



## **Smartphone addiction and Nomo phobia among college students of Ranchi Town**

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### **Abstract**

Most students spend a great amount of time on their smartphones. The current research aims to figure out the prevalence of mobile addiction among college students studying in the city of Ranchi. A total of 120 students from different colleges were randomly chosen and their age ranged from 18 to 22 years. Nomo phobia is a form of behavioral addiction towards smart phone referring to the anxiety caused by disconnected from the mobile network to have access to a smart phone. Nomo phobia has multi-dimensional traits ranging from social, physiological and physical symptoms that are summarized into very dependency upon smartphone. The mobile addiction scale (Kwon, Kim & Yang, 2013) and nomophobia questionnaire (Yildirim & Correia, 2015) were administered. As a result of a research found that smart phones were addicted to an unprecedented 40.83 percent of the sample picked. There were equal levels of mobile phone addiction in male and female students. Nomophobia among student Smartphone users was not affected by gender and age. Smartphone addiction prevention techniques have been delineated.

**Keywords:** smartphone, addiction, undergraduate, compulsion

### **Introduction**

The world today is a tech-world. Without their devices, people believe they are useless. Most people claim that intellectual thinking is much easier for devices than for humans. But the fact is that humans have developed these smart phones. However, accessing a mobile is simple for human life, but at the same time it can minimise the contextual thought of a person and make the user entirely dependent on the mobile. For every day that goes by our lives, a cell phone, machine, tablet or maybe other high-tech or not just an item is taken over by technology, but a few minutes of lost phone will lead to a day full of anxiety for few people. People rely on a mobile so much that they start a relationship with a cell phone and even split up from saving money to checking accounts, from texting to video calls through a mobile. These functions are all accomplished from the palm of our hand. When she asked 10-year-old students to equate the hours they spend on smart phones with the time they spent with their families, Kim Nam-Hee, a member of Kwon Community South Korea, found surprising results. She was very stunned when she found out the margin of disparity was immense. To grow emotionally and actions that cannot be experienced via Smartphone, children require human contact.

However, smart phones can help a child know all about technology, tweeting, chatting about social networking, but they do not educate the child about truth and human feelings, which can lead to a very dangerous outcome. As technical developments are increasing, the Smartphone is now an important tool in our everyday lives as it provides a lot of entertainment and access to software (apps) that are used on unique channels (Yang *et.al.*, 2017) [19]. Particularly among young adults, the prevalence of Smartphone ownership is more frequently evident (Nathan & Zeitzer, 2013 [16]; Ikeda & Nakamura, 2014 [5]; Zheng *et. al.*, 2014) [21]. However, in our day-to-day lives, smart phones are beneficial and play a crucial role in real human relationships

(Kang & Jung, 2014) [8], but severe and troublesome problems have also been posed with regard to Smartphone use, such as regular monitoring of smart phones (Gonzalez, *et.al.*, 2017) [3] and poorer sleep quality (Sahin & Ozdemir, 2017) [17]. In literature, there is also a social concern called "nomophobia" ("no cell phone phobia") King *et. al.*, (2010, 2013 & 2014) [11, 12, 13, 14] have described nomophobia into various kinds. King, Valença and Nardi (2010) [9], who first described both cell phones and computers, but then concentrated more on mobile phones alone in later research (King, Valença & Nardi 2014) [11]: "Nomophobia is the common fear of being unable to connect through a mobile phone (MP) or the Internet."

Nomophobia is a concept that refers to a series of acts or effects associated with the use of cell phones. Nomophobia is an agoraphobia-related situational phobia that entails the anxiety of becoming sick and not receiving immediate support. The fear of being unable to connect via the cell phone "(Gonzalez *et.al.*, 2017) [3] can be described as" to simplify nomophobia." Nomophobia can also be seen as a particular phobia identified by the fifth edition of the Mental Disorders Diagnostic and Statistical Manual (DSM-5; American Psychiatric Association, 2013). That is, when individuals are subjected to unique circumstances involving cell phones that are out of control or have little access to their mobile phone, people suffer from extreme fear or anxiety. There is a need for a psychometric method for the healthcare department and study to recognise and analyse the phobia due to the increase in concerns about nomophobia. There is, however, only one questionnaire on Nomophobia (NMP-Q) that has been generated by (Gonzalez *et.al.*, 2017 [3]; Yildirim & Correia, 2015) [20]. There are only a few studies, though, that have investigated Nomophobia's psychometric properties. There is also a need for this method to be used to determine relevance and validity for various cultures. So, it is important to cross-validate an instrument in various communities. Over the

