

## **NOMOPHOBIA – An Insight into Its Psychological Aspects in India**

Aparna Kanmani S<sup>1\*</sup>, Bhavani U<sup>2</sup>, Maragatham R S<sup>3</sup>

### **ABSTRACT**

Smartphones are not just becoming a part of our daily lives - but a part of each and every one of us. The presence of this handy device that holds the world just a touch away has been greatly significant and unavoidable in our standard of living. It is surprising to note that an average person checks their phone 110 times per day, even without their knowledge or any reason. It is not just perceived as a gadget, but as a digital umbilical cord connecting us to a fulfilled life. While the presence of smartphones has its mark, its absence has notable impacts too. Nomophobia (NO-Mobile phone-PHOBIA) -The fear/anxiety of being away from mobile phone contact- is an alarmingly raising specific phobia in the recent times. A study on Britain mobile phone users found that nearly 53% of them tend to be anxious when they 'lose their mobile phone, run out of battery or balance, or have no network coverage'. 72% of people state that there is a very little chance they will ever move 5 feet away from their phone. Interestingly, most such people use it even during shower. According to an article in the UK daily 'The Telegraph' (21 Oct 2015), Global Smartphone sales was predicted to grow by 18%, where the growth will be driven by developing markets, led by India, China and Indonesia. Considering this tremendous increase in the Smartphone market in India, it is but threatening to think about the dependency that Indians are facing with their mobile device. This study gives an insight into the levels of Nomophobia that prevails in India and its psychological aspects in four major dimensions using the NMP-Questionnaire. A sample of 1500 Smartphone users from various states of India collected through snowball sampling were assessed on their usage purpose and pattern. Evaluating correlates such as age, gender and occupation showed that females have higher levels of Nomophobia than males and students (18-24 years) fall under higher severity of Nomophobia than working class.

**Keywords:** *Smartphone addiction, Nomophobia, Anxiety*

<sup>1</sup> M.Sc, Clinical Psychology, School of Allied Health Sciences, Manipal University, Manipal, Karnataka, India

<sup>2</sup> M.Sc, Applied Psychology and Behavioral Research, Justice Basheer Ahamed Sayeed College for Woman, Chennai, Tamil Nadu, India

<sup>3</sup> Assistant Professor, Department of Psychology, Justice Basheer Ahamed Sayeed College for Woman, Chennai, Tamil Nadu, India

\*Responding Author

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From the times of pigeons, letters, Morse codes, telegraphs and telephones, communication has been an integral part of human social life. Building relations, expression of emotions, sharing of thoughts, knowledge of current happenings etc. have been essential forms of interaction amidst our fast paced life. Marching along with the digitally transforming world, today we live in an era of wireless communication. As soon as the Smartphone set its foot into the garden of electronic gadgets, it exerted its spell on the conscious and intelligent part of human brain.

Nomophobia (NO-MOBile phone-PHOBIA) -The fear/anxiety of being away from mobile phone contact- is considered a disorder of the contemporary digital and virtual society that refers to discomfort, anxiety, nervousness or anguish caused by being out of contact with a mobile phone. The term was coined during a 2010 study by the UK Post Office who commissioned YouGov, a UK-based research organization that sampled 2163 people to look at anxieties suffered by mobile phone users. The study found that nearly 53% of mobile phone users in Britain tend to be anxious when they "lose their mobile phone, run out of battery or credit, or have no network coverage".

Smartphone reliance can be said to fall under the umbrella of technology addiction. Such an addiction is present when there is compulsive use of the technology leading to preoccupation, tolerance, unsuccessful efforts to control or stop using, withdrawals, loss of control, significant impairment or neglect in any domain of life, lying to family members about the extent of involvement with the device and using the device as an escape or to relieve low mood.

While cell phones offer a technologically advanced method of social interaction, the risk of becoming obsessed can hinder happiness. Most impressively, Smartphone introduced the 'World of Apps' where applications can be got for almost anything and everything and thus shift a part of work to e-devices. In this way gradually and stealthily Smartphone with their all-solutions-at-palm applications and technologies have crept into human world. They have made users so helplessly dependent that one may be at a loss if Smartphone vanished.

