

Mobile phone mania: Arising global threat in public health

Sir,

Owing newer technologies in communication, electronic devices such as mobile phone, computer, tablet, and other high-tech devices, have turned out as a best friend for many of us regardless of age, gender, ethnicity, career, and economic status. On the other hand, these devices are playing a vital role in causing behavioral addiction to an individual. Scientifically, such (mobile) phone addiction is characterized as “mobile phone mania,” a state of socio-psychological illness, and it is clinically referred as “nomophobia” (No — Mobile — Phobia). There has been a considerable number of research studies reported on cell phone addiction, and its related health hazards. Those reports were extracted and presented in the following section.

Cell phone mania is due to over usage of smartphone, obviously due to the increasing number of cell phone models, multimedia facility, and services. As on today, a total number cellular subscription has been reached about 7 billion, which is almost closer to the population of earth. It seems that 90% of American owns cell phones; out of them, 58% are smartphones. The mobile consumer habit survey report for the year 2013 stated that 41% of Britons feel anxious when they disconnected from mobile phone and 51% admitted to suffer “extreme tech anxiety.” On gender comparison, 70% of women suffer from cell phone separation anxiety (nomophobia) while men have accounted for about 61%. The global scenario of cell phone connection is shown in Table 1. In some countries, the number of cell phone connections has exceeded the total population that indicating a replicate cell phone connection to an individual. It is a surprise report that 29% of mobile phone users have stated that their cell phone as “something they can’t imagine living without.” Now-a-days, it has been noticed that usage of mobile as a routine practice during eating, walking, listening, driving, etc. Of course, a psychologist stated that mobile usage while driving is 6 times more dangerous than driving in alcohol drinks. In addition, many psychologists stated that an over usage of the cell phone has to be considered as “addiction” as similar as addiction to cigarette smoking and alcohol drinking. In

Table 1: Global scenario of percentage mobile phone connections

Country	Percentage of mobile phone connections to the total population	Year of survey
World	97	2013
China	93	2014
India	77	2015
United States	103	2014
Japan	95	—
Germany	130	2013
United Kingdom	129	2013
South Korea	111	2014
Spain	118	2013
South Africa	117	2013
Canada	79	2014
Australia	133	2013
Saudi Arabia	169	2013
Malaysia	143	2014
Sri Lanka	107	2014
United Arab Emirates	203	2014
New Zealand	111	2012
North Korea	8	2013
Ireland	125	2015

>100 % indicating a significant amount of replicate users

fact, cell phone abuse or addiction may be more dangerous than other addiction.^[1]

As per World health Organization (WHO), “an Overuse” is a dependence syndrome (WHO Expert Committee, 1964), it can be because of substance abuse or behavioral addiction such as mobile phone. Hence, mobile phone addiction has to be considered as dependence syndrome, and necessary preventive measures have to initiate, as already mobile phone mania has been significantly invaded in public health. As already, WHO has established a project to review the risk of radiation on mental health in the year 1996, mobile phone mania can be included for further necessary policy and action. In the introductory phase, cell phone was considered for three major positive psychological functions, namely:

- To control the distance in communication and relationship;
- Worth to deal with solitude and isolation as it act as multimedia antidepressant and anxiolytics;
- To live and dominate reality which control of being present and to prevent illusions.

Now, the observed mobile phone functions are quite contradictory, extremely adverse, and causing socio-psychological illness.^[2] In fact, the radiofrequency emitted by mobile phones is 1000 times more than from base stations, thus mobile phone can be a definite source for any adverse health effect.

Despite of necessity, the over usage of mobile phones, has steered us into recognizable psychological illness such as personal illness, insecurity, low self-confidence, mood fluctuations, sleep disturbances, insomnia, neck pain and rigidity, dry eyes, computer vision syndrome, weakness of thumb and wrist, increased frequency of quervain's tenosynovitis, nomophobia, delusions, auditory, and tactile hallucinations. Apart from above common psychological illness, there are exclusive mobile phone addiction disorders^[3] and are shown in Table 2.

In 2007, a study by Francisca and Lopez, University of Granada, stated that mobile phone addiction can lead to consequences as dangerous as those caused by alcohols or narcotic drugs. In 2012, there was study on female students indicated that psychological characteristics, social extraversion, and anxiety have a positive effect on mobile, whereas self-esteem was reported to be negative.^[4]

As results of above cited clinical manifestations of mobile phone mania, many researchers have undertaken studies on mobile phone addictions, and they established a significant relationship between mental health of students and mobile phone addictions.

In 2014, a study revealed that an average college student use cell phone 9 h/day that is longer than the duration of their sleep. Further, the study has established a significant relationship between mobile phone addiction and socio-psychological dimensions such as loneliness, boredom, egoism, and self-independence.^[5] In support of above reports, a study from Iran, confirmed that mobile addiction behavior in students has shown an absolute relation to depressive disorders, obsessive disorders, interpersonal sensitivity, habitual behavior, and mobile addiction. The results were highly significant with $P < 0.001$.^[6]

In accordance to Dr. David Green Field, University of Connecticut School of Medicine, mobile addiction

(or nomophobia) involves deregulation of dopamine (aneurotransmitter of brain that regulates brain and allows us to experience pleasure and reward) as that of other addiction disorders. American Psychiatric Association stated that a smartphone (mobile phone) addiction is often driven by "Internet Use Disorder" (IUD). They have claimed that an individual suffering from IUD would experience "preoccupation" with the internet, and then suffer from withdrawal symptoms, if he or she disconnected from the internet. In general, a person with "IUD" shows a significant change in mood with a subsequent disturbance in "control attention," "executive control," and "emotion processing." These changes are superimposable to a person who is addicted to narcotic drugs such as cocaine, morphine and have compromised dopamine function in brain.

