Relationship Between Nomophobia, Home Chaos and Phubbing Among University Students

By

MADIHA KHALIL KHAN

Dr. Muhammad Ajmal

NATIONAL INSTITUTE OF PSYCHOLOGY

Centre of Excellence

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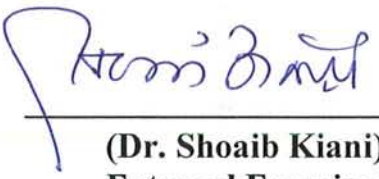
Madiha Khalil Khan

Approved By

(Ms. Arooj Mujeeb)
Supervisor



(Dr. Shoaib Kiani)
External Examiner

(Prof. Dr. Anila Kamal)
Director, NIP

CERTIFICATE

It is to certify that M.Sc Research Report on **"Relationship Between Nomophobia, Home Chaos and Phubbing Among University Students"** prepared by **Ms. Madiha Khalil Khan** has been approved for submission Quaid-i-Azam University, Islamabad..

(Ms.Arooj Mujeeb)

Supervisor

Dedicated to my Friends and my Father

Relationship Between Nomophobia, Home Chaos and Phubbing Among University Students

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Abstract

The present research was aimed to investigate relationship between nomophobia, home chaos and phubbing among university students. Purposive sampling technique was used to collect data from university students (N= 367) of twin cities of Rawalpindi/Islamabad. The age of participants ranged between 19 years to 30 years. Nomophobia Questionnaire, (Yildirim, 2014), Home Chaos, (Ludwig, Matheny, Phillips, & Wachs, 1995) and Interpersonal Conflict subscale from Generic Scale of Phubbing, (Chotpitayasunondh & Douglas, 2018) were used to measure nomophobia, home chaos and phubbing respectively. This study was conducted in two phases. Phase I was try out phase in which 10 university students were taken to judge understanding of the instruments for university students. Phase II consist of main study. Results indicated that nomophobia and home chaos positively predicted phubbing (*p<.001, *p<.01). There were no significant gender except for home chaos p<.05, p<.01. Users of smartphone under different context (at dinner table, between classes, during classes, and while being alone, having fun with friends, and while walking, driving, watching TV, waiting) scored higher on nomophobia, phubbing home choas as compared to non-users p<.05, p<.01. Users of smartphones for various purposes (purpose of email, social media, information, schedule meetings and events, lecture notes, friends and family, games and music) on nomophobia, phubbing and home chaos as compared to non-users p<.05, p<.01. Limitations and implications of the current study as well as suggestions for future studies were also discussed.

INTRODUCTION

Chapter 1

Introduction

From very old times, when no mechanism of distant communication existed, the human developmental history involved communication and connections with one another either via codes, pigeons or telegraphs. As the time passed and innovations in different fields developed, ways of communicating with others changed and this technological development is now at the stage that turns whole world into a global village that is completely connected and linked with one another. Smartphones are the latest form of wireless device with many more functions facilitating building relations, articulation of feelings, sharing of ideas, getting to know what is happening around and so forth which are essential means of communication in everyone's lives. 21st century is era of digital transformation, revolutionizing each and every domain of life, exerting its positive as well as negative influence simultaneously. As infinite advance in education and individual communication is obvious, in the same way, issues recognized with such innovations are likewise progressive that should be taken care of.

In the modern world, smartphone is like the extension of human body as every person keeps it whether he is rich or poor. As the device got smarter, people who use them also turned to be smart individuals. Contemporary ways of communicating with far away people such as instant messaging, social media, e-mails etc reflects the progression of human development along with technological development. Contrary to all the advantages of smart devices and especially smartphones, people had started developing reliance and dependency on these gadgets and are addicted to their use similar to that of drugs. Use of anything in appropriate way is befitting but when the same thing is abused, it could be disadvantageous as well. Excessive smart phone usage can disturbs functioning in different domains of life and may lead to phobic behavior.

Nomophobia is defined as the fear of being out of contact with mobile phone and this term, nomophobia, is an abbreviation for no-mobile-phone phobia (Ozdemir, Cakir, & Hussain, 2017). Nomophobia is a concern of current world associated with smartphones. Fear, worry, and concern is something considered as

perilous that influences day by day functioning of nomophobic individual. It is illogical fear of being besides phone or being no longer in a position to make use of smartphone for no reason like absence of signals, running short of balance or battery and so forth. Nomophobia is a type of concern recognized with being without mobile phone that prompts seperation anxiety, tension and over the top, inconceivable stress without any logical basis. Due to super fast advancement and ever increasing usage of mobile phone and related devices, communication have been improved so far but its dark side is also emerging at the same rate in the form of negative well being, social issues like cyber crimes etc.

Smartphones and new innovations have both pros and cons. Smartphones have improved standard of instant communication and facilitated by internet, an individual gets whole world in his hand. Circulation of information across the globe within seconds is usual and had developed cross-culture communication possible at grass root level of any state. Different networking sites, social media, information of anything, entertainment channels etc are empowering people to stay connected and perform their work effectively. On the other hand, excessive usage leads towards addiction (King, Valenca, Silva, & Carvalho, 2013). Psychologists believe that smartphone addiction is getting to be one of the biggest social addictions. Youngsters are locked in their cellphone constantly, regardless of calling someone, utilizing SMS, instant messages, customizing their mobile phones with ringtones and snap shots, staying busy on social networking sites (SNS), and personalizing cell with images and ringtones and wallpapers and so on. In consequence, they are extra reliant on their smartphone which increases distress among them (Dixit et al., 2010; Lee et al., 2016; Matusik & Mickel, 2011).

Selkie (2015) uncovered that cell phones present tremendous chance which empowers customers to go for thousands of songs, applications, photos and amusements, and furthermore number of videos is source of enjoyment and amusement for everybody. The percentage of mobile phone usage in American adults have increased from 35% to 64% from 2011 to 2014. An examination by Lee et al. (2014) revealed that "advance mobile phone drive" was undauntedly associated with the time span. In this study, it was found, via usage time recorded by the smartphone applications, that users decry considering its time use as they

underestimate the importance of smartphone time usage and thus use their advance phones more frequently, leading to over attachment with device. In another study, it had been observed that those individuals who had lower level of education were even more likely to have a smart phone addiction (Kang & Jung, 2014).

Nomophobia has been defined as the fear of being out of contact with mobile phone and is considered phobia of modern age that is being inculcated to our lives as a result of the interaction between people and communication technology especially smartphones. Formerly, it was considered as repetitive behavior pattern, increasing the risk for disease or social problems. Loss of control and persistence of behavior are grouped to shape addictive behaviors. Moreover, in the most recent decade, research has found that psychological and neurological symptoms are similar between the excessive usage of smart phone, termed as nomophobic practices and addictive patterns of use (Yildrim, 2014).

Neurobiological research by Jorgenson and Yen (2016) has revealed the similar mechanisms between substance use addiction and addictive behaviors. Phubbing has been referred to as the consequence of nomphobic behavior. Phubbing is snubbing the other person in order to use mobile phone and is the result of nomophobic behavior. Another research shows that phubbing makes in person/ physical connection and communication worthless and as a result, feeling of dissociation and disconnectedness emerges when interaction is done in presence of mobile phone. Smartphones are intended to connect distant individuals, however, they are being playing the role of separators for nearby people. Phubbing is the indication of technology not being used appropriately by smartphone users, endangering their reputation in social circles (Wang, Xie, & Lei, 2017).

These are habitual issues yet one of the factor taken into focus in this research is the home condition and consequently, practices of individuals particularly young children, teenagers and adolescents who are influenced more as a result of chaotic conditions, leading towards addiction of either social or substance abuse and behavioral issues. Home conditions have immediate effect on children personality. Disruptive behavioral problem of children are hereditary and would partially represent the heritablility of home chaos and when they are grown up, influence of

traits would be shown on individual's behavior either in normal or extreme deviant forms.

Smartphones empower users to find desired particulars quickly, getting to entertainment and making and modifying plans, and in addition connecting instantly through social sites and messaging. .While the preferred communication method among young adults is in close and personal capacity, the most well-known method is text message using the smart phones, reflecting that communication through these gadgets is currently an integral part of life nowadays. While smartphones are amazingly attractive tools for interaction and interpersonal communication, there has been an amplified risk in its excessive use. In numerous countries, governments boycott cell phone usage while driving a vehicle in view of the increased risk for accidents (Kim, Jung & Lee, 2017). Inspite of legitimate rules and huge campaigns for traffic safety, a group of drivers continue to hold their smartphones while at the steering wheel. Different issues are caused by considerable amount of debt incurred by the excessive smartphone usage and harassing others through bullying or indecent calls. Addictive smartphone behaviors are additionally a significant concern for a person's communion and work, although, at this time, this kind of addiction isn't diagnostically categorized in DSM-V. Addictive individuals will be determined to feel glum and desolate, lost, and secluded without their mobile phone. Their work and lives are now and then aggravated by frequent calls, texting, Web surfing, and online communication.

Nomophobia

The term, nomophobia, is a shortened form for no-mobile phone fear, and it was first devised at the time of a study conducted in 2008 by the UK Post Office to explore anxieties mobile phone users had (Hussain, Cakir, & Ozdemir, 2017). Nomophobia is viewed phobia of modern age and an outcome of the interaction between new technologies and individuals (King et al., 2010). Nomophobia is viewed as a turmoil of the contemporary advanced and virtual society and leads to uneasiness, tension, anxiety or outrage caused by being out of contact with a mobile phone. As a rule, it is the neurotic fear of staying distant from communications.

Wang et al. (2017) characterized it as the sentiments of inconvenience, anxiety or discomfort resulting into trouble that come about because of being out of contact with a mobile phone, furthermore, causing suicidal ideation and also its attempts. Nomophobia is a term that refers to a group of practices or symptoms identified with mobile phone usage. In this manner, on account of nomophobia, individuals with nomophobia or nomophobes would have a illogical dread of being out of mobile phone contact or being not able to utilize it, and in this way they strive to wipe out the possibility of being incapable to utilize their mobile phone when they want to do so. On account of being not able to use their mobile phone, they encounter serious feelings of anxiety and stress (Szyjkowska et al., 2014). Mobile phone dependence can be said to fall under the umbrella of technological addiction. Distraction, intolerance, unsuccessful strives to stop or control excessive smartphone use, withdrawals, loss of control resulting into significant impairment in any domain of life or deceiving family about the extent of involvement with mobile phone are all consequences of such a compulsive addiction of technology and especially smartphone. Addictive use of smartphone by individuals and especially university students is the result of nomophobia, that is one of the psychological issue (Yildirim, 2014).

Research of Nomophobia

The relationship of agoraphobia and nomophobia was explored by King et al. (2010) who reported a case of a patient with panic disorder and agoraphobia. This was done after one of the very first and few research studies on nomophobia that was led by King et al. (2010). The patient understudy, who was reported to demonstrate addiction and dependency on mobile phone, received combination of treatments including psychiatric treatment, medication and also cognitive behavioral therapy (CBT). Other than facilitating patients of panic disorder and agoraphobia, CBT also addressed nomophobia.They reported that the patient's condition was upgraded after the treatment, that his disturbing symptoms had not been visible for the last four years and that he exhibited significant improvement in his phobic behavior. In spite of the emphasis on nomophobia in the CBT, the patient's dependency on his mobile phone was unchanged. They recommended that nomophobia needs to be taken into account and should be considered for treatment

along with panic disorder on the ground level so that dependency on mobile phones, to reduce anxiety level via instant communication, could not hamper patient's self-sufficient, independent and autonomous functioning. The same study expressed the chance of increasing patients' dependency on smartphone because of such practices. However, no patho-physiological explanation can be proposed for development of nomophobic behavior in patients with panic disorder. Since smartphones usage is related with autonomy and freedom of action, while individuals with agoraphobia show reduced autonomy and mobility, they propose the consideration of nomophobia in the situational phobias domain, particularly identified with agoraphobia.

While trying to draw attention to the process of individual interaction with new technologies and the resulting changes in behaviors, King et al. (2013) detailed one case study of an individual with social phobia who also showed nomophobic symptoms. Nomophobia was considered as manifest behavior that might be an indicator of potential anxiety disorder while examining the case. The individual, with social phobic tendencies or social phobia disorder (SPD), were observed to develop reliance on digital system to contact others and communicate instead of being socializing and directly communicating with others in real world situations. After undergoing the treatment, which was a combination of medicine and cognitive behavioral therapy (CBT), the patient was reported to diminish his dependence on virtual conditions for communication and shown an enhancement in taking part in real life situations. While the researcher acknowledge the nomophobic impacts on individuals, they expressed that nomophobia may be a mask or cover for other risky and problematic behavioral practices and even mental disorders.

In 2008, percentage of nomophobic individuals, in United Kingdom, was reported to be as higher as 53 % of smartphone users and 58% of males were nomophobic as compared to 48 % of females (Hussain, Cakir, & Ozdemir, 2017). However in 2012, this ratio increased from 53 % to 66 % where female users were in higher percentage, that is 70 % as compared to 61 % male users. Nomophobia was prevalent (77 %) among smartphone users between 18 to 24 years age while 68 % of users belonged to age group of 25 to 34 years. Other than that, the third

most nomophobic user group was identified having age 55 or more than 55 years (Hussain, Cakir, & Ozdemir, 2017). Researches reported that US smartphone users were having more dependency level than Korean smartphone users. It was additionally demonstrated that students, jobless, and younger individuals were more prone towards mobile phone and also internet dependency. Similarly, higher level of smartphone dependency has been found among Korean and US females, especially among students and younger age groups (Schuler, 2016).

One of the research study by Pavithra, Madhukumar, and Murthy (2015), reported that 33 percent of the students, mainly college students, have been suffering from nomophobia. Furthermore, women were found to be enduring with cyber addiction and sleeping problems. Other physical, social and psychological issues might be related to smartphone addiction (Tavolacci, Meyrignac, Richard, Dechelotte, & Ladner, 2015). Although there has been an increasing academic concern for examining the issues emerging from smartphone excessive usage, nomophobic researches has been found to be scarce (King et al., 2013; King et al., 2014).

Inspite of the fact that phenomenon of nomophobia has received little attention and consideration from academic researchers, one of the study is beginning to explore the prevalence of nomophobia (Worley & Samp, 2014). In a recent Indian research, the researchers demonstrated that 39.5% of students were nomophobic and another 27% were in danger of developing nomophobia, showing an increase of prevalence of the disorder among younger generation (Pavithra & Madhukumar, 2015). In another study that was done with a sample of Turkish college students, 42.6% of young adults were found to have nomophobia, and their main concerns were not being able to communicate and access information (Yildirim, Sumuer, Adnan, & Yildirim, 2015). Regarding socio-demographic factors and their connection to nomophobia a few examinations have featured gender differences, reporting mixed results (Guzeller & Cosguner, 2012). Concerning the impact of age, the research findings are inconsistent that a few researches have discovered that higher level of nomophobia is correlated with younger ages (Nawaz, Sultana, Amjad, & Shaheen, 2017), while others found no significant differences (Yildirim, 2014).