It is a fact that, millions of people suffer from Nomophobia around the globe. The most affected are from 18-24 years of age. A typical Nomophobe can be identified by some characteristics such as never turning off the phone, obsessively checking missed texts and calls, bringing the phone everywhere, using phones at inappropriate times and missing opportunities for face-to-face interaction while preferring over the phone contact. In some severe cases, people may also face physical side effects such as panic attacks, shortness of breath, trembling, sweating, accelerated heart rate, pain in the hand joints, neck and back pain, etc. when their phone dies or is otherwise unusable. Although Nomophobia does not appear in the current DSM-V, it has been proposed as a "specific phobia", based on definitions given in the DSM-IV.

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### *Need For Study*

A survey (2012) on American mobile users found that 94% of people are concerned about losing their phone. When asked to select which feeling they best identified with, when they lost their phone, 73% reported feeling “panicked” and 14% reported feeling “desperate”. 72% of people stated that there is very little chance that they will ever move 5 feet away from their phone. A study (2010) in Sweden revealed that 23% men and 34% women having high use of mobile phones indicated sleep disturbance and over 30% of women reported up to two symptoms of depression.

India is one of the fastest-growing Smartphone markets in the world and is set to outpace the US as the second-largest market by 2017 as smart mobile devices become affordable. According to a report by KPMG & IAMAI, India had about 116 million internet-enabled Smartphone at the end of 2014, a number that's expected to more than triple to 369 million by 2018.

Considering the tremendous growth in the Smartphone market, it is but threatening to imagine the dependency that Indians would face with their mobile device. Thus, this emerging trend of excessive Smartphone usage challenges the well-being of the population. At this point, knowledge of prevalence of Nomophobia in India and an understanding of its psychological effects is required to self-monitor the dependent behavior.

### **REVIEW OF LITERATURE**

A cross sectional study (2010) was conducted among 200 M.B.B.S students in Indore selected using systematic random sampling technique to find out the prevalence of Nomophobia. The data were collected using structured questionnaire. The sample group belonged to 17-28 years of age. The results revealed that overall 18.5% students were found to be Nomophobic. Approximately 73% students keep their mobile phones with them while sleeping. Moreover 20% lose their concentration and become stressed because they do not have their mobile phones with them. However, there was no significant statistical association found between Nomophobia and selected personal variables viz. gender, place of stay and academic session.

A descriptive study carried out in 2012 among resident doctors in North India assessed the tendency of addiction towards mobile phones. The participants were selected by purposive sampling technique. The data was collected using a 23 item questionnaire based on ICD-10 criteria for substance dependence syndrome. It revealed symptoms such as withdrawal (82.3%), neglect of alternative pressure (51.0%), and impaired control (41.7%). 39.6% of the participants met three or more of the ICD-10 diagnostic criteria. 23.4% rated themselves as being addicted to mobile phones. Hence, the researcher concluded that, the effect of

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mobile phone usage needs to be evaluated among general population to confirm the real facts.

A descriptive study (2011) to evaluate the threat of mobile phones and addiction was conducted among 160 students from Belarus University. The data was collected using a questionnaire which also included the test of mobile phone addiction. 1/10<sup>th</sup> of the students had the symptoms of addiction. 68.11% belonged to the age group of 18-20 years; and 1/3<sup>rd</sup> of them had two mobile phones. Nearly half (43.16%) of the sample had knowledge about mobile phone addiction and only 28.8% were familiar with the term Nomophobia. Hence, it was concluded that, majority of youngsters are being addicted to mobile phones and were unaware of Nomophobia. There is a need to sensitize and educate about this dreaded disorder.

### RESEARCH METHODOLOGY

#### *Sample*

The study to understand the prevalence of Nomophobia in India was conducted on 1500 Smartphone users (600 males; 900 females). The samples were selected using snowball sampling technique. The samples consisted of mobile phone users- college students and working class- above 18 years of age. The data was collected using a questionnaire that tested the level of Nomophobia and its psychological aspects.

#### *Measures*

The NMP-Q (NoMoPhobia Questionnaire) constructed by CaglarYildirim, Iowa state university, was used to identify various levels and dimensions of Nomophobia. The questionnaire consists of 3 sections with the overall reliability of 0.945.

- Section I consisted of demographic information.
- Section II identified the usage patterns of Smartphone.
- Section III included 20 questions (NMP-Q) with 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) aimed to find whether the sample falls under the category severe, moderate, mild or no Nomophobia and the underlying dimensions - not being able to communicate, losing connectedness, not being able to access information and giving up convenience.

