SHAHJALAL UNIVERSITY OF SCIENCE AND TECHNOLOGY, SYLHET

Monograph

On

THE NEXUS AMONG NOMOPHOBIA, MENTAL HEALTH AND ACADEMIC PERFORMANCE OF ADOLESCENTS IN SYLHET CITY

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Abstract

This paper specially focuses on adolescents who are reading in class 6 to 12. It tries to identify the nexus among nomophobia, mental health and academic performance on adolescents. It also tries to emphasize what reasons influenced them towards nomophobia. This paper is based on 4 schools in Sylhet city which has been selected purposively. This research was designed using mixed research methods with the combined use of both quantitative and qualitative paradigms. Nomophobia Scale and DASS-21 scale were used to collect the quantitative data of the research and the qualitative data were obtained from the semi-structured interviews. Non probability sampling had been used to conduct this study and the sample size is 60 And 10 respondents were selected purposively for in-depth interview. This paper reveals that the mental condition of the adolescents is not good rather most of the students suffer from mental health problem that badly impacts on their study. They lead an unhappy life and most of the cases shows that parents of these children are completely unaware about the mental health condition of their children

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Key words: Nomophobia, Mental Health, Academic Performance, Adolescents

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Chapter One

1.1 Introduction:

In recent years, addiction to digital devices—especially cell phones has become a serious worry. Whether it's for watching films, playing games or browsing social media, no one, young or old, could imagine living a single second without electronic devices. The fear of being without one's cell phone is known as "nomophobia," and it affects a lot of people these days. The term NOMOPHOBIA or No Mobile Phone Phobia is used to describe a psychological condition when people have a fear of being detached from mobile phone connectivity. [1].

Yıldırım and Correia (2015) claim that the severity of nomophobia is increased by using smartphones with different characteristics (such as social media, internet access, quick notification, etc.). Additionally, adding functions to smartphones creates a vicious loop that makes people use them more frequently. When a person cannot use these services, their anxiety and uneasiness get worse.

Surveys performed in different countries and cultures indicate that nomophobia is universally widespread and present. Recent literature has drawn on addiction symptoms to measure problematic and compulsive for mobile phone uses. The use of smartphones has both positive and negative impacts on the lives of people across the globe. However, studies examining the effect of nomophobia on quality of life in adolescents are limited.

There has been little research on nomophobia, despite the growing interest among academics in examining the issues raised by smartphone use. According to a survey done on high school students, 31.3% of teenagers suffer from a dependence on their mobile phones. The majority of research on nomophobia in India has been done on adults, and its findings are constrained by small sample sizes and instrument heterogeneity. Adolescents are among the biggest smartphone consumers in India, one of the biggest markets for these devices. Despite this, there is a dearth of literature in Indian languages discussing nomophobia and its effects on mental health. The current study intends to investigate the incidence of nomophobia and its connections to adolescent sadness, anxiety, and quality of life. [2]

1.2 Research Questions

RQ1: Is nomophobia a threat to students's mental health?

RQ2: What are the reasons of mental health problems associated with nomophobia?

RQ3: Is it hampered student's academic performance?

1.2 Objectives:

The main objective of this paper is to investigate Nomophobia and mental health and it's impact on academic performance on adolescent

Specific objectives are__

- To assess the correlation between nomophobia and mental health
- To assess the nexus between nomophobia and mental health and their impact on academic performance
- To know the major issues that influenced the adolescents in using excessive mobile phone and caused nomophobia

1.3 Hypothesis:

I. H_O: There is no relation between nomophobia and mental health;

   H_A: There is relation between nomophobia and mental health.

II. H_O: There is no relation of nomophobia on academic performance.

   H_A: There is no relation of nomophobia on academic performance

III. H_O: There is no relation among nomophobia, mental health and academic performance of the adolescents;

   H_A: There is relation among nomophobia, mental health and academic performance of the adolescents.

1.5 Literature Review:

According to the National Institutes of Health (NIH), anxiety disorders are among the most common mental illnesses worldwide and in the Middle East. Many communities suffer a great deal from anxiety. Globally, it was predicted that scaling up therapy would cost US$ 147 billion, mostly in the form of psychosocial counseling and drugs. Anxiety disorders were present in 0.9% to 28.3% of people in 2013, according to a comprehensive review and meta-analysis. The most prevalent disorder in Saudi Arabia, accounting for 12.3% of the population, is anxiety disorders.

Manu Sharma (2020) conducted a study on "Nomophobia and its relationship with depression, anxiety, and quality of life in adolescents" where he shows nomophobia is an emerging mental health condition, especially in male adolescents. Nomophobia is significantly associated with depression, anxiety, and poor quality of life. In his research, Out of 1386 adolescents, 569 (41.05%), 303 (21.86%), and 82 (5.1%) have mild, moderate, and severe nomophobia, respectively. There were significantly more males with nomophobia. In this dataset reflects that,27 adolescents have mild nomophobia (45%) and 28 adolescents have moderate level of nomophobia (46.7%). A very disappointing results show 5 adolescents, they had a severe level of nomophobia.