A cross-sectional study was done in Indore using the sample of M.B.B.S students to explore the prevalence of nomophobia among medical students. This sample was selected via systematic random sampling technique and structured questionnaires were used for data collection. Sample age group was 17 to 28 years including teenagers and young adults. 18.5% of students were found to be nomophobic while those who kept their mobile phones close to them while sleeping were approximately 73%. Moreover, 20 % lose their concentration and got anxious and stressed when they were not having their mobile phones with them. Nevertheless, there was no significant statistical correlation found between nomophobia and personal variables selected for example gender, place of stay and academic session information (Yildirim, Sumuer, Adnan, & Yildirim, 2015). Research has shown that there is greater likelihood of developing nomophobia among youth because of more time and longer hours spent on smartphone usage in Pakistan (Nawaz, Sultana, Amjad, & Shaheen, 2017). Another exploration revealed that Pakistani students' nomophobia level would in general, has increased over the years in university and is driving towards depression (Hussain, Cakir, & Ozdemir, 2017).

Bianchi and Philips (2005) were of the perspective that overuse of a smartphone may involve psychological factors. These factors may enlist low self-esteem, individuals use smartphones inappropriately to seek reassurance, extroverted, social personality that use socialization via smartphones to access people. There is also a greater possibility that nomophobic symptoms may be featured because of other existing and underlying psychological disorders including social anxiety disorder, social phobia or panic disorder (Uysal, Capsoni, Ghassemlooy, Boucouvalas, & Udvary, 2016). Socially anxious people try to stay away from situations of being exposed, for example, public speaking, presenting papers, or taking any part in social groups. They are comfortable with establishing their desired social and personal relationships using computers or smartphones. Researches demonstrated that individuals with social phobia develop dependency on mobile phone or computer mediated communication, similar to individuals who identify or relate with the outside world to reduce stress and to keep away from direct social encounters and relationships (King, Valenca, Silva, Baczynski, & Carvalho, 2013).

Transfer of most of social activities by the highly socially anxious individuals from real to virtual world, including development of friendships, because they feel higher level of safety and comfortability in online world as compared to real world. Simultaneously, these individuals absorb themselves more successfully in computer mediated communication than face to face communication (Lee et al., 2016). Walsh and colleagues conceptualized the concept of mobile phone ''involvement'' after discovering that young people reported thinking about their phone when they did not have it and when they did have it, the device was prominently displayed, keeping it in constant awareness and causing a distraction from other tasks, clear indication of nomophobia (Walsh, White, & Young, 2010).

A study by Dixit et al in Indore (2010) observed that 21 out of 109 and 16 out of sample of 91 students were found to be suffering from nomophobia. There was no significant statistical association in relationship between place of stay and academic sessions with nomophobia score. The recent research conducted to check smartphone usage among dental students in India demonstrates that prevalence of nomophobia were higher among females that was approximately 28.66%, when contrasted with males counterparts that was 20.68%. There was a significant statistical difference of mobile phone use among males and females. This examination revealed that about 85.9% of total dental students can't stay without their mobile phone for over seven days (Sethia, Melwani, Priya, Gupta, & Khan, 2018). These findings are in agreement to the examination led by Akanferi et al, in (2014) where 88% of all respondents disagreed that they can remain without using smartphones (Dasgupta et al., 2017).

Theories of Nomophobia

Following are the theories related to nomophobia:

Addiction theory. The study of the connections among people and new innovations propose that the new advances may results into behavioral changes and influence feelings and emotions. Advancement in technology can be addictive in light of the fact that they are 'psychoactive', they modify state of mind and regularly trigger emotions related with amusement and pleasure (King et al., 2014). Gallagher 2002, Professor of Psychiatry at the University of Connecticut, is among

the individuals who favored the theory that attachment to a mobile phone is like other addictions since it intrudes with the generation of dopamine, which is known as the hormone of happiness. This theory proposed that reminders, such as notices for e-mails and messages, and the sound of the mobile phone ring frequently triggers dopamine. Level of dopamine usually increases, as individuals expect that it might be a text message from somebody they like, an email with exciting news, an invitaion to a gathering/occasion or something invigorating (Tanaka & Terry-Cobo, 2008).

Attachment theoy. Classical research on the infant-mother attachment theory of Bowlby has been expanded to various populations, relationship types, and nonhuman articles. Hazan and Shaver classified attachment styles into three general categories, that is, secure, anxious, and avoidant, which are steady with the three childhood attachment styles proposed in the original investigations with infants. Attachment styles affect social interactions and emotional development, which inturn determine the danger of developing reliance to individuals, objects, or occasions. Recent investigations explains significant relationship between attachment styles (ie, avoidant versus anxious) and behavioral addictions. Additionally, problematic usage of technology, such as Internet, mobile phones, computer games, and social media are all related with attachment styles. All the more peculiarly, anxious connection was related with technology-mediated breakups, whereas avoidant attachment predicted the probability of technology abuse. Blackwell et al reported that both attachment styles predicts social media addiction.

Phubbing

Phubbing is a word made with two words of "phone snubbing", and it implies looking at one's mobile phone while ignoring speaking or listeing to the ones really adjacent to them, therefore straightforwardly overlooking them (Karadag et al., 2015). Phubbing happens when individuals snub or disregard other individuals in their companionship by focusing on their mobile phone (Abeele, Antheunis, & Schouten, 2016). Phubbing can be depicted as an individual looking at his or her mobile phone while talking with other people, trying to deal with the mobile phone and getting away from interpersonal communication. Phubbing can also be defined

as a defensive response to an apparent threat to a significant relationship, emerging from a situation in which the partner's participation in an activity and avoiding the partner, results into jealousy and thus leading to interpersonal problems (Berry et al., 2016).

Phubbing can be referred to as disrespectful conduct towards others and may results in damaging real life relationships with others (Karadag et al., 2015). Relationship satisfaction may be impacted negatively because of phubbing and also impacts life satisfaction and depression, indirectly via relationship satisfaction (Robert & David, 2016), that can be explained by elevated feeling of jealousy (Krasnova et al., 2016). As a consequence, phubbing can be a problematic conduct that can be harmful for both phubber as well as phubee, those being phubbed (Chotpitayasunondh & Douglas, 2016). Specifically, concept of phubbing can be defined as snubbing others while socially interacting with them, instead focusing on smartphones (Hauge, Castro, Kwon, Kowatsch, & Schaub, 2015), that can be proven detrimental for communication between partners and adversely affecting feeling wellbeing and relationship satisfaction (Roberts & David, 2016). Interesting finding about phubbing phenomenon is observed that it is expected to be reciprocated either intentionally or unintentionally by the person being phubbed.

Focusing at the elevated usage of smartphones to communicate with others, it is of critical importance for researchers is exploring the impact of technology use has on the relationship satisfaction (Deater-Deckard, Wang, Chen, & Bell, 2012). With the ever increasing smartphone usage and its presence had obscured the partner's relationship as boundaries starts separating their mutual interests (Cole & Hooley, 2013). If partners wants their relationship to be mutually satisfying, each partner must be present for the other (Hauge, Castro, Kwon, Kowatsch, & Schaub, 2015). It is not enough to be merely in each other's presence, but there must be a connection between partners (Robert & David, 2015).

It is not sufficient to be just in one another's presence, yet there must be communication between partners. While using mobile phone and furthermore attending to other individual, cognitive over-burden results because of the division of concentration, demanded by information and technological communication impacts individual's working memory, intensifying distractedness, and making it

troublesome for them to recognize pertinent and unimportant information (Selkie, Kota, Chan, & Moreno, 2015). Performing multitasks simultaneously is a dynamic and fast process. There is research considering the impacts of mobile phone usage, for example, messaging, calling and chatting on mobile phones, on attention capacities of individuals while ongoing simultaneous tasks is inconsistent with these findings (Hussain, Cakir, & Ozdemir, 2017).

Literature view shows that the individuals who check or use their smartphone more, would be taking part in more elevated amounts of phubbing behavior for two reasons. Firstly, keeping the device ever closer or potentially using it more regularly, would be expected to serve as a significant resource to fulfill communication need. Consequently, those people would be encountering more elevated amounts of psychological power focusing on their own needs and wants rather than to those of his or her partner. Apparently, this would result in more phubbing. Secondly, increased psychological attachment to one's mobile phone would be expected to enhance more consistent, habitual and more usage of the device which ought to likewise prompt excessive phubbing behavior (Chotpitayasunondh & Douglas, 2016).

Research on Phubbing

As phubbing is relatively new concept and literature lacks much researches being accounted for on the subject yet, at the same time available findings are referred. Phubbing is viewed as construct that is having multiple dimensions. For example Karadge et al.(2015) indicated that phubbing can be reflected in the form of various addictions as SMS addiction, addiction of smartphone, addiction of games and internet. In a study by Chotpitayasunondh and Douglas (2016), moderate correlations were found between phubbing behavior and smartphone addiction, internet addiction, and the fear of missing out. Another research predicted that due to phubbing, lower relationship satisfaction and lower marital satisfaction have been related with higher concurrent depression and an elevated risk of depression in future (Rosales-Huamani, Guzman-Lopez, Aroni-Vilca, Matos-Avalos, & Castillo-Sequera, 2019).

One explanation for the negative consequences related with phubbing might be that addictive mobile phone users may probably mishear things, which may prompt them requesting to repeat or discuss information again. Consequently, the conversation partner of individual using mobile phone may find discussion less qualitative and may also give rise to feeling of discontentment (Hauge, Castro, Kwon, Kowatsch, & Schaub, 2015). The proximity of mobile phone during proximal communication is adversely related with perception of empathatic concerns and closeness to the discussion partner (Misra, Cheng, Genevie, & Yuan, 2016). For example, family members got annoyed when anyone of them do unimportant activities on their mobile phones in others presence (Igarashi, Motoyoshi, Takai, & Yoshida, 2008)., and guardians and caretakers who are busy with their smartphones mostly have poor social interaction with their children (Rush, 2011).

Two cross-sectional researches have demonstrated that playing games and phubbing by partner are negatively correlated with relationship and marital satisfaction (Roberts & David, 2016). Moreover, two experimental studies have revealed that human relationships can be effected by presence of mobile phones (Przybylski & Weinstein, 2013), and mobile texting behavior during face to face discussion can lead to more negative impressions and also results into lower quality relationship (Abeele, Antheunis, & Schouten, 2016). More particularly, percieved closeness, connection, and conversation quality can be undermined by mere proximity of mobile phones (Petric, Petrovcic, & Vehovar, 2011). While experiencing attraction towards smartphones, a phubber may feel helpless in controlling their smartphone and usage of internet aptly, a repetitive thought about losing a chance for other satisfying events, and also experiences failure to direct mobile phone usage and etiquettes (Chotpitayasunondh & Douglas, 2016).

Most of the people perceive the taste of their suppers as more unpleasant while phubbing and the majority of adolescents like to interact via messages over close and personal communication (Karadag et al., 2015). Studies exploring about smartphone addiction revealed that smart phone could be used as a tool to fulfill the need of being lonely and also the need of self-management. Various kinds of maladaptive behaviors such as anxiety, worry, deprivation and disorder behaviors

are observed in addictive individuals who were separated from their smartphones (Park, Kim, Shon, & Shim, 2013). Other factors that affect smartphone addiction includes impulsivity and the stimulation requirement (Billieux, 2012; Lee, Chang, Lin, & Cheng, 2014). Hence, these cases indicate that phubbing is related with addiction of mobile phone.

Phubbing is a disturbance that is at the intersection of numerous addictions because of the structure of smartphones. While there isn't sufficient proofs for this phenomenon, smartphones having the features of a computer and internet get to drove researchers to believe that phubbing has a multidimensional structure. These dimensions are mobile phone addiction, internet addiction, social media addiction and game addiction. Careful examination can provide insight into the complex structure of these addictions (Chóliz, 2012). It ought to be noticed that phubbing is more prevalent than being thought or reported previously and its consequent effects may be more detrimental (Karadge et al, 2015). One of the research findings proposed the distractions of technology may reduce social anxiety and nervousness in adults (King et al., 2013).

Numerous individuals became dependent on the internet, an ever increasing number of individuals are getting to be problematic users of mobile phones, raising concerns about the potential outcomes of mobile phone abuse (Billieux, 2012). Specifically, the idea of "phubbing", characterized as the act of snubbing others while interacting socially (Hague, 2015). Focusing on one's smartphone while interacting with others appear to have adverse affects on communication between partners, negatively influencing well being of individual and relationship satisfaction (Roberts & David, 2016). However, there is lack of knowledge about the causes of phubbing and also about formulation of phubbing into modern communication norms. One of the proximal predictor of phubbing is smartphone addiction itself. Phubbing and smartphone addiction may have similar properties since they are both identified with inappropriate mobile phone usage and behaviors. It appears to be inevitable for the individuals who are dependent on their mobile phones excessively despite appropriate time and place for its usage (Bianchi & Phillips, 2005; Billieux et al., 2014; Jones, 2014; Walsh, White, & Young, 2010).

Literature review has shown that reciprocal behavior is exhibited when somebody returns a social activity which has positive results for other (Lee, Chang, Lin, & Cheng, 2014) or strikes back with an activity, resulting into negative outcomes (Keysar, Converse, Wang, & Epley, 2008). Phubbing is ignoring companions because of mobile phone may make such practices be reciprocrated either intentionally or unintentionally. Thus, due to reciprocity of the behaviors, the perception of phubbing as normative and acceptable is influenced directly. Formerly, decades or often centuries time was taken to develop social norms (Marques, Muslukhov, Carriço, & Beznosov, 2016). In a recent research, it was found that gender plays the moderating role in relationship between phubbing behavior and both mobile as well as internet addiction (Karadge et al., 2015).

Another research study provided explanation that human being likes to stay in contact with one another and they want to do communication constantly. Most of the people are afraid of being mentally alone and some individuals also wants to be focus of attention all the time (Pontes, Szabo, & Griffiths, 2015). Thus, people use social media and other smartphone applications to stay connected and to fulfill their psychological needs and when they excessively use smartphones to achieve their motives, they engage in phubbing behavior. Despite that, many a times, individuals use smartphones to get away from the social groups or others to avoid discomfort or so called awkward silence i.e. inside the elevator or going to the work place via public transport or when they got bored in a party. Besides, researcher believed that phubbing is likewise contagious, for instance, phubbing made other people distress thus, they may also portrays the same phubbing behavior in turn to avoid the awkward silence (Pontes, Szabo, & Griffiths, 2015).

The negative effects of phubbing were being summarized by Jaidee (2014), the therapist from Bangkok Hospital. Report by Jaidee shows that dark side of phubbing enlists decline of quality relationship with friends and family, endangering one's own obligation and the performance of tasks, harmed ergonomically, increase in accidents because of not focusing on the surroundings, the habit of frequently checking smart phone, anxious, and may prompt other addictions like internet, mobile phone applications and Social Networking Sites (Jones, 2010).