#### *Procedure*

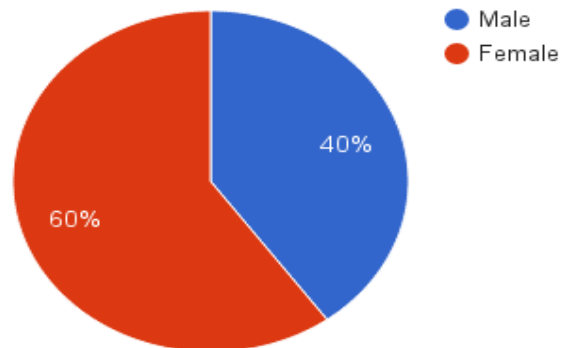
The objectives and purpose of the study was clearly communicated to the participants who consented to be a part of the study. The questionnaires was distributed to the participants either manually or sent online with no time restriction to complete it. They were instructed not to skip any question. The data collected was kept confidential and was put through further analysis.

## RESULTS AND DISCUSSION

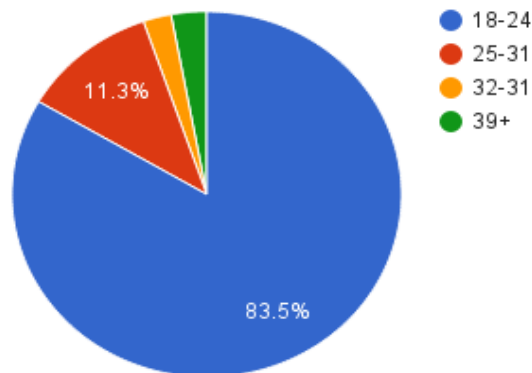
The study found the levels of Nomophobia in India by understanding the patterns and purpose of mobile usage. The data was scattered over various states and union territories of India.

### Nature of Sample Collected

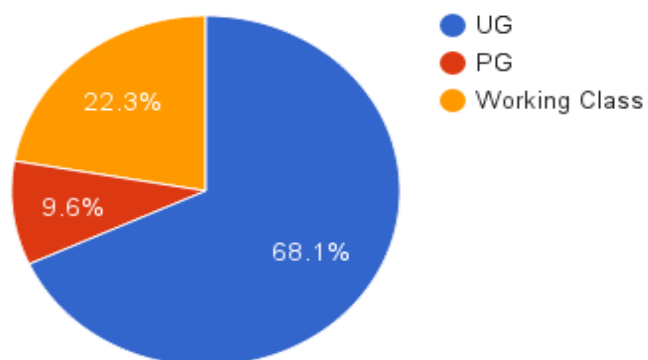
*Graph I- Representation of responses in terms of gender of the total sample.*



*Graph II- Representation of responses from different age groups of the total sample.*



*Graph III- Representation of the responses in terms of students and working class of the total sample.*



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### *Patterns of Mobile Usage*

The study indicates that 43% of people use their phones more than 5 hours a day. Over 30% tend to check their phones more than 50 times a day while 31% check as frequently as every 10 minutes. It is reported that there is lesser number of calls or emails received and sent, than text messages. Apparently, half the population receives more than 100 text messages per day while more than 80% receive/make less than 10 calls a day. It also seems that up to 88% of users send less than 5 emails in a day while 40% of them receive 5-30 mails a day, most of them being promotional.

This shows that there is a change in the patterns of communication. This may be due to raise in the cost of telecommunication and easy availability of free texting apps that may cause the difference. Presently, with the tremendous growth in various online facilities through mobile phone, emails are being less preferred unless for official purposes.

**Table V- Indicating the purpose of mobile usage of the total sample.**

Usage Pattern	No. of Responses	Percentage of Responses	Rank Order
Texting family or friends	1240	82.70%	I
Checking social media	1161	77.40%	II
Listening to music	1071	71.40%	III
Talking with family or friends	1017	67.80%	IV
Looking information up on the Internet	1003	66.90%	V

Texting family and friends is found to be the most common use of Smartphone. It is also significantly used for checking emails, getting news, gaming, checking lecture notes etc. Moreover, a considerable amount of people report using their device for simply 'Killing time'. Smartphones are least used as planners for scheduling meetings and events.

**Table VI- Indicating the pattern of mobile usage of the total sample.**

Usage Pattern	No. of Responses	Percentage of Responses	Rank Order
When I'm bored	1285	85.70%	I
When I'm alone	1229	82%	II
While waiting for someone or something	1039	69.30%	III
Immediately after waking up	1034	69%	IV
On public transportation	930	62%	V

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It is apparent from Table V that maximum number of the people uses their mobiles when they are bored and when left alone. This is also indicated in Table IV, it is common for most people in the present age to kill time by randomly scrolling down the contacts list or gallery just to avoid eye contact with others or worry looking silly in a crowd. This may be the reason why more than half of the population use phones while waiting for someone or something or when on a public transport.