Danilo B. Buctot (2020) ,in his study named "The role of nomophobia and smartphone addiction in the lifestyle profiles of junior and senior high school students in the Philippines" study found that teenagers of days spend a lot of time on their cellphones. They struggle to carry out their daily activities without their smartphones. Anybody can get annoyed if they lose their phone or their Wi-Fi connection. This study examined the prevalence of nomophobia and smartphone addiction among teenagers in the Philippines, as well as the connections between these disorders and the lifestyles of adolescents. Furthermore, distinctions between gender and grade level (i.e., junior vs. senior high school students), nomophobia, smartphone addiction, and those with and without smartphone addiction are identified. In this reaearch, compare to "marks in annual exam before using mobile" to "marks in annual exam after using mobile phone" shows a radical change. After using mobile phone 10 % students obtained 40-49% marks.10% adolescents got 50-59% marks.60-69% marks got 20% adolescents after using mobile phone.25% adolescents found 70-79% marks in the annual exam. Similarly, 23.3% students also got 80-89% marks. Lastly, only 11.7% adolescents obtain 90-99% marks after using mobile phone.

Another research conducted by Akashe, ZB et all in 2014, by reviewing mental health, showed findings show that among a total sample of 296 respondents, students who experienced depression (17.30%), obsessive compulsive disorder (14.20%), and interpersonal sensitivity as much as (13, 80%). The findings demonstrated a strong correlation between cell phone addiction and reliance and mental health behaviors and practices. The study's findings suggested that cell phone use habits contribute to the rise in mental health issues. When faced with obstacles, issues, or assignments, students with poor mental health typically feel helpless and frustrated. They instinctively and inadvertently revert to their old behaviors, such playing mobile games with the objective of easing their anxieties and worries, in an attempt to get over these unpleasant emotions. The longer someone uses a cell phone, the more indirectly they will get dependent on it. A sudden and unplanned inclination to engage in particular actions or behaviors is referred to as addictive behavior. Consequently, it would appear that students who are mentally well and in balance are less likely to become addicted to using cellphones because they are using gaming as a way to decompress.

In addition to this, Eka Nurwahyuni (2018) in her study She looks into excessive mobile phone use. The findings indicate that nomophobia can be a contributing factor in a number of mental health issues. The findings presented in this publication demonstrate that nomophobia is linked to mental health issues such anxiety, sadness, social isolation, a lack of empathy and self-control, problems in interpersonal relationships, and low self-esteem. Similarly in my research, the correlation coefficient between TOTAL__DASS and SUM_NMP is 0.038, indicating a very weak positive correlation. The p-value of 0.775 suggests that this correlation is not statistically significant. Therefore, there is a weak meaningful relationship between these two variables. Those who had a higher level of nomophobia, they had higher level of depression, str ess and anxiety. So, the null hypothesis is rejected

Cheever (2014) conducted a study on nomophobia as well, with up to 163 students serving as respondents. 80 (49%) female respondents and 83 (61%) male respondents made up the sample. The study is to compare the anxiety levels of respondents without their mobile phones at close range, find out how anxious students are while their phones are hidden, and look at the relationship between the habit of using mobile phones and anxiety levels. Throughout the survey, respondents were required to sit silently and without interruption. Ten minutes after participants entered the room, the intervention was conducted three times, with a 20-minute gap between each session.

According to the findings, each respondent spent roughly 13 hours and 58 minutes each day. Over time, participants experience a marked increase in anxiety. Nevertheless, only heavy and moderate cellphone users exhibit this tendency. If there is no cell phone, a person who is dependent on them—through unhealthy connections—may experience elevated anxiety. The findings of this study improve our knowledge about how to use mobile phones. It will make a pupil anxious if they don't utilize their phone.

There was no significant difference between the group with externalizing disorder and the healthy group, but the group with internalizing disorder had significantly higher sub scores for losing connectivity (LC) and not being able to access information (NAI) than the healthy controls. Nomophobia total score was strongly connected with separation anxiety, social phobia, overall anxiety, depression, and oppositional issues. Handle situations that are solely linked to LC. Total hyperactivity and anxiety predicted the nomophobia score. (Kuşçu et al., 2020)

It has been shown that those who suffer from nomophobia use unhealthy coping mechanisms. To mitigate the negative impacts of this wonderful technology, health education programs should focus on youngsters, and during the academic year, sessions on stress management and productive coping mechanisms should be held. There was a 100% prevalence of nomophobia, and 65.9% of the students had moderate nomophobia, depending on how severe it was. The MHI mean score was 52.67, with an 8.37 standard deviation. Medical students tended to use positive reframing, acceptance, and advance planning as coping strategies. There was a marginally negative relationship found between nomophobia and mental wellbeing. When faced with stress, nomophobia who scored higher on the nomophobia scale reacted by using coping mechanisms such substance abuse, self-distraction, self-blame, and venting. (Anjana et al., 2021b). In a nutshell, there is a significant nexus nomophobia, mental health and academic performance among adolescents.

1.7 Rationale of the Study:

Most of the studies which have been seen or conducted in Sylhet city included both male and female students in general. Moreover, there are studies regarding nomophobia, mental health and it's impact on academic performance in global view and analyzing the conditions and situations of the children in global perspective. There are very few papers regarding the nomophobia and it's impact on adolescents of Bangladesh as well as Sylhet. This paper specially focuses on the adolescents who are studing in the Sylhet city. It tries to identify the major issues that influenced the adolescents in using excessive mobile phone that consequently caused nomophobia. It also tries to emphasize how nomophobia is worsen adolescents mental health and decreasing their academic result.

Chapter Two

2.1 Operational Definitions and conceptual framework

Nomophobia

Nomophobia is the term used to describe the fear or anxiety associated with not having a functional mobile phone. It is mainly means no mobile phobia. In terms of mental health, it has been regarded as a syndrome of problematic digital media use.

This kind of user, feels inadequate and becomes fearful if they get a call and they are not holding their phone close to hand.

