Chapter 1

Introduction

In today's world, everyone uses mobile phones a lot. But sometimes, using them too much can be a problem, especially for young people. This research is all about understanding why some people have trouble with their phones, how they feel about being away from them (called nomophobia), and how the relationship with their parents might play a part in all of this. This research want to figure out how these things connect and affect each other. By studying this, ways can be find out to help people use their phones in a healthy way and make their relationships with family better.

1.1.Problematic mobile phone usage

The problematic use of mobile phones is the inability to regulate mobile phone use, which ultimately has negative consequences in everyday life. (Billieux, 2017). The use of smartphones both gives pleasure to the person because of use as a result of use and saves them from pressure or anxiety. Such reinforcement makes it easy to be addicted to the smartphone. Even though the symptoms of problematic smartphone use are similar to the symptoms of other addictions, it is essential to consider problematic smartphone use separately from addictions according to the international classification disease (ICD-10) criteria. The consequences of problematic smartphone use are not comparable to the intensity and limitations associated with other addictions. Therefore, the term problematic mobile phone usage has been used instead of an addiction term so that the phenomenon escapes automatic pathologization (Kuyulu & Beltekin, 2020).

To clarify the intensity and severity of problematic smartphone use, it can be differentiated between excessive-functional media use, which is characterized by users

implementing a request in a goal-directed and self-controlled manner and not experiencing serious negative consequences; excessive-dysfunctional media use, which is characterized by a low level of goal-directedness and control and is less effective, but is not experienced as burdensome by users and dependent media use, in which action control is even lower than in the other forms and the individual perceives the usage behavior or the usage time itself as inappropriately high(Wickord, 2005).

There has been research on the psychopathological factors associated with problematic mobile usage over the past 10 years. Among the most commonly studied associations are those between depression, anxiety, and problematic smartphone use. People with depression use their smartphones to cope with or suppress and avoid their depressive, negative emotions. The resulting excessive smartphone use leads to increased sleep problems and stress, which in turn increases depressive symptoms and leads to a vicious cycle. Other studies on the relationship between psychological factors and smartphone use behavior or the propensity to engage in problematic use behavior found positive associations between problematic smartphone use and technostress in several studies (Smetaniuk, 2014).

1.2. Parental Bonding

Parental bonding is defined as the parent-child relationship, such as the parent's behavior toward their child. Parental bonding determines the relationship between parents and children, the behavior and attitudes of parents towards their children. It refers to the ability of parents to be emotionally and behaviorally available to the child (Gladstone & Parker, 2005).

1.2.1. Importance of parental Bonding

Parental Bonding is essential for a baby. Studies of newborn monkeys who were given mannequin mothers at birth showed that, even when the mannequins were made of soft material and provided formula to the baby monkeys, the babies were better socialized when they had live mothers to interact with. The baby monkeys with mannequin mothers also were more likely to suffer from despair. Scientists suspect that lack of bonding in human babies can cause similar problems. Most infants are ready to bond right away. Parents, on the other hand, may have mixed feelings. Some feel an intense attachment within the first minutes or days after their baby's birth. For others, it may take a bit longer. But bonding is a process, not something that takes place within minutes or that can only happen within a certain time period after birth. For many parents, bonding builds out of everyday caregiving (Joseph, 2023).

1.2.2. How Do Babies Bond?

When you're a new parent, it can take a while to understand your newborn and all the ways you can interact. Touch becomes an early language as babies respond to skin-to-skin contact. It's soothing for both you and your baby while promoting your baby's healthy growth and development. Eye-to-eye contact provides meaningful communication at close range. Babies can follow moving objects with their eyes. Your baby tries early on to imitate your facial expressions and gestures.

Babies prefer human voices and enjoy vocalizing in their first efforts at communication. Babies often enjoy just listening to your conversations, as well as your descriptions of their activities and environment (Joseph, 2023).

1.2.3. What Can Affect Bonding?

Bonding may be delayed for various reasons. Parents-to-be may form a picture of their baby having certain physical and emotional traits. When, at birth or after an adoption, they meet their baby, reality might make them adjust their mental picture. Because a baby's face is the primary tool of communication, it plays a critical role in bonding and attachment. (Joseph, 2023).

Hormones can also significantly affect bonding. While nursing or feeding a baby in the first hours of life can help with bonding, it also causes the outpouring of many different hormones in moms. Sometimes mothers have trouble bonding with their babies if their hormones are raging or they have postpartum depression. Bonding can also be delayed if a mom's exhausted and in pain after a long, difficult delivery. If a baby spends some time in intensive care, the mother may initially be put off by the amount and complexity of equipment. But bonding with the baby is still important (Joseph, 2023).

1.3. Nomophobia

Nomophobia is defined as the fear of being out of mobile phone contact and is considered a modern age phobia introduced to our lives as a byproduct of the interaction between people and mobile information and communication technologies, especially smartphones (Yildirim, 2015)

1.3.3. Causes

There are different predicters and causes which has been proved by previous literature e.g., obsessive thoughts and compulsive behavior related to a smartphone, interpersonal sensitivity, which is the ability to assess the abilities and traits from

nonverbal cues in others, and may include feelings of personal inferiority, social discomfort, the number of hours of smartphone use each day (Fletcher, 2022).

1.3.4. Signs of Nomophobia

A phobia is a type of anxiety disorder that is characterized by an irrational fear of an object or situation. In this instance, the fear is of being without a phone or being out of the reach of cell phone service. While nomophobia is not a clinical diagnosis, some of the signs that are commonly identified as related to this fear include:

- The inability to turn off the phone.
- Constantly checking phone for missed messages, emails, or calls.
- Charging battery even when your phone is almost fully charged.
- Taking phone everywhere, even into the bathroom.
- Repeatedly checking to make sure that the phone is there.
- Fear of being without Wi-Fi or being able to connect to a cellular data network.
- Worrying about negative things happening and not being able to call for help.
- Stress over being disconnected from one's online presence or identity.
- Skipping activities or planned events in order to spend time on the mobile device.
- In addition to emotional and cognitive symptoms, people may also experience physical symptoms as well. People might breathe faster, their heart rate may increase, they may sweat more, and may shake or tremble. They may also begin to feel weak or dizzy (Fletcher, 2022).

1.3.5. Reasons of Nomophobia

There are a number of reasons why people experience symptoms of nomophobia.

1.3.5.1. Usefulness for Daily Tasks. The usefulness of mobile phones plays a key role in this fear of being without one's phone. Smartphones are capable of doing so much; people use their phones to stay in touch, to research things that are interested in, to conduct business, to stay organized, to share personal information, and even to manage money. Because people now turn to their phones for so many important tasks, it is perhaps not surprising that people fear being without their devices. Being without your phone can leave people feeling cut off and isolated from important aspects of their life including friends, family, work, finances, and information (Fletcher, 2021).

1.3.5.2. Amount of Use Each Day. People use mobile phone a lot on daily basis. A study published in the Journal of Behavioral Addictions found that college students spend as much as nine hours per day on their cell phones. Researchers suggest that this constant cell phone use represents a paradox of technology. Smartphones can be both freeing and oppressing. People are able to communicate, gather information, and socialize, but at the same time cell phone use can lead to dependence that is both restricting and stress-inducing (Fletcher, 2022).

1.3.5.3. Familiarity with Technology. The National Institute on Drug Abuse for Teens suggests that this cell phone separation anxiety may be more common in teens and young adults.6 Young people in this age cohort are mostly digital natives, meaning they were born and brought up in the age of digital technology. Because they had early experience with computers, the internet, and cell phones, these devices are often an integral part of daily life (Fletcher, 2022).

1.3.6. How to cope with Nomophobia?

If someone has symptoms of nomophobia or if one feels like his/her mobile phone use is causing problems in his/her life, talking to a mental health professional can help. While there is no specific treatment for nomophobia, the therapist may recommend exposure therapy, cognitive-behavioral therapy, or both to address symptoms. In some instances, doctors may also prescribe some type of medication to address symptoms of anxiety or depression that one is experiencing (Kolakaj, 2022).

1.3.6.1. Exposure Therapy. Exposure therapy is a behavioral technique in which a person learns to gradually face his/her fears. In the case of nomophobia, one will progressively get used to going without a phone. A person start very small (like leaving phone in another room for a certain amount of time) and then progressively working way up to longer periods of time without phone such as leaving it home while going out to the store or turning it off while there is something else doing something else(Cherry,2023).

1.3.6.2. Cognitive-Behavioral Therapy. Cognitive-behavioral therapy (CBT) is a process that involves addressing the negative and irrational thought patterns that contribute to maladaptive behaviors (Cherry, 2023).

