NOMOPHOBIA - DO WE REALLY NEED TO WORRY ABOUT?
A cross sectional study on Nomophobia severity among male Under Graduate students of Health sciences.

BIVIN.J.B\textsuperscript{1}, PREETI MATHEW\textsuperscript{2}, PRAVEEN C. THULASI\textsuperscript{3}, JINTO PHILIP\textsuperscript{4}

Abstract

Nomophobia, a form of behavioural addiction towards mobile phones and manifested as symptoms of Psychological as well as physical dependency.

Introduction

Nomophobia, a form of behavioural addiction towards mobile phones and manifested as symptoms of Psychological as well as physical dependency. Considering the ill effects of chronic use mobile phones, studies usually focused on those somatic effects and thus the psychological dependency rarely been in the study of interest. The present study aimed at examining the pattern of mobile usage among under graduate students and to check whether there exist any difference among them.

Methodology

A cross sectional survey method was used to find out the pattern of mobile use and perceived dependency towards the mobile phones using Nomophobia Severity Index- Self rated version (NSI-SR) among male Under Graduate students of Health sciences (N=547) who were selected using snow ball sampling method. Data collected were pooled and analysed using SPSS v.12.

Results

The dependency status reported by students was similar among different courses. There was a significant positive correlation was established between the pattern of mobile usage with the severity of Nomophobia.

Discussion

Nomophobia as an emerging behavioural addiction among student populations in professional college was well evident through the present study. Adequate prevention strategies in the form of health awareness campaign specifying the physical as well as psychological impact of the chronic mobile usage would be appreciated.

Key words: Nomophobia, Mobile/Cell phone addiction, Professional undergraduates, Allied Health students

Introduction

Since the dawn of human civilization, man has been creating things to meet his needs. Mobile phone is one such, portable electronic device. They are now inexpensive, easy to use, comfortable, and equipped with almost every latest features such as calculator, internet games, camera, and many. They are also known as lifesavers as they can help people in emergencies. A coin has two faces. Likewise, mobile phone has its own demerits. It has severe health implications. Symptoms caused such as headache, earache, blurring of vision by the radiation of mobile phones are one of the most argued problem. Moreover psychiatrists believe that mobile phone addiction is becoming one of the biggest behavioural addictions. Teenagers are engaged on their mobile phones all the time, no matter on phone calls, using SMS text messages, personalizing the mobile phones with ringtones and pictures etc.
Nomophobia is the fear of being out of mobile phone contact. The term, an abbreviation for "no-mobile-phone phobia", was coined during a study by the UK Post Office who commissioned YouGov, a UK-based research organisation 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". More than one in two Nomophobes never switch off their mobile phones. The study and subsequent coverage of the phobia resulted in two editorial columns authored by those who minimize their mobile phone use or choose not to own one at all, treating the condition with light undertones or outright disbelief and amusement.

A study found that about 58% of men and 48% of women suffer from the phobia, and an additional 9% feel stressed when their mobile phones are off. The study sampled 2,163 people. Fifty-five percent of those surveyed cited keeping in touch with friends or family as the main reason that they got anxious when they could not use their mobile phones. The study compared stress levels induced by the average case of Nomophobia to be on-par with those of "wedding day jitters" and trips to the dentists. Ten percent of those questioned said they needed to be contactable at all times because of work. It is; however, arguable that the word 'phobia' is misused and that in the majority of cases it is only a normal anxiety.

Our study was undertaken to find out the risk of developing Nomophobia in the Indian scenario considering the tremendous increase in the number of mobile phone users in the past decade. We decided to conduct the study among college undergraduates, since the younger generation is the latest consumer of the mobile phones, and the under 25 year age group in professional colleges use mobile phones quite frequently since most of them reside in hostels. Day scholar students too want to be in constant touch with their family members and friends since they are out of their homes for the whole day and at nights while studying in colleges and working in hospitals.

**Materials & Method**

The present study adopted a cross sectional descriptive research design aimed at evaluating the risk of developing Nomophobia among male Under Graduate students of health sciences by assessing the pattern of mobile usage and the level of psychological dependency among them. 547 students of health sciences (Nursing, Dental Science, Physiotherapy & Ayurveda), both day scholars and hostellers, using mobile phone for more than one-year duration for at least 1-2 h per day were included for the study and were selected using referral sampling method.