The outcomes acquired by Pew ironically revealed that while 82% of those surveyed, reported disliking smartphone use at restaurants, family suppers, gatherings, cinemas, and church as well as other worship services while 89% confessed to having used their mobile phone at their latest gathering. In fact, 22% of respondents said that they either as frequently (6%) or infrequently (16%) use their mobile phone trying to abstain from interacting with other people who are close to them so that they got engaged with phubbing at intentional and also at unintentional levels. Phubbing is the current pattern toward public and its use appears to be more prevalent among more younger users between 18 to 29 years of age and sometimes leading to inapt usage of mobile phone (Rush, 2011).

Literature review shows that more researches had been done on the romantic partners phubbing. Roberts and David (2016) contemplated a behavior referred to as phubbing. Subsequently phubbing refers to snubbing one's partner while using one's mobile phone. In a subsequent two studies, Roberts and David (2016) developed a scale of phubbing, which is valid and reliable measure and found that phubbing prompted less relationship satisfaction. The mediating role of conflicts that results because of mobile phone use and moderating role of attachment style in relationship with those with anxious attachment styles encounters more conflict and more negative results from phubbing conduct (Roberts & David, 2016).

Theories Related to Phubbing

Following theories have been proposed to understand the connection between needs of phubbed individuals for attention and intensity of social media.

Expectancy violation theory. Theory states that positive and negative values are placed by individuals on any violation of expectation, trying to make sense of it. Judgments of valence originate from assessing the actual behavior, deciding how much it varies from expectation, and assessing whether the behavior is positive or more negative over what was expected. Certain behaviors has been titled as positive or negative, regardless of who performs them. Nevertheless, some practices are more vague, for example, using one's mobile phone on a date, and hence are more challenging for partner to decide valence. Partners assess

communicator reward value in such particular examples (Błachnio & Przepiorka, 2018).

Focus on non-verbal communication helps to guess the degree to which an individual can be perceived as rewarding and this guess is done on the basis of physical attraction, monetary status or competence of the other individual. Perception of negative violation, those violations that are less favorable and its degree can be influenced by communicator reward value. When a highly rewarding individual commit ambiguous or vague violations, these violations would be perceived as more positive. Thus, individuals will generally perceive violations by higher reward partners as more positive than a similar violation by somebody with less reward value. Also, constructive communication would be followed by most of the individuals after a negative event occurs due to highly rewarding partner (Billieux, 2012).

Use and gratification theory. According to this theory, people use media that satisfies their particular needs and its use is gratifying also. For instance, people desire attention to feel included after they are being phubbed and experiences exclusion and ignored. This need for attention finds its fulfillment via social media usage. The basic needs of use and gratification theory are entertainment, information, personal identity and personal relationship and social interaction. These four gratifications are being entertained by smartphones and its functions. It is where users mingle and do socialization, make companions and associating with distant friends and family. Contrary to the old web-surfing, users could now be able to express their feelings via their social media accounts by means of personal status and get online reactions in the form of likes and comments from their group of friends. Frequently, people get to discover their sense of humor by following facebook pages having funny quotes and pictures that entertain them. Since there are Facebook pages that needs subscription, and it is online twenty-four hours a day, their preferred sources provide them with required information i.e. news, fun-facts, up-coming occasions and so on (Kanwal & Akhtar, 2018).

Use and gratification theory suggest/proposes that persons perform as lively audience, handpicked media and its happy in order to accomplish their desires (Kuss & Griffiths, 2011). The individual's desires are expressed as his/her articles

for chosing that particular media content and fulfillment of wishes results in charge of satisfaction (Kang & Jung, 2014). This theory is about how people wants and goals decide usage of media and its outcomes (Rush, 2011). Media addiction and related practices as phubbing has been referred to as the most essential outcomes of media usage. As a group of media substance results in fullfilment of various desires, media addiction and its consequences may occur when he or she begins to rely upon media as only mode of pleasure (Kang & Jung, 2014).

Optimal flow theory. According to this theory, some individuals develop intense relationship with social media sites as facebook, instagram or others, because their experience with Information Communication Technology (ICT) has been so pleasureable and gratifying. Research has shown that notification ring of favorite apps such as when 'like or comment' on a photo by someone is notified, dopamine would likely to be released just same as the happiness one feel from the other person's hug or smile (Salehan & Negahban, 2013). Those individuals who got highly attached to smartphones or social media, if not addicted, have strong feeling of social exclusion and to fulfill their need for attention and socialization (Andreassen et al., 2012; Kuss & Griffiths, 2011).

Home Chaos

An environment having too much noise and crowding in its background is referred as home chaos and is low in structural as well as in temporal routine (Coldwell, Pike, & Dunn, 2006). Home chaos mentions to micro system settings, for example, the home, day care center or school, which are portrayed by high level of noise, crowded, more individuals moving around, and an absence of physical and temporal structure. Also refers to lack of regularities or schedules in environment, little things are schedulized while nothing is on its place (Walsh, White, & Young, 2010). Chaotic homes are portrayed by disturbance and phone calls, disruption and also have common practice of people coming and going (Dore et al., 2018).

For early learning of children and their socio-emotional development, home environment is the primary context (Deater-Deckard, Wang, Chen, & Bell, 2012). One of the important aspect of physical microenvironment of children is

environmental chaos and this chaos mentions to microsystem that is high in levels of noise, crowding and less structured environment with irregularities (Walsh, White, & Young, 2010). Home chaos refers to large amounts of confusing and agitative environment in the home, and also to a feeling of surge, disorganization, and pressure of time in routine (Cole & Hooley, 2013).

Research on Home Chaos

The relationship between chaotic conditions with poor cognitive abilities of children is supported by literature evidence (Evans, Maxwell, & Hart, 1999). Chaotic environment may results into poor academic accomplishment, low IQ and social issues (Deater-Deckard et al., 2009). Literature also supports correlation between chaotic environment with less effective parenting of child (Evans, Maxwell, & Hart, 1999). According to one of the study by Bradley (1985), featuring role of physical environment on one's behavior and development focused primarily on what may be called affordance aspects. This was done by emphasizing role of particular resources that fulfilled the children's particular needs (Brown, 1997).

Former studies have shown that families with high chaotic environment involves negative parental responses, parent's interest in family activities get lower, and facilitative interaction with children diminishes or is reduced (Ehrenberg, Juckes, White, & Walsh, 2008). Valiente, Lemery-Chalfant, and Reiser (2007) observed home chaos to be adversely correlated with parent's confirmatory responses to children's negative feelings and parents' effortful control, which incorporates attention, activation, and hindrance/inhibition. Externalization behavior of children results when they grow up in irregular routine and unstructured environment (Toda, Monden, Kubo, & Morimoto, 2006). Another study reported that lower level of social and cognitive competence are also related with externalizing problems of children, if they grow up in unstructured environment (Dasgupta, Bhattacherjee, Dasgupta, Roy, Mukherjee, & Biswas, 2017). Moreover, studies demonstrates that family chaos is a helpful construct in itself, not only as proxy for adverse demographic factors (Dore, 2018), but also it is identified with children conduct issues beyond financial status and parenting (Coldwell, Pike, & Dunn, 2006).

Children in families confronting monetary misfortune will probably encounter chaotic home situations, set apart by more èlevated amounts of disruption and uncertainty (Isen, Baker, Raine, & Bezdjian, 2009). Numerous serious problems are faced by individuals grown up in low-financial ecologies and that can impact adversely their psychological and social development (De-Sola Gutiérrez, Rodríguez de Fonseca, & Rubio, 2016). There is significant evidence that chaotic environment of home is correlated with development of less optimal cognitive and socio-emotional development in children. More increased amounts of parent-rated family chaos in kindergarten have been connected with lower I/Q of child and more awful behavioral issues in first grade (Deater-Deckard et al., 2009). Similar correlations are also found in relation between self-reported home chaos in middle childhood and subsequent level of academic achievement and problematic conduct at 12 years of age (Hauge, Castro, Kwon, Filler, Kowatsch, & Schaub, 2015).

Chaotic conditions in home environment is a key situation in development, behaviorly and intellectualy. Family chaos experienced distinctively by identical twins raised together. However, it has been demonstrated that children experiences of home chaos is partially genetically mediated (Carbonell, Oberst, & Beranuy, 2013). Chaotic home condition have long been related with various undesirable outcomes (Matusik & Mickel, 2011). Research exploring the relationship of chaos with biomedical outcomes shows that individual from chaotic families are at high risk increased blood pressure, injuries and have cardiovascular reactivity stressful situations (Dasgupta, Bhattacherjee, Dasgupta, Roy, Mukherjee, & Biswas, 2017).

Literature shows that home chaos is associated with financial/socio-economic status and parenting. Low income adolescents faced more elevated amount of chaos when contrasted with their wealthy partners. Chaotic living conditions were faced by low income families (Forgays, Hyman, & Schreiber, 2014). Disturbed routine and less structured home life is experienced by poor children. They live in crowded and noisier homes (Hussain, Cakir, Ozdemir, & Tahirkheli, 2017). Impact of home chaos on development may vary. For instance those children who had difficult personality and problematic conduct were more sensitive to chaos (Petric, Petrovcic, & Vehovar, 2011).

Overcrowded home conditions and high chaos have competition for resources, few routines and association and increased conflict rate (Pavithra, Madhukumar, & Mahadeva, 2015), all of which have been a marked contribution in the development of person's externalization of problems (Logue, 2009).

Theories Related to Home Chaos

Following theories have been proposed to understand the relation of home chaos with other developmental and social functioning of individuals.

Chaos theory. Through James work, chaos theory had been proposed in 1980s. Chaos theory explains that actions were influenced by simple events. The model's initial conditions determines chaotic actions. Because of broader scope of non-linear analytical instruments, it can be applied over all sciences (Kuss & Griffiths, 2011). Despite the fact that chaos shows unpredictable and unstable behavior, additionally it is non-deterministic. At the simple beginning, small changes can have more impact on final consequences, in addition to this, factors are associated in a dynamically (Musselwhites & Herathb, 2006). As hypothesized by chaos theory, energetic and multifaceted events on the earth which seems disruptive and chaotic have novel models. Strange attractor is the unrevealed segment/component in the chaos theory which shapes non-linear model of dynamic behavior in to particular category. Chaotic data might be masked by noise and it is to be removed to uncover covert examples. Behavior is guided yet not decided entirely by strange attractor. According to Stilwel (1996), chaos theory, these patterns of orders can be classified in chaotic behavior (Musselwhite & Herathb, 2006).

Bronfenbrenners's bio-ecological model. Bronfenbrenners' bio-ecological model (1979) gives a comprehensive hypothetical background to clarify the correlations between chaos and adverse developmental outcomes among children. Five interlocking systems, namely microsystem, mesosystem, exosystem, chronosystem and macrosystem, are explained via this model. According to this model, microsystem mentions to the immediate environment of children such as home, day care centers where they participate in proximal processes i.e., the associations and interaction between the developing organism and people, articles

and symbols in the immediate environment. Stable and consistent environment is required for children's effective funtioning of proximal proceses and chaotic home conditions interfere with them and may results into negative outcomes (Bronfenbrenner & Evans, 2000). Proximal processes may differs in their form, content, direction and power because of associated functions of various characteristics of developing person, context etc and this can be explained by second proposition of bio-ecological model.

The proposition with acronym PPCT states that the form, power, content, and the direction of the proximal processes producing development, differs efficiently as a joint function of the characteristics of the developing individual, the ecological setting both quick and more remote-in which the procedures are occurring, and the social congruencies and changes occurs after some time through the life course, and the historical period through which the individual has lived and, obviously, the nature of the developmental consequences under consideration (Bronfenbrenner & Evans, 2000).

Bronfenbrenners' bio-ecological model includes broad context enlisting processes, context and time to comprehend the relationship between development of an individual and proximal characteristics of microsystem such as environmental chaos (Wachs, 2010). The aspects of power, process, context and time of this model helps in understanding nature of chaos and its relationship with development (Wachs & Evans, 2010). The person dimension in PPCT structure refers to the idea of moderation such as the impact of microsystem characteristics, like home chaos, varies systematically as per characteristics of individuals. Study has shown that gender is one of those actual or potential moderators which influence the above relation and temperament is also included in potentially moderating characteristics (Wachs, 2010).

Possible Predictors of Nomophobia and Phubbing

Few factors are indicated as predictors of nomophobia and first in the list is internet addiction. Maladaptive pattern of internet usage that leads to clinical distress or significant impairment characterize internet addiction (Guzeller, & Cosguner, 2012). Some researchers had point of view that problematic usage of smartphone is closely associated with internet addiction and also have similar

adverse outcomes. Those researchers who investigate addiction of smartphone and nomophobia have demonstrated that similar to addiction of internet, problematic smartphone is associated with withdrawal, intolerance, compulsive behavior and functional impairment (Lee et al., 2014). Another study have shown that excessive use of smartphone and compulsive checking of smartphone behavior is also related with interpersonal relationship problems such as interpersonal closeness and trust issues emerges (Przybylski & Weinstein, 2013).

Other studies demonstrates that smartphone use and compulsive checking of smart phone is associated with interference of social activities (Walsh, White, & Young, 2008), and insecure romantic relationships (Kuss & Griffiths, 2011). In addition, another research reported that internet addiction was positively correlated with phubbing behavior (Karadag et al., 2015). It is subsequently reasonable to propose that problematic use of internet would be related with problematic smartphone use, which consequently may predict phubbing behavior.

Second predictor is referred to as fear of missing out. Researchers investigated the its predictive value and FOMO itself is defined as the fears, anxieties or worries individuals may have because of being out of touch with events, experiences and conversations in their social circle (Przybylski, Murayama, DeHaan, & Gladwell, 2013). FOMO influence individuals by raising their concerns and association of FOMO has also been found with over use of smartphone (Carbonell, Oberst, & Beranuy, 2013). This anxiety about being excluded from one's circle plays critical role in seeking out satisfaction of need and mood, life contentment and social networking sites (Przybylski et al., 2013) whereas all these factors are associated with addiction of smartphone (Davey & Davey, 2014; Kwon et al., 2013; Salehan & Negahban, 2013). Another study has found that FOMO is correlated with problematic smartphone (Choudhury & Gorman, 2000). Thus this can be plausible to propose that FOMO would be the predictor of mobile phone addiction, which in turn would predicts phubbing behavior. The fear of missing particular information on social media may results into problematic smartphone usage, demonstrating that people would turn to their smart phones instead of interacting with people present around.

Third factor indicated via various researches is self-control. Different researches have shown that self-control is associated with addiction (Kim et al., 2008; Malouf et al., 2014) and self-control is also related with problematic usage of smartphone (Billieux, Van der Linden, d'Acremont, Ceschi, & Zermatten, 2007). It has also been observed that those individuals who had high level of impulsivity or difficulty controlling their impulses may influence their smartphone usage, similar to symptoms of substance dependency (Billieux, Vander, Linden, & Rochat, 2008). Whereas, lack of persistence can impact task focusing and results into increased irrelevant cognition incidence (Bianchi & Phillips, 2005), which may in turn leads to excessive smartphone usage (Billieux et al., 2008). Thus, it is also sensible to propose that self-control would be a predictor of smartphone addiction which in turn would predict problematic behavior related to smartphone in the form of phubbing.