1.3.6.3. Medications. While there is no FDA-approved medication for the treatment of nomophobia, doctor or psychiatrist may prescribe anti-anxiety medications or antidepressants to address some of the symptoms. Selective-serotonin reuptake inhibitors such as Lexapro, Zoloft, and Paxil are often used as first-line treatments for anxiety and depression (Cherry, 2023).

1.3.6.4. Behavioral Therapy for nomophobia. If someone thinks he has nomophobia or feel that he is spending too much time on his phone, there are things that he can do to better manage his device use. Set boundaries. Establish rules for personal device use. This might mean avoiding mobile device at certain times of the day, such as during meals or at bedtime. Find a balance. It can be all-to-easy to use phone to avoid face-to-face contact with other people. Focus on getting some personal interaction with others every day (Cherry, 2023).

1.3.6.5. Take short breaks. It can be tough to break the mobile phone habit, but starting small can make the transition easier. Start by doing small things such as leaving phone in another room during meals or while engaging in another activity (Cherry, 2023).

1.3.6.6. Find other ways to occupy your time. If someone fined that he is using his phone excessively out of boredom, try looking for other activities to distract from his device. Try reading a book, going for a walk, playing a sport, or engaging in a hobby that he enjoy. Nomophobia is a growing problem along with other fears and behavioral addictions tied to technology use. Given how reliant many people are on their mobile phones for work, school, news, entertainment, and social connection, it can be an incredibly difficult problem to overcome (Cherry, 2023).

Stopping cell phone use entirely is not realistic but learning how to set limits and boundaries on how much someone allow phone to control his life. Taking an occasional break from phone, engaging in activities separate from his phone, and finding distractions to keep you busy rather than mindlessly playing on phone are all good places to start (Cherry, 2023).

1.4. Theoretical Framework

John Bowlby's attachment theory.

John Bowlby's theory describes attachment theory as the relationship or bond that one person feels for another person even when the other person is not present (Becker, 2011). He first formulated attachment theory was to explain the reason and process by which infants become emotionally attached to their mothers or other primary caregivers. According to him, infants build an “internal working model of self” (i.e., loving or unloved) and others (i.e., reliable, trustworthy), which leads to later interpersonal connectedness. Rejection and ambivalent provision of care leads infants to feel insecure, which can lead to deviations in their personality development (Gladstone & Parker, 2005).

In Attachment Theory, he postulates the concept of "separation anxiety" which results from the removal of infants from their caregivers and the "negative long-term effects of an insecure early relationship". She argues that the loss of a mother figure can cause difficulties in later relationships, self-understanding and even the risk of psychopathological reactions. Bowlby further argues that a warm and continuous relationship with a caregiver in an adaptive way will lead to psychological health and well-being throughout life (Thompson & Ros, 2008).

Bowlby goes on to explain that if a parent responds to a child by being emotionally available, comforting, perceptive and responsive, the child will develop a stronger and healthier sense of attachment that will carry over into later relationships. Otherwise, if the parent is emotionally unavailable, or unresponsive, the attachment-building response will be inhibited. (Pickard et al., 2011).

Bowlby's classic research on infant-mother attachment theory has been extended to different populations, types of relationships, and non-human objects. He classified attachment styles into three general categories, i.e., secure, anxious, and avoidant, which are consistent with the three childhood attachment styles proposed in the original studies with infants (Fraley, 2010).

1.4.1. Secure attachment

It is associated with a negative model of self and a positive model of others. An anxious attachment is characterized by greater emotional dependence, a desire for greater commitment and closeness, and more intense attention from partners. Individuals dominant in this attachment style tend to have a fear of rejection, negative self-worth, fear of being abandoned or unloved, and therefore seek a higher need for closeness and intimacy. They seem obsessive and hyper vigilant in their relationship (Fraley, 2010).

1.4.2. Anxious attachment

It is associated with a negative model of self and a positive model of others. Anxious attachment is characterized by greater emotional dependence, desire for more commitment and closeness, and more intensive attention from partners. Individuals' dominant in this attachment style tends to have a fear of rejection, a negative perception of self-worth, worry about being abandoned or unloved, and thereby, seek a higher need for closeness and intimacy. They seem to be obsessive and hyper vigilant in the relationship (Fraley, 2010).

1.4.3. *Fearful avoidant attachment*

Fearful avoidant attachment, also known as disorganized, is a combination of anxious and avoidant styles and is rarer and less discussed than the other three. People with fearful avoidant attachment desire connection, but fear getting hurt once they are in a relationship and tend to push people away as a result. Bowlby's attachment theory primarily focuses on the emotional bonds formed between infants and their primary caregivers, typically parents. It doesn't directly address issues like problematic mobile phone usage or nomophobia, which are modern phenomena related to technology and anxiety (Fraley, 2010).

1.5. Relationship with variables

1.5.1. Parental bonding

Strong parent child bond, as emphasized by Bowlby's theory, can influence a child's sense of security and attachment. If parents are consistently unavailable due to excessive mobile phone use, it may affect the child's emotional development and attachment style (Fletcher, 2022).

1.5.2. Problematic mobile phone usage

Excessive phone use, especially when it interferes with in person interactions, can distrupt family relationships. Bowlby's theory suggests that secure attachments are crucial for healthy development, so problematic phone usage that detracts from parental bonding might indirectly relate to attachment theory (Fletcher, 2022).

1.5.3. Nomophobia

Nomophobia or the fear of being without one's mobile phone, can be seen as a manifestation of attachment-related anxiety. People may become overly reliant on their phones for social connections, resembling the way infants seek proximity to caregivers. This dependence on the technology might reflect the need for emotional security, albeit in

a different form (Fletcher, 2022).

Chapter 2

Literature Review

The present study was aimed at assessing the association among problematic mobile phone usage, parental bonding, and nomophobia. This chapter illustrates the previous research that demonstrated how problematic mobile phone usage, parental bonding and nomophobia are related and how parental bonding moderates the relationship between problematic mobile phone usage and nomophobia.

A study conducted to examine the relationships between parental bonding, mindful awareness, and nomophobia in college students. The study hypothesized that parental bonding and mindfulness were likely to predict nomophobia in college students; and mindfulness was likely to mediate the relationship between parental bonding and nomophobia. Using a cross-sectional research design and a non-probability purposive sampling technique, a sample of 208 young adults was selected. Data were collected through the parental bonding Questionnaire, the Attentional Mindfulness Scale, and the Nomophobia Questionnaire. SPSS and AMOS software were used for data analysis. A Pearson Product Moment Correlation showed that secure parental bonding was positively related to nomophobia and mindful awareness. Fearful and preoccupied parental bonding were negatively related to mindful awareness and both positively related to nomophobia. This study showed that secure, fearful, and preoccupied parental bonding positively predicted nomophobia. A secure parental bonding positively predicted mindful attention, but a fearful and preoccupied parental bonding negatively predicted mindful attention. In addition, mediation analysis showed that mindfulness significantly mediated the relationship between parental bonding and nomophobia. It was concluded that

mindfulness could be useful in managing nomophobia. This study relates to this research as this research indicates that parental bonding was used as a moderator between problematic mobile phone usage and nomophobia. Secure and positive parental bonding weeken the relationship between problematic mobile usage and nomophobia. And fearful parental bonding can cause stronger the relationship between problematic Mobile phone usage and nomophobia (Areeb et al., 2022).

Nomophobia is considered a "disorder of the modern world" and defined as "the fear of not having access to a mobile phone". Another study conducted to investigate gender differences in the relationship between problematic Internet use and nomophobia. A structural equation modeling approach was used to assess the relationship between nomophobia and four dimensions of problematic Internet use, including reduced impulse control, loneliness/depression, social comfort, and distraction. The study used the Online Cognitive Scale (OCS) and the Nomophobia Questionnaire (NMP-Q) to collect data from 490 university students. Results showed that loneliness/depression, distraction, and reduced impulse control were significantly related to nomophobia. However, there was no significant relationship between social comfort and nomophobia. The results of the multi group analysis further indicated significant gender differences in the relationship between problematic Internet use and nomophobia. Results for women showed that loneliness/depression, reduced impulse control, and distraction were positively and significantly related to nomophobia. While for men, only loneliness, depression and distraction were found to be significantly related to nomophobia. The results showed a statistically significant difference in nomophobia and problematic internet use between women and men, with women scoring higher than men. This study is related to this

research as this research indicate that nomophobia and problematic mobile phone usage significantly related with each other (Arpaci, 2017).

