PHUBBER-PHUBBEE MODEL: AN ANALYSIS OF PHUBBING BEHAVIOIRS

Assoc. Prof. Dr. Burcu Toker
Bahçeşehir Cyprus University- TRNC
burcu.toker@cyprus.bau.edu.tr

Assist. Prof. Dr. Nazime Tuncay
Bahçeşehir Cyprus University- TRNC
nazime.tuncay@gmail.com

Abstract
In 21st century, face-to-face social interaction tends to decrease as many people prefer to spend considerable time on their Smart Phones ignoring people around them in social environments. People are exposed to ignorant behaviours by their companions looking at their phones repeatedly in social settings. After an extensive literature review, data are collected from 352 participants via SurveyMonkey software. The statistical analysis like Frequencies, Crosstabs, One-Way ANOVA, Independent t-tests, Chi-Square analysis, Regression analysis with IBM SPSS Statistics 25 were carried out and Models are drawn with IBM SPSS AMOS 26 Graphics. According to the results of this research, it is aimed to create a model which points out the significant factors that lead to phubbing. The obtained Model "Phubber-Phubbee Model", can be used as a guide for minimizing the addictive effects of the phubbing phenomenon that could provide new directions for further studies in this research area.

Keywords: Phubber-Phubbee Model, Social Media Usage, Phubber, Phubbee, Phubbing.

INTRODUCTION

Terminology
The phenomenon of extensively wide usage of the smartphone and social media has significantly transformed our lives into a new era of communication. People tend to ignore others with whom they are physically interacting in order to use their smartphone instead.

Phubbing; is the act of ignoring others in favour of one's smartphone. The concept of “phubbing”, defined as the act of snubbing others in social interactions and instead focusing on one’s smartphone (Haigh, 2015), appears to have negative consequences for communication between partners, detrimentally affecting relationship satisfaction and feelings of personal wellbeing (Roberts & David, 2016). Education is in the nature of all humans who are producing and transmitting the culture. This phenomenon, called phubbing, seems to have become normative in everyday communication (Choptitayasunondh & Douglas, 2016).

In a social interaction, a “Phubber” can be defined as a person who starts phubbing his or her companion(s), and a “Phubbee” can be defined as a person who is a recipient of phubbing behaviour (Choptitayasunondh and Douglas, 2018). The appearance of the "Phubbers" is a harmful phenomenon caused by the development of science and technology (Xiao-xiang, 2018).

Nomophobia; which is “No mobile phobia” or “the fear of being out of mobile phone contact” the irrational fear of being without your mobile phone or being unable to use your phone for some reason, such as the absence of a signal or running out of minutes or battery power; is among one of the most commonly mentioned concepts regarding Smartphone addiction (Sharma et.al, 2015). Recent research related to nomophobia states that all mobile phone usage factors have significant relationship to the issue of nomophobia (Anuar et. al., 2017).
Literature Review

A survey (Lee, et. al. 2016) of 490 adolescents found that 27% of them were in high risk of smartphone addictions. A study by Nazir and Samaha in 2016 also revealed that addictive use of social media had a negative association with self-esteem. Wu, Cheung, Ku, and Hung (2013) also found a correlation between daily usage of smartphones and addictive symptoms towards social media.

A study by Hong and Chiu (2012) revealed that students who scored high on smartphone addiction showed more social extraversion, anxiety, and lower self-esteem. Several studies have found that many smartphone users developed addictions as a consequence of using certain applications such as instant messaging, online gaming, and social networking through their mobile phones (Lopez-Fernandez, 2015).

According to Pivetta et al. (2019), problematic smartphone use is described as a multi-faceted phenomenon entailing a variety of dysfunctional manifestations (e.g., addictive, antisocial and dangerous use). One recent study had impressive results, emphasizing on the fact that, 90% of respondents used their smartphones during their most recent social activity, and also perceived that 86% of the others involved in the social interaction did the same (Ranie & Zickuhr, 2015).

In recent years, smartphone and social media usage has grown exponentially among the general public and (Statista, 2015). Many researchers (Hawi & Samaha, 2016; Nazir & Samaha, 2016; Bian & Leung, 2014; Hong & Chiu, 2012), observed that, while the advantages of the smartphone and social media are recognized, constant and excessive use may have negative consequences for the users such as addictive usage, increased stress, false sense of online connections, reduced face-to-face interactions, diminishing interpersonal skills, problematic family relations, and lower self-esteem. According to research by Hong et al. (2019) smartphone addiction may be related to different interpersonal relationships and smartphone use patterns.

According to research, as a social activity, phubbing is perhaps more predictive of perceived normative behaviour for males because, since they engage in phubbing less than women, norms are more informed by observing others’ behaviour rather than their own (Chotpitayasunondh and Douglas, 2016).