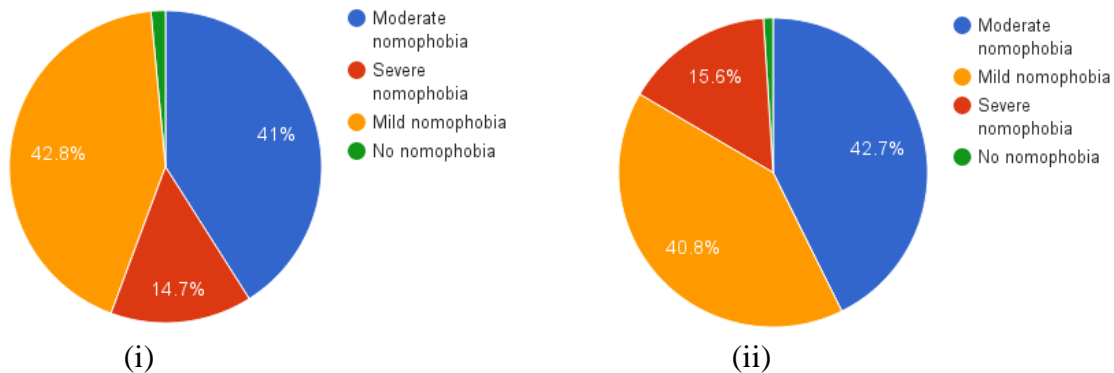
To know that people also use their mobile phones during a class, in the restroom, while walking, at the dinner table, while hanging out with friends or even while talking to somebody is out of ordinary. This tendency to overlap any work in hand with mobile usage creates a compulsive attitude or clingy habit towards the usage of the device which leads to anxiety in its absence. Moreover, it is alarming to note that 1 in every 15 people use phones while driving. Even strangely, 1 in every 20 uses it during shower!

### *Levels of Nomophobia in the Population*

**Table II- Indicating the levels of Nomophobia classified according to gender**

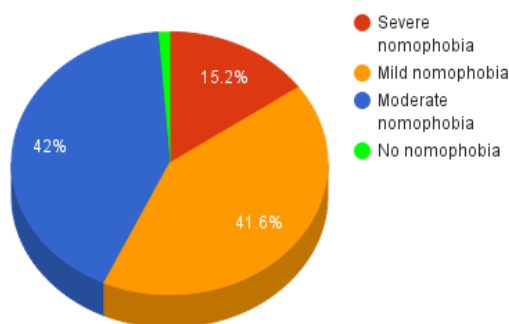
	<b>Severe Nomophobia (In %)</b>	<b>Moderate Nomophobia (In %)</b>	<b>Mild Nomophobia (In %)</b>	<b>No Nomophobia (In %)</b>
Male	14.7	41	42.8	1.5
Female	15.6	42.7	40.8	1
Total population	15.2	42	41.6	1.2

**Graph IV- Indicating the level of Nomophobia of (i) Male and (ii) Female sample.**



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**Graph V - Indicating levels of Nomophobia of the total sample.**



As represented in Table II, it is evident that only less than 2% of the population is found to be not Nomophobic. This may be attributed to the growing number of mobile users in India. Degrees of dependence on Smartphone would cause people to fall under various category of Nomophobia.

**Table III - Indicating levels of Nomophobia classified according to qualification**

	Severe Nomophobia (in %)	Moderate Nomophobia (in %)	Mild Nomophobia (in %)	No Nomophobia (in %)
UG students	16.8	40.4	41.5	1.3
PG students	17.4	42.4	38.2	2.1
Working class	10.2	40.1	48.5	1.2

From Table III, it is evident that college students seem to fall under higher levels of Nomophobia. This may be due to the comparative availability of leisure time, lesser responsibility, curiosity of exploring technology and extensive usage for educational or research purposes.