Mental Health

The World Health Organization (WHO) conceptualizes mental health as a "state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community".

In General sense, Mental health is a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community.

Academic performance

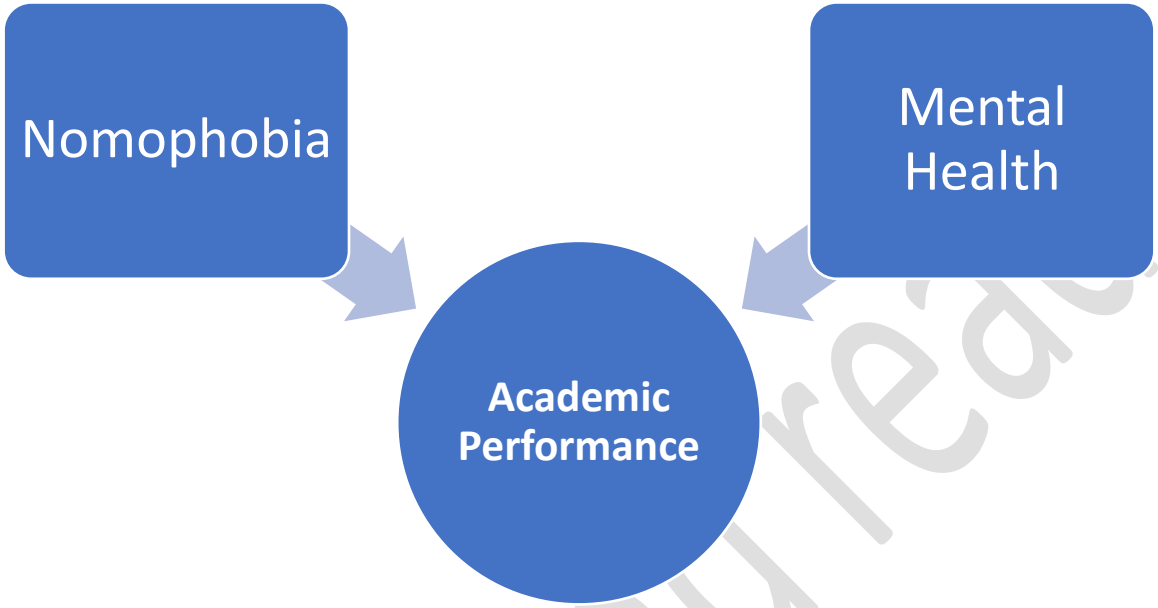
The evaluation of a student's performance in a variety of academic areas is called academic performance.

Academic performance refers to the level of achievement and success a student demonstrates in their educational pursuits, including grades, test scores, class participation, and overall academic accomplishments. (Daley & Birchwood, 2010)

Adolescents

Adolescence is a phase of physical and psychological transition that typically takes place between the ages of puberty and adulthood. WHO defines 'Adolescents' as individuals in the 10-19 years age group. (Home,2024)

2.2 Conceptual Framework:



We assume that higher score in nomophobia is negatively related to mental health. That means those who had higher level of nomophobia, they had higher level of depression, anxiety and stress. With poor mental health condition adolescents can't concentrate on academic studies. Consequently, decrease in mental health lessen down their academic performance.

Chapter Three

3.1 Methodology

3.1.1 Research Design

In this research paper, descriptive research design has been followed. The main purpose of the research to describe the relationship between nomophobia and mental health and it's impact on academic performance in Sylhet city. So for this reason, descriptive research design has been followed to complete this research. Furthermore, the case study design has been chosen to explore the reasons behind nomophobia. Creswell suggests that case study design is well suited for exploring complex phenomena within their natural contexts and can provide valuable insights into the experiences of individuals or groups.

3.1.2 Research Method

In this research, the mixed method approach, using both quantitative and qualitative research methods, where I followed two paradigms, one is positivism in terms of quantitative study and in terms of qualitative study I followed social constructivism. According to Creswell and Plano Clark (2011), mixed methods are patterned; they are developed to collect, analyze and correlate both quantitative and qualitative data in a single study or multiple study sequences to understand the research problem. Therefore, mixed methodology should not be defined merely as a collection of qualitative and quantitative data obtained from two different research methods. The Explanatory Mixed Method was used as the research design of the present study. In order to find the answers to the set research problems, a descriptive survey study was conducted and followed by semi-structured interviews with a selected number of participants in order to explain the results of the survey study (Creswell, 2013). This research design was chosen to collect data from a wide range of participants through quantitative research in order to generalize the results, and then obtain in-depth information from a select number of participants by means of qualitative research.

3.1.3 Study Area

The area for this study is Sylhet, Bangladesh which has been selected purposively. The research is conducted in Border Guard School Akhalia , Scholarshome Pathantula and Agragami in Sylhet City, Bangladesh. The reason for choosing this area is there are significant number of adolescents who are suffering from nomophobia due to excessive mobile phone use. Even in many cases they are mentally unstable. Consequently, their academic result is falling down.

3.1.4 Population

The students, aged 13-17 of Border Guard School, Akhalia;Scholarshome Pathantula ; Agragami School ,bondor and Shahjalal University School Akhalia are the population of this study.

3.1.5 Sampling

Non-probability sampling method has been used to conduct this study because the actual number of students of that schools are unknown. From the study area, the samples were selected through judgmental or purposive sampling.

3.1.6 Sample Size

In this study, the sample size is 60 and 10 students have been selected from each of this four school & college.

3.1.7 Unit of Analysis

Adolescents of Sylhet city are the unit of analysis in this research.

