-working people differ and studying these variations can shed much light on how nomophobia influences feelings of isolation and social disconnection. Understanding the Distinct dynamics between these two groups will enable the development of interventions tailored to the specific mental health issues encountered by adults, enhancing successful coping strategies for both working and non-working populations.

Current study

The present research examines the relationship between nomophobia and loneliness among youths in Kerala. This research would look to evaluate how nomophobia is associated with loneliness and how it examines contrasts between employed versus unemployed individuals. The research subject population for the research is among young adults within the age range of 20 to 35 years. The descriptive statistics are used to capture demographic data while the correlation method will be used to analyze the correlation between the two measures. A t-test will be used to determine significant differences between working and not working individuals with respect to these variables.

Chapter III

Methodology

Problem Statement

To investigate the relationship between nomophobia and loneliness and to examine whether there is a difference between working and non-working Individuals.

Objectives

- To assess the relationship between nomophobia and loneliness among adults in Kerala.
- To assess the difference in nomophobia in working and non-working young adults in Kerala.
- To assess the difference in loneliness in working and non-working young adults in Kerala.

Hypothesis

- $H_0$1: There is no significant relationship between nomophobia and loneliness in young adults in Kerala.
- $H_0$2: There is no significant difference in nomophobia in working and non-working young adults in Kerala.
- $H_0$3: There is no significant difference in loneliness in working and non-working young adults in Kerala.

Operational Definition

Nomophobia

Nomophobia refers to the fear or anxiety an individual experience when they are unable to access their mobile phone or are disconnected from mobile communication and is measured using the Nomophobia Questionnaire (NMP-Q), where higher levels of nomophobia is indicated by higher scores and lower levels of nomophobia is indictaed by lower scores.

Loneliness

Loneliness can be defined as the feelings of isolation and finding social relationships as inadequate which is subjective in nature. It is measured using the UCLA Loneliness Scale**,** where, as the score increases, the loneliness level experienced also increases.

Research Design

The study uses a quantitative and correlational research design to assess the relationship between nomophobia and loneliness.

Sampling design

The data was collected using convenient sampling method. The sample of the study belongs to the population of young adults aged 20-35 in Kerala, including both working and non-working individuals. The total of 400 young adults from Kerala, with 200 working individuals and 200 non-working individuals belonging to 20-35 participated in the study.

Inclusion Criteria

- 400 samples of working and non-working individuals were studied.
- The sample consists of young adults aged 20-35.
- The entire sample was collected from Kerala.

Exclusion Criteria

- Individuals below the age of 20
- Individuals above the age of 35
- Individuals who are not residents of Kerala

Measures

Socio-demographic and clinical data-sheet

Data is gathered using a sociodemographic and clinical data sheet that includes information on age, gender, educational background, state, nationality, work status, and whether or not there are any serious physical or mental health conditions.

Nomophobia Questionnaire (nmp-q)

The Nomophobia Questionnaire (NMP-Q) was developed by Yildirim and Correia (2015) to assess the level of nomophobia, or the fear of being without a mobile phone. It is a 20 item long questionnaire in which items are rated on a 7-point Likert scale ranging from "1 = Strongly Disagree" to "7 = Strongly Agree." A higher total score indicates a higher level of nomophobia. The NMP-Q has a Cronbach's alpha of 0.94, indicating high internal consistency.

UCLA Loneliness Scale

The UCLA Loneliness Scale was developed by Russell, Peplau, and Ferguson (1978). It consists of 20 items assessing emotional and social loneliness, with responses rated on a 4-point Likert scale ranging from 1 = Never, 2= Rarely, 3= Sometimes and 4 = Often. The total score is calculated by adding the individual scores for each respone and higher scores indicate higher levels of loneliness. The scale has Cronbach's alpha of 0.89 which suggest a strong internal consistency, with a reported, and demonstrates good validity, correlating well with other measures of social isolation and psychological well-being.

Table 1

Reliability of the scales

Scale	**Cronbach's Alpha**
Nomophobia Questionnaire (nmp-q)	0.929
UCLA Loneliness Scale	0.930

Table 1 shows that the Nomophobia Questionnaire (nmp-q) has a reliability coefficient of 0.929, which is considered excellent reliability. The UCLA Loneliness Scale has a reliability coefficient of 0.930, which is also considered excellent reliability.

Procedure

The data for the study will be collected using Google Forms. The population of young adults will be taken from Kerala, India. A total of 400 samples will be collected based on the inclusion and exclusion criteria. The informed consent will be obtained from all the individuals. Socio-demographic data will be collected & further questionnaires assessing will be administered through Google forms. Data collected will be used strictly for research purpose. Participants will be assured that their identities will remain confidential and data will be used solely for research purposes.

