

# Impact of Smart Phone Usage among College Students – An Analytical Study

Dr. S. S. Subramanian<sup>1</sup>, M. Sindhuja Rajesh<sup>2</sup>

<sup>1</sup>M.P.T (Orthopaedics), M.S (Education), M. Phil (Education), Ph.D (Physiotherapy)  
Principal, Sree Balaji College Of physiotherapy, Chennai – 100  
Affiliated To (Bharath) University, BIHER, Chennai – 73, India

<sup>2</sup>BPT, MIAP, Tutor in Physiotherapy, Sree Balaji College of Physiotherapy  
Affiliated To (Bharath) University, BIHER, Chennai – 73, India

**Abstract:** With advent of communication technology, globe has shrunk to a village. Smart phone usage has become a necessity for various purposes such as personal, academic, social networking and making financial payments. **Aims & objectives:** This original research was to analyse the merits and demerits of smart phone usage among college students mainly its impact on health. **Materials & Methodology:** 115 college students of Chennai using Smartphone were administered with 13 questionnaire on 4 point scale in December 2016. The results were analyzed tabulated and discussed with evidence. **Results:** 74 % of the participants were female, more than 3 years 45% were using smartphones, 77% of the subjects were using more than 5 years daily, 66% had habit of checking the smartphone while sleeping, 72% of the participants have used for the academic purpose, 79% had headache, 54% with eyepain, 43% had neck and arm pain. **Conclusion:** with due knowledge of health hazards involved with smartphone, users should restrain from excessive usage and apply due precautions to get rid of negative effects on users health was the main outcome of this study.

**Keywords:** Smart Phones Usage, Academic Performance, Information & Communication Technologies

## 1. Introduction

- 1) The development and modernization of technology has made people's lives easier and contributed positively to social well being.
- 2) Emergence of electronic governance with encouragement for electronic commerce from the govt of India smart phone usage is increasing among peoples in the society.
- 3) Impact of higher education/ learning are globally influenced at large with advances in information technology ( emad et al 2015 ) but so far while it has brought about some problems and threats stemming from irresponsible use of smart phones among teens young adults.
- 4) Wireless communication has emerged as one of the fastest diffusion medium in the world, (Manuel castells 2007).
- 5) An emergent 'MOBILE YOUTH CULTURE ' that speaks as much with thumbs as it does with tongues (Sumanjainetal 2016)
- 6) " The spread of mobile phones is affecting people's lives and relationships and affects how people interact when face to face or, rather and increasingly, face -to-face-to-mobile-phone-face, since people are ever more likely to include the mobile phone as a participant in what would otherwise be a face-to-face dyad" stated by Katz Aakhus(2002). (Davin north etal 2014)

## 2. Smartphone Growth & Usage

- 1) In 21<sup>st</sup> century the mobile phone is an integral part of everyday life, only found strange when it is absent, as stated by Katz and Aakhus( 2002) . Advanced mobile technology will be globally ubiquitous by 2020 with 70

- percent of using smart phones and 90 percent covered by mobile broadband network (Uichin Lee etal 2014)
- 2) Technology sector is growing progressively since many years and has several inventions that invaded human lives like mobile phones, smart phones, touch screen devices.
- 3) A smart phone is a cellular telephone with a capability to operate advanced applications and browse the internet it allows users to install and run applications.
- 4) Phone calling & sending texts are like the very basic purposes for which phones were been purchased earlier, but now a day mobiles are been used for entertainment & communication, what we call it as "COMMUTAINMENT".
- 5) From students point of view downloading & reading study notes in various MS office formats, videos live streaming from worldwide through google & various sites freely available to students converted as "COMMUTAINMENT" to "EDUTAINMENT" for all the purposes mobile can be used by a student that's why now everyone is looking out at having a smart phone.
- 6) These devices has pros and cons with respect to their cost, use, environmental influences and health and social issues.