3.1.8 Method of Data Collection

In this research, Social Survey Method and In-depth Interview method have been used to collect data.

3.1.9 Techniques of Data Collection

Data is collected through a structured questionnaire and face to face conversation. In-depth interview is also used for data collection because it helps to move discussion freely and give responds more time to think and express their ideas, thoughts & opinions which is very essentials in this study. To conduct individual's interviews with adolescents, open-ended interview was developed.

To conduct this study, I intended to use following data collection method:

- In-depth interview(semi-structured)

Tools:

- Interview Schedule
- Field note

3.1.10 Data Transcription and Analysis

All data was collected from the participants directly by the researcher. The collected data was organized, analyzed and interpreted following generally accepted principle and practices associated with both quantitative and qualitative research. After collecting data, audio tapes were transcribed and coded.

After listening to each audio tape and readings, the data was examined and analyzed within the framework of potential interests of the overall research. Word and phrases in the responses shall be examined for possible themes. Anecdotes from participants were analyzed and presented within the context of the circumstances of each situation. Field notes were organized into a readable narrative description giving rigors to the major themes and categories of the design of the research.

Data was processed thematically. After reading and rereading the interview transcripts I analyzed the data by using the techniques of qualitative study such as reducing, codifying, and synthesizing. The importance was given to the rich verbal description of respondent's view.I tried my level best and developed certain themes on the basis of the collected data from the respondents. And according to those themes I had go forward the narrative of the respondents to fulfil the research goal.

3.1.11 Sources of Data

I. Primary Sources: The primary data have been collected from the The students ,aged 13-17 of Border Guard School Akhalia, Scholarshome Pathantula and Agragami,Shahjalal University School Akhalia.

II. Secondary Sources: Secondary sources of data have been used to enrich this study. Secondary data have been collected from published journals, articles etc. which are related to this study.

3.1.12 Ethical Considerations

The study will abide by ethical standards, which include participant informed consent, confidentiality, and openness. The researcher will not put participants in a situation where they might be at risk of harm as a result of their participations. The researcher will protect the privacy of research participants. The researcher will guarantee the participants confidentiality. The research participants will be assured that provided information will not be made available to anyone who will not be directly or indirectly involved in this study. The participant's personal and social norms, beliefs and emotions will be taken into consideration during the study period. Biasness will be avoided to collect, edit and process relevant data and its analysis. The ethical issues of objectivity to the research will be ensured.

Chapter Four

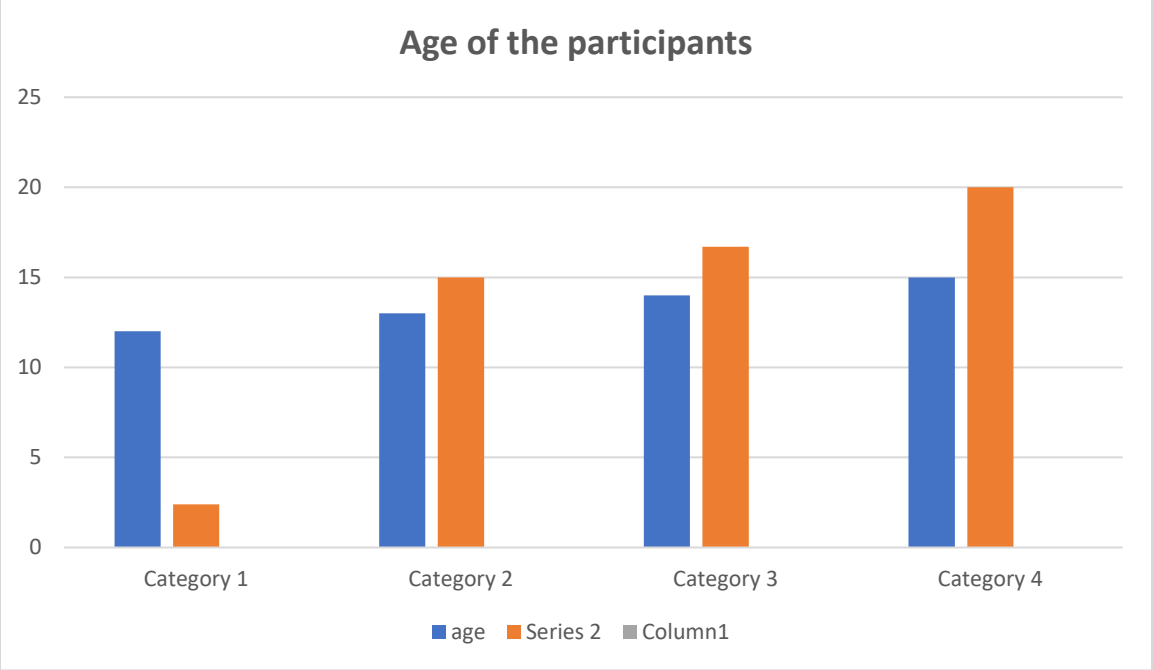
4.1 Data Analysis

4.1.1 Analysis of Survey Data:

4.1.1.1 Age of the participants

age of the participant

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12.00	9	15.0	15.0	15.0
	13.00	10	16.7	16.7	31.7
	14.00	9	15.0	15.0	46.7
	15.00	12	20.0	20.0	66.7
	16.00	10	16.7	16.7	83.3
	17.00	10	16.7	16.7	100.0
	Total	60	100.0	100.0	