In order to clarify the mechanism of onset of problematic mobile phone use and to develop better strategies for the prevention and treatment of problematic mobile phone use, the current study tested the negative impact of parental rejection on problematic cell phone use and the mediating role of perceived discrimination and school involvement on this association. The sample consisted of 356 Chinese university students (36.3% male) aged 17 to 19 years. Participants completed self- report questionnaires assessing parental rejection, perceived discrimination, engagement in school and problematic use of mobile phones. Results documented that parental rejection was a direct risk factor for problematic cell phone use. This association was mediated by perceived discrimination, and there was also a sequential mediating effect in which perceived discrimination led to low school involvement. This study relate to this research as this research indicate that strong parental bonding can cause less risk of problematic mobile phone usage and weak parental bonding can cause high risk of problematic mobile phone usage (Zhu et al.,2019).

Mobile phones are changing behavior, relationships, communication and the dynamics of the physical environment. This has increased the dependence on the device for daily activities. As a result, "nomophobia", defined as the fear of being without a mobile phone, emerged as a phobia. The aim of the current study was to determine whether nomophobia may increase the likelihood of problematic addiction, prohibited and dangerous use of mobile phones. The sample included 2,838 participants (male n = 1,337 female n = 1,501) recruited from various online platforms. The instrument for

measuring nomophobia was the Nomophobia Questionnaire (NMP- Q), while problematic mobile phone use was measured with the Problematic Mobile Phone Use Questionnaire (PMPUQ-R). Findings revealed a strong positive correlation between nomophobia and all three problematic use factors. In addition to nomophobia, regression models revealed younger age and more time spent on a mobile phone per day significantly increased problematic addiction, prohibited use, and hazardous use. Males were more likely to engage in illicit and hazardous use, while no significant gender differences were found in dependent use. These findings support the need for further research on the relationship between nomophobia and specific aspects of problematic cell phone use, such as cell phone use while driving. This study is related to this research as this research indicates the positive correlation between problematic mobile phone usage and nomophobia (Environ, 2020).

Another Study conducted to identify problematic mobile phone usage, nomophobia, and related behaviors among French university students. During the 2013–2014 university term, students from Haute- Normandy (France) completed an anonymous, self-administered questionnaire that collected information on smartphone ownership and frequency of MP use calling, texting, and web surfing. Frequency of nocturnal MP awakenings, availability demands from the neighborhood, perceived stressful availability, and anxiety caused by MP unavailability for one day nomophobia were measured using a 4-point Likert scale, and comments were also collected on closed-ended questions regarding too long MP use (Yes/No). Students in the first quartile of scores (≥7/13) were compared with other students. The results show that almost one in three university students suffered from nomophobia. Problematic MP use was

particularly prevalent among women and was associated with cyber addiction and sleep problems. It would be interesting to assess how increased MP use may negatively affect academic performance, mental health, and subjective well-being. This study is related to this research as this research indicates that problematic mobile phone use may lead to nomophobia (Tavolacci et al., 2015).

Smartphone addiction has adverse consequences that affect various populations, including medical students. Parental attachment in childhood has been linked to addiction and recovery in later life. Therefore, a study conducted aimed to investigate the associations between parental bonding and smartphone addiction in Chinese medical students. Binary logistic regressions were used to examine associations between parental attachment to mothers and fathers and smartphone addiction. Care and protection interaction terms were included in the models. A total of 517 medical students were included in the study. The prevalence of smartphone addiction was 48.16% (n = 249). The estimated effects of paternal parenting on smartphone addiction differed. Maternal protection was positively associated with smartphone addiction, and maternal care increased the estimated effect of protection on smartphone addiction. Paternal care was negatively associated with smartphone addiction. The results of this study show that Chinese medical students with overprotective mothers or with indifferent fathers tended to show traits of smartphone addiction. Further studies on factors influencing the associations between parental bonding and smartphone addiction may pave the way for potential family-oriented interventions for smartphone addiction. This study is related to this research as this research indicates the negative correlation between parental relationships and problematic mobile phone usage (Xin et al., 2022).

A study conducted on the relationship between parents and children and problematic Internet use show mixed results and are influenced by many factors, this meta-analysis of 75 primary Chinese and English language studies from with 110,601 participants (aged 6–25 years)) examined (a) the overall association between the parent-child relationship and problematic Internet use and (b) whether this association is influenced by their types, countries, measures, subjects of the parent- child relationship, gender, age, year, and publication types. We used funnel plots, Classic Fail-safe N and Egger's test to test for publication bias and for moderation with tests of homogeneity. Results showed a negative association between parent-child relationship quality and problematic Internet use ($r = -0.18$, 95% CI = [−0.20, −0.15]). A moderation analysis found that compared to Internet addiction tendencies, the association between social media addiction and the parent-child relationship was stronger. Moreover, the association between the parent-child relationship and problematic Internet use was stronger among emerging adults (18–25 years) than among adolescents (12–18 years). Moreover, the negative association between the parent-child relationship and problematic Internet use was weaker (a) in Italy than in Turkey and China, (b) using the CPS (Parental Closeness Scale), IPPA (Inventory of Parent-Peer Attachment), or PARQ (Parent -Child Relationship Questionnaire) measuring the parent-child relationship than the PCCS (Parent-Child Communication Scale), (c) when using the IAT to measure problematic Internet use rather than the IGDS or APIUS. Thus, these results suggest a negative association between parent-child relationships and problematic Internet use, and this association is moderated by types of problematic Internet use, age, country, parent-child relationship scale, and problematic Internet use. This study is related to this research as it

indicates that stronger parent child bonding negatively correlates with problematic mobile usage (Zhu et al., 2022).

Another study was conducted to examine the mediating role of negative parental attitudes and adolescent aggression in the relationship between parental and adolescent smartphone addiction. This was a cross-sectional descriptive study that used data from the Korean Child and Youth Panel Survey. The study included 2,360 adolescents 1,275 boys, and their parents 2,148 mothers who used smartphones. Adolescents completed questionnaires assessing negative parental attitudes, aggression, and smartphone addiction, while parents completed questionnaires assessing their sociodemographic characteristics and smartphone addiction. Parental smartphone addiction was directly and indirectly related to adolescent smartphone use. Additionally, negative parental attitudes and adolescent aggression played serial mediating roles in the relationship between parental smartphone addiction and adolescent smartphone addiction this study is relate with this research as it indicates that parental bonding and smart phone addiction negatively correlate with each other (Young et al., 2022).

Most individuals spend a great amount of time on their smartphones. The intense usage of smartphones leads to some physical symptoms, good and bad feelings, and pathological addiction, and depression, symptoms such as fear anxiety, productivity, and low academic achievement. For this reason, prevention activities must be prioritized when dealing with the intense and uncontrolled usage of smartphones. The aim of this study is to determine nomophobia levels and smartphone addiction among 12–18 age group secondary and high school students and to investigate the demographic and academic variables predicting these levels. Designed with a relational model, the

population of this research consists of 612 students studying at all levels of secondary school and high school. Personal information form and two different scales were used in the research. Descriptive analyses and hierarchical linear multiple regression analyses were used in the analysis of the data obtained by means of data collection in the research. As a result of the research, there is a significant relationship between smartphone addiction and nomophobia. This study is related to this research as it indicates that problematic mobile phone usage and nomophobia significantly correlate with each other (Hatice et al., 2019).

Considering the prevalence of mobile phone use and more dependence on it, it is necessary to know the factors affecting it, the purpose of this study was to study prediction of nomophobia based on loneliness with mediating role of perceiving parental bonding. This research was a descriptive study of structural equation modeling. This study was conducted in the presence of 500student by available sampling method among students Kashan city in year academic 1400-1401.To measure the variables, nomophobia questionnaire of Yildirim and Correia (2015), parental styles questionnaire of Naghashian (2006) and short form of the social and emotional loneliness scale for adults of DiTommaso and et al (2004) were used. Data were analyzed using Pearson correlation and structural equation modelling using SPSS-24 and AMOS software was investigated. The results showed that there is a positive and significant relationship between perceived parental bonding and loneliness with nomophobia. This study is related to this research as this research indicates that lack of parental bonding can cause nomophobia (Kolakaj et al., 2022).

Parental mediation is a type of behavior that could protect children against the negative use and effects of smartphones. Based on protection motivation theory, this research (a) predicted parental mediation based on parents' threat and efficacy perceptions and (b) predicted threat and efficacy perceptions based on parenting styles and parents' addiction to smartphone use. An online survey of 448 parents of fourth to sixth graders was conducted. Results showed that both restrictive and active parental mediation were predicted by perceived severity, response efficacy, and self- efficacy. With regard to parenting styles, (a) authoritative parenting was positively related to perceived severity as well as response- and self-efficacy, whereas (b) permissive parenting was negatively related to self-efficacy. In addition, parents' addiction was a negative predictor of perceived severity, but a positive predictor of perceived susceptibility. This study is related to this research as this research indicates the association of parental bonding with negative use of mobile phones (Haug et al., 2015).