In this manner, addiction of smartphone itself ought to be proximal predictor of phubbing. Phubbing and addiction of smartphone may have similar properties as both of these are linked with inappropriate uses and associated behaviors. Those individuals who are addicted to smartphone usage will inevitably use their phones even if this is discourteous or inappropriate time or place to do so (Bianchi & Phillips, 2005; Billieux et al., 2014; Jones, 2014; Walsh et al., 2008). Another research has affirmed that self-control negatively predicted addiction of smartphone, while Internet addiction and fear of missing out positively predicted smartphone addiction. Further, there was a positive relationship between's addiction of smartphone and phubbing behavior, and between phubbing behavior and being phubbed. Besides, both phubbing conduct and being phubbed positively correlated with the extent to which individuals perceive phubbing as normal (Chotpitayasunondh & Douglas, 2015).

Pakistani Perspective

Every country and nation possess unique cultures and values, thus, everyone would have different user's profiles and statistics. Considering socialization and technology use, Pakistani users would consider smart mobile phone and social

media most preferably. No evidence with respect to the relationship between home chaos and adjustment of children is available in Pakistani setting, similarly little is known about gender differences in sensitivity to environmental chaos. Available literature supports the relationship between environmental chaos and lower academic achievement among Pakistani children (Shamama-tus-Sabah & Gillani, 2011; Quaid, Khan, Anwar, & Mateen, 2001). Studies on nomophobia and phubbing are likewise not in a significant number in Pakistan. A research study done in Karachi demonstrated that there was greater likelihood or probability of nomophobia among youth with increase in age and longer hours of smartphones use. Interestingly, males are found to be more nomophobic than females and study has shown that there is greater chances of nomophobia among youth because of longer hours of smartphone usage in Pakistan (Nawaz, Amjad, Sultana, & Shaheen, 2017).

Another study demonstrated that Pakistani student's nomophobia level would generally increases over the years in college and is driving towards depression (Hussain, Cakir, Ozdemir, & Tahirkheli, 2017). A research in Punjab University, Pakistan, detailed that psychological needs and fear of missing out emerged as strong indicators of phubbing and it was likewise discovered that fear of missing out would likely to mediate the relationship between psychological needs and phubbing (Kamran, 2010). As a developing nation, Pakistan is a big market place for mobile phones that is indicating towards technological issues in future such as nomophobia, phubbing, FOMO etc. These modern digital dilemmas need to be addressed in time.

Sarwat (2018) presented her work related to severity of nomophobia in Pakistan. According to her report, 409 university students were surveyed and she observed that addiction of smartphones was the most widely recognized reason behind phubbing and individuals are excessively dependent on their smartphones. Further she clarified that impacts of phubbing on relationships could have more adverse impacts. It can negatively impact the capacity to interact and grow socially. Researches in Pakistan with respect to smartphones and related practices shown that gender difference exist regarding smartphone usage. Study explored mobile phone messaging patterns and calling on university students. Likewise, according

to the research conducted by Kamran (2010), individuals were excessively involved in smartphone usage particularly of text messaging, irrespective of gender (Kamran, 2010). Another examination explored proactive buying behavior towards smartphone and also towards its applications, for example, email, software, ring tone, web browsing etc (Osman et al., 2012).

Kamran (2010) conducted the examination on phone use, getting gender significant outcomes. Statistical figures in result demonstrated that received calls by male students were 4.3% on average whereas female students receive 4.1% of calls. While the number of dialed calls by male students and female students were3.9% and 3.4% respectively. However, students were accounted for using messaging as significant source of communication. The normal number of instant messages received were 98.4% and 85.7% by males and females respectively. Essentially both male and female students sent same number of text messages.

Not many researches are being conducted on the technological addiction and have not completely investigated the subject of chaos with nomophobia and in addition to phubbing. Ali (2004) detailed that his findings have shown a positive relationship between the prevalence of depression, lonliness and technology usage. A study by Khalid (2015) reported that a warmer parenting style would lower the susceptibility of children falling for the addiction of mobile phones and other technology at early age. This study can be used to infer that warmer parenting would lead towards less chaotic home conditions that would help children or people avoid excessive smartphone use, nomophobia and thus phubbing as their social family relations are more grounded and secure.

According to one of the recent research bought to the light that prevalent relationship exist between the increase of anxiety and aggression with an increased usage of technology (Błachnio & Przepiorka, 2018). These findings are pointing towards the evident relationship between excessive internet and mobile phone usage that results into behavioral issues, temperamental issues and other conduct problems among individuals and phubbing is additionally a type of it.

Relationship Among Nomophobia, Home Chaos and Phubbing

Former literature reflects lack of excessive researches about the relationship of chaotic home condition with phubbing behavior of individuals. The greater part of the studies are done with children and their adjustment, academic issues, externalization and internalizing issues as a result of home chaos. Notwithstanding, home chaos component can not be overlooked in the life of individual also and correspondingly technology usage and particularly smartphone usage is the most important aspect. As it has been already shown by the research that nomophobia prompts phubbing (Karadag et al., 2015). The current research is designed to explore the moderating role of home chaos in relationship between no mobile phone phobia and phone snubbing. There is no recent research reported about the same relationship in my defined sample of university students in twin cities of Rawalpindi/Islamabad. There is no ongoing research exploring about a similar relationship. Chaos results in the individual's behavioral issues and in the same manner, phone snubbing is additionally considered as social negligence issue while communicating with others that consequently leads to disruption in interpersonal relations. As recent reports have suggested that smartphone use is making adolescents more anxious, more depressive and introverted. Nomophobia exist at various degrees among people and when home chaos is combined with high nomophobia, it prompts distinctive examples of phubbing with perilous consequences for mental, physical, emotional and social functioning of these individuals (Hanscombe, Haworth, Davis, Jaffee, & Plomin, 2010).

Home chaos play moderating role when nomophobia results into the larger amount of phubbing in people encountering it. Chaotic states of home leads to problematic behavior of individuals that can be reflected in various forms, for example, defiance, tantrums and so on. Positive psychology studies reveals that materialism is an obstacle and hampers satisfied and contented life (Keyser, 2008). Therefore an excessive attachment and dependence on smartphones may bothers interpersonal relationships as individuals begins identifying/relating to gadgets rather than individuals around that individual and this obliviousness prompts phubbing that have its own adverse consequences. Home chaos can increase the nomophobia and that consequently increases phubbing. Larger amount of home

chaos have been observed to predict people's poorer cognitive functioning, more limited attention focusing and more conduct and emotional issues even subsequent to controlling the confounding ecological factors, for example, parental instruction, IQ, parental warmth and negativity, parental stress and so forth (Deater-Deckard et al., 2009; Kanwal & Akhtar, 2018).

Numerous researchers agreed that excessive usage of smartphone, Internet and Social Networking Sites may restrain the proper interpersonal skill development (Lopez-Fernandez, Kuss, Griffiths, & Billieux, 2015). At the point when relationship abilities are detoriated, conflict resolution and problem solving skills are likewise in declination resulting into adjustmental and adaptation issues. Chung and Asher (1996) shown that reactions to assumed conflict situations are similar to responses seen in real life conditions (Johnson, Martin, Brooks-Gunn, & Petrill, 2008). Ability to deal with real life conflicting situations is decreased because of increased dependence on technology for interactions coupled with the declination of face to face communication. Adolescents having close online relations, they were accounted for high measures of conflict and felt dreadful or were in a noteably in trouble thus avoid developing relations and speak with others even their parents (Kanwal & Akhtar, 2018). The ineffective problem solving skills can endanger wellbeing and safety and prompt serious violence acts (King, Valenca, & Nardi, 2010).

Rationale of the Study

The present study aims at exploring the relationship between nomophobia, home chaos and phubbing among university students. The sample of university students is chosen for the reason of being the future of nation and statistics had indicated the prevalence of smartphone addiction and nomophobia which leads towards adverse outcomes one of which is phubbing (Hussain, Cakir, Ozdemir, & Tahirkheli, 2017). And university students are more susceptible to smartphone addiction, nomophobia and consequently phubbing. Young individual engaged in their smartphones by making phone calls, internet browsing, texting instant messages, busy on social media, and personalizing their smartphones via images, ring tones and wallpapers. Consequently, they starts to develop reliance on their smartphone which increases adversity among them (Dixit et al. 2010; Lee et al.

2014; Matusik and Mickel 2011). Excessive usage of smartphone also increases the risk of nomophobia among youth in Pakistan and thus nomophobia in turn results into phubbing.

World's largest populations of young people exists in South-Asia, who readily adopt new technologies than older age groups. Smartphone business in Southeast Asia is destined to significant growth over the next few years, with payment expected to grow approximately five fold by 2019. This business growth is being driven by strategy of more affordable prices, as well as by the ample and progressively techno-phobic youth population.

Inspite of the fact that smartphone is an extraordinarily useful tool and facilitates the performance of numerous social and personal functions, uncontrolled, inappropriate, or excessive usage of smartphones can lead to problems in interactions with parents and in other areas (Choliz, 2012). Physical characteristics of smartphone excessive use as well as the psychological processes addresses both the attraction it evokes, and the abuse or dependence it can elicit or encourage in adolescents (Choliz, 2012). When too overwhelmed, one can experience distraction while interacing to other people. For instance, more than 30 million of Britain's smartphone users are most likely to be engaged with smartphone applications such as Twitter while talking to people (Toda, Monden, Kubo, & Morimoto, 2004). This results into smartphones addiction that can make people occupied with their smartphones for a long-time use, usually hours. On average, smartphone users are 'picking up' their smart phone up to nearly 1500 times in a week. Further, 40 percent of these feel lost without their smartphones (Salehan & Negahban, 2013) thus results into nomophobic behavior that positively correlate with phubbing.

It has been estimated that 77% users of smartphone are aged between 21 to 30 years in Pakistan (Pamuk & Atli, 2016). It is a fact that, masses suffer from nomophobia around the sphere and the most affected are from 18-24 years of age (Kanmani, Bhavani, & Maragatham, 2017). 21% population of India are adolescents and nearly 20% of adolescents shows the adverse outcomes of smartphones overuse in mental health problems in the form of difficulty in concentration and attention deficit-hyperactivity disorder, but the contribution of phubbing is practically unknown. In India, smartphone's addiction and problematic

internet use among adolescents are on the increase, which indicates the risk of phubbing among adolescents and youth. The present study aims to explore the prevalence of nomophobia and phubbing among adolescents and youth and hypothesized that adolescents are more nomophobic and phubbers as compared to adults.

One of the purpose of current study is to find the effects of home environment on nomophobia and phubbing because it is also a risk factor. Chaotic home environment affects socioemotional adjustment of children directly but it can lead to negative consequences by affecting adult's emotional well-being and their conduct as well (King, Valença, Silva, Sancassiani, Machado, & Nardi, 2014). Sizable evidence indicates that home chaos could be a potential risk factor for behavioral problems, poor cognitive performance, and lower academic achievement in western and non-western cultures (Brown, 1997) ; Deater- Deckard et al., 2009). Home chaos results into phubbing which in turn has adverse consequences.

In Pakistani culture available literature demonstrates immediate chaotic environment as an important aspect of children's environment interfering with their academic performance and behavioral development (Quaid, Khan, Anwar, & Mateen, 2001; Shamama-tus-Sabah & Gillani, 2010). Joint or extended families experience home chaos as compared to nuclear families. In western cultures, education level of mother have been reported as moderating role against chaotic home condition. Contrary to this, education of the mother has nothing to do with related home chaos level (Quaid et al., 2001; Shamama-tus-Sabah & Gillani, 2008, 2010). Research also has recommended that pervasive chaotic home environment leads to lingual, social, emotional, and behavioral difficulties (Worley & Samp, 2014). Other than general externalizing problems, home chaos has been coupled with specific behavioral problem. In a sample of adolescents, home chaos was related to smoking, intolerance, higher risk for educational suspension, more drinking, more classroom disruptive behavior, and more marijuana use (Musselwhite & Herath, 2007). However, to draw a significant conclusion more comprehensive studies are required to understand the role of home chaos in

socio-behavioral development of children in Pakistani culture. Previous findings support the hypothesis of expected relationship between home chaos and behavioral problems indicating significant positive correlations between home chaos and children's conduct problems (Deater-Deckard et al., 2009), and a significant negative correlation between home chaos and appropriate social behavior. Home chaos is considered to be a significant predictor of conduct problems and social skills among children as perceived by their parents (Shamama-tus-Sabah & Gillani, 2011).

There is scarcity of literature in Pakistan the study variables, this study will fill in the gap and would be useful addition to the literature. Findings of the current study could assist to explore the multiple risk factors leading to nomophobia and phubbing like age, gender, duration usage of smartphone etc. However, Pakistani researches regarding nomophobia and smartphone addiction supports that gender differences exist for these variables. Research explored mobile phone usage pattern via number of texts and calls on university students reported that all the individuals were excessively involved with smartphone having number of messages and calls despite of the gender (Ahmed, Qazi, & Perji, 2011).

METHOD

Chapter 2

Method

Objectives

Following are the objectives of current study.

1. To explore the relationship between nomophobia, home chaos and phubbing among university students.
2. To investigate the role of demographic variables (gender, age, family system, smartphone usage duration, smartphone usage purpose, smartphone usage context and number of applications) in relation to study variables.

Hypotheses

Following are the hypotheses of the current study.

1. Nomophobia will positively predict phubbing among university students.
2. Home chaos will negatively predict phubbing among university students.
3. Female students will score higher on nomophobia, phubbing and home chaos as compared to males.

Operational Definitions of Variables

Nomophobia. Nomophobia is the modern fear of being unable to communicate through a mobile phone or computer. Nomophobia is a term that refers to a collection of behaviors or symptoms related to mobile phone use. Nomophobia is a situational phobia related to agoraphobia and includes the fear of becoming ill and not receiving immediate assistance (King et al., 2014). It has also been defined as the fear of not being able to use one's smart phone and the services it offers (Kang & Jung, 2014). In the present study, it refers to fear of losing mobile phone and ultimately giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate (Yildirim, 2014).

In current research, nomophobia was operationalized as scores on nomophobia questionnaire where higher scores indicated higher level of nomophobia and vice versa.

Phubbing. Phubbing is a word created with two words of "phone snubbing", and it means looking at one's mobile phone instead of communicating with the ones

actually beside them, thus directly ignoring them (Karadag et al., 2015). Phubbing occurs when people snub or ignore other people in their company by concentrating on their smartphone instead (Abeele, Antheunis, & Schouten, 2016).

In the current research, phubbing has referred to interpersonal conflict arousal due to smartphone usage in other person's presence (Chotpitayasunondh & Douglas, 2018). In the present study, phubbing was operationalized as scores on phubbing's interpersonal conflict subscale where higher scores on the phubbing's interpersonal conflict subscale indicated higher level of phubbing and vice versa.