Ethical considerations

This study followed strict ethical guidelines to ensure the privacy, protection, and well-being of participants. Informed consent was obtained through a detailed consent form that outlined the study's purpose, procedures. Anonymity and confidentiality were safeguarded by using initials instead of names, and participants were assured that their responses would be used exclusively for research purposes.

Neutral and non-invasive questions were carefully selected to minimize discomfort. They retained the right to withdraw at any stage of the survey without consequences. The collected data was handled solely by the researchers and the research supervisor, maintaining strict confidentiality for research purposes only.

Data Analysis

Descriptive statistics was used to summarize the data by providing the mean, median and standard deviation. Spearman's Correlation was used to determine the relationship between self-esteem, impulsivity and shopping addiction. Non-parametric test was used to determine if the difference between working and non-working is statistically significant.

Table 2

Shows the Summary of Shapiro-Wilk Test of Normality

	W	P
Nomophobia Questionnaire (nmp-q)	0.993	0.058
UCLA Loneliness Scale	0.987	0.001

Note A low p-value suggests a violation of assumption of normality

Table 2 shows that the Nomophobia questionnaire (nmp-q) with p = 0.058 does not deviates from normality, whereas the UCLA Loneliness Scale with p = 0.001 deviates from normality. As one of the tests deviates from normality, non-parametric test were used.

Chapter IV

Result and Discussion

Result

The research aims to understand the relationship between nomophobia and loneliness among young adults in Kerala. The results section presents the descriptive statistics which shows the mean, median and standard deviation of the data, the correlation research design to determine the relationship between the variables and non-parametric test is conducted to understand the difference between working and non-working individuals on these variables. Each understand hypothesis is analysed using appropriate statistical test, with tables summarizing the key results.

Table 3

Shows the descriptive statistics which includes the mean, median and standard deviation of the data

	Working/ Non-working	**Mean**	**Median**	**SD**
Nomophobia questionnaire (nmp-q)	Non-working	76.1	75.5	24.7
	Working	77.2	77.5	22.4
UCLA Loneliness Scale	Non-Working	26.7	27.0	12.2
	Working	24.6	26.0	12.9

Table 3 shows the descriptive statistics for the variables nomophobia and loneliness. It shows the mean, median and standard deviation of both working and non-working individuals for these variables namely nomophobia and loneliness.

Table 4

Shows the Spearman correlation between the variables Nomophobia and Loneliness

	Loneliness
Nomophobia	0.257***

Note. * p < .05, ** p < .01, ***p < .001

Table 4 shows the result of correlation done between nomophobia and loneliness. The results indicate that nomophobia and loneliness has a significant positive correlation [r (400) = 0.257, p=<0.001]. A positive correlation indicates that as nomophobia increases, loneliness also increases and vice versa. Since the p value is less than 0.001 the correlation between nomophobia and loneliness is statistically significant.

Table 5

Comparison of nomophobia among working and non-working individual

Nomophobia	**N**	**M**	**MD**	**SD**	**t**	**df**	**p**
Working	200	77.2	-1.13	22.4	-0.479	394	0.632
Non-working	200	76.1		24.7			

Table 5 shows Welch's t-test to compare nomophobia among working and non-working individual. The results suggest that there is no significant difference in nomophobia levels between working and non-working individuals. Since the p-value is above 0.05, we fail to reject the null hypothesis, meaning any observed difference is likely due to chance rather than a true effect.

Table 6

Comparison of loneliness among working and non-working individuals

Loneliness	N	M	MD	SD	U	df	p
Working	200	24.7	2.00	12.9	18192	398	0.481
Non-working	200	26.7		12.2			

Table 6 shows Mann-Whitney U-test to compare loneliness among working and non-working individual. The results suggest that there is no significant difference in loneliness levels between working and non-working individuals. Since the p-value is above 0.05, we fail to reject the null hypothesis, meaning any observed difference is likely due to chance rather than a true effect**.**

Discussion

This chapter gives an in-depth description of the major find36ings of the research, reviewing each hypothesis. It also discusses the research implications and proposes future research directions.

The study aimed to investigate the relationship between nomophobia and loneliness among young adults in Kerala and to compare whether there is a difference between the variables for working and non-working individuals. The results show that there is a significant positive correlation between nomophobia and loneliness. Furthermore, the study also found that there is no significant difference in nomophobia and loneliness between working and non-working individuals.

The initial hypothesis was that there is no significant relationship between nomophobia and loneliness among young adults of Kerala. The study findings, however, show a significant positive correlation between the two variables, revealing that as nomophobia is increases, loneliness also increases. This indicates that people with greater smartphone dependence might be more likely to experience social isolation or emotional disconnection. While the findings does indicate a strong relationship, it should be noted that

loneliness levels can also be affected by other variables, including social support, personality, and mental health. Furthermore, the psychological effects of overuse of smartphones, such as decreased face-to-face communication and emotional isolation, could also play a role in this correlation.