Purpose of the Study

The purpose of this study is to find the relationship among phubber, phubbee and nomophobia. The resulting model “Phubber-Phubbee Model”, obtained after the analysis, is aimed to be used as a guide for minimizing the addictive effects of the phubbing phenomenon that could provide new directions for further studies in this research area.

METHOD

After an extensive literature review, data are collected from 352 participants via SurveyMonkey software.

The questionnaire includes four parts: Demographic questions; Usage of Social Interaction Environments on a Likert Scale of 7 (Always to Never); Social Interaction of respondents with other people on a Likert Scale of 7 (Always to Never); Social Interaction of other people with respondents on a Likert Scale of 7 (Always to Never).

Generic Scale of Phubbing (GSP) to assess phubbing behaviour, and the Generic Scale of Being Phubbed (GSBP) to assess the experience of being phubbed. The GSP measures phubbing behavior in social interactions. The GSBP measures the experience of being phubbed in social interactions. The four-factor 15-item GSP shows satisfactory validities and reliabilities. The three-factor 22-item GSBP shows satisfactory validities and reliabilities (Chotpitayasunondh and Douglas, 2018).
The questionnaire was written in Survey Monkey and emailed to the participants. Some of the items included are:

- I feel anxious if my phone is not nearby.
- I worry that I will miss something important if I do not check my phone.
- I would rather pay attention to my phone than talk to others.
- I get irritated if others ask me to get off my phone and talk to them.
- Others seem worried that they will miss something important if they do not check their phones.
- Others use their phones even though they know it irritates me.
- Others seem anxious if their phones are not nearby.
- Others pay attention to their phones rather than talking to me.

Descriptive statistics frequencies, percentages and Independent t-test results were used to analyse and to report the data collected from the questionnaire using Survey Monkey.

RESULTS AND DISCUSSION

Results of this research study are divided into three subsections; demographic information, social media usage and Phubber-Phubbee Model.

Demographic Information

Research suggests that males see smartphones as empowering devices with instrumental functions, while females use smartphones as facilitators of social interaction (Baron and Campbell, 2012, Geser, 2006). According to Gaur (2019), social networking is the most common cause for smartphone use.

There were 65 female and 113 male participants, in total 177 participants from Cyprus; 109 female and 65 male participants, in total 156 participants from Turkey (see Figure 1). The age groups of participants were between 13-63.

Figure 1: Gender Distribution versus Country

It is observed that, 50.3% of the participants are private sector employees, whereas 33.2% of them are public sector employees. The participants who are not working but are studying are 16.5% (see Figure 2).
People tend to prefer smartphones to computers when going online (Ofcom, 2015), and smartphones have become an integral part of peoples’ daily lives (Jones, 2014, Oulasvirta et al., 2012, Roberts et al., 2014). Smartphone usage time percentages are given in Figure 3.

38.4% of the participants were using Smartphone (3-4 hours) in a day; 29.43% of the participants were using Smartphone (1-2 hours) in a day; 12.2% of the participants were using Smartphone (5-6 hours) in a day; 8.8% of the participants were using Smartphone less than a year.
Social Media Usage Differences between Male and Female

The differences of means of Google+, LinkedIn, Facebook, Tumblr, Twitter and YouTube are shown in Table 1. There is not significant difference between male and female Facebook, Tumblr, Twitter and YouTube frequent users, however between Google+, LinkedIn.

Table 1: Mean Differences of Social Media

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google+</td>
<td>Female</td>
<td>174</td>
<td>1.86</td>
<td>1.663</td>
<td>0.126</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>178</td>
<td>2.22</td>
<td>1.655</td>
<td>0.124</td>
</tr>
<tr>
<td>LinkedIn</td>
<td>Female</td>
<td>169</td>
<td>4.22</td>
<td>1.975</td>
<td>0.152</td>
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<tr>
<td></td>
<td>Male</td>
<td>176</td>
<td>2.78</td>
<td>1.925</td>
<td>0.145</td>
</tr>
<tr>
<td>Facebook</td>
<td>Female</td>
<td>166</td>
<td>2.30</td>
<td>1.441</td>
<td>0.112</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>171</td>
<td>2.37</td>
<td>1.418</td>
<td>0.108</td>
</tr>
<tr>
<td>Tumblr</td>
<td>Female</td>
<td>173</td>
<td>4.42</td>
<td>1.965</td>
<td>0.149</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>175</td>
<td>4.37</td>
<td>1.916</td>
<td>0.145</td>
</tr>
<tr>
<td>Twitter</td>
<td>Female</td>
<td>169</td>
<td>5.57</td>
<td>0.992</td>
<td>0.076</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>173</td>
<td>5.43</td>
<td>1.157</td>
<td>0.088</td>
</tr>
<tr>
<td>YouTube</td>
<td>Female</td>
<td>174</td>
<td>4.13</td>
<td>1.710</td>
<td>0.130</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>178</td>
<td>4.03</td>
<td>1.868</td>
<td>0.140</td>
</tr>
</tbody>
</table>

There was a significant difference in the Google+ statistics of female (M=1.86, SD=0.126) and male (M=2.22, SD=0.124) conditions; t (350) =-2.05, p = 0.041 (p<0.05). According to statistics female students use less Google+ than male students. There was a significant difference between female student (M=4.22, SD=1.975) and male student (M=2.77, SD=1.923). LinkedIn usage statistics; t (342) =6.94, p = 0.000 (p<0.01). However, there wasn't any significant difference between female and male students Facebook, Tumblr, Twitter and YouTube usage statistics (see Table 2).