Home Chaos. Home chaos refers to microsystem contexts such as the home, day care center or school, which are characterized by high noise levels, high levels of density or crowding, high context traffic patterns (many people coming and going), and a lack of physical and temporal structure; few regularities or routines in the environment, little is scheduled, nothing has its place (Matheny et al., 1995; Wachs, 1989; Wachs & Corapci, 2003).

In current research, home chaos is operationalized as score on scale of home chaos where high score shows high level of home chaos, reflecting more disorganization, confusion and noisy home environment and vice versa.

Instruments

Following instruments were utilized in the study. A brief description is given here.

Nomophobia Questionnaire (NMP-Q). NMP-Q consists of 20 items and it explores four dimensions of nomophobia that is; 1) Inability to communicate (six items). 2) Losing connectedness (five item). 3) Inability to retrieve information (four items). 4) Giving up convenience (five items). Answers were rated on a seven-point Likert scale, where 1 = "strongly disagree" and 7 = "strongly agree". Scores ranged from 20 to 140 points. Score of 20 indicated absence of nomophobia, score range of 21 to 59 shows mild level of nomophobia, 60 to 99 score range indicated moderate level of nomophobia whereas severe nomophobia was shown by scores between 100 to 140.

Generic Scale of Phubbing (GSP). The GSP scale is a measure of phubbing in social interactions. To access problems in interpersonal conflicts because of phubbing, Interpersonal Conflict (IC), subscale of GSP, was used to measure interpersonal conflict. This subscale consist of 4 items. Participants responded to items on a seven-point scale, with a label associated with each point (1 = Never, 2 = Rarely, 3 = Occasionally, 4 = Sometimes, 5 = Frequently, 6 = Usually, 7 = Always). Its score ranged from 7 to 28. High score have shown high level of interpersonal conflict due to phone snubbing and vice versa (Chotpitayasunondh & Douglas, 2018).

Confusion, Hubbub and Order Scale (CHAOS). Home chaos was measured through 15 items confusion, hubbub and order scale (Ludwig, Matheny, Phillips, & Wachs, 1995) with true false format. The total score ranges from 0-15 and is derived by simply summing up the responses. High score shows high level of home chaos, reflecting more disorganization, confusion and noisy home environment and vice versa.

Stage I:Try out Phase

This was done in preparation for the main study. This try out is done because two of these instruments are used very few times in past studies in Pakistan and also aimed to appropriateness of selected research instruments.

Objective. Try out phase was performed to find out the extent of comprehension of the items of Nomophobia Questionnaire, Interpersonal Conflict sub scale of Generic Scale of Phubbing and Home Chaos and also had an objective of testing the adequacy of these instruments related to research topic.

Sample. The sample of try out phase comprised of 10 students (5 girls and 5 boys) and this sample was selected via convenience sampling technique. The sample characteristics include possession of smartphone and being enrolled in university. The sample age limit starts from 19 and can go up til 30. They responded well except one sentence of chaos scale where word commotion was not easily

comprehendable for them. Then this word was been replaced by disturbance and afterwards it was all easily understood by respondents.

Procedure. At first, authors of the respective scales were asked for their permission to use their scales via email and after getting their consent, questionnaire booklet was developed. Next step was to approach try out sample by explaining them the purpose of study and their agreement to participate was obtained. Participants were assured to use their data only for research purpose and they were guaranteed about the secrecy of their provided information. After their consent, they were given verbal as well as written instructions and questionnaire to respond with best of their comprehension. Participants were also requested to pin point the words or phrases that were uncomprehending and difficult for them. The words, phrases and sentences were rephrased and made appropriate to understand the scales measuring respective constructs.

Study II: Main Study

To test the hypotheses and achieve the objectives of research, main study was conducted to explore the moderating role of home chaos in relationship between nomophobia and phubbing among university students.

Sample. Sample of 367 university students including girls *(n = 174)* and boys *(n = 191)* were accessed via purposive convenience sampling from Quaid-i-Azam University, International Islamic University, COMSATS and ARID University of Rawalpindi/Islamabad. Their was no age limit but participant must be older than 19 years and enrolled in university.

Procedure. Respondents were approached and requested to participate by telling them aims and objectives of research. Informed consent was obtained from each participant and each participant was given verbal as well as written instructions about how to respond to questionnaires and also to read all the questions carefully and answer each question with best of their knowledge and not to leave any question unattended. Participants were addressed about their right to quit at any point and also about the confidentiality of their information which they were going to provide

and assured that this information will kept secret and will be used for research purpose only. All the participants were handed over booklet of questionnaires including demographic sheet, nomophobia questionnaire, home chaos and generic scale of phubbing. After completion of questionnaire booklet, participants were thanked for their participation and cooperation.

RESULTS

Chapter 3

Results

The current research aimed to examine the relationship between home chaos, nomophobia and phubbing among university students. Appropriate statistical procedures were used to analyze the data through SPSS. Internal consistency of the scales and subscales was determined through Cronbach alpha. Pearson Product Moment Correlation was used to find the relationship among study variables. Independent sample t-test was performed to explore the differences among gender, family system, data package measure, purpose email, purpose social media, purpose looking information, purpose events and meetings, purpose lecture notes, purpose friends and family, purpose games, purpose music, and context dinner table, context bored, context between classes, context fun with friends, context during classes, context talking, and context in restroom, context waiting, context public transportation, and context walking, context driving, context watching TV, and context be alone. Regression analysis was used to determine the impact of independent variables nomophobia and home chaos on the dependent variable phubbing

Table 1
Descriptive Statistics and Internal Consistency of Study Variables (N = 367)

Variables	No. of Items	α	Mean	*SD*	Range		Skewness	Kurtosis
					Potential	Actual		
T.NMQ	20	0.90	91.74	24.32	20-140	31-79	-.07	-.20
NBAC	6	.85	28.94	8.06	6-42	7-38	-.59	-.32
GUC	5	.63	22.84	8.51	5-35	7-28	1.77	1.99
LC	5	.81	21.45	7.17	5-35	6-30	-.34	-.68
IARI	4	.71	18.49	5.50	4-28	4-28	-.45	-.56
PICS	4	.81	13.42	6.29	4-28	4-28	.44	-.63
HC	15	.80	6.88	3.94	0-15	3-12	.25	-.22

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 1 indicates the preliminary analysis of data which comprises of descriptive and reliability values of subscales of nomophobia, phubbing's interpersonal conflict subscale and scale of home chaos. Other descriptives including mean, standard deviation, skewness and kurtosis is calculated for the sample ($N = 367$). Alpha coefficient indicates good reliability for all the scales and subscales. With respect to skewness and kurtosis, acceptable range happens to be -2.96 to +2.96 (Field, 2009). Hence, values of all the scales lies within the acceptable range of skewness and kurtosis.

Table 2
Correlation between Study Variables and Demographic Variables (N=367)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	age	-	.70**	.21**	-.08	.06	.11*	.17**	.17**	-.06	-.04	.10	.09	.00	-.08	.02	.05	.05	.06	.00	.05
2	year.of.study		-	.16**	-.10*	.08	.05	.00	.03	-.11*	-.07	.05	.10	-.01	-.08	.00	.05	.00	.03	.02	.02
3	Duration.usage			-	.03	.10	-.06	.14**	.16**	.07	.05	.09	.13*	.15**	.09	.05	.02	.20**	.11*	.14**	.13*
4	Perday usage				-	.19**	-.09	.12*	.17**	.26**	.26**	.05	.10*	.16**	.24**	-.01	.16**	.15**	.15**	.05	.16**
5	Perday checking					-	-.06	.03	.06	.23**	.18**	-.03	.07	.06	.06	-.02	.14**	.13*	.12*	.15**	.07
6	Usually checking						-	.01	-.04	-.09	-.08	.02	-.04	-.06	-.11*	.05	-.21**	-.10	-.15**	-.08	-.14**
7	Outgoing calls perday							-	.88**	.10	.12*	.26**	.11*	.01	.19**	-.10	.17**	.14**	.23**	.05	.14**
8	Incoming calls perday								-	.19**	.21**	.21**	.20**	.04	.21**	-.09	.14**	.13*	.20**	.04	.12*
9	Outgoing text perday									-	.94**	-.04	.30**	.11*	.09	-.04	.17**	.03	.03	.06	.05
10	Incoming text perday										-	.00	.38**	.13*	.08	-.05	.16**	.04	.03	.05	.03
11	Outgoing email perday											-	.34**	.00	.05	-.12*	.05	-.03	.07	-.08	.01
12	Incoming emails perday												-	.07	.02	.02	.05	.06	-.01	-.01	.02
13	No of apps													-	.02	.12*	.00	.11*	.12*	.09	.03
14	Phubbing's Interpersonal Conflict Subscale														-	.14*	.02	.33**	.49**	.28**	.41**
15	Home Chaos															-	.01	.03	-.07	.05	-.03
16	Total Nomophobia																-	.46**	.03	-.05	1.00
17	Not being able to communicate																	-	.64**	.53**	.60**
18	Losing connectedness																		-	.51**	.63**
19	Inability to retrieve information																			-	.53**
20	Giving up convenience																				-

Note. 1= Age, 2= Year of Study, 3= Duration Usage, 4= Perday Usage, 5= Perday Checking, 6= Usual Checking, 7= Outgoing Calls Perday, 8= Incoming Calls Perday, 9= Outgoing Text Perday, 10= Incoming Text Perday, 11= Outgoing Emails Perday, 12= Incoming Emails Perday, 13= Number of Apps, 14=Phubbing's Interpersonal Conflict Subscale 15= Home Chaos, 16= Total Nomophobia, 17= Not being able to communicate, 18= losing connectedness, 19= Inability to retrieve information, 20= giving up convenience.

***p<.01; *p<.05*

The above table 2 indicates the correlation between study variables and demographic variables. It is observed that positive correlation existed between duration usage of smartphone and total nomophobia and also all the four subscales of nomophobia namely giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate. Similarly perday usage of smartphone positively correlated with phubbing's interpersonal conflict subscale. Perday usage is also found in positive correlation with three dimensions of nomophobia particularly giving up convenience, losing connectedness and not being able to communicate. Perday checking of smartphone correlated positively with total nomophobia and three subscales of nomophobia including losing connectedness, not being able to retrieve information and not being able to communicate. Usual checking of smartphone is found to have negative correlation with phubbing whereas same demographic variable is also negatively correlated with total nomophobia and two dimensions of nomophobia, namely, giving up convenience and losing connectedness. Outgoing and incoming calls perday correlated positively with total nomophobia and three subscales of nomophobia namely giving up convenience, losing connectedness and not being able to communicate and phubbing's interpersonal conflict subscale in a similar pattern. Outgoing and incoming texts perday is positively correlated with total nomophobia. Outgoing emails perday correlated negatively and significantly with home chaos. Another set of positive and significant correlations were found between number of application downloaded in smartphone and two of nomophobia's subscales including losing connectedness and not being able to communicate and the same variable also positively correlated with home chaos. There is positive correlation between phubbing's interpersonal conflict subscale and home chaos among university students. Phubbing's interpersonal conflict subscale is positively correlated with all four dimensions of nomophobia namely giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate. These correlations are significant at $p<.05$, $p<.01$.

Table 3

Summary of Hierarchical Regression Analysis Predicting Phubbing from Demographic Variable (Duration usage, perday checking, etc), Nomophobia and Home Chaos (N = 367)

				95%*CI*	
	Variables	*β*	*SE*	LL	UL
1	Step 1				
	duration.usage	.06	.22	-.18	.69
	perday.usage	.22*	.07	.14	.42
	perday.checking	.00	.00	-.00	.00
	usually.checking	-.08	.09	-.34	.04
	outgoing.calls.perday	.15**	.03	.11	.15
	incoming.calls.perday	.13	.06	-.04	.19
	outgoing.emails.perday	-.01	.03	-.08	.07
	no.of.apps	-.03	.02	-.07	.03
2	Step 2				
	duration.usage	.04	.20	-.25	.54
	perday.usage	.17*	.06	.09	.34
	perday.checking	-.03	.00	-.00	.00
	usually.checking	-.01	.08	-.19	.15
	outgoing.calls.perday	.05	.03	-.17	.06
	outgoing.emails.perday	-.02	.03	-.01	.20
	no.of.apps	-.06	.02	-.08	.05
	HC	.10**	.07	.08	.01
	NBAC	-.03	.05	-.12	.07
	LC	.36**	.05	.00	.18
	IARI	.04	.06	.20	.43
	GUC	.12**	.04	-.07	.18
	R^2	.10			
	ΔR^2	.20			
	F	4.77			
	ΔF	11.54			

Note. HC= Home Chaos, NBAC= Not being Able to Communicate, LC= Losing Connectedness, IARI= Inability to Retrieve Information, GUC= Giving up Convenience **p<.001, *p<.01

Table 3 shows the regression analysis with phubbing as an outcome and such as perday usage, duration usage, perday checking, number of applications are predictors. A summary of hierarchial regression analysis shows that at step 1 per day usage and outgoing calls per day significantly cotributed to regression model F (8, 342) = 4.774, p= .00 . In step 2 after controlling demographic variables and including study variables and subscales of nomophobia namely giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate and home chaos scale, duration usage and two of the dimensions of nomophobia notably giving up convenience and losing connectedness predicted phubbing positively and home chaos also positively predicts phubbing ΔF (13, 337) = 11.545, p=.00 among university students.

Table 4

Mean Differences on Gender Among Study Variables (N = 367)

	Male *(n = 174)*		Female *(n = 191)*				95% *CI*		Cohen's
Variables	*M*	*SD*	*M*	*SD*	*t*	*p*	LL	LU	*d*
T. NMQ	91.27	25.07	92.18	23.68	-.358	.72	-5.93	4.10	-
NBAC	28.31	8.42	29.52	7.70	-1.43	.15	-2.86	.44	-
GUC	22.91	8.57	22.78	8.48	.149	.88	-1.62	1.88	-
LC	8.48	7.14	20.82	7.16	1.77	.07	-.145	2.79	-
PICS	14.60	6.72	12.35	5.68	3.45	.00	.96	3.52	.36
HC	6.22	3.66	7.48	4.10	-3.05	.00	-2.06	-.44	.32

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

This table 4 shows the mean differences between males and females regarding the study variables. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between males and females. As compared to females, males scored higher on phubbing's interpersonal conflict subscale. Moreover, significant group difference between males and females is present on the scale of home chaos. According to the table, females scored higher as compared to males, implying that females are experiencing more home chaos as compared to their male counterparts. On one of the dimension of nomophobia notably inability to retrieve information, gender differences

are significant and females scored higher on this particular domain as compared to males. However, group differences between rest of the study variables are found to be non-significant. Results are significant at p<.05, p<.01.