years, few studies have shown that NMP-Q has been closely associated with cell phone usage measurement methods (Gonzalez *et.al.*, 2017 <sup>[3]</sup>; Yildirim & Correia, 2015) <sup>[20]</sup>. This research aims to find out among undergraduate students the association between Mobile Addiction and Nomophobia.

**Sample**

The authors selected 120 college students, in which 60 were male and 60 were female, belonging to different colleges in the city of Ranchi.

**Tools**

**1. Smartphone addiction scale: short version:** Smart phone addiction scale is developed by Kwon, Kim & Yang, (2013) <sup>[12]</sup>. This scale consists of 6 factors and 33 items with a six-point Likert scale (1: “strongly disagree” and 6: “strongly agree”) based on self-reporting. Daily-life disturbance, positive anticipation, withdrawal, cyberspace-oriented relationship, overuse, and tolerance were the six factors. At the time of development of the scale, the internal-consistency test result (Cronbach's alpha) was 0.967. To evaluate content validity, the experts rated the relevance of each item using the 4-point ordinal rating scale.

**2. Nomophobia Questionnaire (NMP-Q):** This questionnaire was developed by Yildirim, and Correia, in the year 2015. This test focuses on the levels of fear a person would have if they didn't have their mobile phone with them. So, this test consists of 20 questions and which is rated from strongly disagree to strongly agree with a score of 1-7 respectively. The NMP-Q comprises four factors. These factors emerged from semi-structure interviews during the qualitative phase. Later twenty items were phrased based on the qualitative phase and performed satisfactorily in the following quantitative phase. More specifically, the four-factor structure among the 20-item instrument was supported in an exploratory factor analysis.

**Procedure**

The authors went to different degree colleges and collected the data. After taking the permission from the respective authorities, Smartphone addiction and Nomophobia questionnaire was administered along with socio-demographic data sheet to students. Before administrating the questionnaire, they were assured of confidentiality. They were asked to answer all the questions. In case of difficulty in understanding the item/s, in order to get good response. Once the data were collected, they were scored and fed to the computer.

**Results**

**Table 1:** Distribution of the respondents on levels of Smartphone addiction by various demographic factors and results of test statistics

Smart Phone addiction		Gender		Total
		Male	Female	
Normal	F	36	35	61
	%	60	58.33	59.16
Prone to be Addicted	F	24	25	49
	%	40	41.66	40.83
Total	F	60	60	120
	%	100%	100%	100%

On the whole, an unprecedented 40.83 % of the chosen population is vulnerable to mobile addiction. The remaining 59.16 % of them were not mobile phone users. Male and female students showed almost similar level of prone to addict.

**Table 2:** Mean Nomo-phobia scores of male and female students in normal addict category of Smartphone addiction

Group	Gender	Mean	SD
Normal	Male	83.11	21.47
	Female	82.95	20.87
	Total	83.03	21.17
Prone to be Addicted	Male	92.72	15.79
	Female	91.30	14.98
	Total	92.01	15.38
Total	Male	81.23	22.07
	Female	82.45	20.96
	Total	81.84	21.51

A non-significant disparity between male and female samples was discovered through gender-wise. The mean nomophobia scores of the male and female samples were statistically the same, in other words. Finally, the association effect was also shown to be non-significant between addiction levels and gender. Independent of the level of addiction they had to the Smartphone, the trend of nomophobia scores for male and female samples were the same.