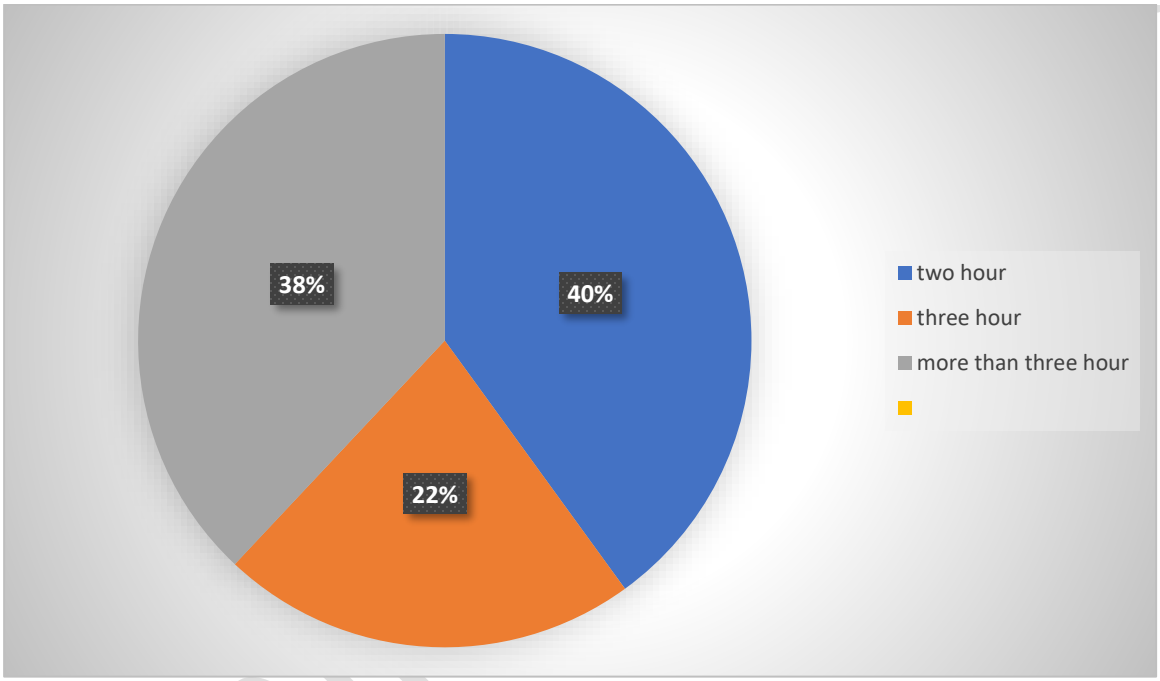


The table shows that in the dataset 15% adolescents are 12 years old and 16.7% are 13 years old. 15% and 20% adolescents are 15 and 20 years old respectively. Both 16 and 17years adolescents are 16% respectively.

4.1.1.2 Time spent in online

time spent online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ONE HOUR	10	16.7	16.7	16.7
	TWO HOURS	20	33.3	33.3	50.0
	THREE HOURS	11	18.3	18.3	68.3
	MORE THAN THREE HOURS	19	31.7	31.7	100.0
	Total	60	100.0	100.0	



Most of the adolescents spent more than three hours with mobile phone, the percentage is 31.7%. 18.3% students spent with mobile phone approximately three hours. Other students spent one and two hours and their percentage is 16.7% and 33.3% respectively.

4.1.1.3 Using purpose of gadget

using purpose of gadget

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	HOMEWORK	16	26.7	26.7	26.7
	SOCIAL MEDIA	24	40.0	40.0	66.7
	GAME INTERNET	13	21.7	21.7	88.3
	VIDEO	7	11.7	11.7	100.0
	Total	60	100.0	100.0	

Here we can see that, the highest number of adolescents used gadgets for social media that is 40% whereas video consisting 11.7%. For homework adolescents account for 26.7% of the overall distribution.21.7% adolescents used gadget for gaming.

4.1.1.4 Level of nomophobia

level_of_nmp

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-59(mild)	27	45.0	45.0	45.0
	60-99(moderate)	28	46.7	46.7	91.7
	100-140(severe)	5	8.3	8.3	100.0
	Total	60	100.0	100.0	

The dataset reflects that,27 adolescents have mild nomophobia (45%) and 28 adolescents have moderate level of nomophobia (46.7%). A very disappointing results show 5 adolescents, they had a severe level of nomophobia.

4.1.1.5 Mental Health (DASS)

Statistics

		level of depression	level of anxiety	level of stress
N	Valid	60	60	60
	Missing	0	0	0
Mean		4.8000	5.0000	4.4167
Median		5.0000	5.0000	5.0000
Mode		5.00	5.00	5.00

This table shows overall mental health condition including level of depression, level of anxiety and the level of stress of the adolescents.

4.1.1.6 Level of depression

level of depression

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Severe (21-27)	12	20.0	20.0	20.0
	extremely severe (28-63)	48	80.0	80.0	100.0
	Total	60	100.0	100.0	

The overall data shows a very dramatic result about the adolescents depression.80% adolescents suffer from extremely severe depression and 20% also has severe depression in the data set.

4.1.1.7 Level of anxiety

level of anxiety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	extreme severe (20-63)	60	100.0	100.0	100.0

All the students have extreme severe anxiety that is a matter of concern for the future generation.

4.1.1.8 Level of stress

level of stress

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	moderate(19-25)	11	18.3	18.3	18.3

	severe(26-33)	13	21.7	21.7	40.0
	extremely severe(34-63)	36	60.0	60.0	100.0
	Total	60	100.0	100.0	

The table shows that level of stress among adolescents differs from three categories. In the dataset 60% of students are facing extreme severe stress.21.7% students are suffering from severe stress. 18.3 % adolescents have moderate level of stress.

