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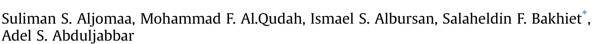
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#### Full length article

# Smartphone addiction among university students in the light of some variables



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#### ARTICLE INFO

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#### ABSTRACT

We explored the frequency and indices of smartphone addiction in a group of King Saud University students and investigated whether there were differences in smartphone addiction based on gender, social status, educational level, monthly income and hours of daily use. We developed a questionnaire probing smartphone addiction consisting of five dimensions: 1) overuse of smartphone, 2) the psychological-social dimension, 3) the health dimension, 4) preoccupation with smartphones, and 5) the technological dimension. After being validated, the questionnaire was administered to 416 students, both male and female, at King Saud University. Results revealed that addiction percentage among participants was 48%. The order of smartphone addiction indices were as follows: overuse of smartphone, the technological dimension, the psychological-social dimension, preoccupation with smartphones, and the health dimension. Significant gender differences were found in the degree of addiction on the whole questionnaire and all of its dimensions with the exception of the technological dimension in favor of males. Significant differences by social status were found in favor of the unmarried. Bachelor degree students were found to have the highest degree of addiction. Significant differences by hours of daily use were also detected in favor of participants using the smartphone for more than 4 h a day. As to the monthly income dimension, significant differences were found on the health dimension in favor of participants with lower monthly income.

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#### 1. Introduction

The 21st century has witnessed ever-increasing technological advances leaving an imprint on all aspects of life. One of these advances is the smartphone and its numerous applications or apps offering quick access to the Internet and social media through various apps such as WhatsApp, Facebook, Twitter and Skype. The smartphone has also facilitated the transmission of SMSs and fax, and navigating the Internet. Furthermore, the smartphone includes entertainment such as games, the Cam, video, Bluetooth, multimedia, radio, youtube, movies, GPS, and other applications (AboJedi, 2008).

One of the most important advantages of the smartphone is easy wireless access to electronic mail, instant messages and multimedia, and the possibility of using Office Applications after

\* Corresponding author. E-mail address: sLh9999@yahoo.com (S.F. Bakhiet). downloading additional apps from the site of the smartphone producer or from Play Store. It also has a complete keyboard that enables users to write e-mails easily. The Gulf markets, like other world markets, introduce smart devices on a daily basis. In addition, all age groups show an interest in owning such devices. More and more people are purchasing smart devices for their numerous and varied services. For some people, the smartphone has become a substitute for the computer. For others, it has become the most effective means of entertainment, amusement and pastime. As a result of its popularity, the use of the smartphone has become an indicator of economic status and possession of a smartphone is associated with several psychological and social concepts such as the popularity implied by achieving a large number of friends or followers. However, some argue that the smartphone has more disadvantages than advantages. The disadvantages relate to the way the smartphone is used, especially by teenagers (Attamimi, 2011). There is empirical evidence that most smartphone addicts are teenagers whose shyness and lack of confidence encourage them to rely on smartphones in order to communicate with others







without face-to-face encounters (Walsh, White, & Young, 2007).

Recently, there has been a great increase in the number of smartphone users spendingconsiderable sums of money to own the latest upgrades, versions and apps. Users have become so attached to their smartphone that they feel they cannot function without it and their use and preoccupation with the smartphone results in the neglect of other assignments and tasks. This irrational overuse is described as smartphone addiction and psychologists define this as an obsession. This addiction is likely to be among the most prevalent of all addictions. Smartphone addicts are expected to live in isolation. This addiction can also affect individuals economically and psychologically (Walsh et al., 2007).

#### 2. Statement of the problem

School and university students are among the age groups most targeted by communication technologies. They are also the most interested in possessing smartphones on which they spend time and dedicate much of their thinking. The competition between smartphone companies to produce low priced smart devices has led to a significant increase in the number of students possessing smartphones, which, in turn, increases the likelihood of smartphone addition among students (Abo-Jedi, 2008).