Mobile phones are changing behavior, relationships, communication, and the dynamics of the physical environment. This has increased the dependence on the device for daily activities. As a result, "nomophobia" emerged as a new phobia, defined as the fear of being without a mobile phone. The aim of the current study was Find out if nomophobia can increase the likelihood of problematic, addictive, illicit and dangerous cell phone use. The sample included 2,838 participants (male n = 1,337 female n = 1,501) recruited from various online platforms. The instrument to measure nomophobia was the Nomophobia Questionnaire (NMP-Q), while problematic mobile phone use was measured with the Problematic Mobile Phone Use Questionnaire (PMPUQ-R). Findings revealed a strong positive correlation between nomophobia and all three problematic use

factors. In addition to nomophobia, regression models also revealed younger age and more time spent on a mobile phone Problematic addiction, prohibited use and dangerous use increased significantly during the day. Men were more likely to engage in illicit and hazardous use, while no significant gender differences were found in dependent use. These findings support the need for further research into the relationship between nomophobia and specific aspects of problematic cell phone use, such as cell phone use while driving. This study is related to this research because it shows a significant relationship between problematic use of mobile phones and nomophobia as my research (Kaviani et al, 2020).

This study investigated the effect of problematic internet use, social appearance anxiety, and social media use on nursing students' levels of nomophobia. This study was conducted with 755 undergraduate nursing students. Sociodemographic data were evaluated using percentages and means. The effect of problematic Internet use, social appearance anxiety, and social media use on levels of nomophobia was assessed by simple linear regression analysis. There is a direct correlation between levels of nomophobia and the variables of problematic internet use, social appearance anxiety and social media use. This study is related to this research because this research suggests a significant correlation between problematic cell phone use and nomophobia (Ayar et al., 2018).

Lack of physical activity is a common problem among college students, as they may lead a sedentary lifestyle due to excessive time spent on smartphones and using social media. This can result in problematic mobile phone use and nomophobia (fear of not having a mobile phone). Additionally, prior evidence shows that weight-related self-

stigma is an important factor contributing to low physical activity. Therefore, this study investigated the associations between PMPU, nomophobia, and physical activity among university students in Mainland China, Taiwan, and Malaysia. Participants (3,135 Mainland Chinese, 600 Taiwanese, and 622 Malaysians) completed the Bergen Social Media Addiction Scale (BSMAS), Smartphone Addiction Scale (SABAS), Nomophobia Questionnaire (NMPQ), Body Stigma Questionnaire (WSSQ), and the Short Form International Questionnaire physical activities (IPAQ-SF). The measurement invariance of the evaluated questionnaires was supported across three regions. The current findings analyzed using partial least squares structural equation modeling showed that (i) greater nomophobia was associated with higher levels of physical activity, (ii) greater weight-related self-stigma was associated with higher levels of physical activity, and (iii) greater nomophobia was associated with greater weight-related self-stigma. Although the current findings suggest the possibility that experiencing some level of nomophobia or weight-related self-stigma appears to help improve physical activity, this is not recommended to be encouraged, but reducing PIU should be targeted as a means of improving physical activity (Liu et al., 2022).

Problematic mobile phone use among teenagers has become a global problem these days. Pubbing, meaning the use or distraction of a cell phone in the presence or company of other people, has become a common occurrence in family life. Thus, this study examined the association between parental pubbing and problematic adolescent cell phone use and its underlying mechanism, the mediating role of the parent–child relationship, and the moderating role of self-control. A sample of 726 Chinese adolescents was recruited to administer measures of parental pubbing, parent-child

relationship, self-control, and problematic cell phone use. Results indicated that the parent–child relationship partially mediated the association between parental pubbing and problematic adolescent cell phone use. Moreover, both the direct association between parental pubbing and problematic adolescent cell phone use and the mediating effect of parent–child relationship was moderated by self-control, specifically, both effects were stronger for individuals low in self-control. These findings have advanced our understanding of risk factors for troubled adolescents Cell phone use and parental influences on adolescents. This study is related to this research because this research shows the effect of parental attachment on problematic cell phone use (Gezgin et al, 2018).

Young adolescents with abusive mothers act violently and are at high risk of developing problematic smartphone use as a means of avoiding a disappointing reality and connecting with others via smartphone This study is based on the following hypotheses: Maternal abusive parenting predicts smartphone problem youth use; and the relationship between abusive maternal parenting and problematic smartphone use by young adolescents was moderated by trust in peer relationships and/or amount of time spent socializing with peers. Participants were 506 high school students aged 13 to 15 in South Korea. Using multiple hierarchical regression, results reveal an effect of maternal abusive parenting on adolescent problematic smartphone use and a moderating effect of amount of time spent hanging out with peers on the relationship between abusive parenting and problematic smartphone use. Adolescents perceived trusting peer relationships did not moderate the relationship between these two variables. These results suggest that forming at least a minimal amount of peer relationships contributes to the

fulfillment of the need for belonging, thereby buffering the impact of abusive parenting on adolescent problematic smartphone use. . This study is related to this research because this research shows the effect of parental attachment on problematic cell phone use (Kuss & Harkin, 2018).

Another study examined the association between parental support, self-esteem, fear of missing out (FoMO) and problematic smartphone use in adolescents. They found that higher parental support led to higher self-esteem and lower FoMO, both of which contributed to lower levels of problematic smartphone use. This suggests that positive parental relationships can help adolescents develop healthier coping mechanisms and reduce cell phone addiction. This study is related to this research as it indicate negative correlation between parental bonding and problematic mobile phone usage (Gao & Zhang, 2022).

This research investigated the association between dimensions of parental attachment (overprotection, autonomy, and parental warmth) and smartphone addiction among Chinese medical students. The findings were complex: while higher maternal protection was associated with increased dependency, higher levels of maternal care and paternal autonomy appeared to have protective effects. This suggests a negative relationship between parental bonding and smartphone use, with different dimensions influencing it in different ways. This study is related to this research as it indicates negative correlation between parental bonding and problematic mobile phone usage (Zhou & Li, 2022).

This research examined the indirect effects of parental attachment styles on adolescent nomophobia, mediated by attachment anxiety and avoidance. They found that

insecure attachment styles characterized by high anxiety and avoidance were associated with increased nomophobia. In addition, the study revealed that parental overprotection and low warmth contributed to higher attachment anxiety and avoidance, ultimately leading to greater nomophobia. This suggests that fostering secure attachment through supportive and nurturing parent-child relationships may be critical to preventing adolescent nomophobia. This study is related to this research as it indicates indirect effect of parental bonding on nomophobia (Chen & Yang, 2022).

A study examined the complex interplay between parental attachment, social media use, and adolescent nomophobia. Findings revealed that secure parental attachment (characterized by high warmth and autonomy) was associated with lower nomophobia, even when adolescents engaged in high levels of social media use. However, insecure attachment styles amplified the negative effects of social media use, leading to increased nomophobia. This suggests that secure parental relationships may act as a protective factor against the potential negative consequences of excessive social media use on cell phone addiction .This study is related to this research as it indicates negative correlation between parental bonding and problematic mobile phone usage (Lee, 2021).

2.1. Rationale

This study helps determine the impact of parental bonding on mobile phone use, which causes nomophobia. In Pakistan, lots of people use mobile phones a whole bunch. This is making it important to figure out how using phones too much, getting along with parents, and being scared of not having a phone (nomophobia) are all connected for young people in Pakistan. Families in Pakistan often really value strong connections between parents and kids, and as technology grows fast, it's crucial to see how it affects

our families. This study aims to look at how close relationships with parents, which are a big deal in Pakistani culture, might make phone use better or worse. Also, we want to understand why some people in Pakistan get really scared at the thought of not having their phones. By doing this, we hope to learn things that can help families, teachers, and people who work with mental health to deal better with how technology is changing things for young adults in Pakistan. This study is the source of mindfulness for those parents who are concerned about their children's problematic mobile phone operation that leads to nomophobia. Through this study parents know about the significance of parental bonding in children's lives.

2.2. Objectives

- To assess the relationship among problematic Mobile Phone Usage, Parental Bonding and Nomophobia.
- To assess the moderating role of Parental Bonding between Problematic Mobile Usage and Nomophobia.
- To assess how Parental Bonding, and Problematic Mobile Phone usage predicts Nomophobia.