A pre-designed scale (Nomophobia Severity Index- Self rated version, NSI-SR) on the basis of extensive literature and content validated by the experts in the field of Psychiatry, Psychiatric Nursing, Educational Psychology and Clinical psychology was used to study pattern of mobile usage and the level of psychological dependency among them. 547 students of health sciences (Nursing, Dental Science, Physiotherapy & Ayurveda), both day scholars and hostellers, using mobile phone for more than one-year duration for at least 1-2 h per day were included for the study and were selected using referral sampling method.

A pre-designed scale (Nomophobia Severity Index- Self rated version, NSI-SR) on the basis of extensive literature and content validated by the experts in the field of Psychiatry, Psychiatric Nursing, Educational Psychology and Clinical psychology was used to study pattern of mobile usage and the level of psychological dependency among them. 547 students of health sciences (Nursing, Dental Science, Physiotherapy & Ayurveda), both day scholars and hostellers, using mobile phone for more than one-year duration for at least 1-2 h per day were included for the study and were selected using referral sampling method.

A pre-designed scale (Nomophobia Severity Index- Self rated version, NSI-SR) on the basis of extensive literature and content validated by the experts in the field of Psychiatry, Psychiatric Nursing, Educational Psychology and Clinical psychology was used to study pattern of mobile usage and the level of psychological dependency among them. 547 students of health sciences (Nursing, Dental Science, Physiotherapy & Ayurveda), both day scholars and hostellers, using mobile phone for more than one-year duration for at least 1-2 h per day were included for the study and were selected using referral sampling method.

A pre-designed scale (Nomophobia Severity Index- Self rated version, NSI-SR) on the basis of extensive literature and content validated by the experts in the field of Psychiatry, Psychiatric Nursing, Educational Psychology and Clinical psychology was used to study pattern of mobile usage and the level of psychological dependency among them. 547 students of health sciences (Nursing, Dental Science, Physiotherapy & Ayurveda), both day scholars and hostellers, using mobile phone for more than one-year duration for at least 1-2 h per day were included for the study and were selected using referral sampling method.

A pre-designed scale (Nomophobia Severity Index- Self rated version, NSI-SR) on the basis of extensive literature and content validated by the experts in the field of Psychiatry, Psychiatric Nursing, Educational Psychology and Clinical psychology was used to study pattern of mobile usage and the level of psychological dependency among them. 547 students of health sciences (Nursing, Dental Science, Physiotherapy & Ayurveda), both day scholars and hostellers, using mobile phone for more than one-year duration for at least 1-2 h per day were included for the study and were selected using referral sampling method.
at risk. The data of the individual in the study were then pooled in SPSS v.12 and analysed using both descriptive and inferential statistics. The Nomophobes and at risk individuals were thus ascertained for individuals participating in the study.

Results
The subjects included in this study were male undergraduate students of health sciences including Nursing, Dental science, Physiotherapy & Ayurveda. There were 220 nursing, 153 dental sciences, 141 Ayurveda and 33 physiotherapy students. Mean age of the subject was 23.48 and average year of mobile usage among them was 4.87.

Table 1: Distribution of study subjects based on the pattern of mobile phone usage

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Pattern of Mobile usage</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Having more than one mobile</td>
<td>234</td>
<td>42.78</td>
</tr>
<tr>
<td>2.</td>
<td>Using mobile phones for more than 3 years</td>
<td>498</td>
<td>91.04</td>
</tr>
<tr>
<td>3.</td>
<td>Having a mobile phone with internet facilities</td>
<td>405</td>
<td>74.04</td>
</tr>
<tr>
<td>4.</td>
<td>Frequency of checking mobile phones; more than 35 times a day</td>
<td>420</td>
<td>76.78</td>
</tr>
<tr>
<td>5.</td>
<td>Can operate the mobile phone without looking at it.</td>
<td>234</td>
<td>42.78</td>
</tr>
<tr>
<td>6.</td>
<td>Always carrying a mobile phone charger</td>
<td>81</td>
<td>14.81</td>
</tr>
</tbody>
</table>

Majority (91.04%) of the study subjects were using mobile phones for more than 3 years, 76.78% of them used to check their mobile phones more frequently about more than 35 times a day. 74.04% of them reported to have a mobile phone with an internet connection. A few (14.81%) reported that they used to carry a mobile phone charger always with them.

The below (Figure: 1) pie diagram depicts that majority (64%) of the study subjects are at risk for developing Nomophobia and 23% of them are Nomophobes.