The positive effects of smartphones include the facilitating and enhancing of communication and information sharing among researchers and students as well as the sharing of valuable experiences among countries through the various applications that they include. However, recently negative effects of smartphone addiction have also emerged and these have not received adequate research emphasis. This motivated the researchers to explore the negative effects taking into consideration several variables. Furthermore, as staff members we have become aware of the obsession that university students have with smartphones and that the negative effects of smartphone addiction are increasingly frequent. Smartphone addiction is expected to continue and this increase is expected to be accompanied by more negative effects. In this respect, some research found a correlation between smartphone addiction and self-disclosure, anxiety, depression and academic performance. Investigation of the effects of smartphone addiction on students' behavior, academic performance, health, psychology and social life is the objective of our present study. More specifically, the study addressed the following questions:

- 1. How frequent is smartphone addiction among participants?
- 2. What are the most significant indicators of smartphone addiction among participants?
- 3. Are there statistically significant differences in smartphone addiction attributable to gender?
- 4. Are there statistically significant differences in smartphone addiction attributable to social status?
- 5. Are there statistically significant differences in smartphone addiction attributable to educational level?
- 6. Are there statistically significant differences in smartphone addiction attributable to hours of daily use?
- 7. Are there statistically significant differences in smartphone addiction attributable to monthly income?

#### 3. Literature review

#### 3.1. Smartphone addiction

Technology addiction dates back to Internet addiction first identified in 1995 by American physician Ivan Goldberg and to the paper published by Young (1996) with the title "Internet addiction: The emergence of a new clinical disorder." A smartphone includes the same technology and is expected to have the same or an even greater effect than the Internet. The more individuals use the smartphone, the more they become dependent on it and begin to experience associated problems (Hong, Chiu, & Huang, 2012). The diagnostic criteria of smartphone addiction were derived from criteria of material abuse according to the Diagnostic and Statistical Manual (DSM IV) (American Psychiatric Association, 1994). The same criteria used for diagnosing both Internet and Smartphone addictions consider these dependencies a disorder. People with this disorder have difficulty controlling their smartphone use and therefore encounter social, psychological and health problems (Heron & Shapira, 2004).

The number of adolescent smartphone users (15-24 years) in the US, Canada, Britain, Germany and Italy reached 103 million. And the percentage of school and university adolescents possessing smartphones reached 87% (International Telecommunication Union (ITU) 2004). Klyoko and Hitoml (2005) found that 49% of high school students owned smartphones that they use more than 10 times a day to establish friendships and check email. Nighttime smartphone use resulted in their getting up late and those students report they cannot live without smartphones. In another study conducted in the US, 65% of the participants (N = 1061) reported that they could not live without smartphones (Wajcman, Bittman, Jones, Johnstone, & Brown, 2007). 68.8% of Belarusian university students were convinced on the harmful effects of mobile phone (Szpakow, Stryzhak, & Prokopowicz, 2011).

#### 3.2. Theories explaining technology and smartphone addiction

There are several theories that explain technology and smartphone addiction. Behaviorism viewed it as a learned behavior that is subject to the stimulus-response-reinforcement principle. Thus, like any other learned behavior, smartphone addiction can be modified. The psychodynamic theory conceived of smartphone addiction as a response to avoid frustrations and to achieve pleasure and forgetfulness. The socio-cultural trend considers smartphone addiction a result of a society's culture. The cognitive theory attributes smartphone addiction to distorted ideas and schemata. Finally, there is an integrative view that smartphone addiction results from a combination of personal, cultural, social, environmental and emotional factors (Davis, 2001; Duran, 2003).

### 3.3. Smartphone addiction and its effect on psychological and physical health

Smartphone addiction is common with individuals feeling an urgent need to keep in touch with others at all times. This underscores the need to raise awareness of the negative effects of smartphone overuse on sleep, health, concentration and comprehension as well as provide information on the consequences of smartphone overuse that may lead to withdrawal, depression, and destroy social relationships (Hiscock, 2004; James & Drennan, 2005; Richard, 2001).

Smartphone overuse and the psychological symptoms associated with it constitute a form of behavioral addiction known as smartphone addiction (Phillips & Bianchi, 2005). With regard to addiction, Torrecillas (2007) asserts that chemical addiction and smartphone addiction differ in that the latter does not have direct physical effects but rather principally manifests in psychological effects. Smartphone addicts tend to neglect work and study, separate themselves from friends and family, and remain attached to the smartphone while over depending on it to communicate with others. Torrecillas also found that 40% of adolescents and adults use smartphones for more than 4 h a day to make calls and send and Download English Version:

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