Table 5

Mean Differences on Family System Among Study Variables (N = 367)

	Nuclear (*n* = 191)		Joint (*n* = 171)				95% *CI*		Cohen's
Variables	*M*	*SD*	*M*	*SD*	*t*	*p*	LL	LU	*d*
T. NMQ	92.41	24.10	91.47	24.54	.36	.710	-4.08	5.97	-
NBAC	29.31	7.97	28.64	8.13	.79	.430	-.99	2.33	-
GUC	22.73	8.76	23.07	8.26	-.37	.701	-2.10	1.42	-
LC	20.81	7.52	22.34	6.61	-2.05	.040	-2.99	-.06	.26
IARI	19.56	8.26	17.34	5.78	3.90	.002	1.10	3.33	.31
PICS	13.14	6.49	13.81	6.05	-1.01	.313	-1.97	.63	-
HC	7.22	4.14	6.53	3.71	1.65	.091	-.13	1.51	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 5 shows the mean differences between nuclear and joint family systems regarding study variables. Significant group difference between nuclear and joint family systems is present on subscale of nomophobia namely inability to retrieve information and losing connectedness. According to the table, nuclear family system scored higher as compared to joint family system on nomophobia subscales. However, group differences between rest of the study variables are found to be non-significant. Results are significant at p<.05, p<.01.

Table 6

Mean Differences of Data Package Users and Non-Users Among Study Variables

(N = 367)

Variables	Users *(n = 298)*		Non-Users *(n = 64)*		*t*	*p*	95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*			LL	LU	
T. NMQ	94.30	24.35	81.09	20.96	4.03	.000	-.32	362	.58
NBAC	29.59	7.85	26.28	8.38	.79	.434	-.99	2.33	-
GUC	23.64	8.67	19.35	6.87	-.37	.705	-2.10	1.42	-
LC	22.28	6.94	18.10	7.09	-2.05	.041	-2.99	-.06	.59
IARI	18.77	5.54	17.34	4.99	3.90	.000	1.10	3.33	.27
PICS	13.77	6.08	11.92	7.01	2.14	.032	.15	3.54	.28
HC	6.77	3.93	7.42	4.09	1.65	.091	-1.97	.63	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 6 shows the mean differences between users and non-users of data package on study variables. Significant differences are found on total nomophobia, its subscales, namely, inability to retrieve information and losing connectedness and phubbing's interpersonal conflict subscale between data package users and non-users in which data package users were scoring high on all these variables. However, group differences between rest of the study variables are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 7

Mean Differences of Users and Non-Users of Smartphone for Email Among Study Variables (N = 367)

Variables	Users (*n* = 151)		Non-Users (*n* = 214)		*t*	*p*	95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*			LL	LU	
T. NMQ	98.82	24.57	86.75	22.92	4.81	.00	7.13	17.01	.50
NBAC	31.01	7.45	27.47	8.17	4.22	.00	1.89	5.18	.45
GUC	24.90	9.91	21.40	7.05	3.94	.00	1.75	5.24	.40
LC	23.13	7.03	20.27	7.05	3.82	.00	1.38	4.32	.40
IARI	19.78	5.48	17.57	5.35	3.85	.00	1.07	3.33	.40
PICS	14.86	6.48	12.41	5.96	3.72	.00	1.15	3.74	.39
HC	6.33	3.83	7.28	3.98	-2.26	.02	-1.77	-.12	.24

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 7 shows the mean differences between users and non-users of smartphone for email on the study variables. Significant differences are found between users of email and non-users on total nomophobia and all four subscales of nomophobia namely giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate in which email users scored higher as compared to non-users. As compared to email non-users, email users scored higher on phubbing's interpersonal conflict subscale. Moreover, significant group difference between email users and non-users is present regarding the scale of home chaos. According to the table, email non-users scored higher as compared to email users, implying that non-users are experiencing more home chaos as compared to users of email. Results are significant at $p<.05$, $p<.01$.

Table 8

Mean Differences of Social Users and Non-Users of Smartphone for Social Media Among Study Variables (N = 367)

Variables	Users (*n* = 277)		Non-Users (*n* = 87)		*t*	*p*	95% *CI*		Cohen' *d*
	M	*SD*	*M*	*SD*			LL	LU	
T. NMQ	94.43	24.02	83.22	23.57	3.81	.00	5.42	16.98	.47
NBAC	29.71	7.82	26.45	8.40	3.32	.00	1.33	5.18	.40
GUC	23.53	8.80	20.71	7.19	2.72	.00	.78	4.85	.33
LC	22.11	6.98	19.37	7.46	3.15	.00	1.02	4.44	.37
IARI	19.07	5.42	16.64	5.43	3.66	.00	1.12	3.73	.44
PICS	13.79	6.38	12.29	5.90	1.95	.05	-.00	3.01	-
HC	6.69	3.86	7.45	4.16	-1.56	.11	-1.71	.19	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 8 shows the mean differences between social media users and non-users on the study variables. Significant difference is found between those who use social media and who do not use it on all the dimensions of nomophobia namely giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate and social media users scored higher as compared to non-user. However, group differences between rest of the study variables are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 9

Mean Differences of Users and Non-Users of Smartphone for Seeking Information Among Study Variables (N = 367)

Variables	Information Seekers *(n = 188)*		Information Non-Seekers *(n = 176)*		*t*	*p*	95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*			LL	LU	
T.NMQ	97.58	23.00	85.68	24.22	4.80	.00	7.03	16.76	.50
NBAC	30.71	7.20	27.06	8.54	4.43	.00	2.03	5.27	.46
GUC	24.13	8.35	21.49	8.51	2.98	.00	.90	4.37	.31
LC	22.92	7.02	19.96	6.95	4.05	.00	1.52	4.40	.42
IARI	19.74	5.26	17.17	5.47	4.58	.00	1.46	3.67	.47
PICS	14.21	6.44	12.60	6.03	2.46	.01	.32	2.90	.25
HC	6.93	3.83	6.80	4.06	.321	.74	-.68	.95	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 9 shows the mean differences between users and non-users for looking information on the study variables. Significant difference is found between those who seek information and who do not look for it on total nomophobia and all the subscales of nomophobia in which users of smartphone for information seeking, scored higher as compared to non-users. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between information seekers and non-seekers of information. As compared to information non-seekers, information seekers scored higher on phubbing's interpersonal conflict subscale. However, group differences between rest of the study variables are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 10

Mean Differences of Users and Non-Users of Smartphone for Organizing Events and Meetings among Study Variables (N = 367)

	Users (*n* = 49)		Non-Users (*n* = 315)				95% *CI*		
Variables	*M*	*SD*	*M*	*SD*	*t*	*p*	LL	LU	Cohen's *d*
T.NMQ	97.59	26.48	90.85	23.92	1.80	.071	-.58	14.06	-
NBAC	29.67	8.57	28.81	8.00	.70	.493	-1.57	3.30	-
GUC	24.92	11.29	22.52	7.99	1.84	.070	-.17	4.96	-
LC	23.04	7.82	21.24	7.05	1.64	.101	-.36	3.97	-
IARI	19.96	5.58	18.28	5.47	1.99	.051	.02	3.33	-
PICS	15.64	7.24	13.08	6.08	2.64	.001	.66	4.46	.38
HC	5.94	3.66	7.02	3.97	-1.79	.070	-2.27	.11	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information,PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 10 shows the mean differences between users and non-users of smartphone for schedulizing events and meetings on the study variables. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between users who schedulized events and meetings in contrast to those who do not schedulised them through their smartphones. As compared to non-users, users who schedulize events and meeting scored higher on phubbing's interpersonal conflict subscale. However, group differences between rest of the study variables are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 11

Mean Differences of Users and Non-Users of Smartphone for Taking Lecture and Notes Among Study Variables (N = 367)

	Users (*n* = 170)		Non-Users (*n* = 195)				95% *CI*		Cohen's
Variables	*M*	*SD*	*M*	*SD*	*t*	*p*	LL	LU	*d*
T.NMQ	96.58	23.33	87.53	24.44	3.60	.07	4.10	13.98	-
NBAC	30.51	7.73	27.59	8.13	3.51	.001	1.29	4.56	.36
GUC	24.05	8.19	21.80	8.67	2.55	.013	.51	4.00	.26
LC	22.66	7.19	20.42	7.02	3.01	.000	.78	3.70	.31
IARI	19.36	5.12	17.74	5.73	2.83	.000	.49	2.74	.29
PICS	14.14	6.63	12.80	5.92	2.04	.000	.04	2.63	.21
HC	6.75	3.97	7.01	3.94	-.60	.550	-1.07	.57	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 11 shows the mean differences between users and non-users of smartphone for taking lectures and notes on the study variables. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between lecture note takers and who do not use smartphone to take lecture notes. As compared to non-users, note takers scored higher on phubbing's interpersonal conflict subscale. Moreover, significant group difference between users and non-users of smartphone for taking notes and lectures, is present on all four subscales of nomophobia namely giving up convenience, inability to retrieve information, losing connectedness and not being able to communicate. However, group differences between rest of the study variables are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 12

Mean Differences of Users and Non-Users of Smartphone for Friends and Family Among Study Variables (N = 367)

	Users (*n* = 228)		Non-Users (*n* = 137)				95% *CI*		
Variables	*M*	*SD*	*M*	*SD*	*t*	*p*	LL	LU	Cohen's *d*
T.NMQ	96.38	23.49	84.02	23.80	4.84	.000	7.33	17.37	.07
NBAC	30.63	7.19	26.13	8.67	5.35	.000	2.84	6.14	.56
GUC	24.05	9.01	20.86	7.24	3.53	.000	1.41	4.97	.39
LC	22.28	7.23	20.09	6.90	2.86	.004	.69	3.70	.30
IARI	19.43	5.19	16.93	5.68	4.32	.000	1.36	3.64	.45
PICS	14.10	6.64	12.28	5.48	2.70	.042	.49	3.15	.29
HC	7.03	4.07	6.66	3.74	.85	.396	-.47	1.20	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 12 shows the mean differences between users and non-users of smartphon for interacting with friends and family on the study variables. Significant difference is found between users who interact with friends and family via smartphone and non-users on the total nomophobia and also on four dimensions of nomophobia namely giving up convenience, inability to retrieve information, losing connectedness and not being able to communicate and those students who are users of smartphones to interact with their friends and family scored higher as compared to non-users. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between users and non-users of smartphones for interaction with friends and family. As compared to non-users, users scored higher on phubbing's interpersonal conflict subscale. However, group differences between home chaos are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 13

Mean Differences of Users and Non-Users of Smartphone for Playing Games Among Study Variables (N = 367)

Variables	Users (*n* = 111)		Non-Users (*n* = 254)		*t*	*p*	95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*			LL	LU	
T.NMQ	97.95	22.43	89.03	24.66	3.26	.000	3.54	14.29	.37
NBAC	30.51	7.20	28.26	8.34	2.47	.014	.45	4.04	.28
GUC	25.08	10.26	21.87	7.45	3.36	.001	1.33	5.08	.35
LC	23.25	6.04	20.68	7.50	3.19	.002	.98	4.15	.37
IARI	19.11	4.95	18.22	5.72	1.41	.158	-.34	2.11	-
PICS	13.98	6.69	13.18	6.10	1.11	.007	-.60	2.20	.12
HC	6.70	4.14	6.97	3.87	-.60	.54	-1.16	.61	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 13 shows the mean differences between users and non-users of smartphone for playing games on the study variables. Significant difference is found between those university students who play games and those who do not, on total nomophobia and on three of subscales of nomophobia including giving up convenience, losing connectedness and not being able to communicate and game players scored higher as compared to non-users of smartphone for playing games. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between game players and non-players. As compared to non-players, game players scored higher on phubbing's interpersonal conflict subscale. However, group differences between rest of the study variables are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 14

Mean Differences of Users and Non-Users of Smartphone for Listening Music Among Study Variable (N = 367)

Variables	Users (*n* = 183)		Non-Users (*n* = 181)		*t*	*p*	95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*			LL	LU	
T.NMQ	98.76	24.00	84.45	22.42	5.87	.000	9.52	19.10	.61
NBAC	30.89	7.59	26.91	8.06	4.85	.000	2.36	5.59	.49
GUC	25.08	9.26	20.54	7.01	5.26	.000	2.84	6.22	.55
LC	23.00	7.16	19.83	6.81	4.32	.000	1.72	4.60	.45
IARI	19.78	5.17	17.13	5.50	4.75	.000	1.55	3.75	.54
PICS	14.54	6.72	12.28	5.63	3.46	.001	.97	3.53	.36
HC	6.77	4.02	7.02	3.88	-.61	.542	-1.07	.56	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 14 shows the mean differences between users and non-users of smartphone for listening music on the study variables. Significant difference is found between those university students who listens to music via smartphone and who do not listens it on total nomophobia and all the dimensions of nomophobia namely giving up convenience, inability to retrieve information, losing connectedness and not being able to communicate as music listeners scored higher as compared to non-listeners. On phubbing's interpersonal conflict subscale, findings suggest a significant difference between music listeners and non-listeners. As compared to non-users, users scored higher on phubbing's interpersonal conflict subscale. However, group differences between home chaos are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 15

Mean Differences of Users and Non-Users of Smartphone on Dinner Table Among Study Variables (N = 367)

	Users (*n* = 70)		Non-Users (*n* = 294)				95% *CI*		Cohen's
Variables	*M*	*SD*	*M*	*SD*	*t*	*p*	LL	LU	*d*
T.NMQ	105.22	22.48	88.37	23.52	5.43	.000	10.75	22.95	.73
NBAC	32.93	7.62	27.96	7.86	4.78	.000	2.92	7.01	.64
GUC	26.79	9.48	21.85	7.97	4.50	.000	2.78	7.09	.56
LC	24.77	6.80	20.61	7.01	4.51	.000	2.34	5.97	.60
IARI	20.48	5.68	17.98	5.35	3.49	.001	1.09	3.90	.45
PICS	15.63	6.63	12.87	6.10	5.43	.001	1.14	4.37	.43
HC	6.34	3.96	7.05	3.93	-1.36	.174	-1.73	.31	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 15 shows the mean differences between users and non-users of smartphone at dinner table on the study variables. Significant difference are found between users who use smartphone at dinner table and non-users on total nomophobia and all the four subscales of nomophobia namely giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate and users scored higher as compared to non-users at dinner table. Phubbing's interpersonal conflict subscale, findings suggest a significant difference between users and non-users of smartphone at dinner table. As compared to non-users, users scored higher on phubbing's interpersonal conflict subscale. However, group differences between home chaos are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 16

Mean Differences of Users and Non-Users of Smartphone while Bored Among Study Variables (N = 367)

	Users (*n* = 261)		Non-Users (*n* = 103)				95% *CI*		Cohen's
Variables	*M*	*SD*	*M*	*SD*	*t*	*p*	LL	LU	*d*
T.NMQ	94.74	24.80	84.42	21.39	3.71	0.00	4.85	15.78	.44
NBAC	29.83	8.12	26.79	7.47	3.28	.001	1.22	4.85	.38
GUC	23.63	8.91	20.93	7.10	2.76	.006	.77	4.62	.33
LC	21.96	7.40	20.26	6.45	2.05	.041	.07	3.33	.24
IARI	19.32	5.26	16.40	5.60	4.69	.000	1.69	4.14	.53
PICS	13.78	6.51	12.48	5.62	1.77	.07	-.13	2.73	-
HC	6.93	4.13	6.82	3.45	.23	.815	-.80	1.02	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 16 shows the mean differences between users and non-users of smartphone when bored on the study variables. Significant difference is found between smartphone users when bored and non-users in boredom on nomophobia and all the four dimensions of nomophobia notably giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate and users scored higher as compare to non-users during boredem. However, group differences between rest of the study variables are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 17