![Figure 1: Distribution of study subjects based on the Nomophobia severity](image)

Table 2: Nomophobia scores based on the stream of education

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Stream of education (f)</th>
<th>Mean±SD</th>
<th>Test of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>H value (df:3)</td>
</tr>
<tr>
<td>1.</td>
<td>Undergraduate Nursing (220)</td>
<td>34.21±8.67</td>
<td>3.28</td>
</tr>
<tr>
<td>2.</td>
<td>Undergraduate Dental science (153)</td>
<td>31.92±9.39</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Undergraduate Ayurveda (141)</td>
<td>32.83±8.23</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Physiotherapy (33)</td>
<td>23.00±12.77</td>
<td></td>
</tr>
</tbody>
</table>
There is no significant difference (p>0.05) in the overall Mean scores on the dependency profile of the study subjects between the different streams of education of the students. All these scores are in the level of developing risk for Nomophobia (Score Range: 20-40).

Table 3: Correlation between the scores on pattern of mobile use with Nomophobia scores
N=547

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Items</th>
<th>Mean±SD</th>
<th>r value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Overall scores on pattern of mobile phone usage</td>
<td>4.43±1.35</td>
<td>0.67</td>
<td>0.00</td>
</tr>
<tr>
<td>2.</td>
<td>Overall scores on Nomophobia severity</td>
<td>32.51±9.11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is significant positive correlation (r: 0.67) seen between the overall scores on pattern of mobile usage to the overall scores on Nomophobia severity.

Discussion
At present there is not much information about the topic. According to the study the sample majority (64%) of them found to be at risk for developing Nomophobia. The result of the study shows that severity scores are equal among the study population irrespective of their stream of education.

A study from United Kingdom on 2163 people revealed that 53% of the subjects tend to be anxious when they lose their mobile phone, run out of battery or credit or have no network coverage. The study found that about 58% of men and 48% of women suffer from the phobia, and an additional 9% feel stressed when their mobile phones are off. About 55% of those surveyed cited keeping in touch with friends or family as the main reason that they got anxious when they could not use their mobile phones.7 A study conducted by Market Analysis and Consumer Research Organization (MACRO) in Mumbai to study the various patterns and association of mobile phone usage reported that 58% of the respondents could not manage without a mobile phone even for a day.8

The present observations in this study are from a small group of male students only, which may not reflect the scenario worldwide since millions of cellular mobile subscribers are added every month indicating that full blown Nomophobia has all the possibilities to reach to the epidemic scale. In reality these results give an alarming indication that as days goes by the youth is getting more and more dependent on mobile phones, which may lead to serious psychiatric9 and psychological problems among the users.

To avoid the stress induced because of malfunctioning of mobile phones, people using it should carry a charger all the time, prepaid phone card to make emergency call in case their mobile is not functioning, credit balance in their mobile, should supply family members and friends alternate contact number and store important phone numbers somewhere else as backup in the case they lose their mobile phone.2 People should assess their addiction with mobile phone (Nomophobia status) with the help of online teaching sites, which can help reduce the anxiety levels because of mobile phone overuse.

Conclusion
The results of the study are suggestive of mobile phone dependence among male Under Graduate students of health sciences. The data is indicative of Nomophobia to be an emerging problem of the modern era. Multicentre studies are required to assess the real problem and thereby take appropriate steps to tackle the growing problem.
Acknowledgement
The authors thank Prof. (Mrs.) Theyamma Joseph (Principal, Mar Baselios College of Nursing, Kothamangalam), Mr. Appu John Zecharia (Department of Psychiatric Nursing, Mar Baselios College of Nursing, Kothamangalam), Dr. Prajin Narayan & Dr. Hussain Abdul Rehman (Mar Baselios Dental College, Kothamangalam) and Dr. Manu S. Krishnan & Dr. Ashwin (Nangelil Ayurveda College, Kothamangalam) for their help data compilation.

References
4. Dixit, Sanjay; Shukla, Harish; Bhagwat, AK; Bindal, Arpita; Goyal, Abhilasha; Zaidi, Aliak; Shrivastava, Akansha. "A Study to Evaluate Mobile Phone Dependence Among Students of a Medical College and Associated Hospital of Central India". Indian Journal of Community Medicine. 2010. April, 35 (2): 339–41.
9. Nomophobia is the fear of being out of mobile phone contact and it’s the plague of our 24/7 age article of NEWS and current affairs.