**Table 3:** Mean Nomo-phobia scores of students in different age groups in normal and addict categories of Smartphone addiction

Group	Age in Years	Mean	SD
Normal	18 and Below	75.19	22.75
	19	77.17	19.57
	20 and Above	75.62	21.33
	Total	75.99	21.06
Prone to be Addicted	18 and Below	89.56	17.69
	19	91.58	24.31
	20 and Above	90.85	22.11
	Total	90.66	22.05
Total	18 and Below	87.15	20.09
	19	88.51	21.72
	20 and Above	89.61	22.24
	Total	88.42	21.35

A non-significant disparity between students belonging to 18 and below, 19 and 20 years and above was found between age classes. The correlation association between addiction levels and age groups was also shown to be non-significant indicating that nomophobia behaviours were the same in all age groups regardless of the level of addiction they had.

**Discussion**

Nomophobia is a modern phobia that has multiple dimensions. Like spending more time on a computer, feeling worried at the possibility of losing your cell, fear of running out of battery, constantly checking your cell even though there are no texts or updates. (Valença, Ruler, Nardi, 2010) <sup>[9]</sup>. the prevalence of mobile addiction and its association with Nomophobia were the subject of this research. A non-significant difference between the prevalence of addicted and regular (non-addicted) mobile

addiction groups ( $p=.361$ ) was seen in the Chi-square test. The chi-square test showed a non-significant correlation between gender and mobile addiction levels when the gender-wise correlation was checked ( $p=.099$ ). But the mean scores specifically showed that those who were addicted to smart phones had higher nomophobia scores (mean 92.10) relative to those who were not addicted (mean 79.60) when we conducted a two-way ANOVA test against Smartphone addiction and nomophobia ( $p=.004$ ). This research illustrates that the degree of nomophobia often increases as Smartphone addiction grows.

This trend explicitly indicates that the higher the degree of Nomophobia, the greater the Smartphone addiction. Smartphone overuse can lead to health complications such as headaches, eye-related disorders, and also some mental health concerns (Lee *et.al*, 2013) <sup>[13]</sup>. Nominophobia has influenced nearly one in three college students. In fact, the troublesome use of the cell phone impacted women and was related to cyber addiction and sleeping issues (Tavolacci *et.al.*, 2015) <sup>[18]</sup>. It is really surprising that people are getting addicted and ignoring the people around them to their smart phones. We have to consider the influence of a Smartphone on the human mind and cognitive mechanism (Preeti *et.al.*, 2013) <sup>[7]</sup>. Young teenagers of violent mothers are at high risk of creating inappropriate usage of smart phones as a way of preventing an unsatisfactory environment and communicating with others via a mobile Jahng (2019) <sup>[6]</sup>. The above analysis that the child was attempting to communicate with a mobile because of the mother's violent action. The lack of intimacy and devotion might lead to problematic use of the telephone, which may later develop into addiction. This report, however, indicates that there is no connection between addiction to smart phones and gender. Another Mandy a study that documented the prevalence of nomophobia among undergraduate medical students was 99% and the majority had a mild nomophobia degree. Nomophobia and caste or place of present residence has not been linked (Harish and Bharath, 2018). Looking at the fact that people are hooked to smart phones can be attributed to certain applications on the phone or maybe even games that people want to play. The teenagers used text messengers for the longest, followed by Internet access, games, and usage of social networking sites in a survey conducted in Korea (Cha and Seo, 2018) <sup>[11]</sup>.

Nomophobia impacts the academic success and everyday habits of a person. Smartphone addiction is one of the main non-drug addictions, and when we have high-speed internet for the phone, it is spreading exponentially. So, anything accessible on the web can be viewed by a person at any point in time. Yet it is being used in an unacceptable manner at the same time. Due to the frequent and continuous usage of smart phones, questions about their propensity for addiction have been posed. Online gaming / social media use is classified as a non-substance-related behavioural condition and considered as a mental condition, according to the American Psychiatric Association. However, by measuring time on how much use of smart phones has been made and attempting to minimise it, these items can be monitored. Having an aerobic exercise or indulging in a few sports activities, socialising and meeting people in real life as well as social apps.

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