2.3. Hypothesis

H1

There is likely to be a relationship among Problematic Mobile Phone Usage, Parental Bonding and Nomophobia.

H2

Problematic Mobile Phone Usage, and Parental Bonding are likely to predict Nomophobia in young adults.

H3

Parental Bonding is likely to moderate the relationship between Problematic Mobile Phone Usage and Nomophobia.

Hypothesized Model

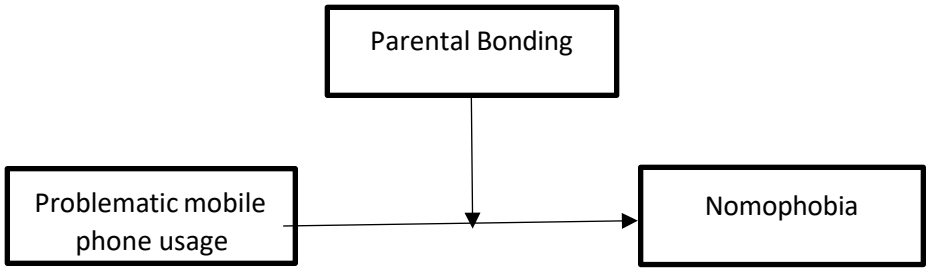

Figure1. Hypothetical Model showing the Mediating role of Parental Bonding in an association between Problematic Mobile Phone Usage, and Nomophobia.

Chapter 3

Method

3.1. Research Design

Correlational research design was used in this study.

3.2. Sampling Strategy

The sample comprised of (N=300) Young adults, including men (n = 156) and women (n = ‘144) ranging in age from 18 to 29 years (M = 20.26 and SD = 1.85). Convenience sampling strategy was used to collect data from universities.

3.3. Sample

N = 300 participants, ranging in age between 18- 29 years (young adults) including men (n=156) and women (n=144) from different universities were taken in this study.

3.3.1. Inclusion Criteria

• Hostiles were included.

• University students were included.

3.3.2. Exclusion criteria

• People who do part time jobs.

• People who work online.

Table 1

Descriptive statistics of demographic variables.

Variables	*f (%)*	*M(SD)*
Gender		
Male	156(52.0)	
Female	144 (48.0)	
Age		20.26 (1.86)
Family system		
Joint	139 (46.3)	
Nuclear	139 (46.3)	
Birth order		2.67 (1.35)
No. of siblings		4.39 (1.67)
Family income		10.00 (12.61)
Area of Residence		
Rural	138 (46.0)	
Urban	161 (53.7)	
Employment status		
Full-time	22 (7.3)	
Part time	26 (8.7)	
Self- employed	15 (5.0)	
Unemployed	237 (79.0)	
Marital status		
Single	282 (94)	
Married	12 (4.0)	

Note. M=Mean, SD= Standard Deviation, *f*= Frequency

Table 1 is given which shows the descriptive statistics of demographic variables. This table shows the distribution of the sample in terms of gender (52percent males, and 48 percent females). The frequency and percentage of the categorical variables were reported in this table. This table shows the frequency (f) and Percentage (%) of non- numerical variables which includes Gender (males or females), Family system (Nuclear or joint), Residence (Rural or urban), employment status (Full time, part time, self-employed or unemployed), Marital status (single, married). In addition to that, this table also shows the Means and Standard deviations of numerical variables (continuous) which includes Age, birth order, no. of siblings, income.

3.4. Operational Definitions

3.4.1. Parental Bonding

Parental bonding can be described as an attachment between the child and the parent. This attachment theory is based on the idea that there are individual differences in terms of how infants become emotionally bonded to their primary caregivers and how these first attachment experiences influence the future developments of infants in social, cognitive, and emotional aspects (Bowlby 1999).

3.4.2. Problematic Mobile phone operation

An inability to regulate one's use of the mobile phone, which eventually involves negative consequences in daily life. Problematic use may include preoccupation with mobile communications, excessive money or time spent on mobile phones, and using mobile phones in socially or physically inappropriate situations, such as driving a car. Increased use can also lead to adverse effects on relationships, mental or physical

health, and can lead to anxiety when separated from a mobile phone or sufficient signal (Billieux, 2012)

3.4.3. Nomophobia

Young adults are most at risk of problematic smartphone use. Nomophobia word derived from the expression “no-mobile-phone-phobia” is a term employed to describe the symptoms that someone suffers when facing the fear of not having a mobile phone, and the services that said phone provides especially phone calls and Internet conection (Hemandez, 2020).

3.5. Assessment Measures

3.5.1. Demographic Information

In an informed concurrence form, the purpose of the study will be explained to the party, and they will be asked for their voluntary participation. Also, a written agreement along with their autographs for their participation will also be included in this form. Their confidentiality will be assured. The demographic information form will include all the introductory information about the party i.e., name (voluntary), age, gender, education semester, background, family system and family income.

3.5.2. PMPUQ Scale (Billiyeux et al., 2008)

Problematic Mobile phone phone usage scale comprises these factors Dangerous, Prohibited and Dependent. Problematic mobile phone use (PMPU) has become a public health issue in China, particularly in adolescents and young adults. The Problematic Mobile Phone Use Questionnaire-Short Version (PMPUQ-SV) is a validated instrument that measures multiple aspects of PMPU.

The current study aimed to test the psychometric characteristics of a Chinese adaption of the PMPUQ-SV and examine its measurement invariance across gender. The item-total correlations ranged from = 0.35 ($p < 0.001$) to r = 0.75 ($p < .001$). The internal consistency was $\alpha = 0.90$(Billiyeux et al., 2008).

3.5.3. Modified Parental Bonding instrument (PBI) (Parker et al., 1979).

The modified version of the PBI that was administered in PCS3 contains 12 of the 25 items that comprise the original scale. Included items were chosen based on results of a factor analysis that was published in the source article (Parker et al., 1979). It is used to assess via retrospective self-report two components of the parent-child relationship: demonstrations of caring by the parent and parental overprotection.

Parental bonding is thought to be characterized by high levels of caring and low overprotection. Using a 5-point rating scale, respondents indicate the degree to which a series of phrases describing parental behaviors are like those enacted by their own parents while they were children. The time frame used is “During the first 15 years of my life. “Number of Items12 (6 items each for Care and Overprotection dimensions. The PBI has been found to have good reliability and validity based on several studies. In the original study the PBI possessed good internal consistency and re-test reliability. Further reassuring data have been derived by examining the test-retest reliability of the PBI over extended periods, and we will shortly be publishing data for a 20-year interval. The PBI has been shown to have satisfactory construct and convergent validity and to be independent of mood effects.

3.5.4. Nomophobia (NMPQ) scale

The reliability value is α = 0.68 to α = 0.89 and the validity value is α = 0.81. The NMPQ scale includes the following, focusing on poor communication, lack of connection, lack of access to information and convenience. NMPQ consists of 20 items, each rated on a 7-point Likert scale. The minimum score of NMPQ is 20 points (20-1) and the maximum score is 40 points (7-20). NMPQ showed a total Cronbach freshman index of 0.93, indicating that the scale is reliable and valid (Yıldırım and Correia, 2015).

3.6. Procedure

The procedure of this study comprised of planned sequential steps. A written questionnaire was made for the collection of data. Permissions to use the questionnaire were taken from respective authors via email. A sample of population was selected according to the study. The young adults were approached using convenient sampling. Participants were given an informed concurrence form to fill in. This was the written agreement of their concurrence. They were informed about the purpose of the study and the time taken to complete the questionnaire. Their confidentiality was assured which means their information won't be used for any other purpose like publication etc. After giving the preface and informed concurrence form, the demographic distance was filled by the participants, and they were asked to complete the PBI for parental bonding PMPUQ scale for problematic Mobil phone operation and NMPQ for nomophobia. I collected data from three hundred university students.

As data collection ended after multiple steps, the participants were warmly thanked for their cooperation. The response rate was 96.5%. Some questionnaires were returned as half empty, so they were not included in the research. Data of 300 participants was collected. Afterwards, collected data of participants was manually entered for further analysis. After data entry, it was carefully analyzed to get output. These outputs were then further interpreted to get a clearer picture of the findings of this research study.