**Table IV- Indicating levels of Nomophobia classified according to age**

	Severe Nomophobia (in %)	Moderate Nomophobia (in %)	Mild Nomophobia (in %)	No Nomophobia (in %)
18-24	16.3	43.5	39.1	1
25-31	11.2	35.5	52.1	1.2
32-38	11.4	31.4	54.3	2.9
39+	2.3	31.8	61.4	4.5

From the details provided in Table IV, it is evident that there is a gradual decline in levels of Nomophobia as the person proceeds in age. Comparatively more work pressure, family commitments, lesser interest to be updated to technology, physical ailments such as reduced hand-eye coordination etc. may be possible reasons for the same.



***Dimensions of Nomophobia***

The 20 item NMP-Q assessed the psychological effects of Nomophobia under the following four dimensions.

***Not being able to communicate***

It refers to the feelings of losing instant interaction and not being able to use services that allow for immediate communication. It induces a state of anxiety or nervousness. Without smartphones, majority of people are worried that their family or friends cannot reach them. On analyzing the patterns of mobile usage, 44% of people agreed that they feel connected to others when they use Smartphone.

In its absence, over 35% of people feel anxious when they cannot instantly contact or keep in touch with their family and friends as if their constant connection with them is broken. This can be understood with the finding that mobile phones are most used for texting family and friends. ‘Nervousness of not receiving calls or messages’ and ‘not knowing if someone tried to contact’ increases in its absence.

***Losing connectedness***

The items under this dimension are associated with feelings of losing the abundant connectivity that Smartphone provide and being disconnected from one's online identity. People indicated under this dimension have discomfort on losing touch with their perceived social society. 20% of the population feel nervous when disconnected to their online identity, feel uncomfortable for not staying up to date with social media and online network, and feel awkward when not checking notification for update constantly. 23% of the population agrees that they feel weird or a state where they don't know what to do without their mobile phone

***Not being able to access information***

The items grouped under the third dimension reflect the discomfort of losing pervasive access and being unable to retrieve or search for information through Smartphone. 38 % of people feel annoyed if they could not look up to information on Smartphone or use it to its best capabilities when they want to. To some, it causes a sense of discomfort without constant access to information through Smartphone.

It is also to be noted that only 19% of them feel nervous when being unable to get news on smart phones. This maybe because smart phones, though handy are not the only source of information for news and updates. Thus denied accessibility does not put them in a state of panic or nervousness.

***Giving up convenience***

The items in the fourth dimension of Nomophobia are related to the feelings of giving up the comfort provided by the smart phones and reflect the desire to utilize the convenience of

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having one. It is found that some people hold as much as 230 applications. 35% of them agree that they fear running out of battery. 21 % are also afraid of getting stranded somewhere when their smart phone is unusable.

40% of people confess that they constantly try to connect a Wi-Fi network when they do not have data signal, moreover, people check for Wi-Fi irrespective of whether they have a mobile data plan or not. This may also explain why 62 % of the population does not panic when they hit their balance or monthly data limit. 47% of them say that they feel a desire to check their Smartphone when they haven't checked it for a while. It is also associated with habits of often using them for no particular reason or repeatedly thinking about it when not using their Smartphone.

It is evident that 'not being able to communicate' is the highly obtained dimension because in India there is a constant need to communicate with close contacts in terms of culture or security where parents keep constant vigil of their child's whereabouts. Whereas, 'losing connectedness' is the least obtained dimension. Though technological advancements are happening in India, results suggest that that we have not yet come to the point where one enjoys living in a virtual world with unseen online friends.

### CONCLUSIONS

It is true that Nomophobia is prevalent in the Indian society. But the level of Nomophobia is presently not that threatening to such an extent where people should be recommended for a digital detox. It is found to gradually increase in the student population with texting as the major use. Majority of males are found to fall under mild Nomophobia category while most females fall under moderate Nomophobia category. Results show that the anxiety of 'not being able to communicate' with family and friends are higher than the nervousness of losing one's online identity. This shows that the extensive usage of Smartphone is for a genuine purpose of communication and not to maintain a perceived virtual world. Yet, though minimal, there are about 20% people who agreed that arguments have arisen with others because of their Smartphone use, that they interrupt whatever work they do when contacted on Smartphone and that they have been unable to reduce their usage. These are indicators to the fact that we are slowly walking towards a digitally dependent future. If there is no awareness and conscious monitoring of dependent behavior now, when things go out of hands, it might be too late to realize that it was the people who had been at the mercy of technology and not otherwise.

### LIMITATIONS

1. A larger sample size may be a better representation of the total population of India.
2. Cluster sampling could be used to understand a region/state wise perspective.

### *Acknowledgments*

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