Mean Differences of Users and Non-Users of Smartphone Between Classes Among Study Variables (N = 367)

Variables	Users (*n* = 124)		Non-Users (*n* = 240)		*t*	*p*	95% CI		*Cohen's d*
	M	*SD*	*M*	*SD*			LL	LU	
T.NMQ	102.25	21.99	86.37	23.77	6.18	.000	10.82	20.91	.69
NBAC	32.00	6.87	27.38	8.21	5.37	.000	2.93	6.31	.61
GUC	25.55	8.47	21.44	8.22	4.47	.000	2.30	5.91	.49
LC	24.29	6.50	20.02	7.09	5.59	.000	2.76	5.76	.62
IARI	20.39	4.93	17.54	5.53	4.83	.000	1.69	4.01	.54
PICS	15.41	6.30	12.40	6.05	4.42	.000	1.67	4.35	.48
HC	6.65	3.70	7.03	4.06	-.84	.398	-1.23	.49	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 17 shows the mean differences between users and non-users of smartphone between classes on the study variables. Significant difference is found between users of smartphone in this context and non-users on nomophobia and on all the subscales of nomophobia namely giving up convenience, inability to retrieve information, losing connectedness and not being able to communicate and users scored higher as compare to non-users of smartphone between classes. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between users and non-users of smartphone in this context. As compared to non-users, users scored higher on phubbing's interpersonal conflict subscale. However, group differences between home chaos are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 18

Mean Differences of Users and Non-Users of Smartphone while Having Fun with Friends Among Study Variables (N = 367)

Variables	Users (*n* = 105)		Non-Users (*n* = 259)		*t*	*p*	95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*			LL	LU	
T.NMQ	102.50	25.02	87.44	22.71	5.56	.000	9.74	20.38	.63
NBAC	31.93	8.15	27.75	7.74	4.60	.000	2.39	5.97	.52
GUC	26.37	10.59	21.42	7.08	5.20	.000	3.08	6.82	.54
LC	24.13	6.82	20.40	7.06	4.62	.000	2.14	5.32	.53
IARI	20.07	5.46	17.89	5.40	3.48	.001	.95	3.41	.40
PICS	15.07	6.67	12.74	6.02	3.23	.001	.91	3.74	.36
HC	6.45	4.12	7.09	3.87	-1.38	.167	-1.53	.26	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 18 shows the mean differences between users and non-users of smartphone while having fun with friends on the study variables. Significant difference is found between smartphone users and non-users on total nomophobia and four sub scales of nomophobia that are giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate and users in this context scored higher as compared to non-users. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between smartphone users and non-users. As compared to non-users, users scored higher on phubbing's interpersonal conflict subscale. However, group differences between home chaos are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 19

Mean Differences of Users and Non-Users of Smartphone During Classes Among Study Variables (N = 367)

Variables	Users (*n* = 82)		Non-Users (*n* = 283)		*t*	*p*	95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*			LL	LU	
T.NMQ	99.81	26.17	89.40	23.29	3.46	.001	4.49	16.31	.42
NBAC	31.46	8.23	28.22	7.88	3.25	.001	1.28	5.20	.40
GUC	25.07	9.98	22.20	7.95	2.71	.007	.79	4.95	.31
LC	23.99	7.23	20.73	7.01	3.68	.000	1.51	4.99	.45
IARI	19.29	6.45	18.26	5.20	1.49	.135	-.32	2.38	-
PICS	15.47	6.67	12.83	6.05	3.40	.001	1.11	4.17	.41
HC	6.33	3.76	7.05	3.99	-1.44	.151	-1.69	.26	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 19 shows the mean differences between smartphone users and non-users during classes on the study variables. Significant difference is found between users of smartphone during classes and non-users on total nomophobia and three of nomophobia dimensions namely giving up convenience, losing connectedness and not being able to communicate and users scored higher as compared to non-users. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between users and non-users of smartphone during classes. As compared to non-users, users scored higher on phubbing's interpersonal conflict subscale. However, group differences between rest of the study variables are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 20

Mean Differences of Users and Non-Users of Smartphone while Talking Among Study Variables (N = 367)

	Users (*n* = 100)		Non-Users (*n* = 264)				95% *CI*		
Variables	*M*	*SD*	*M*	*SD*	*t*	*p*	LL	LU	Cohen's *d*
T.NMQ	98.84	24.71	89.01	23.70	3.49	.001	4.29	15.36	.40
NBAC	31.24	7.93	28.06	7.97	3.40	.001	1.34	5.01	.39
GUC	24.91	9.48	22.05	8.02	2.88	.004	.90	4.80	.32
LC	23.45	7.36	20.70	6.99	3.30	.001	1.11	4.38	.38
IARI	19.24	6.10	18.20	5.26	1.61	.106	-.22	2.31	-
PICS	15.32	6.91	12.73	5.90	3.54	.000	1.15	4.02	.40
HC	6.70	3.97	6.96	3.96	-.55	.577	-1.18	.65	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 20 shows the mean differences between smartphones users and non-users while talking to others on the study variables. Significant difference is found between users while talking and non-users on total nomophobia and on three of nomophobia dimensions namely giving up convenience, losing connectedness and not being able to communicate and users scored higher as compared to non-users of smartphone during classes. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between users and non-users of smartphone while talking with the people around. As compared to non-users, users scored higher on phubbing's interpersonal conflict subscale. However, group differences between rest of the study variables are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 21

Mean Differences of Users and Non-Users of Smartphone in Restroom Among Study Variables (N = 367)

Variables	Users (*n* = 182)		Non- Users (*n* =182)		*t*	*p*	95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*			LL	LU	
T.NMQ	96.53	23.24	86.89	24.53	3.84	.000	4.71	14.56	.40
NBAC	30.19	7.84	27.68	8.13	2.99	.003	.86	4.14	.31
GUC	23.95	8.16	21.73	8.76	2.51	.013	.48	3.96	.26
LC	22.82	7.09	20.10	7.04	3.69	.000	1.27	4.17	.38
IARI	19.57	5.46	17.40	5.37	3.83	.000	1.05	3.28	.40
PICS	14.17	6.48	12.70	6.02	2.22	.027	.17	2.75	.23
HC	6.93	3.88	6.84	4.04	.20	.840	-.73	.90	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 21 shows the mean differences between smartphone users and non-users while taking rest in restroom on the study variables. Significant difference is found between users of smartphone while in restroom and non-users on total nomophobia and all the dimensions of nomophobia namely giving up convenience, inability to retrieve information, losing connectedness and not being able to communicate and users scored higher as compared to non-users. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between users and non-users of smartphone while in restroom. As compared to non-users, users scored higher on phubbing's interpersonal conflict subscale. However, group differences between home chaos are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 22

Mean Differences of Users and Non-Users of Smartphone while Waiting Among Study Variables (N = 367)

Variables	Users (*n* = 197)		Non-Users (*n* = 168)		*t*	*p*	95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*			LL	LU	
T.NMQ	96.41	23.69	86.27	23.98	4.04	.000	5.21	15.05	.42
NBAC	30.48	7.52	27.16	8.33	4.00	.000	1.68	4.94	.41
GUC	24.27	9.14	21.18	7.41	3.50	.001	1.35	4.81	.37
LC	22.07	7.41	20.75	6.85	1.76	.078	-.14	2.79	-
IARI	19.59	5.15	17.21	5.64	4.22	.000	1.27	3.49	.44
PICS	13.95	6.42	12.79	6.08	1.76	.079	-.13	2.45	-
HC	7.07	4.05	6.67	3.83	.95	.340	-.42	1.21	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 22 shows the mean differences between users and non-users of smartphone while waiting on the study variables. Significant difference is found between users of smartphone while waiting and non-users on total nomophobia and on three of nomophobia sub scales namely giving up convenience, inability to retrieve information and not being able to communicate and users scored higher as compared to non-users of smartphone during wait. However, group differences between rest of the study variables are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 23

Mean Differences of Users and Non-Users of Smartphone on Public Transportation Among Study Variables (N = 367)

Variables	Users (*n* = 128)		Non-Users (*n* = 235)				95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*	*t*	*p*	LL	LU	
T.NMQ	95.88	25.52	89.60	23.36	2.36	.018	1.06	11.49	.25
NBAC	30.34	7.96	28.25	7.95	2.40	.017	.38	3.80	.26
GUC	24.23	10.46	22.08	7.20	2.31	.021	.32	3.98	.23
LC	21.90	7.83	21.25	6.81	.83	.407	-.89	2.20	-
IARI	19.43	5.05	18.00	5.68	2.38	.018	.24	2.60	.26
PICS	13.97	6.67	13.15	6.07	1.18	.23	-.53	2.17	-
HC	6.74	4.06	6.94	3.88	-.44	.65	-1.04	.66	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 23 shows the mean differences between smartphones users and non-users while availing public transportation on the study variables. Significant difference is found between users while traveling on public transport and non-users on three of nomophobia subscales namely giving up convenience, inability to retrieve information and not being able to communicate and users scored higher as compared to non-users of smartphone during their journey on public transport. However, group differences between rest of the study variables are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 24

Mean Differences of Users and Non-Users of Smartphone while Walking Among Study Variables (N = 367)

Variables	Users (*n* = 96)		Non-Users (*n* = 268)				95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*	*t*	*p*	LL	LU	
T.NMQ	103.76	22.10	87.39	23.69	5.90	.000	10.91	21.81	.71
NBAC	32.30	7.05	27.73	8.09	4.91	.000	2.74	6.40	.60
GUC	26.64	8.59	21.48	8.10	5.27	.000	3.23	7.08	.61
LC	24.40	7.00	20.41	6.97	4.81	.000	2.35	5.61	.57
IARI	20.43	5.25	17.79	5.45	4.11	.000	1.37	3.89	.49
PICS	16.12	6.86	12.47	5.78	5.03	.000	2.22	5.07	.57
HC	7.00	4.41	6.85	3.79	.32	.744	-.77	1.08	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 24 shows the mean differences between users and non-users of smartphone while walking on the study variables. Significant difference is found between users of smartphone while walking and non-users on total nomophobia and four subscales of nomophobia that are giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate and users scored higher as compared to non-users of smartphone during walk. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between users and non-users of smartphone while walking. As compared to non-users, users scored higher on phubbing's interpersonal conflict subscale. However, group differences between home chaos are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 25

Mean Differences of Users and Non-Users of Smartphone while Driving Among Study Variables (N = 367)

Variables	Users (*n* = 48)		Non-Users (*n* = 317)				95% *CI*		
	M	*SD*	*M*	*SD*	*t*	*p*	LL	LU	*Cohen's d*
T.NMQ	104.18	27.10	89.86	23.35	3.87	.000	7.05	21.59	.56
NBAC	31.33	8.50	28.58	7.95	2.21	.028	.30	5.19	.33
GUC	28.02	13.34	22.06	7.24	4.64	.000	3.43	8.48	.55
LC	24.50	7.28	21.00	7.06	3.18	.002	1.34	5.65	.48
IARI	20.33	5.12	18.21	5.52	2.50	.013	.45	3.78	.39
PICS	17.54	6.84	12.80	5.97	5.02	.000	2.88	6.59	.73
HC	6.38	4.19	6.97	3.91	-.96	.333	-1.79	.61	-

Note. T.NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 25 shows the mean differences between smartphone users and non-users while driving on the study variables. Significant difference is found between users of smartphone while driving and non-users on total nomophobia and four sub scales of nomophobia, namely, giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate and users scored higher as compared to non-users. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between users and non-users of smartphone while driving. As compared to non-users, users scored higher on phubbing's interpersonal conflict subscale. However, group differences between home chaos are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 26

Mean Differences of Users and Non-Users of Smartphone while Watching TV Among Study Variables (N = 367)

Variables	Users (*n* = 92)		Non- Users (*n* = 273)				95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*	*t*	*p*	LL	LU	
T.NMQ	101.30	23.16	88.52	23.89	4.46	.000	7.15	18.39	.54
NBAC	31.79	7.08	27.99	8.16	3.99	.000	1.93	5.67	.49
GUC	25.53	9.37	21.94	8.03	3.55	.000	1.60	5.57	.41
LC	23.54	6.94	20.76	7.13	3.26	.001	1.10	4.46	.39
IARI	20.43	4.79	17.84	5.59	3.99	.000	1.31	3.87	.49
PICS	14.70	6.47	12.99	6.17	2.27	.024	.23	3.19	.27
HC	6.94	4.23	6.87	3.86	.15	.879	-.87	1.02	-

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 26 shows the mean differences between users and non-users of smartphone while watching television on the study variables. Significant difference is found between smartphone users while watching TV and non-users on total nomophobia and four subscales of nomophobia that are giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate and users scored higher as compared to non-users. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between users and non-users of smartphone in this context. As compared to non-users, users scored higher on phubbing's interpersonal conflict subscale. However, group differences between home chaos are found to be non-significant. Results are significant at $p<.05$, $p<.01$.

Table 27

Mean Differences of Users and Non-Users while Alone among Study Variables (N = 367)

Variables	Users (*n* = 231)		Non-Users (*n* = 134)		*t*	*p*	95% *CI*		Cohen's *d*
	M	*SD*	*M*	*SD*			LL	LU	
T.NMQ	97.01	23.18	82.67	23.64	5.65	.000	9.35	19.32	.61
NBAC	30.71	7.45	25.90	8.22	5.73	.000	3.16	6.46	.61
GUC	24.29	8.86	20.37	7.27	4.35	.000	2.14	5.69	.48
LC	22.31	7.27	19.99	6.79	3.03	.003	.81	3.84	.32
IARI	19.71	4.99	16.40	5.75	5.78	.000	2.18	4.43	.61
PICS	14.04	6.69	12.34	5.37	2.49	.013	.36	3.03	.27
HC	7.21	4.09	6.34	3.64	2.03	.043	.02	1.71	.22

Note. T. NMQ= Total Nomophobia, NBAC= Not being Able to Communicate, GUC= Giving up Convenience, LC= Losing Connectedness, IARI= Inability to Retrieve Information, PICS= Phubbing's Interpersonal Conflict Subscale, HC= Home Chaos

Table 27 shows the mean differences between users and non-users of smartphone while being alone on the study variables. Significant difference is found between users of smartphone while they are alone and non-users on total nomophobia and four subscales of nomophobia that are giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate and users scored higher as compared to non-users of smartphone. On phubbing's interpersonal conflict subscale, findings suggest a significant differences between users and non-users of smartphone in this context. As compared to non-users, users scored higher on phubbing's interpersonal conflict subscale. Moreover, users of smartphone in this context scored higher as compared to non-users, implying that users experience more home chaos as compared to non-users. Results are significant at $p<.05$, $p<.01$.