3.7. Ethical Consideration

During the study ethical considerations were followed for collecting data and conducting the exploration. Informed consent was taken by the participants for which they had been provided with a brief introduction to current research as well as potential risks and benefits of the research. It was assured to the participants that they can withdraw from the study at any time without any consequences. The participants participated in the study voluntarily. They were neither forced nor subjected to any sort of pressure. Throughout this research, privacy of the participants information had been prioritized. It was assured that their information will only be used for research purposes. The confidentiality of all the participants was also rigorously maintained throughout the study. The collected information of all the participants was anonymous and its access was limited to related people only. It was made possible to minimize the potential harm. Also, culturally sensitive questions were also excluded from the study. The scales that were used in the study were utilized after ensuring the permission from the respective authors. Participants were given the right to ask for more information about research studies. It was informed to the participants that they had the right to ask for the results and findings of the study when it is ended.

3.8. Statistical Analysis

The collected data was analyzed using SPSS version 27. First, the screening of data was accomplished by dealing with outliers and missing values. Descriptive statistics i.e., mean, standard deviation, and range was calculated from demographic

variables and study variables. The reliability of the scales was also calculated to assess the internal consistencies. After completing these mentioned steps, Correlations between variables (including study variables, and Demographic variables) were calculated. After correlations, hierarchical regression analysis was run to find out the change each mediator (involves adding moderator in each step) brings in dependent variable. Afterwards, AMOS software was utilized to run moderation analysis.

Chapter 4

Results

Data was analyzed using SPSS. Descriptive statistics for demographic variables and study variables. Cronbach Alpha values were calculated to assess the internal consistencies of the scales in the given study. Initially correlations between variables were calculated with Pearson Correlation. Next moderation model was analyzed using AMOS to assess relationship among problematic mobile phone usage, parental bonding, and nomophobia.

The descriptive statistics and Cronbach's alpha are shown in Table 2.

Table 2

Descriptive statistics of study variables.

Study Variables	*A*	*M*	*SD*	*Range*
Problematic mobile phone usage	.95	75.04	14.83	31-111
Parental bonding	.82	27.28	5.65	12-45
Nomophobia	.65	72.78	26.91	20-131

Note. M=Mean, SD=Standard deviation

Range, Mean, Standard deviation, and internal consistency for all scales were calculated as shown in Table 2. Cronbach's alpha for scales was calculated to assess the internal consistency of scales. The alpha coefficient of variables for problematic mobile phone usage was .95, for parental bonding was .82 and for .65 which showed good reliability. It was hypothesized that there will be a relationship among problematic mobile phone usage, parental bonding and nomophobia among young adults. Hence hypothesis approved.

Table 3

Correlation of Demographics with Study Variables (N=300)

	Mean	*SD*	1	2	3	4	5	6	7
Age	1.5	.47	-	-.03	-.04	-.02	-.14*	-.09	-.14*
Gender	1.34	.46	-	-	-.06	.01	.03	.03	-.00
Family system	1.16	.56	-	-	-	-.01	-.06	-.04	-.05
No of siblings	1.24	.45	-	-	-	-	-.00	.05	.00
Problematic mobile phone usage	1.68	15.6	-	-	-	-	-	.33**	.30**
Parental Boding	1.67	18.2	-	-	-	-	-	-	-
Nomophobia	1.98	11.2	-	-	-	-	-	-	-

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

You can see the relationship between the different variables in the correlation table. The problematic mobile phone usage shows negative correlation with age and insignificant relationship with gender. There is a significant correlation between siblings and parental bonding. It was hypothesized that the relationship between problematic mobile phone usage and nomophobia was moderated by parental bonding in young adults. Structural equation Modeling (SEM) thought AMOS was used to analyze this hypothesis.

Table 4

Model	X^2	*Df*	*p*	CFI	IFI	RMESA
Model1	2.40	2	.30	.97	.98	.02

The above Note. N = 300, all changes in chi-square values were included in the model, $\chi 2 > .05$. CFI = comparative physical index; IFI = incremental fit index; $\chi 2$ = chi-square. RMSEA = root mean square error of approximation

The table shows the results of absolute fit for Model 1. The path model describes hypothesized links between the study variables i.e., problematic mobile phone usage, Parental bonding, and Nomophobia. In the present model, problematic mobile phone usage was an exogenous variable, and parental bonding and nomophobia were endogenous variables. All the exogenous and endogenous variables were incorporated in path analysis, to test the assumption across the model. Chi-square should be non-significant, RMSEA was <.001, RMSEA should be less than .08 or .05, CFI and IFI values were .97 and .98 indicating a perfect fit for the model.Direct and Indirect effect estimates were calculated to analyze the moderation model with bootstrapping method (95% Confidence Intervals).

Table 5

Estimates of the Direct and Interaction Effect of Parental Bonding, parental bonding, and nomophobia in young adults

	Nomophobia
Variable	*ß*
Problematic mobile phone usage	0.49**
Parental bonding	-0.34*
Interaction	-0.56**

Note. *p < .05; **. p< .01; ***. p< .001; *ß* = Standardized Regression Coefficient

The results revealed that problematic mobile phone usage was a positive predictor of nomophobia.

Table 6

Estimate of indirect Effect of Problematic mobile phone usage on nomophobia

	Nomophobia
Variable	*ß*
Problematic mobile phone usage	.27*

Note. **p* < .05; ***p*< .01; ****p*< .001; *ß*= Standardized Regression Coefficient

The results of the indirect effect showed that problematic mobile phone usage is also indirectly having an effect on nomophobia.

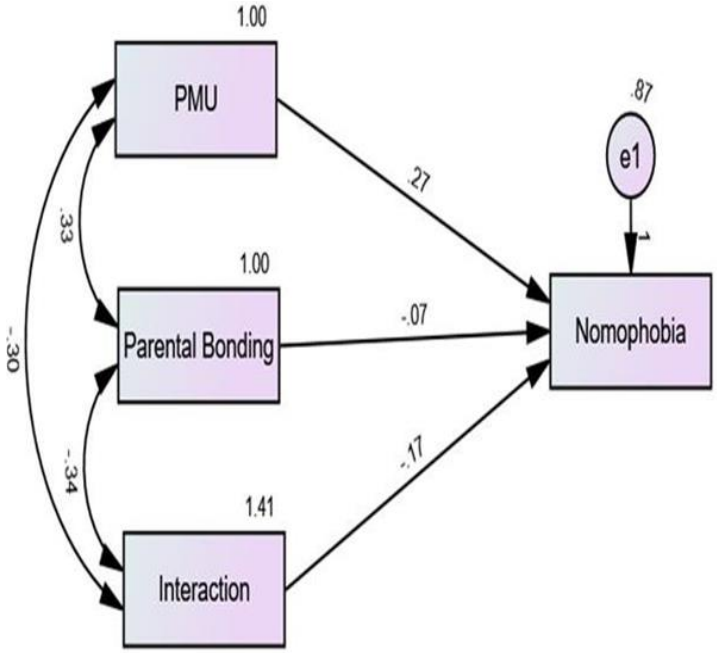
1.00
PMU
.87
e1
.27
1
.33
1.00
Parental Bonding
-.07
Nomophobia
-.30
-.34
-.17
1.41
Interaction

Table 7

Hierarchical regression analysis of Problematic Mobile Phone Usage, Parental Bonding, and Nomophobia

Variable	B	95% CI for B		SE B	β	R^2	ΔR^2
		LL	UL				
Step 1						.02*	.02*
Constant	115.28	81.99	148.56	2.99			
Age	-2.09	-3.73	-.46	.34	-.15*		
Step 2						.10**	.08**
Constant	64.17	26.82	101.52	9.71			
Age	-1.51	-3.09	.07	.34	-.10*		
PMPUQ	.52	.33	.72	.16	.28*		
Step 3						.10***	.00***
Constant	67.15	27.98	106.32	11.44			
Age	-1.53	-3.12	.06	.33	-.11*		
PMPUQ	.54	.33	.75	.16	.29*		
PBI	-.140	-.69	.41	.09	.03**		

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

Table 4 shows the estimates of hierarchical regression analysis. The results of hierarchical analysis show how the addition of predicted variables contributed to the variance explained in the dependent variables. In step 1, the value of constant shows the predicted value of the dependent variables when all the predictors were zero. In addition to that, the values of standardized and unstandardized beta explain the change in the dependent variables which is associated with the one unit change in the predictor variable. The value of ΔR^2 in this initial step of hierarchical regression model explains 21% variance in the dependent variable. In step 2, we can see from the table that the variance is 81%. In addition to that, the values of standardized and unstandardized beta explain the change in the dependent variables which is associated with the one unit change in the predictor's variable. In step 3, there is a significant change in the value of $R^{2.}$ It changes from .103 to. 001. As we can clearly see an evident change in the values of $R^{2,}$ it means that problematic mobile phone usage and parental bonding predicts nomophobia in young adults.