Multiple studies provide evidence for the connection between nomophobia and loneliness. For example, Gezgin et al., (2018) reported that participants scoring higher on nomophobia indicated higher loneliness, reinforcing the negative social impacts of excessive smartphone dependence. Lee et al. (2021) also noted that problematic smartphone usage among young adults was accompanied by increased feelings of loneliness and lower social satisfaction. These results align with the present study, which supports the belief that nomophobia is linked with loneliness. Additionally, the Alhassan et al. (2018) study showed that nomophobia can contribute to emotional distress and a decrease in actual-world social relationships, supporting the relationship identified in this study.

The second hypothesis was that there is no significant variation in nomophobia among working and non-working youth of Kerala. The study confirms this hypothesis as the findings show that there is no statistically significant variation in the two groups with regard to nomophobia. This implies that employment status has little to do with the experience of nomophobia among young adults. Whether they are working or not, their reliance on smartphones is comparatively equivalent. This might be attributed to the widespread usage of smartphones, which cuts across both workers and non-workers in a similar way, so that employment status becomes a less critical factor here.

Empirical work accords with the absence of notable differences in nomophobia and loneliness depending on employment. For example, Gezgin and Mihci (2020) reported no significant difference in the level of nomophobia between employed and unemployed people, which implies that smartphone addiction is prevalent among various occupational groups.

The third hypothesis stated that there is no significant variation in loneliness among working and non-working youth of Kerala. The result findings indicate that with regard to loneliness in both working and non-working young adults, there is no statistically significant variation. Given the fact that smartphone dependence is equally prevalent in both the groups due to the advancement in technology, the psychological impact of this reliance could show up equally among working and non-working individuals.

Similar results were found by Elhai et al. (2017) which showed that smartphone addiction and its related psychological effects, such as loneliness, were similar across various demographic characteristics, including employment status. The findings suggest that employment status might not be a major predictor of nomophobia or loneliness among young adults. Some employed individuals might have jobs that do not involve much social interaction, while some non-working individuals might be highly socially engaged. This makes employment status alone does not determine whether someone feels lonely or not.

Chapter V

Conclusion

Key Findings

The research on relationship between nomophobia and loneliness among young adults in Kerala founds that:

- There is a significant positive relationship between nomophobia and loneliness.
- There is no significant difference in nomophobia between working and non-working individuals.
- There is no significant difference in loneliness between working and non-working individuals.

Implications

Since increased smartphone usage results in an increased feelings of loneliness, fostering healthy mobile phone use habit is the need of the hour, considering how widespread advancements in technology has become. On the surface it might appear that technology helps us connect better to the people around us but research has proved it repeatedly that technology only has succeeded in widening the gap between us. Higher phone usage keeps us engaged with superficial interactions without satisfying our emotional and psychological needs. This leads to experiencing higher levels of loneliness. Interventions like counseling services, digital detox programs, and mindfulness sessions can assist users in lowering phone dependency and curbing loneliness better. At workplace, wellness interventions that facilitate breaks from digital modes and emphasize communication in person can reduce the affective burden associated with over use of smartphones.

Limitations

This research has certain limitations that need to be recognized. Firstly, the sample is confined to young adults in Kerala, which might limit the generalizability of the findings to other ages or areas. Secondly, the research is based on self-reports, which might impose biases like social desirability or self-reporting error. The cross-sectional nature of the study

further limits the possibility of determining causality between nomophobia and loneliness since it only provides a picture of the relationship at one point in time. Last but not least, the research does not include other possible factors such as social support, personality, or mental health conditions, which might affect loneliness levels. Future studies could improve upon these limitations by using a more representative sample, longitudinal designs, and other variables to better understand the relationship between nomophobia and loneliness.

Recommendation For Future Research

Future research on the interrelationship between nomophobia and loneliness can investigate several areas to add to the current body of research. A more representative and larger sample across various regions and age groups would increase the generalizability of the research. Factors such as social support, personality, or mental health issues, could influence this relationship, so future research could focus on how these variables influence the relationship between nomophobia and loneliness.

Conclusion

This study attempted to assess the relationship between nomophobia and loneliness among young adults in Kerala and to find out whether there is a difference between working and non-working adults. The results indicate a significant positive correlation between nomophobia. however, no significant difference between working and non-working individuals was found which implies that employment status has little impact on these variables. The findings highlight the emotional risks of high smartphone use and also highlight the value of encouraging healthy digital practices to combat social isolation. Overall, the research contributes to the existing body of research on the psychological impacts of smartphone dependency and identifies the value in future research into further factors and intervention strategies.