4.1.1.9 Marks in annual exam before using mobile

marks in annual exam before using phone

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	50-59%	4	6.7	6.7	6.7
	60-69%	3	5.0	5.0	11.7
	70-79%	17	28.3	28.3	40.0
	80-89%	18	30.0	30.0	70.0
	90-99%	18	30.0	30.0	100.0
	Total	60	100.0	100.0	

Here we can see that, before using mobile phone 6.7 % students obtained 50-59% marks.5% adolescents got 60-69% marks.70-79% marks got 28% adolescents before using mobile phone.30% adolescents found 80-89% marks in the annual exam. Similarly,30% students also got 90-99% marks.

4.1.1.10 Marks in annual exam after using mobile

marks in annual exam in after using phone

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	40-49%	6	10.0	10.0	10.0
	50-59%	6	10.0	10.0	20.0
	60-69%	12	20.0	20.0	40.0
	70-79%	15	25.0	25.0	65.0
	80-89%	14	23.3	23.3	88.3
	90-99%	7	11.7	11.7	100.0
	Total	60	100.0	100.0	

Compare to “marks in annual exam before using mobile” to “marks in annual exam after using mobile phone” shows a radical change. After using mobile phone 10 % students obtained 40-49% marks.10% adolescents got 50-59% marks.60-69% marks got 20% adolescents after using mobile phone.25% adolescents found 70-79% marks in the annual exam. Similarly, 23.3% students also got 80-89% marks. Lastly, only 11.7% adolescents obtain 90-99% marks after using mobile phone.

4.1.1.11 Correlation between nomophobia and mental health

Correlations

		TOTAL__ DASS	SUM_NMP
TOTAL__DASS	Pearson Correlation	1	-.038
	Sig. (2-tailed)		.775
	N	60	60
SUM_NMP	Pearson Correlation	-.038	1
	Sig. (2-tailed)	.775	
	N	60	60

The correlation between nomophobia (SUM_NMP) and mental health (TOTAL__DASS) appears to be very weak, as indicated by the Pearson correlation coefficient of -.038. Additionally, the p-value of .775 suggests that this correlation is not statistically significant. However, it's important to note that correlation does not imply causation, and other factors may play a role in the relationship between nomophobia and mental health.

4.1.1.12 Correlation between mental health and academic performance

Correlations

		TOTAL__ DASS	marks in annual exam in after using phone
TOTAL__DASS	Pearson Correlation	1	-.416**
	Sig. (2-tailed)		.001
	N	60	60
marks in annual exam in after using phone	Pearson Correlation	-.416**	1
	Sig. (2-tailed)	.001	
	N	60	60

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation coefficient between marks in the annual exam after using the phone and the TOTAL_DASS score is -0.416, which indicates a moderately negative correlation. This means that if the TOTAL_DASS score tends to increase, the marks in the annual exam after using the phone will decrease and vice versa. This correlation is statistically significant at the 0.01 level (2-tailed), suggesting a reliable relationship between the variables. So, the null hypothesis is rejected.

4.1.1.13 Correlation among nomophobia, mental health and academic performance

The correlation matrix shows the relationships between the variables "TOTAL__DASS" (total score on the Depression Anxiety Stress Scale), "SUM_NMP" (total score on the Nomophobia Questionnaire), and "marks in annual exam after using phone."

1. The correlation coefficient between "TOTAL__DASS" and "marks in annual exam after using phone" is -0.416, indicating a moderate negative correlation. This suggests that higher levels of depression, anxiety, and stress are associated with lower marks in the annual exam after using the phone.
2. The correlation coefficient between "SUM_NMP" and "marks in annual exam after using phone" is -0.312, indicating a moderate negative correlation. This implies that higher levels of nomophobia (fear of being without a mobile phone) are associated with lower marks in the annual exam after using the phone.

Overall, these correlations suggest that mental health factors (depression, anxiety, stress, and nomophobia) may influence academic performance after using a phone. We can easily concluded that there is relation among nomophobia, mental health and academic performance of the adolescents. So, the null hypothesis is rejected.

4.2 Analysis of Interview Data:

According to Creswell (2013), the interview is the most suitable and commonly employed method of gathering data for phenomenological research projects. As a result, each participant in the current study had semi-structured interviews.In the interview, the researcher determines which topic she/he will focus and which questions will be asked the researcher decides on what information need to be gathered in the interview. However, the researcher does not have to abide by the interview plan. According to the flow of the interview, the researcher can pose new questions or change their sequence, there is flexibility. In such a case there is no need to repeat the question. Since the semi-structured interview is conducted in a discussion-like mode, it is an effective mean of data collection.

However, The in-depth interview data were transcribed and analyzed using thematic analysis, which involved identifying recurring themes and patterns in the data (Braun & Clarke, 2006). The data analysis process involved several steps, including familiarization with the data, generating initial codes, searching for themes reviewing and refining themes, and defining and naming themes (Braun & Clarke, 2006).

- **Loneliness due to working parents**

Loneliness and nomophobia are closely related. Many interviews showed that adolescents are felt alone because their both parents are busy on their job. Their family ties is very weak in some cases. Most of the participants sate that as they felt alone at home,they spent their time with mobile phone.

