SEVERITY OF MOBILE PHONE AND INTERNET USE AMONG B.Sc. NURSING STUDENTS

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Abstract
Introduction: India continues to be one of the fastest growing major telecom markets in the world. Around 60 million of internet users are from India and 19 to 40 years age group section 85% using internet in India. Young nurses today have wide spread and inexpensive access to the internet.

Aims and Objectives: To assess the severity score of mobile phone use and internet use among BSc. Nursing students and to find the relationship between mobile phone and internet use.

Study design: descriptive survey.

Methods and materials: The study was conducted among 114 BSc. nursing students in Manipal College of nursing Manipal. A convenient sampling technique was used. The data was obtained by using a demographic proforma, mobile phone addiction test and internet addiction test.

Results: Most of the subjects 50 (43.9%) belongs to 19-20 years of age. 1.8% subjects reported of having mild addiction to mobile phone use. Three (2.6%) subjects had moderate internet addiction and 35 (30.7%) subjects reported of having mild internet addiction. The ‘r’ value (r=0.610, p=≤ 0.001) showed that there is a positive relationship between use of mobile phone and internet use.

Keywords: Mobile phone use, internet use, severity score, B.Sc. Nursing students.

Introduction:
The mobile sector in India has grown more than tenfold from 2001 to around 60 million subscribers by mid-2005. India is among top 10 nation using a smart offering mobile, internet ideal for corporate business and professionals. A mobile phone survey conducted in 2010 suggest that among 2,85,000 urban and rural Indians covering all state and union territory 574 district 3175 towns and 2,800 villages in India, 1,78,000 are mobile users and 25-35 years is the single largest mobile phone user age group.

Computers are readily available for the use in many nursing schools, colleges, library and hospitals. The internet is both convenient and anonymous. Internet has many functions, is used to gather information about advanced technology in nursing interventions and gathering the data about other health related issues, to meet new friends, to chat with current friends and as a source of entertainment.

Ezoe et al. (2000) conducted a study in Osaka among 43 male and 155 female nursing students to assess the relationship of personality and lifestyle with mobile phone dependence. The results showed that female nursing students with higher trait of extraversion and neuroticism and unhealthy lifestyle are prone to have high level of...
mobile phone dependency.

A survey study conducted to assess the impact of mobile phone and the internet use on self-reported behavioural changes among 542 undergraduate college students of Udupi district in 2007 by Swapna Jose. She found that 53.3% of the students reported that they use to chat with friends, 0.85% students reported of chatting with family members.

The information gathered by the study can be used by nursing professionals to understand its relevance to their work as well as for initiating and maintaining communal effort to prevent the harmful effects of media overuse.

Methods and Materials
The descriptive survey design was adopted and study was conducted among 114 BSc. nursing students in Manipal College of Nursing Manipal using convenient sampling technique. Administrative permission was obtained from Dean, Manipal College of Nursing Manipal and heads of the nursing institutions to conduct pretesting, reliability, pilot study and main study. Informed consent was taken from the study subjects. The data was collected during the month of January 2012.

Background information was collected by using a demographic proforma which had 18 items. The severity of mobile phone use was assessed using a Mobile phone addiction test which is a six point Likert scale. The scale had 15 items. There were 6 alternatives not at all, rarely, occasionally, frequently, very often, always. The response was scored as not at all -0, rarely-1, very often-2, frequently-3 occasionally-4, rarely-5. The maximum score was 75 and minimum score was 0. The score obtained was classified which include severe addiction (65-75), moderate addiction (55-64), mild addiction (45-54), no addiction (<45). The internet addiction test was used to assess the severity of internet addiction. This is a 20 items questionnaire on which respondent are asked to rate item on a six point Likert scale, covering the degree to which their internet use affects their routine, social life, sleeping pattern and feelings. The scale had 20 items. There were 6 alternatives rarely, occasionally, frequently, very often, always and does not apply. The maximum score was 100 and minimum score was 0. The scores were arbitrarily classified as severe addiction (80-100), moderate addiction (50-79), mild addiction (20-49) and no addiction (<20). Items were constructed after reviewing the literature and existing tools and content validity was established by giving it to the experts in the field of Psychiatry, Clinical Psychology, Child Health Nursing, and Community Health Nursing. Acceptable reliability and validity have been established in research. The reliability of the tools was checked by using Cronbach's alpha method. Reliability coefficient obtained for mobile phone use and internet addiction was 0.8 and 0.84 respectively. Demographic variables, mobile phone use and internet addiction were analyzed with frequency and percentage. To find the relationship between mobile phone and internet use, Pearson correlation ‘r’ was computed.