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Appendices

Appendix A: Consent Form

I am Barkathul Kubra M P, a third-year B.Sc. Psychology student at St. Teresa's College (Autonomous), Ernakulam. This survey is part of my final year project, which is being conducted under the guidance of my teaching assistant, Ms. Ann Maria Johnson. My study aims to understand "The Relationship Between Nomophobia And Loneliness Among Young Adults In Kerala".I kindly request that you fill out this form if you are between the ages of 20 to 35 and are a resident of Kerala. Please answer the following questions to the best of your ability. The survey will take approximately 10 minutes to complete, and your responses will remain completely anonymous. I assure you that your data will be kept confidential and used solely for research purposes. Participation in this study is entirely voluntary. You may withdraw from the survey at any time, without any consequences. I kindly request you to answer the questions sincerely, as it will greatly help with my research. There will be no financial risk associated with the study. If you have any concerns, Please contact: Email ID: barkathulkubra@gmail.com

Thank you again for your time and valuable contribution to our research!

" I consent to participate in this research and understand that my responses will be kept confidential. I also understand that I can withdraw from the study at any time without penalty."

- o Yes
- o No

Appendix B: Socio-Demographic data

1.Name (Initials, for eg: Sarah Williams — SW)

2.Age

3.Gender

- Male
- Female
- Other

4.which state are you from?

5.Are you a working professional now?

- Yes
- No

Appendix C: Nomophobia Questionnaire (nmp-q)

Please indicate how much you agree or disagree with each statement in relation to your smartphone. The scale consists of 20 items which are rated on 7-point Likert scale (ranging from 1 = strongly disagree to 7 =strongly agree).

1.I would feel uncomfortable without constant access to information through my smartphone.

- o 1 (Strongly disagree)
- o 2
- o 3
- o 4
- o 5
- o 6
- o 7 (Strongly agree)

2. I would be annoyed if I could not look information up on my smartphone when I wanted to do so

3. Being unable to get the news (e.g., happenings, weather, etc.) on my smartphone would make me nervous.

4. I would be annoyed if I could not use my smartphone and/or its capabilities when I wanted to do so.

5. Running out of battery in my smartphone would scare me.

6. If I were to run out of credits or hit my monthly data limit, I would panic.

7. If I did not have a data signal or could not connect to Wi-Fi, then I would constantly check to see if I had a signal or could find a Wi-Fi network.

8. If I could not use my smartphone, I would be afraid of getting stranded somewhere.

9. If I could not check my smartphone for a while, I would feel a desire to check it.

10. If I did not have my smartphone with me, I would feel anxious because I could not instantly communicate with my family and/or friends.

11. If I did not have my smartphone with me, I would be worried because my family and/or friends could not reach me

12. If I did not have my smartphone with me, I would feel nervous because I would not be able to receive text messages and calls.

13. If I did not have my smartphone with me, I would be anxious because I could not keep in touch with my family and/or friends.

14. If I did not have my smartphone with me, I would be nervous because I could not know if someone had tried to get a hold of me.

15. If I did not have my smartphone with me, I would feel anxious because my constant connection to my family and friends would be broken.

16. If I did not have my smartphone with me, I would be nervous because I would be disconnected from my online identity.

17. If I did not have my smartphone with me, I would be uncomfortable because I could not stay up-to-date with social media and online networks.

18. If I did not have my smartphone with me, I would feel awkward because I could not check my notifications for updates from my connections and online networks.

19. If I did not have my smartphone with me, I would feel anxious because I could not check my email messages.

20. If I did not have my smartphone with me, I would feel weird because I would not know what to do.

Appendix D: ULCA Loneliness Scale

This Scale is designed to measure one's subjective feelings of loneliness as well as feelings of social isolation. It consist of 4 point Likert scale, where:

1) I often feel this way

2) I sometimes feel this way

3) I rarely feel this way

4) I never feel this way

Please indicate how you feel about each statement

1.I am unhappy doing so many things alone

- o I often feel this way
- o I sometimes feel this way
- o I rarely feel this way
- o I never feel this way

2.I have nobody to talk to

3.I cannot tolerate being so alone

4.I lack companionship

5. I feel as if nobody really understands me

6. I find myself waiting for people to call or write

7. There is no one I can turn to

8. I am no longer close to anyone

9. My interests and ideas are not shared by those around me

10. I feel left out

11. I feel completely alone

12. I am unable to reach out and communicate with those around me

13. My social relationships are superficial

14. I feel starved for company

15. No one really knows me well

16. I feel isolated from others

17. I am unhappy being so withdrawn

18. It is difficult for me to make friends

19. I feel shut out and excluded by others

20. People are around me but not with me