DISCUSSION

Chapter 4

Discussion

The primary purpose of the current study was to establish the relationship between nomophobia, home chaos and phubbing and how these variables link with demographic variables. The research was conducted on the sample of university students including boys *(n = 191)* and girls *(n = 174)*. Participants of sample were selected on the basis of convenience sampling from Quaid-i-Azam University, International Islamic University, COMSATS and ARID University of twin citiies.

Objectives of research were accomplished via data collection university students using Nomophobia Questionnaire (Yildirim & Correia, 2015), Phubbing's Interpersonal Conflict Subscale (Chotpitayasunondh & Douglas, 2018) and Home Chaos (Ludwig, Matheny, Phillips, & Wachs, 1995). These scales measured nomophobia, phubbing and chaotic home conditions respectively.

The internal consistency of the scale was determined by using alpha coefficient. Cronbach's alpha indicated good reliability for all the scales and subscales. As subscales of Nomophobia Questionnaire used are are giving up convenience, losing connectedness, not being able to retrieve information and not being able to communicate and their reliabilities being .63, .81, .71 and .85 respectively. Phubbing's interpersonal conflict subscale has .81 cronbach's alpha value and this sub scale also has sound internal consistency. Home chaos scale was also internally consistent and had reliability value of .80.

Considering the objectives of present study, analysis through SPSS was done to study "the relationship between nomophobia, home chaos and phubbing".

It was hypothesized that nomophobia would positively predict phubbing among university students. Pearson Product Moment Correlation was used to analyze the relationships and this hypothesis was supported by the data. The reasons for these behavioral oddities are that the younger generation has developed an addiction and reliance towards smartphones (Anshari et al ., 2015). Nomophobia proved to be the strongest predictor of the regression model in current study (Chotpitayasunondh & Douglas, 2018; Durak, 2018). Smartphone addiction and nomophobia are the reasons for phubbing among students of university because students utilize their smartphones

for different purposes e.g., text messaging, emails, calls, games, music, taking lecture notes, connecting with friends and family and many more. Students are excessively attached to their smartphones because of their need for social inclusion and connection, however, at the same time, their objectives are accomplished out of over usage of smartphone but they snub the individuals around them (Jones, 2014). They are developing more virtual/digital relationships and also damaging interpersonal relationships via phubbing and other conduct problems resulting from technological overuse. Another study reported that excessive smart phone use can consequently decrease one's focus and attention and results into avoidance of face to face communication and may lead to psychological or behavioral problems that impacts interpersonal relationships and may lead to interpersonal conflicts (Bianchi & Philips, 2005).

Predictors of Phubbing

Another objective of the research was to determine the predictors of phubbing in which home chaos, nomophobia and other demographics were taken as predictors. Duration of smartphone usage positively predicted phubbing among university students. Home chaos negatively predicted phubbing whereas two of the dimensions of nomophobia notably giving up convenience and losing connectedness predicted phubbing positively among university students. The variables mentioned here were found in correlation with phubbing and this association was demonstrated by pearson product moment corelation analysis. The same variables predicted phubbing significantly and this association was found via regression analysis.

As regression anlaysis indicated positive prediction of phubbing by the time spent or duration of using smartphone, this determined the preference and attachment of user towards smartphone that may leads to ignoring people present around the user and thus positively predicting phubbing behavior and leading to interpersonal conflicts. And similaly positive correlation stated that if the usage of smartphone perday increases, phubbing behvaior increases in the same way. Positive correlation and positive prediction of phubbing by the smartphone usage perday were complemented via both correlation as well as regression analysis.

This had also been supported by recent research study (Huamani, Lopez, Vilca, Avalos, & Sequera, 2019).

Outgoing calls perday also predicted phubbing positively and was also positively correlated to phubbing. These both outcomes were demonstrated by regression and correlation analysis. Outgoing calls by the individual everyday indicates the usage and communication via smartphone which reflects the importance of gadget in one's life and consequently leads toward phubbing.

Home chaos was positively correlated with phubbing and also predicted phubbing positively. Correlation and regression analysis were used to find out its relationship with phubbing. As there was no former study present related to home chaos and phubbing, thus its link has been explained indirectly. Home chaos experienced by the individual may lead him/her to involve oneself into some activity that avoids this chaos and simplest solution for most of the young adults especially students to get involve in computer-mediated activities either playing games, listening to music or communicating with unknown individuals. Most students begin using their smartphones excessively to avoid their chaotic home environment and gradually begin spending too much time using it. Such pattern of smartphone usage may lead to addictive behavior and conduct problems and phubbing is one of the outcome that may be preceded by home chaos.

Nomophobia was also found in positive correlation with phubbing and it also positively predicted phubbing among university students that was been demonstrated by correlation and regression analysis using SPSS. Conceptual framework by the Chotpitayasunondh and Douglas (2016) has shown that smartphone addiction lead to phubbing whereas nomophobia could be the outcome of smartphone addiction, thus nomophobia's link to phubbing has been demonstrated (Chotpitayasunondh & Douglas, 2016). Nomophobia, being modern day fear of losing connectivity with others and unable to use smartphone for different purposes, may lead to excessive attachment with smartphone as smartphone is always available by the user to get facilitated by gadget that leads to ignoring others and causing phubbing among todays younger generation. Two of the dimensions out of four, notably giving up convenience and losing connectedness positively predicted phubbing among university students.

Smartphone offers convenience for communication, entertainment, information seeking and many other purposes could be fulfilled by smartphone at once, thus students avoid losing their smartphone access because they do not want to give up convenience or lose connectedness offered by smartphone that leads to phubbing expressed in the form interpersonal conflicts (Chotpitayasunondh & Douglas, 2018).

Demographic Variables

Furthermore, it was hypothesized that females would score higher on nomophobia, phubbing and home chaos as compared to males. In case of nomophobia, gender differences are found to be significant on merely one dimension that is inability to retrieve information. However on other three subscales of nomophobia, gender differences are not significant. On phubbing's interpersonal conflict, findings suggest a significant differences between males and females and males scored higher as compared to females, thus this hypothesis was rejected for nomophobia and phubbing as there was no significant differences found for these variables via t-analysis. However, significant mean differences between males and females were present on the scale of home chaos. According to the t-analysis, females scored higher as compared to males, implying that females are experiencing more home chaos as compared to their male counterparts and may also contributing in increasing the home chaos. Thus the proposed hypothesis was accepted for home chaos only as gender differences were not found on all the variables except few. These findings are supported by the former literature (Bian & Leung, 2015). Currently, smartphone use in Pakistan is more common than any other innovation. In our culture, smartphone usage and related outcomes are not particularly and solely related to gender as both males and females students are being attached and utilizing smartphones.

Another strong observation in this study was that number of applications in smart phone positively correlated nomophobia and phubbing among university students. Positive correlations were found between number of application downloaded in smartphone and nomophobia and the same variable also positively correlated with home chaos. On the contrary, no correlation or prediction was found between number of applications in smartphone and phubbing among university

students. This research study had another correlation that per day checking of smart phone was found to correlate nomophobia with phubbing positively among university students. This was observed via Pearson Product Moment Correlation analysis over the data. This research study has another observation that incoming and outgoing calls were also positively correlated with nomophobia and phubbing among university students. This was also seen via Pearson Product Moment Correlation analysis over the data. These above mentioned variables and few others such as usual checking and usage of smartphone everyday etc has been explored in recent pilot study where they have positively correlated with nomophobia. Whereas other demographic variables has not been investigated with current research study variables namely nomophobia, home chaos and phubbing (Rosales-Huamani, Guzman-Lopez, Aroni-Vilca, Matos-Avalos, & Castillo-Sequera, 2019) .

The current research results had demonstrated that students who had been users of smartphone in varying context such as at dinner table, between classes, during classes, and while being alone, having fun with friends, and while walking, driving, watching tv, and waiting scored higher on nomophobia, phubbing and home choas as compared to non-users via t-analysis. As users were more involved with their smartphone during various contexts, this involvement were enough to differentiate the outcomes leading to nomophobia, home chaos and phubbing.

Another observation in this study was the higher scores of students who were being using smartphones for various purposes including purpose of email, social media, information, schedule meetings and events, lecture notes, friends and family, games and music on nomophobia, phubbing and home chaos as compared to non-users. These results had been observed via t-analysis.

Implications

After detailed analysis and comprehensive details of the current study, there are significant implications for demographic variables.

1. This study can provide insight into behavioral issues and related consequences among university students and this study can highlight adverse consequences related to smart phone abuse.

2. This study can help clinical therapist and family therapist to make interventions against smartphone addiction as addiction of smartphone has similar impact as the substance abuse.

3. This research can give insight to the parents and partners who are involved in phubbing and also being phubbed as a result of which their relationships may be suffering.

4. The current research is an addition to existing body of literature regarding study variables especially in Pakistani context. This study can help in understanding wide range of antecedents and consequences of smart phone over use, nomophobia, phubbing and impact of home chaos.

5. This research could be helpful for general awareness among university students and others individuals about the adverse consequences of excessive usage of smartphone.

6. This research can be used in generating awareness in parents regarding adverse consequences of home chaos.

Limitations and Suggestions

In spite of detailed work of study variables and demographic variables, current research has following limitations.

1. The current study is limited to university students only. Same study can be conducted on other samples such as college students, corporate sector etc.

2. Data was limited in number as 367 students participated in research.

3. The cross-sectional designs used in this study found the relationship between nomophobia, home chaos and phubbing. However, the research design did not revealed the cause and effect relationship.

4. As self-report questionnaires were used to collect data for the present study, there exist the issue of response bias where participants may have responded positively to every questionnaire items.

5. The influence of other related variables such as time spend with family, self-control in smartphone usage and parental education level should be explored with respect to Pakistani culture so that home chaos and smartphone related problems could be addressed.

Conclusion

The results of the current study indicates that all the subscales of nomophobia positively predict the phubbing among university students, moreover, home chaos also predicted phubbing. Time spent on smartphone in a day positively predicted nomophobia among university students. Number of application downloaded in smart phone positively correlated nomophobia and the same variable also positively correlated with home chaos.The results of present study suggest that smartphone over use affects one's mental and behavioral functioning of individual and can cause impairment of social functioning of individual especially deterimental impact on relationships and personal well being.

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APPENDICES

Appendix-A

Informed Consent

I, Madiha Khalil Khan, M.Sc research student at National Institute of Psychology, Quaid-I-Azam University, Islamabad. I am conducting a research as per requirement of degree. This research aims to explore the moderating role of home chaos in relationship between nomophobia and phubbing. I request you to support my purpose and participate in this research. I assure you that information provided will be kept confidential and will only be used for research. You have all the right to quit at any stage of data collection.

Your help, support and participation will be highly appreciated.

Participation in this research is completely based on your willingness to participate. If you agree to participate then please sign below.

Thank you!

Signature_____

Madiha Khalil Khan
Madihakhalilkhan95@gmail.com

Appendix-B

Demographics

1. Your age_____

2. Gender_____

3. Year of study _____

4. Your major subjects_____

5. Department_____

6. Family system: Nuclear/ Joint

Smartphone Use

7. For how long have you been using a smartphone?

a. Less than a year b. 1 year to less than 2 years

c. 2 years to less than 3 years d. 3 years to less than 4 years

e. 4 years to less than 5 years f. 5 years or more

8. Do you have a mobile data plan/package that allows you to access the Internet through your smartphone?

a) Yes

b) No

9. Approximately how much time per day do you think you spend using your smartphone? _____ hours

10. On average how many times per day do you think you check your smartphone? _____ times

11. How often do you think you usually check your smartphone?

a. Every 5 minutes b. Every hour

c. Every 10 minutes d. Every 2 hours

e. Every 20 minutes f. Every 3 hours

g. Every 30 minutes h. Other (please specify): _____

12. Please indicate the average number of times per day you do the following on your smartphone.

a) Number of phone calls you make per day : _____

b) Number of phone calls you receive per day : _____

c) Number of text messages you send per day : _____

d) Number of text messages you receive per day : _____

e) Number of emails you send per day : _____

f) Number of emails you receive per day : _____

13. Approximately how many apps do you have on your smartphone? _____ Apps

14. For which of the following purposes do you usually use your smartphone? (Please select all that apply.)

a. Checking email b. Checking social media

c. Looking information up on the Internet d. Scheduling meetings and events

e. Checking lecture notes f. Talking with family or friends

g. Games h. Music

I. Others (please specify)_____

15. In which of the following contexts would you use your smartphone? (Please select all that apply.)

a. At a dinner table b. When I'm bored

c. Between classes d. While hanging out with friends

e .During a class f. While talking to somebody

g. In the restroom h. While waiting for someone or something

i. On public transportation j. While walking

k. While driving l. While watching TV or a movie

m. When I'm alone n. Other (please specify): _____

Appendix-C

Please indicate how much you agree or disagree with each statement in relation to your smartphone.

S.no		Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	I would feel uncomfortable without constant access to information through my smartphone.							
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 it.							
10	I would feel anxious because I could not instantly communicate with my family and/or friends.							
11	I would be worried because my family and/or friends could not reach me.							
12	I would feel nervous because I would not be able to receive text messages and calls.							
13	I would be anxious because I could not keep in touch with my family and/or friends.							
14	I would be nervous because I could not know if someone had tried to get a hold of me.							

15	I would feel anxious because my constant connection to my family and friends would be broken.							
16	I would be nervous because I would be disconnected from my online identity.							
17	I would be uncomfortable because I could not stay up-to-date with social media and online networks.							
18	I would feel awkward because I could not check my notifications for updates from my connections and online networks.							
19	I would feel anxious because I could not check my email messages.							
20	I would feel weird because I would not know what to do.							

Appendix-D

Instruction: Using the scale provided as a guide, indicate how much you agree or disagree with the following statements by placing ***tick*** in the appropriate place. Give one answer for each statement.

Serial no	Statement	True	False
1	There is very little agitation in your home.		
2	Your family can usually find things when they need them.		
3	Your family almost always seemed to be in hurry.		
4	Your family is usually able to stay at top of things.		
5	No matter how hard they try, your family always seem to be running late.		
6	It's a real zoo in your home.		
7	At home, family members can talk with each other without being interrupted.		
8	There is often a activity going on at your home.		
9	No matter what your family plans, it usually doesn't seem to work out.		

10	You can't hear yourself while thinking in your home.		
11	You often get drawn into other people's arguments at home.		
12	Your home is a good place to relax.		
13	The telephone takes a lot of your family's time at home.		
14	The atmosphere in your home is calm.		
15	First thing in the day, your family has regular routine at home.		

Instructions: Using the scale provided as a guide, indicate how much you agree or disagree with the following statements by placing tick in the appropriate place. Give one answer for each statement.

Serial.no	Statement	Never	Rarely	Occasionally	Sometimes	Frequently	Usually	Always
1	I have conflicts with others because I am using my phone							
2	People tell me that I interact with my phone too much							
3	I get irritated if others ask me to get off my phone and talk to them							
4	I use my phone even though I know it irritates others							