Are You Addicted To Your Smartphone? A Study Of University Students

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Abstract

This study examined the extent of smartphone addiction among students at the Islamia University of Bahawalpur in Pakistan. The study was conducted during an event, specifically the 2nd Entrepreneur Festival, which was organised by the IT Department and used event sampling to collect data. Students from a variety of fields, including the arts, education, management sciences, pharmacy, and science, took part in this research project. The Smartphone Addiction Scale-Short Version was used to assess the participants' levels of smartphone addiction. The t-test was used to check the validity of the assumptions that were developed. According to the findings of the study, male students were found to be more involved in smartphone addiction, as compared to female students. Furthermore, the findings found that students who live in metropolitan areas and those who attend arts-related faculty have significant levels of smartphone addiction. The study has various implications for counsellors, parents, and educators to keep an eye out for indicators of smartphone addiction in their children and to offer them the required support. At the end of the study, the limits of the study were looked at, as well as ideas for future research.

Keywords: Smartphone addiction, Event sampling, Gender differences, IUB, Pakistan
Introduction

Today’s most popular machines are smart phones, which have better capabilities to provide information and entertainment due to their diverse features of multimedia, internet access, social media, and texting. Smartphones have made accessing the internet very easy, due to which there has been an immense increase in the use and sale of smart phones. According to the "We Are Social and Hootsuite" study released in October 2020 by "Digital 2020: October Worldwide Statshot," the world's population is predicted to reach 7.81 billion people. The report also provides critical data on internet and mobile device use. According to a report, there are 5.20 billion mobile phone users worldwide, 4.666 billion internet users worldwide, and 4.14 billion social media users. In addition, nine out of ten internet users throughout the world access the web via a mobile phone or tablet. For social media, mobile devices tend to be the preferred form of communication for these people. Only one out of every five social media users uses a laptop or desktop computer to access the site, with mobile devices accounting for 99 percent of all social media users worldwide.

Despite the fact that internet and smart phone addictions are almost identical and share many factors (Kim, 2013), they differ in terms of mobility and communication capabilities (Kwon et al., 2013). Internet and mobile phone addictions share many of the same features as behaviour addictions, including a loss of control, compulsive participation, and longing for more (Lee, Ahn, Choi, & Choi, 2014; Mok et al., 2014).

There are no diagnostic criteria for smartphone addiction as there are for other addictions, but based on internet addiction, it is said that excessive use of smartphones will interfere with daily routine. Roberts, Yaya, and Manolis (2014) found that college students spend nine hours daily on their cell phones. Smartphones have become a necessity today, and their use is on the increase. In a study conducted in 2012 in South Korea, it was found that people are more addicted to smart phones than the internet (Park & Lee, 2012). This addiction differs in adults as compared to adolescents due to the freedom to use different features as compared to those individuals having parental control of smart phone use (Fossum, Nordnes, Storemark, Bjorvatn, & Pallesen, 2014). In this study, demographic factors were analyzed to check whether age, gender, differences in departments and residence have an effect on smartphone addiction among students.

Literature Review

Literature overall supports the prevalence of smartphone addiction all over the world. Al-Barashdi, Bouazza, and Jabur (2015) did a review-based study on the occurrence of smartphone addiction among undergraduate students from the years 1996–2013, in which they found that few studies identify gender differences in smartphone addiction, while others do not. Furthermore, the study revealed that there is a relationship between smartphone addiction and students’ areas of interest and their field of study. It has also been pointed out that socioeconomic status and parental or family education do not affect smartphone addiction. In another study conducted on Australian students by James and Drennan (2005), it was found that Australian students spent 1.5–5 hours
daily on smartphones. They also found that excessive use of smart phones was associated with the characteristics of impulsiveness, mounting tension, failure of control and withdrawal symptoms. These are reinforced by other negative symptoms like alcohol abuse, depressive behavior, financial issues, damaged relationships, emotional stress, and falling grades.