American Psychiatric Association claimed that Internet, "WhatsApp" and other applications of the mobile phones are some crucial variables, which can develop a dependence syndrome (abuse or addiction). This syndrome is more predominant among teenagers, but also on the rise among adolescents too. They have also recommended to develop prevention and treatment program, and to ensure the availability of suitable diagnostic instruments that enable effective intervention.^[7]

In the purview of all, it was evident that socio-psychological illness related to mobile phone addiction has already invaded in the population, especially in the age group between 15 and 40 years. So far, there has been no awareness program neither organized nor initiated on mobile phone addiction and its related illness. The ignorance of mobile addiction is due to several reasons including:

- a. Unawareness on mobile phone addiction and its hazards among users;
- b. Magnanimous number of users in society;
- c. Misperception on mobile phone on over usages;
- d. Lack of knowledge on effect of radiation and electronic devices on mental health;
- e. Lack of awareness program among parents and students;
- f. Lack of attention among government/private health sectors.
- g. Lack of global policy and regulation on radiation hazards and electronic devices and their socio-psychological illness.

In continuation to above, being an author of this communication, and as a teaching faculty, I shall strongly agree that an over usage of the mobile phone has navigated a behavior addiction among students. It was noticed that students are so reluctant to switch off their mobile phone even for a period of 1 h during lecture session. It was

Table 2: Mobile addiction disorders

Mobile addiction disorders	Description
"Textiety"	Feeling anxiety on not receiving or sending message, a kind of fear of social isolation
"Ringxiety" and "textaphrenia"	Brings into play delusions and hallucinations, a state of psychosis
"Phantom ringing"/"vibration syndrome"	Tactile hallucinations where an individual believe that he/she had heard cell phone ring, but there was no such event
"Communifaking"	An act of pretending to be involved in calling or messaging to avoid real conversations or giving social acceptance or to show off

observed that students are more comfortable with mobile rather than a face to face interaction while leisure hours. It is a challenging question “Can a student stay without cell phone for day or at least for 5 h?” Innocently, mobile phones have ruled out more than 80% of students into addiction and serving as a most dangerous tool for socio-psychological issues in their career. Absolutely, such behavioral addiction on mobile phone usage may has significant negative impact on placement, career, and competency skills in teamwork and also in personal life of students.

Nevertheless, researchers stated that it has not been included in Diagnostic And Statistical Manual of Mental Disorders Fifth Edition, it has been reached the required or more than the level for a criteria of substance use or dependency disorder. As on today, web search provides an adequate amount of information on socio-psychological dimensions of an individual who is abused to mobile addiction. Just a mere report in the website may not bring any substantial education or awareness on mobile addiction, until unless awareness program are initiated. At present, we could realize that an awareness program organized on mobile addiction on behalf of health authority of governmental or statutory body or private organization is rare, across the globe. Hence, it is the time for all health organizations of nations across a globe to initiate and implement preventive and curative interventions to control the rising global threat of mobile phone mania.

As on today, mobile phone addiction has to be considered as dependence syndrome and preventive measures have to be undertaken to avoid the greater risk of psychological illness among young generations. It is a right time to initiate preventive measures against mobile phone mania, among students and public health without further delay as well. Everyone has to accept that relationship with mobile phones are risky for anyone, and it can steer us into “mobile phone mania” or “nomophobia,” a psychological disorder which is equally dangerous as similar to narcotic drug addictions.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Ramalingam Peraman, Subramani Parasuraman¹

College of Pharmacy, Gulf Medical University, Ajman, United Arab Emirates, ¹College of Pharmacy, AIMST University, Bedong 08100, Malaysia

Address for correspondence:

Dr. Ramalingam Peraman,
College of Pharmacy, Gulf Medical University, P. O. 4184,
Ajman, United Arab Emirates.
E-mail: drramalingamp@gmail.com

REFERENCES

1. Available from: <https://www.psychologytoday.com/blog/reading-between-the-headlines/201307/smartphone-addiction>. [Last retrieved on 2-13 Jul 25].
2. Available from: http://www.en.benessere.com/psychology/articles/addictions_mobile_phones.htm. Psychology; January 2016.
3. Charit T. Psychology of excessive cellular phone use. *Delhi Psychiatr J* 2014;17:448-51.
4. Hong FY, Chiu SI, Huang DH. A model of the relationship between psychological characteristics, mobile phone addiction and use of mobile phones by Taiwanese university female students. *Comput Human Behav* 2012;28:2152-9.
5. Oluyinka TA. Socio-psychological dimensions of mobile phone addiction and usage patterns amongst teenagers in higher institutions of learning in Kwara State. *Int J Inf Commun Technol Educ* 2014;10:1-13.
6. Babadi-Akashe Z, Zamani BE, Abedini Y, Akbari H, Hedayati N. The relationship between mental health and addiction to mobile phones among university students of Shahrekord, Iran. *Addict Health* 2014;6:93-9.
7. Chóliz M. Mobile — Phone addiction in adolescence: The test of mobile phone dependence (TMD). *Prog Health Sci* 2012;2:33-43.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

Access this article online	
Quick Response Code:	Website: www.jnsbm.org
	DOI: 10.4103/0976-9668.184712

How to cite this article: Peraman R, Parasuraman S. Mobile phone mania: Arising global threat in public health. *J Nat Sc Biol Med* 2016;7:198-200.