Table 2: Independent t-test Results

<table>
<thead>
<tr>
<th></th>
<th>Equal variances</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>assumed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facebook</td>
<td></td>
<td>-0.409</td>
<td>334</td>
<td><strong>0.682</strong></td>
<td>-0.064</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-0.409</td>
<td>333.270</td>
<td><strong>0.683</strong></td>
<td>-0.064</td>
</tr>
<tr>
<td></td>
<td>Equal variances</td>
<td>0.232</td>
<td>345</td>
<td><strong>0.817</strong></td>
<td>0.048</td>
</tr>
<tr>
<td>Tumblr</td>
<td>not assumed</td>
<td>0.232</td>
<td>344.724</td>
<td><strong>0.817</strong></td>
<td>0.048</td>
</tr>
<tr>
<td></td>
<td>Equal variances</td>
<td>1.157</td>
<td>338</td>
<td><strong>0.248</strong></td>
<td>0.135</td>
</tr>
<tr>
<td></td>
<td>not assumed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The model is drawn using IBM SPSS AMOS 26 Graphics and the correlations among variables are calculated. The relations which are not significant are deleted. There is a positive relationship between Phubbee and Smartphone Usage Time (p<0.01), a negative relationship between Phubbee and Nomophobia (p<0.01). Also, there is a negative relationship between Phubbee and Smartphone Usage Time (p<0.01). There is a positive relationship between Smartphone Usage Time and Nomophobia (p<0.01). Interestingly, Frequent Social Media Usage statistics are negatively related with Smartphone Usage Time, which can be interpreted as intensive smartphone usage, does not necessarily lead to intensive social media usage. These relationships are shown in Table 3.

Table 3: Model Variable Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phubber</td>
<td>&lt;--- Smartphone Usage Time</td>
<td>0.768</td>
<td>0.086</td>
<td>8.927</td>
</tr>
<tr>
<td>Nomophobia</td>
<td>&lt;--- Smartphone Usage Time</td>
<td>0.361</td>
<td>0.079</td>
<td>4.569</td>
</tr>
<tr>
<td>Nomophobia</td>
<td>&lt;--- Phubbee</td>
<td>0.211</td>
<td>0.060</td>
<td>3.521</td>
</tr>
<tr>
<td>Phubbee</td>
<td>&lt;--- Smartphone Usage Time</td>
<td>0.211</td>
<td>0.060</td>
<td>3.521</td>
</tr>
</tbody>
</table>

The resulting model is shown in Figure 4. The insignificant parameters were removed from the proposed model and a valid model was obtained where the variables which are related to each other are shown and the variables in the questionnaire and their correlation coefficients is shown. The structural equation model of the valid model shows a perfect fit and Chi - square values of the valid model ($\chi^2=5.7$; df =2, p=0.59) and fit indices (CFI=0.975; PCLOSE=0.121) show that the model is valid.
Although smartphones have benefits, recently, researchers have become increasingly concerned about their potential adverse effects on the quality of social interactions (Baron and Campbell, 2012, Ha et al., 2008, Khan, 2008, Lee et al., 2014). Research on the effects of phubbing suggests that it may create negative reactions such that people perceive their interaction to be of poorer quality (Ranie & Zickuhr, 2015), are less satisfied with their interactions (Abeele, Antheunis, & Schouten, 2016).

CONCLUSION AND RECOMMENDATION

As a result of this research, the created Phubber-Phubbee Model, could be used to minimize the negative effects of Phubbers on Phubbees by depicting the directions and the strengths of their relationships. As smartphone usage time is positively related with phubber and as that is also positively related with nomophobia, there could be trainings regarding effective and efficient usage of smartphones. Interdisciplinary studies including psychological and technological support are advised for reducing average smartphone usage time. It is observed that, smartphone usage time is negatively related with Phubbee, which is also negatively related with nomophobia. Being exposed to phubbing behaviour could be minimized by efficient and effective usage of smartphones.

For providing new directions for further studies in this research area, it is suggested to deliver a multicultural study. As the sample population of this research study is limited to 352 participants, it is recommended that, more research could be carried out with larger groups of participants.

**Note:** This study was presented as an oral presentation at 11th International Congress on New Trends in Education, April 18, 2020, Turkey.

**REFERENCES**