Another study, by Walsh, White, and Young (2008), sought to learn more about how people use their mobile phones. Researchers found that students at university experienced conflict with other pursuits, thrill, intolerance and retreat in relationships with a behavioural preoccupation. Smartphone dependence has been linked to feelings of loneliness and shyness, as Casey (2012) found in China. The five symptoms of the smart phone addiction scale were used to achieve this: disregard for negative consequences, fixation, inability to regulate, loss of productivity, and emotions of dread and loss. Additionally, the study found that both positive and negative symptoms of smartphone addiction were linked to interpersonal communication and present absence symptoms, respectively.

Similarly, another study on smartphone addiction in Pakistan was conducted by Khan, Khalid, and Iqbal (2019), who tend to explore mobile phone usage and the chances of addictive behavior. The result of their study revealed that students set their limits regarding the usage of smartphones and only a rare student (4.8%–18.5%) shows addictive behaviours toward them. The study also concluded that the use of mobile phones among Pakistan university students is within limits and they do not move towards addictive behaviors. A study conducted by Jun (2016) reviewed the connection between smartphone addiction and depressive symptoms among adolescents. The study concluded that each depressive symptom and mobile phone addiction in earlier years was linked to a higher level of severity in conditions that were dependable over the three years. In another study Abid et al. (2020) found that there is a remarkable influence of psychological control on mobile phone dependency, self-regulated learning, and school adjustment. However, mobile phone dependency plays a vital role as a mediator in this regard.

**Theoretical Framework**

A cognitive behavioural model of social and psychological dependence on mobile devices can be used to explain smartphone addiction (Osorio-Molina et al., 2021). This theory proposes that hazardous behaviour may be explained by factors such as a lack of self-control, a high threshold for sensation, loneliness, and stress, for example. Student smartphone addiction has been studied in depth in the current study, which aims to find out more about it.

**Objectives**

1. To determine the extent to which university students are addicted to their smartphones.
2. To find out if the level of smartphone addiction among university students is influenced by demographic variables (such as gender, place of residence, and faculty).
Hypotheses

On the basis of the above mentioned literature, following hypotheses are generated:

1. Male university students are more likely than female students to be addicted to their smartphones.
2. Students who live in urban areas are more likely to become addicted to their smartphones than those who live in rural areas.
3. The discipline's (Faculty) influence on student involvement plays a crucial part in smartphone addiction.

Methodology

Research Design

A quantitative survey design was employed to measure the level of smartphone addiction in this study. This study was comprised of students from the Islamia University of Bahawalpur. The participants were served a questionnaire in order to check their level of smartphone addiction at the 2nd entrepreneur festival conducted by the IT Department at the Islamia University of Bahawalpur.

Sampling Procedure

There are a variety of techniques to select a sample from the population. The issue under study is to cover the area of Islamia University of Bahawalpur. To ensure the generalizability of these study findings, an event sampling approach was employed to quantify certain occurrences during an event, namely the 2nd Entrepreneur Festival hosted by the Islamia University of Bahawalpur's IT Department. The event sampling technique is employed because it enables researchers to analyse continuous experiences and occurrences by assessing participants once or more per day in their naturally occurring social milieu (Larson & Csikszentmihalyi, 2014).

Measures and covariates

One section of the survey was devoted to demographic information, while another focused on questions about smartphone addiction. Gender, age, and the department's name were included in the demographics section. The remainder of the section is devoted to the Smartphone Addiction Scale-Short Version (SAS-SV), which is used to quantify smartphone use (Kwon et al., 2013). The survey should take no more than five minutes to complete. Ten questions, each on a six-point Likert scale ranging from 1 (strongly disagree) to 6 (completely agree). A threshold value of 31 is indicated for boys, while a cutoff value of 33 is recommended for girls. The higher the score, the more dangerous the situation (Kwon et al., 2013). Internal consistency is strong, with a Cronbach's alpha coefficient of 0.91 for the scale. Numerous research have been conducted on this scale, and
those studies have uncovered its unique psychometric characteristics (Demirci, Orhan, Demirdas, Akpnar, & Sert, 2014).