## 3. Health Issues of Smart Phone

- 1) Smart phones share some general or common health effects caused by using of them continuously and for a long period of time, the following are the major ones: Head ache followed by irritability from continuous use of mobile devices, lack of concentration daily living activities.
- 2) The excessive use of mobile phones will cause some anxiety to users because of the flow of news that they receive, which will eventually cause an eye strain, loss of appetite and make users to feel tired, loss of hearing

in continuous calls other problems like neck pain, limb pains, lack of sleep, being disposed and addition for smart phone.

#### 4. Aims & Objectives

- 1) This original cross sectional analytical study strives to evaluate browsing frequency, information sourced for academic performance ,merits and demerits of smart phone usage among college students
- 2) The findings of this study could be used for input in social health care. This paper will discuss many aspects related to smart phones devices and the impact of smart phones on students health

#### 5. Materials & Methods

- 1) This original study was carried out in DEC 2016 among 115 subjects of both sex in the age group 17- 25 years professional college students of Chennai.
- 2) The demographics questionnaire consisting of general questions about participant's academic rank, relationship status, age, gender, ethnicity, housing & living situations related to smartphone usage on a 4 point scale. Due consent form was processed.

**Inclusion Criteria:** College students of both sex with smartphone.

**Exclusion Criteria:** Non-Smartphone users.

#### 6. Data Analysis & Results

The data obtained from the participants in the study was analyzed and the following:

- 1) Of the students surveyed 74% (n=85/115) are females and 26% (n=30/115) are males students (table: 1). (wood 2014) women students spend from out of 10 hours a day had 8 hours with their smart phone usage than male counterparts).
- 2) Based on this data survey the smart phone usage majority of students have used Smartphone for 3-5 yrs ( 65%) , 2-3 yrs (45%).
- 3) Duration of smart phone usage of students per day more than 5 hours (77%) and 2 hours (27%). (Savio (2016) studied among Goa UG students have 95% for wats app: 81% for games and facebook 76% online videos 63% per day).
- 4) Percentage of frequency of checking smart phones while sleeping the highest rating is more thrice than (66%).
- 5) The trends in smart phone usage is evaluated in based on 2 categories :
- 6) Usage of smart phones towards the course related downloading class materials to academic and assignments (72%) and to download advanced techniques (27%). 75% of students lacks academic performance 255 had differences with excessive usage of smart phone (Jayanthietal 2013)
- 7) Normal usage and usage of learning among students found the most apt to update for knowledge (50%) & education (32%). (An US based study claims 83% of

health care providers use smart phone to access, 50% use for drug references, 28% for clinical decision 72% use to write notes and memos) ( Dr.Gayleetal 2015)

The study also indicates excessive usage that 79% students used their smart phones at home and 14% of students used smartphones at the college.

Regarding the health complaints of college students using the smart phone the majority problem faced by them are

- 1) 79% had headache due to continued mobile usage , and 51% gets anxiety after 47% lack of concentration ,35% had sleeplessness, 43% had neck& arm pain,54% eye pain while using phone.
- 2) Chung Aug university 2017from south korea have found among 916 subjects with smart phone usage 8.3% subjects were diagnosed with dry eye disease Smart phone addiction is recognized habitual and compulsive communicating as a serious psychic problem ( Abbey etal 2007 )
- 3) Students were asked about the key usage of smart phones when they log in to (personal, office, social network &all the three) were used as the answer options. The result shows 71% of students answered ALL THE ABOVE.
- 4) According to the study of survey on use of the smart phone , The concept of “ use it or lose it “ the principle in psychology , a question is designed feeling on missing the phone for a day, the maximum students answered communication is cut (65%) & lonely (15%)

#### 7. Discussion

- 1) NOMOPHOBIA: is “NO-MOBILE-PHONE – PHOBIA” as a fear of being out of mobile phone contact. A study in has revealed UK 58% of men and 48% of women suffer from this phobia (sanchezetal 2009) that “the social network sometimes just makes the person to feel like a little bit tied to the smart phone. It makes to feel like that an another obligation in the life that they have to stick with it”.
- 2) Japanese research 2016 (TOI; JAN 9<sup>th</sup> 2017) has reported that just having a smart phone can adversely affect ones ability to focus on a given task.
- 3) Wide spread circulation of fake health news on social networks is misleading and potentially dangerous.