Results:
The study findings (presented in table 1) revealed that out of 114 subjects, most of the subjects 50 (43.9%) belongs to the age group of 19-20 years. Majority 107 (93.9%) of them were females. 47 (41.2%), of the subjects were residing in urban area, most of them 34 (29.8%) had monthly family income of Rs. 5,000-10,000. Majority of the subjects were from nuclear family 100 (87.7%) and they were single siblings (54.4%), most of the subject’s fathers were working 57 (50%), majority of them were staying in hostel 98 (86%), and 107 (93.9%) of the subjects had a good mobile network connection, majority of them 96 (84.2%) possessed mobile phone.

Study showed that among 114 subjects, there is no severe and moderate addiction to mobile phone. Two (1.8%) subjects reported of having mild addiction and 112 (98.2%) of them were not addicted to mobile phone use which is shown in table 2.

Pie diagram represents that there is no severe addiction to internet use, three (2.6%) subjects were moderately addicted, 35 (30.7%) of them were mildly addicted and 76 (66.7%) subjects were not addicted to internet use.
The Spearman’s Correlation ‘r’ showed that there was a significant relationship between mobile phone and internet use ($r=0.610$, $p=0.001$) which is shown in table 3.

**Discussion:**
The present study revealed that among 114 subjects 112 (98.2%) reported of having no mobile phone addiction and 2 (1.8%) with mild addiction to mobile phone use. The study findings are supported by a study conducted by Bianchi and Phillips in Sweden (2009) to assess the information and communication technology affecting young generation among 548 young populations. The result showed that 88.7% reported being average users, 8.4% heavy users and 2.9% is cell phone addicted.

The study also found that among 114 subjects 3(2.6%) reported of having moderate internet addiction behaviour. 35 (30.7%) mild addiction, 76(66.7%) with no internet addiction. A study which supports these study findings, conducted by Kratzer in Florence, Italy to identify the prevalence of internet abuse and the presence of multiple addictions in an adolescent high school population. 5.4% of the students are found to be internet addicted. The study concluded that behavioural addiction is multiple source of disability and they are related to substance abuse.

In this study, the ‘r’ value ($r=0.610$, $p=\leq 0.001$) showed that there is a positive relationship between use of mobile phone and internet use. These findings are supported by a study conducted by Jose Swapna (2009) to assess the impact of mobile phone and internet use on self-reported behavioural changes among 542 undergraduate students of selected colleges in Udipi district. She found that there was a positive correlation between the use of internet and mobile phone ($r=0.442$, $p<0.05$).

The study found that out of 114 subjects, most of the subjects belongs to the age group of 17-18 yeas, majority 50(43.9%) are between 19-20 years of age, 35 (30.7%) subjects are in the age group of 21-22 years and minimum subject belong to 23-24 years of age. Similar findings were found in a study by Mark Hefflingre (2007) in China, which showed that 13% of Chinese internet users are under the age of 18 years. 23% of the internet users are between the age group of 18 – 34 years. 9% of the users are in the age group of 35 – 49 years and only 3% of users are over 50 years.

**Conclusion:**
Most of the study subjects, 35 (30.7%) reported of having mild internet addiction and 3 (2.6%) subjects had moderate internet addiction. Nursing professionals need to understand the relevance of mobile phone and internet use in their work place as well as for initiating and maintaining communal effort to prevent the harmful effects of media overuse.

**Acknowledgment:**
We acknowledge Manipal College of Nursing Manipal, New City College of nursing, Vidya College of nursing, Vidyaratna College of Nursing, Udipi for permitting to conduct the main study, pretesting, reliability and pilot study respectively. We also acknowledge the students of these nursing colleges for their willingness to participate in the study.