**Results**

**Table 1** Frequency Distribution of Overall Sample (N=57)

<table>
<thead>
<tr>
<th>Respondent’s Characteristics</th>
<th>f(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>15(26.3)</td>
</tr>
<tr>
<td>Female</td>
<td>42(73.7)</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>34(59.6)</td>
</tr>
<tr>
<td>Rural</td>
<td>23(40.4)</td>
</tr>
<tr>
<td><strong>Faculty</strong></td>
<td></td>
</tr>
<tr>
<td>Education Faculty</td>
<td>12(21.1)</td>
</tr>
<tr>
<td>Arts Faculty</td>
<td>11(19.3)</td>
</tr>
<tr>
<td>Islamic Learning Faculty</td>
<td>12(21.1)</td>
</tr>
<tr>
<td>Science Faculty</td>
<td>12(21.1)</td>
</tr>
<tr>
<td>Pharmacy and Management Sciences</td>
<td>10(17.4)</td>
</tr>
<tr>
<td><strong>Smartphone Addiction</strong></td>
<td></td>
</tr>
<tr>
<td>Addicted</td>
<td>37(64.9)</td>
</tr>
<tr>
<td>Non-Addicted</td>
<td>20(35.1)</td>
</tr>
</tbody>
</table>

The mean age of respondents was 21.56 and std. deviation 1.80.

**Table 2** Independent Sample t-test use for Differences of Male and Female Population Sample for Smartphone Addiction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male</th>
<th>Female</th>
<th>95%CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n = 15)</td>
<td>(n = 42)</td>
<td></td>
</tr>
<tr>
<td>M(SD)</td>
<td>M(SD)</td>
<td>t</td>
<td>LL</td>
</tr>
<tr>
<td>Smartphone Addiction</td>
<td>36.00(7.38)</td>
<td>33.21(8.29)</td>
<td>1.15</td>
</tr>
</tbody>
</table>

The results found that gender playing a non-significant role of difference in smartphone addiction, while the Mean of smartphone addiction in males was 36.00 and std. deviation remained 7.38,
whereas, mean of smartphone addiction in female was 33.21 and std. deviation 8.29. Mean difference 2.79 and t value 1.15, while p > 0.05. Level of smartphone addiction was higher in male students as compared to female students.

**Table 3** Independent Sample t-test use for Differences of Urban and Rural Population Sample for Smartphone Addiction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Urban (n = 34)</th>
<th>Rural (n = 23)</th>
<th>t</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smartphone Addiction</td>
<td>37.47(6.33)</td>
<td>28.74(7.69)</td>
<td>4.69**</td>
<td>5.00 - 12.47</td>
</tr>
</tbody>
</table>

**p < .01**

The results found that residents played a significant role in the difference in smartphone addiction. The mean of smartphone addiction in urban areas was 37.47 and the standard deviation was 6.33, whereas the mean of smartphone addiction in rural areas was 28.74 and the standard deviation was 7.69. The level has a mean difference of 8.73 and a t value of 4.69, with a p value less than 0.01. Smartphone addiction was high in students of urban domiciles as compared to students of rural domiciles.

**Table 4** One Way ANOVA use for Multiple Comparisons among Faculties of Islamia University Bahawalpur with Smartphone Addiction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Education Faculty (n = 12)</th>
<th>Arts Faculty (n = 11)</th>
<th>Islamic Learning Faculty (n = 12)</th>
<th>Science Faculty (n = 12)</th>
<th>Pharmacy and Management Sciences Faculty (n = 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
</tr>
<tr>
<td>Smartphone Addiction</td>
<td>36.67(4.79)</td>
<td>39.91(8.64)</td>
<td>32.58(7.09)</td>
<td>31.50(9.19)</td>
<td>28.70(6.11)</td>
</tr>
</tbody>
</table>

**p < .05**

Faculty was found to play a significant role in smartphone addiction, with the mean of smartphone addiction among education faculty students being 36.67 and the standard deviation being 4.79, and the mean of smartphone addiction among arts faculty students being 39.91 and the standard deviation being 8.64. Additionally, the mean of smartphone addiction among science faculty
students was 31.50 with a standard deviation of 9.19, while the mean of smartphone addiction among pharmacy and management sciences faculty students was 28.70 with a standard deviation of 6.11, all with a p value < 0.05. The Post Hoc results revealed a substantial difference in smartphone addiction between the arts faculty and pharmacy and management sciences, despite the fact that the arts faculty students had a higher rate of smartphone addiction than other faculties.