#### Negative Impacts:

- Mobile technology has drastically changed the cultural norms and behavior (Gowthami and Vental 2016)
- Smart phone's enables students to text , co operate on social networking sites , check e-mails , play online games and even watch channels. This is one of the the source of distraction .with access on internet: misuse during exams, to access online information to write the answers.
- Smartphone's can encourage bullying and hazing as cameras and video equipped in smartphone. These are the commonly witnessed among college students in developing and developed countries.
- The high frequency of smart phone can have negative effects on mental health among youngsters. Excessive

cell phone use can be a risk factor for mental health issues in young adults.( Bhargavietal 2014)

### Positive Impacts

- The use of smart phone for educational purpose has increased many folds among society to fulfill their knowledge thrust and dreams.
- Smart phone within and without classroom make it easier for students and teachers to collaborate students on sick leave or miss college for some reason would be able to attend the class through their smart phone and keep up their work, it compensates the limited access of internet and data access and has become an integral part of education system in developing countries (srivastava 2005) enables human interaction with friends and family.
- It is possible for students to enhance and broaden their academic horizon by browsing for academic materials and equipped themselves better toward preparation during exams. (Ezemenaka 2013)

### 8. Limitations of this Study

There were of small sample of smartphone users were involved in the study, only students of Chennai metropolitan were included and no intervention as therapy was provided. However further studies involving few physiotherapy intervention as preventive and therapeutic mean can be carried. Also musculoskeletal disorders, complete visual examination, involving a psychologist continuation of this study were recommended.

### 9. Conclusion

- 1) Smart phones have an effect on the way that individuals function in society.
- 2) Smart phones can be smart if the society, technologists, people involved with higher education like faculty, students and education providers to understand their responsibility towards usage of these devices smartly to get more benefits in education health and social life .
- 3) In this survey impact of smartphone on society positive and negative effects on smartphone, mobile applications social impact, addiction, health.
- 4) However educating the negative impact of addition and on health of the smartphone users in paramount.

### References

- [1] Emad Abu. The influence of smart phone on human health and behavior: Jordanians' perceptions. International journals of computer networks and applications.vol.2.issue.2.2015
- [2] Manuel castells. Communication, Power and Counter-power in the Network Society.2007
- [3] Suman Jain etal. Evolution Pattern of Mobile Phones . A Historical Study, Vol. 4, No. 5, July 2016
- [4] David North etal .The use of mobile phones by souyh African university students.issues in informing science and information technology vol.1.2014
- [5] Uichin Lee etal. Hooked on Smartphones: An Exploratory Study onSmartphone Overuse among College Students ,2014

- [6] Wood, Janice. College students in study spend 8 to 10 hours daily on cell phone, 2014.
- [7] Dr.Savio. Nature of mobile phone usage among college student. International journal of multidisciplinary research and development.vol.3.issue.5.2016
- [8] Jayanti p. A study on some psychological health effects of cell-phone usage amongst college going students. International journal of medical research & health sciences.vol.2.issue 3 2013
- [9] Dr.Gayle, smart phone and app usage among collegstudnts: using smartphones effectively for social and educational needs. 2015
- [10] Chung Aug university reported in Times of India dated Jan 10 2017
- [11] Abbey G. Moblie phone use and sleep quality and length in college students . international journal of humanities and social science . vol.1.n0.18.2007
- [12] Sánchez-Martínez M, Otero A. Factors associated with cell phone use in adolescents in the community of Madrid (Spain). CyberpsycholBehav 2009; 12(2):131-7.
- [13] Japanese research reported in Times Of India JAN 9<sup>th</sup> 2017
- [14] S.Gowthami. A pilot study on positive and negative effects .International journal of scientific engineering and applied science .vol.2.issue.3.2016
- [15] BhargaviK,Mobile Phone Radiation Effects on Human Health, april 2014 Vol, 03 Issue, 4
- [16] Srivastava L. Mobile Phones And Evolution of Social Behavior. Behavior and Information Technology 2005
- [17] EmekaEzemenaka. The usage and impact of internet enabled phones on academic concentration among students of tertiary institutions. International journal of education and development using information and communication technology.vol.9.issue :3 2013