**Table 1:** Frequency and percentage distribution of sample characteristics (n=114)

<table>
<thead>
<tr>
<th>Sample Characteristics</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (in years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 17 - 18</td>
<td>25</td>
<td>21.9</td>
</tr>
<tr>
<td>b. 19 - 20</td>
<td>50</td>
<td>43.9</td>
</tr>
<tr>
<td>c. 21 - 22</td>
<td>35</td>
<td>30.7</td>
</tr>
<tr>
<td>d. 23 - 24</td>
<td>04</td>
<td>3.5</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Male</td>
<td>07</td>
<td>6.1</td>
</tr>
<tr>
<td>b. Female</td>
<td>107</td>
<td>93.9</td>
</tr>
<tr>
<td><strong>Year of present graduation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. First</td>
<td>38</td>
<td>73.3</td>
</tr>
<tr>
<td>b. Second</td>
<td>27</td>
<td>23.7</td>
</tr>
<tr>
<td>c. Third</td>
<td>22</td>
<td>19.3</td>
</tr>
<tr>
<td>d. Fourth</td>
<td>27</td>
<td>23.7</td>
</tr>
<tr>
<td><strong>Place of residence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Rural</td>
<td>30</td>
<td>26.3</td>
</tr>
<tr>
<td>b. Urban</td>
<td>47</td>
<td>41.2</td>
</tr>
<tr>
<td>c. Semi urban</td>
<td>37</td>
<td>32.5</td>
</tr>
<tr>
<td><strong>Monthly family income (in rupees)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. &lt;5,000</td>
<td>14</td>
<td>12.3</td>
</tr>
<tr>
<td>b. 5,000 - 10,000</td>
<td>34</td>
<td>29.8</td>
</tr>
<tr>
<td>c. 10,001 - 15,000</td>
<td>32</td>
<td>28.1</td>
</tr>
<tr>
<td>d. &gt;15,000</td>
<td>34</td>
<td>29.8</td>
</tr>
<tr>
<td><strong>Type of family</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Nuclear</td>
<td>100</td>
<td>87.7</td>
</tr>
<tr>
<td>b. Joint</td>
<td>14</td>
<td>12.3</td>
</tr>
</tbody>
</table>

**Keywords:** Mobile phone use, internet use, severity score, B.Sc. Nursing students - Savitha
**Sample Characteristics** | **Frequency (f)** | **Percentage (%)**
---|---|---
Number of siblings in family  
- a. One 62 | 54.4  
- b. Two 32 | 28.1  
- c. Three 10 | 8.8  
- d. More than three 10 | 8.8  
Working member in the family  
- a. Father 57 | 50.0  
- b. Mother 14 | 12.3  
- c. Both 40 | 35.1  
- d. If others, specify 03 | 2.6  
Currently staying in  
- a. Home 16 | 14.0  
- b. Hostel 98 | 86.0  
Whether place of stay has good mobile network connection  
- a. Yes 16 | 14.0  
- b. No 98 | 86.0  
Mobile phone possession  
- a. Yes 107 | 93.9  
- b. No 07 | 6.1  
I call my friends  
- a. Once in a while 28 | 24.6  
- b. Once a day 06 | 5.3  
- c. At least 2-3 times a day 06 | 5.3  
- d. Once in a week 32 | 28.1  
- e. Whenever I need help 42 | 36.8  
I call my parents  
- a. Whenever I need help 12 | 10.5  
- b. Once in a while 02 | 1.8  
- c. Once a day 55 | 48.2  
- d. Twice a day 23 | 20.2  
- e. Every week 22 | 19.3  
How many percentage of calls are related to education?  
- a. 100 04 | 3.5  
- b. 80 23 | 20.2  
- c. 60 38 | 33.3  
- d. 40 49 | 43.0  
How many percentage of calls are personal?  
- a. 100 12 | 10.5  
- b. 80 41 | 36.0  
- c. 60 24 | 21.1  
- d. 40 37 | 32.5  
Independently possessed mobile phone at the age of (in years)  
- a. <16 14 | 13.2  
- b. 16 – 18 40 | 35.1  
- c. 19 – 21 55 | 48.2  
- d. 22 – 24 04 | 3.5  
Pocket money per month (in rupees)  
- a. <3,000 80 | 70.2  
- b. 3,000 – 5,000 30 | 26.3  
- c. 5,000 04 | 3.5  
Amount of money spent on mobile phone usage (in rupees) per month  
- a. <500 106 | 93.0  
- b. 500 – 1,000 06 | 5.3  
- c. 1,001 – 1,500 01 | 0.9  
- d. >1,500 01 | 0.9  
Availability of internet connection at home/hostel  
- a. Yes 43 | 37.7  
- d. No 71 | 62.3

**Table 2:** Frequency and percentage distribution of mobile phone use (n=114)

<table>
<thead>
<tr>
<th>Severity Score</th>
<th>Range of score</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe Addiction</td>
<td>65-75</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Moderate Addiction</td>
<td>55-64</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mild Addiction</td>
<td>45-54</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>No Addiction</td>
<td>&lt;45</td>
<td>112</td>
<td>98.2</td>
</tr>
</tbody>
</table>

**Table 3:** Relationship between mobile phone use and internet use (n=114)

<table>
<thead>
<tr>
<th>Variables</th>
<th>r</th>
<th>'p' value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of mobile phone and internet use</td>
<td>0.610</td>
<td>&lt;0.001</td>
<td>S</td>
</tr>
</tbody>
</table>

*Significant at 0.001 level S=Significant

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**Fig 1-** Pie Diagram Representing frequency and percentage distribution of internet use

- 3 (2%) moderate addiction
- 35 (31%) mild addiction
- 76 (67%) no addiction

**References:**