Summary of the result

- There was a significant correlation between problematic mobile phone usage with nomophobia and parental bonding, but parental bonding has an insignificant relationship with nomophobia.
- Parental bonding moderating the relationship between problematic mobile phone usage and nomophobia.

Chapter 5

Discussion

The objective of the current study was to investigate the association between problematic mobile phone usage, parental bonding, and nomophobia in young adults. The study also aimed to explore the moderating role of parental bonding in the association between problematic mobile phone usage and nomophobia. The current research findings demonstrated the link between problematic mobile phone usage, parental bonding and nomophobia in young adults and the moderating role of parental bonding in association between problematic mobile phone usage and nomophobia. This part of the current research aims to discuss the current results considering previous studies, theories, and local context. The purpose of the current study was to assess whether problematic mobile phone usage positively correlates with nomophobia and parental bonding. Lining up with this, it was set up that problematic mobile phone usage appreciatively relates to nomophobia and negatively relates to parental bonding. Substantiation from the literature supports the conclusion of this study (Zhu et al., 2022).

It was hypothesized that there is likely to be a relationship among problematic mobile phone usage, parental bonding and nomophobia and results proved the positive association of problematic mobile phone usage with parental bonding and nomophobia. A supported research was conducted study revealed the association between problematic mobile phone use, nomophobia, and academic performance in Taiwanese council scholars. They set up a positive correlation between all three variables, suggesting that scholars with advanced situations of problematic phone use

had advanced situations of nomophobia and had lower academic performance .Lining up with this, this study supported the thesis that problematic mobile phone operation has positive association with nomophobia. This study is related to my research as its findings supported my findings that problematic mobile phone usage has a positive association with nomophobia (Lin, & Tsai, 2018).

Another study supported which was conducted on Problematic Mobile Phone Use, Nomophobia and Decision Making in nursing scholars (Alharbi et al., 2020) set up a significant positive correlation between problematic mobile phone use and nomophobia. People with advanced phone dependence scores also showed advanced situations of nomophobia. Another study supported the study, which examined the relationship between smartphone dependence and nomophobia over time studied young adults-ups over a six- month period and set up a bidirectional relationship between smartphone dependence and nomophobia. Increased phone dependence prognosticated latterly nomophobia and vice versa, suggesting a complex and buttressing cycle. These studies supported my research as my research show that the positive association between problematic mobile phone usage and nomophobia and the finding of these research also show the positive association between problematic mobile phone usage and nomophobia (Andreassen et al., 2019)

Also, it was hypothesized that problematic mobile phone usage and parental bonding are likely to predict nomophobia in young adults and the results prove the thesis. Supported exploration was conducted Adolescents who perceived low parental control over their mobile phone use were set up to have advanced situations of nomophobia. This suggests that permissive parenthood styles may contribute to

dependence (Kuchibhotla et al., 2019). Again, a study by (Yılmaz & Demir, 2020) set up that high parental control was associated with advanced nomophobia in Turkish adolescents. This highlights the eventuality for both tyrannous and amenable parenthood styles to contribute to the problem. A study by set up that secure attachment to parents was negatively associated with problematic adolescents (Argumosa. et al., 2017)

Facebook use, suggesting that strong parental bonds may lead to healthier technology use. This finding can also be applied to the use of mobile phones. Another study set up a positive correlation between attachment anxiety and nomophobia, suggesting that individuals with anxious attachment styles may be more prone to phone dependence. These studies supported my research as the findings of these studies revealed that problematic mobile phone usage was negatively associate with parental bonding stronger the parental bonding weaker the problematic mobile phone usage my study results also show the negative association between parental bonding and problematic mobile phone usage that leads to nomophobia (Aguilera. et al, 2018)

It was hypothesized that parental bonding is likely to moderate the relationship between problematic mobile phone usage and nomophobia. A supported study conducted on this study set up those individuals with lesser attachment anxiety (indicating an insecure attachment) displayed advanced situations of nomophobia. While not directly addressing parental attachment, it suggests that insecure attachment patterns may be a contributing factor to both problematic mobile device use and nomophobia (Sussman et al., 2017)

Another study that supports my thesis was conducted by this study revealed

the moderating part of parental warmth and parental autonomy in the relationship between smartphone dependence and nomophobia in Chinese adolescents. They set up that low parental warmth strengthened the association between smartphone dependence and nomophobia, while high parental autonomy weakened it. This suggests that warm and probative connections with parents act as a buffer against nomophobia, indeed in the presence of smartphone dependence (Tomczyk et al., 2022)

Another study that supports my thesis was conducted by this study revealed the moderating part of parental warmth and parental autonomy in the relationship between smartphone dependence and nomophobia in Chinese adolescents. They set up that low parental warmth strengthened the association between smartphone dependence and nomophobia, while high parental autonomy weakened it. This suggests that warm and probative connections with parents act as a buffer against nomophobia, indeed in the presence of smartphone dependence. These studies supported my research as these studies show the moderating role of parental bonding between problematic mobile phone usage and nomophobia weaker the parent child relationship stronger the mobile dependency chances that leads to nomophobia (Wang et al., 2014).

Limitations

The current study has many limitations, which are described next. First, in the current study, only young adults were included. Second, only university students were included in the study. Third the data was collected from only from Comsats University. Fourth the sample of my study was small.

Suggestions

Then are some suggestions for the limitations of the current study. Middle adults and older adults should also be included in the study. Other than university scholars, young adults who are employed should also be included in the study. As data was collected from Comsats University, so large number of universities should be included in the study. The sample should be large. By the counteraccusations of these suggestions, findings can be more significant.

Implications

This study can have wide ranging implications. This study is precious in raising mindfulness about the part of parental bonding in problematic mobile phone usage that leads to nomophobia in young adults. This study is useful to introduce different interventions to deal with nomophobia issues. The findings of the study encourage parents to make strong and secure bond with their Childs that reduce the threat of problematic mobile phone usage that leads to nomophobia.

References

Aguilera-Manrique, G., Márquez-Hernández, V. V., Alcaraz-Córdoba, T., Granados-Gámez, G., Gutiérrez-Puertas, V., & Gutiérrez-Puertas, L. (2018). The relationship between nomophobia and the distraction associated with smartphone use among nursing students in their clinical practicum. *PloS one, 13*(8), 202-298.

Alharbi.M, Bauman. A, Neubeck.L, Gullick.J. (2020). Problematic Mobile Phone Use, Nomophobia and Decision Making in nursing scholars. *Annual Review of personality psychology, 1*(4), 83-111.

Areeb.J, Nadeem M, Apraci, R. (2017).the relationships between parental bonding, mindful awareness, and nomophobia in college students*: Journal of clinical and diagnostic research, 19*(12).404-430.

Argumosa-Villar, L., Boada-Grau, J., & Vigil-Colet, A. (2017). Exploratory investigation of theoretical predictors of nomophobia using the Mobile Phone Involvement Questionnaire (MPIQ). *Journal of adolescence, 56*(3), 127-135.

Arpaci, I., Baloğlu, M., Özteke Kozan, H. İ., & Kesici, Ş. (2017). Individual differences in the relationship between attachment and nomophobia among college students: The mediating role of mindfulness. *Journal of medical Internet research, 19*(12), 404-450.

Ayar, D., Gerçeker, G. Ö., Özdemir, E. Z., & Bektas, M. (2018). The effect of problematic internet use, social appearance anxiety, and social media use on nursing students' nomophobia levels. *CIN: Computers, Informatics, Nursing, 36*(12), 589-595.

Becker, E., & Yılmaz, T. (2011). Nomophobia: Differential diagnosis and treatment. *Psikiyatride Guncel Yaklasimlar, 12*(1), 131-142.

Billiyeux. (2008). A Validation Study of the Problematic Use of Mobile Phone Scale. *California State University, Fresno, 1*(23), 277-315.

Chen. L, Yang. J. (2022). The indirect effects of parental attachment styles on adolescent nomophobia, mediated by attachment anxiety and avoidance.*PloS one, 33*(12), 325-328.

Cherry. (2023). Nomophobia is fear of being mobile phone: An overview of nomophobia. *Journal of very well mind, 2*(1).32-50.

Demir, A., Ashrafi-Rizi, H., & Soleymani, M. R. (2019). Nomophobia and health hazards: Smartphone use and addiction among university students. *International journal of preventive medicine, 10*(6), 213-316.

Ditomaso. M, Brown.L, Carrithers.F, Clark.L. (2004).social and emotional lonliness scale. *Developmental Psychology, 49*(2), 305-312.

Doo EY, Kim JH. (2020). Parental smartphone addiction and adolescent smartphone addiction by negative parenting attitude and adolescent aggression: A cross-sectional study. *Front Public Health. 17*(17), 602-678.