"I belong to a nuclear family ,my parents are jobholders ,I don't have any siblings ,I felt very lonely all the time at my home. Though I had a pet cat ,I spent most of my time with screen."[age,13]

Fostering a supportive family environment where individuals feel accepted regardless of their online presence can help alleviate the pressure to constantly be connected. Providing guidance on healthy social media use and promoting self-confidence and self-esteem can also empower adolescents and develop a balanced relationship with their phones.

"My father is doctor and my mother is a nurse. we are two sister .we both had personal phone. Though my parents don't like our excessive use of mobile phone, we used phone on their absence." [age,14]

To address phone addiction ,it's equally essential to educate adolescents and their parents about the importance of setting boundaries, managing screen time, and prioritizing offline interactions and activities.

- **Lack of playing field due to urbanization**

The lack of a level playing field in terms of access to resources and opportunities can increase issues like phone addiction. When individuals don't have equal access to activities or resources that promote offline engagement, they may turn to their phones excessively for entertainment or social interaction, leading to addiction.

"I want to play in outside but I couldn't because there is no playing field in my area, I spend my leisure time on phone .In a day my screening time is 7 to 8 hours approximately".[age,14]

Urban areas often offer greater access to technology and connectivity, leading to increased smartphone usage among adolescents. Additionally, urban environments may lack sufficient recreational spaces or safe outdoor areas for adolescents to engage in physical activities or social interactions, driving them to spend more time on their phones for entertainment and social connection. Another participant concluded,

"My parents don't allow me to go outside for playing because near to my house there is no playing field.My parent brought a cat for me for playing. Honestly speaking, I spend most of leisure time with phone by watching reels, playing online games and by browsing. Spend a very tiny time with my pet cat." [age,15]

Almost 90% of adolescents did not engage with physical activity or walking habit that resulting in higher fat mass. Screen addiction is also associated with less physical activity.

"there was a big playing field in front of my house but in 2020 a range multistorey building was constructed there. nowadays I spend most of the time mobile phone"[age,16]

Majority of participants stated that though they had a kin interest to play outside, For lack of playing field, They obligated to stay at home. For this engagement with mobile phone has increased among adolescents.

- **Escapism**

Escapism can be a significant factor in phone addiction among adolescents. Adolescents may use their phones excessively as a way to escape from stress, boredom, or negative emotions. Smartphone games, social media, and entertainment are always accessible, offering a quick and easy way to divert attention from problems in real life. Teenagers' desire to retreat into the virtual world is further fueled by social media platforms, which present an idealized version of reality where they may design their online personas and look for validation through likes and comments. Teenagers may consequently develop an increased reliance on their phones as a coping mechanism for everyday stressors, which could result in addiction-like behaviors. The key to treating escapism and phone addiction in teenagers is to support healthy coping strategies, face-to-face social connections, and a balanced approach to technology use.

A female interviewee states-

" Over the last two years I had faced lots of physical change that I hardly share with anyone for that I felt sad and sometimes got irritated, to forgot my sadness I use mobile phone but nowadays I used mobile phone more than 8 hours"[age,14]

Another interviewee said –

"We had a nuclear family but my grandparents and my uncle aunty starded to live with us from the last year,I saw from last year in my family there was lots o familial clash and hustle that disturbs me a lot.To avoid those i used to watch various things in mobile phone.but now except my school time I spent most of my time with mobile phone or tab"[age,13]

Familial clash and the hustle culture prevalent in society can contribute to phone addiction among adolescents. When adolescents experience conflict within their families, whether it's due to communication breakdowns, high expectations, or differing values, they may turn to their phones as a means of escape or as a source of comfort. Additionally, in a hustle culture that prioritizes productivity and achievement, adolescents may feel pressured to constantly be connected and engaged, leading to excessive phone use to keep up with demands or to seek validation through social media.

- **Peer pressure**

Peer pressure can significantly contribute to phone addiction among adolescents. Adolescents are highly influenced by their peers, and the desire to fit in or conform to social norms can lead them to engage in excessive phone use. In many social circles, being constantly connected online and staying updated on social media platforms is seen as essential for maintaining social status and staying in the loop with friends.

"all my friends have personal smartphone,they use facebook,instragram and they also chatted in messenger group,before using mobile phone I felt left out from them,me and my friends all are spent a lot time in browsing social media."[age,16]

Furthermore, adolescents may feel pressured to participate in online activities, such as gaming or messaging, to stay connected with their peer group, even if it means sacrificing other activities or responsibilities. Fear of missing out (FOMO) can also drive adolescents to constantly check their phones for updates, leading to addictive behaviors.

Another boy said-

"my friends were playing freefire, pubg and many other video games in online, I also started play with them from lockdown" [age,15]

In order to combat peer pressure-induced phone addiction, it's critical to teach teenagers the value of establishing limits, controlling screen time, and giving priority to in-person relationships and activities. The urge to always be connected can also be lessened by creating a welcoming peer environment where people feel accepted regardless of their online presence. Adolescents can be empowered to resist peer pressure and have a healthy relationship with their phones by receiving instruction on responsible social media use as well as by being encouraged to feel confident in their abilities.