**Discussion**

The aim of this present study was to explore the level of smartphone addiction in university students. Based on the hypothesis and assumptions, students are prone toward the usage of smartphones and specific social applications, i.e., Facebook, WhatsApp, Twitter, etc. This study was conducted to analyse the level of smartphone addiction among the students at the Islamia University of Bahawalpur, Pakistan. The current study discovered that a number of students at IUB are addicted to smartphones. From a sample of 57, 64.9% are addicted to smartphones at mild, moderate, and severe levels, while 35.0% are non-addicted. A study related to the prevalence of smartphone addiction on investigating different research, like Roberts et al. (2014), concluded that students spent 9 hours on their smartphones daily. Similarly, in another study, it was found that 58% of adults bought smartphones and 84% of university and college students used smartphones in the past years (Park & Lee, 2012). Casey (2012) explored that many students rely profoundly on their phones.

**Gender differences and Smartphone Addiction**

The results shown in table 2 reveal that the level of smartphone addiction is higher in males (M = 36.00, SD = 7.38) as compared to females (M = 28.74, SD = 7.69), but there is no significant level (p > .05) found. One of the studies by Devís-Devís, Peiró-Velert, Beltrán-Carrillo, and Tomás (2009) compared the usage of smartphones between boys and girls, and their results revealed that boys spent more time on smartphones as compared to girls. Similarly, Villella et al. (2011) revealed in their results that the addiction to smartphones, especially its behavioural effect, is found more in males compared to females. Some studies also support the non-significant results of the present study. As the study by Perry and Lee (2007) proves, the relationship between the usage of mobile phones and gender is non-significant. Hence, they also proved that no gender differences in addiction have been found in measures among university students.

**Residence and Smartphone Addiction**

According to the findings in table 3, the residents played a significant role in the difference in smartphone addiction (p < 0.05). The level of smartphone addiction is higher in urban dwellers (M = 37.47, SD = 6.33) as compared to rural dwellers (M = 28.74, SD = 7.69) with a standard deviation of 7.69. The literature regarding the difference in residence is scantly. However, Podsakoff, MacKenzie, Lee, and Podsakoff (2003) revealed that the increased usage of mobile phones in
developing countries, including rural areas, is more due to the shortage of other wireless
technologies. Li, Fu, Fu, and Zhong (2021) also found that students in developing areas use more
smartphones as compared to students in developed countries.

Faculties and Smartphone Addiction.

Table 4 shows that faculty played a big role in the difference in smartphone addiction (p < 0.01). Smartphone addiction is prevalent in different ways. Addiction was high in students of the arts faculty (M = 39.91, SD = 8.64) as compared to other faculties. Some of the studies explored the association between smartphone addiction and the student’s area of study. One similar study revealed that there is a higher level of smartphone addiction in arts or humanities students as compared to science students (Abu-Jedy, 2008). Another study found that science students are more likely to develop a smartphone gambling addiction, whereas arts students are more likely to develop a shopping addiction.

Conclusion

Smartphone addiction is the phenomenon that is prevailing all over the world. The present study is carried out to explore the student’s level of smartphone addiction specifically in The Islamia University of Bahawalpur, Pakistan with the help of Event Sampling. The results of the study revealed the significant relationship between student’s demographic characteristics, i.e., residence and faculties. Students having an urban residence and students from arts faculty are more involved in smartphone addiction. The study have various implications for counselors, parents, and educators all need to be on the watch for signs of smartphone addiction in their students and provide them with the necessary guidance.

Suggestions and Limitations

The study only focused on the level of smartphone addiction, in future researches more variables should be studied. Furthermore, the population is within the premises of one university, more universities and from other areas should be the part of the research. Lastly the sample size is not too large to measure the specific phenomena and to assure its generalizability, so for that purpose large population should be taken into account.

References


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