Environ, Brusseau .ML, Anderson RH, Guo.B. (2020) changing behavior relationship: *NIH, 2*(1), 740-788.

Eun-Young, Ji-Hye Kim. (2022). Mediating role of negative parental attitudes and adolescent aggression in the relationship between parental and adolescent smartphone addiction. Journal of public health, 6(10), 98-124.

Fletcher R, (2021) Fear of being with mobile phone: *international journal of Management Technology and social sciences, 20* (7) .2450–2468.

Fletchstone.R, Michael.K, Erica.G. (2018).Attachment, temperament, and regulation of attention and behavior in infancy: A developmental casade.*child development, 7*(4), 1020-1032.

Fraley, R. C. (2010). A brief overview of adult attachment theory and research. *Internal psychologys, 3*(1), 201-230.

Gao.H, Zhang.C. (2022). Parental Support and Problematic Smartphone Use: A Serial Mediating Model of Self-Esteem and Fear of Missing Out. *Public health, 19*(13), 57-76.

Gezgin, D. M., Hamutoglu, N. B., Sezen-Gultekin, G., & Ayas, T. (2018). The association between parental pubbing and problematic adolescent cell phone use and its underlying mechanism, the mediating role of the parent–child relationship, and the moderating role of self-control. *International Journal of Research in Education and Science, 4*(2), 358-374.

Gladstone, G. L., & Parker, G. B. (2005). The role of parenting in the development of psychopathology: An overview of research using the Parental Bonding Instrument. *Psychopathology and the family*, *3*(2), 21-33.

Hatice. Y. (2019). Investigation of nomophobia and smartphone addiction predictors among adolescents in Turkey: Demographic variables and academic performance. *Elsevier, 4*(56) 492-517.

Haug S, Castro RP, Kwon M, Filler A, Kowatsch T, Schaub MP. (2015). Smartphone use and smartphone addiction among young people in Switzerland. *Journal of Behavior Addict, 4*(4), 299–307.

Joseph, Lin, & Tsai. (2023). Parental Bonding: *International Journal of Management Technology and Social Sciences 7*(2), 2581-6012.

Kaviani, F., Robards, B., Young, K. L., & Koppel, S. (2020). Nomophobia: Is the fear of being without a smartphone associated with problematic use? *International Journal of Environmental Research and Public Health, 17*(17), 6024.

Kolakaj B, Khalatbari Kachanak J, Salahyan A, Nasrollahi B. (2022). The prediction of Nomophobia Based on Perceived Parenting Styles with Mediating Role of Loneliness. *Journal of Adolescent and Youth Psychological Studies, 3*(2), 291-302.

Koronczai B, Urbán R, Demetrovics Z. (2020). Parental bonding and problematic internet or social media use among adolescents. *Psychiatr Hung, 35*(1), 73–80.

Kuchibhotla, R., Mohan, D., Singisetti, S., Khatoon, M., & Nukala, S. (2019). A study on nomophobia, perceived parenting style, and psychological distress among university students. *Telangana Journal of Psychiatry, 9*(2), 134-139.

Kuss, D.; Harkin, L.; Kanjo, E.; Billieux, J. (2017). Problematic Smartphone Use: Investigating Contemporary Experiences Using a Convergent Design. *Int. Journal of Environ Res Public Health, 15*(7), 142-256.

Kuyulu I., Beltekin E. (2020). Relationship between Smartphone Addiction and Personality Traits: *EDU, 6* (2), 304-313.

Levy, K. N., Ellison, W. D., Scott, L. N., & Bernecker, S. L. (2011). Attachment style. In J. C. Norcross, Psychotherapy relationships that work: *Evidence-based responsiveness, 2*(2), 377–401.

Lin, C. Y., Potenza, M. N., Ulander, M., Broström, A., Ohayon, M. M., Chattu, V. K., & Pakpour, A. H. (2021). Longitudinal relationships between nomophobia, addictive use of social media, and insomnia in adolescents. *In Healthcare 12*(9), *112-318.*

Liu.W, Jung-Sheng.C, Wan Ying.G, Wai Chuen.P, Serene En Hui.T, Ling Jun.L, Ping. X, Hua .C, Mark .D, Griffiths, Chung-Ying.L. (2022). Associations of Problematic Internet Use, Weight-Related Self-Stigma, and Nomophobia with Physical Activity: Findings from Mainland China, Taiwan, and Malaysia.*Public health, 19*(19), 12-135.

Márquez-Hernández, V. V., Gutiérrez-Puertas, L., Granados-Gámez, G., Gutiérrez-Puertas, V., & Aguilera-Manrique, G. (2020). Problematic mobile phone use, nomophobia, and decision-making in nursing students mobile and decision-making in nursing students. *Nurse Education in Practice, 49*(6), 102-910.

Naghashian.R. (2006).Parenting style and attachment in adolescents. *Journol of education, 2*(3), 82-87.

Nasab, N. M., Manshaee, G., & Nadi, M. A. (2021). The effectiveness of nomophobia therapy on self-esteem and nomophobia symptoms in high school students. *Iranian Journal of Psychiatry and Behavioral Sciences*, *15*(1), 45-31.

Prasad, M., Patthi, B., Singla, A., Gupta, R., Saha, S., Kumar, J. K., & Pandita, V. (2017). Nomophobia: A cross-sectional study to assess mobile phone usage among dental students. *Journal of clinical and diagnostic research, 11*(2), 34-156.

Sagar, K. (2019). Smartphone addiction: nomophobia. *Asian Journal of Nursing Education and Research, 9*(4), 583-587.

Smetaniuk, P. (2014). A preliminary investigation into the prevalence and prediction of problematic cell phone use: *Journal of behavioral addictions*, *3*(1), 41-53.

Sussman.Y, J. Grant.M, Potenza.A,Weinstein.D,Gorelick .(2017). Insecure attachment patterns: *Behavirol addiction, 3*(2), 101-220.

Tavolacci, M. P., Meyrignac, G., Richard, L., Dechelotte, P., & Ladner, J. (2015). Problematic use of mobile phone and nomophobia among French college students: Marie-Pierre Tavolacci. *The European Journal of Public Health*, *25*(3), 172-088.

Tavolacci.M, Grigioni.D, Richard.H, Gilles. M. (2015). Problematic mobile phone usage, nomophobia, and related behaviors among French university students: *journal of education and behavior, 3*(2), 202-230.

Thompson, R. A. (2008). Early attachment and later development: Familiar questions, new answers. In J. Cassidy & P. R. Shaver, Theory, research, and clinical applications. *Handbook of attachment, 2*(1), 348–365.

Tomczyk, Ł., & Lizde, E. S. (2022). Nomophobia and Pubbing: Wellbeing and new media education in the family among adolescents in Bosnia and Herzegovina. *Children and Youth Services Review*, *13*(7), 106-489.

Wang.C, Haugen.B, Kruger.T. (2014). Moderating part of parental warmth and parental autonomy in the relationship between smartphone dependence and nomophobia in Chinese adolescents.*Journol of social psychology*, *122*(6), 104-122

Wickord, L. C., & Quaiser-Pohl, C. M. (2022). Does the type of smartphone usage behavior influence problematic smartphone use and the related stress perception? *Behavioral Sciences, 12*(4), 99-130.

Xin C, Ding N, Jiang N, Li H, Wen D. (2022). Exploring the connection between parental bonding and smartphone addiction in Chinese medical students. *BMC Psychiatry.22* (1), 712-813.

Xin, C., Ding, N., Jiang, N. et al. (2020). Exploring the connection between parental bonding and smartphone addiction in Chinese medical students. *BMC Psychiatry 22*(3), 712-751.

Yildirim, C. & Correia, A. (2015). Exploring the dimensions of nomophobia: Development and validation of a self-reported questionnaire. *Computers in Human Behavior, 49*(2), 130-137.

Young, Doo EY, Kim JH. (2022). Parental smartphone addiction and adolescent smartphone addiction by negative parenting attitude and adolescent aggression: A cross-sectional study. *Public Health, 2*(1), 10-98.

Zhou.R, Li.W. (2022).The association between dimensions of parental attachment overprotection, autonomy, and parental warmth and smartphone addiction among Chinese medical students. *Frontiersin, 10*(4), 157-240.

Zhu J, Xie R, Chen Y, Zhang W. (2019). Relationship between Parental Rejection and Problematic Mobile Phone Use in Chinese University Students: Mediating Roles of Perceived Discrimination and School Engagement. *Front Psychol. 71*(4), 305-312.