4.3 Discussions:

After reviewing many papers researcher could not find any paper where she found the nexus among this three variables namely nomophobia, mental health and academic performance. To find out the correlation among them i conducted quantitative method and to know the reasons behind it I used qualitative method for that I took in-depth interviews. This paper indicates that higher score in nomophobia is negatively related to mental health. That means those who had higher level of nomophobia, they had higher level of depression, anxiety and stress. With poor mental health condition adolescents can't concentrate on academic studies. Consequently, decrease in mental health lessen down their academic performance. According to an Indian survey, 31.33% of teenagers in secondary schools showed signs of dependence on mobile phones. Numerous international studies have established that nomophobia is a new and pervasive phenomenon. (Nikhita et al., 2015) Therefore, Nomophobia is a threat to students's mental health, it hampers student's academic performance. Qualitative research shows that, Peer pressure, Escapism, Lack of playing field due to urbanization, Loneliness due to working parents are the reasons of mental health problems associated with nomophobia of adolescents. This Systematic review was made by searching published scientific articles.Journal articles are found in Science Direct and Google Scholer. Journal articles that were used as sources were journal articles that contain nomophobia, namely the anxiety that occurs in individuals who are separated from their smartphones. The selection of selected journals is adjusted to the purpose of writing. Some journals contain the effects of nomophobia on physical, mental and both health. The selected journal is a journal that only contains the impact on mental health and academic performance. Most of the samples from the study were students. One existing literature shows that, Although cell phone users are not limited to students. Addiction to cell phones can end with nomophobia. Nomophobia not only causes physical health problems, but also causes mental health problems. In my research dataset, all the adolescents have nomophobia. Here, 45%,46.7% and 8.3% of them had mild, moderate, and severe nomophobia, respectively with a total sample of 60 respondents. Moreover, 80% of the participants had smartphone extremely severe depression. The result of another study conducted with university students showed that participants experienced fears based on the sub-dimensions of nomophobia, namely "not being able to access information", "lacking the device", "losing connectedness" and "not being able to go on-line" (Erdem et al., 2016).

The present study reveals that adolescents level of nomophobia significantly related to mental health. Pearson's correlation analysis revealed that nomophobia and mental health were negatively intercorrelated. Nomophobia was significantly related to overall DASS and some of its subdomains, namely, they got upset about little things, most of the students stated that they felt easily irritated. However, positive mental health and good academic performance were significantly and but my research decrease in mental health related to bad academic performance. Both nomophobia and mental health were significant predictors of academic performance.

In the field of education, nomophobia has a negative impact on learning outcomes and academic performance, as has been seen in several studies. This phobia has led to medical and psychosocial disorders such as physical injuries and mental disorders (Nikhita et al., 2015). Moreover, this paper also reveals that most of the adolescents with high nomophobia faced many physical and psychological issue. They feel uncomfortable without constant access of mobile phone, even they felt nervous and anxious without the access of mobile phone. That is kind of related to pleasure pain. With the access of mobile phone they found pleasure. Furthermore, When they faced obstacles, issues, or assignments, students with poor mental health typically feel helpless and frustrated. They instinctively and inadvertently revert to their old behaviors, such playing mobile games with the objective of easing their anxieties and worries, in an attempt to get over these unpleasant emotions. Indirectly, the longer someone uses a phone, the more dependent they will get on it. A sudden and unplanned inclination to engage in particular actions or behaviors is referred to as addictive behavior. Therefore, this seems that students whose mental balance are lower, more vulnerable to addictive cellphone use, because they are trying to reduce their internal tension by playing mobile phones. on the contrary, mental health is higher, human behavior is more rational, and the number of cell phone addictions decreases. Participants significantly feel more anxious over time. There is a positive correlation between nomophobia and anxiety and depression. According to a survey, 77% of teenagers said they have experienced worry and anxiety. Smartphone overuse may be associated with psychological factors like low self-esteem, younger age, impulsivity, feeling of urgency, and sensation seeking. (Sharma et al., 2019). However, this pattern is clear only with heavy and medium cellphone users. Dependence on mobile phones, mediated by unhealthy connections for continuous use, can cause increased anxiety if there is no mobile phone. the results of this study strengthen the understanding of the use of mobile phone devices. if a student does not use the phone, will cause anxiety.

Chapter Five

5.1 Conclusion:

Qualitative study shows that, the fast-paced and competitive nature of urban life can create stress and social pressures, further fueling the need for escapism through digital devices. Addressing urbanization-related challenges such as creating more green spaces, promoting community engagement, and implementing policies to regulate screen time could help mitigate phone addiction among adolescents in urban areas. Peer pressure and avoid familial class also influence them towards screen. Quantitative data indicates that nomophobia is an emerging mental health condition. It is significantly associated with depression, anxiety, and stress. More studies are needed to better understand this disorder.

Based on the results found in this paper, it is concluded that nomophobia is a field of study that exposed to intensive and excessive use of technology and unaware ness of the risks resulting in sufferings as a consequence. Evidence has shown that nomophobia is closely associated with individual mental health, internet addiction, and behavior modification. In addition, it is necessary to promote efficient and healthy use of mobile technology in learning spaces, in order to avoid the emergence of nomophobia and its consequences. However, my three hypotheses can state that nomophobia has a badly impact on adolescents mental health that lessen down their result.

The great dependence that the current population has generated towards these devices, due to the different possibilities that they offer, makes them more and more vulnerable, with the adolescent population presenting a greater risk factor. The model of this study can be used to raise awareness among young generations and can be developed effective interventions by considering the effective factors and prevention of nomophobia.

5.2 Limitations:

Notwithstanding the strict technique, several limitations exist, such as the possibility of participant bias, adolescents behavior and time consumptions. These elements might affect how the results .Some more limitations are-

1. Some schools did not give permission to take data from their students.
2. The quantity of samples for data collection was pretty less so that the result might not show the actual value.
3. The result is based on only one city so the findings might not be fully accurate.
4. All of the information related to this study was not possible to collect.

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