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Research Article

Usage of Mobile Phone and Its Impact among Undergraduate Students

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Abstract: Mobile / hand phones are powerful communication device have become an essential part of daily life as there are extensive changes in the growth of mobile phone technology. Usage of mobile phone and social networking sites has both negative and positive impact on the education of the students. Hence this descriptive study was conducted with the aimed to assess the usage of mobile and its impact on the undergraduate students with 50 samples. Self-administered questionnaire was used to assess the data and was analyzed by descriptive statistics. The findings of the study revealed that 100% of respondents reported that mobile phone is inevitable nowadays, majority (60%) were using mobile more than 5hours per day, 90% were access the internet facility in mobile phone for academic purpose as well as whatsapp and very less (10%) only using mobile phone to call. The study findings concluded that the usage of mobile phone is increasingly and has impact on both physically and psychologically which affect their academic performance.

Keywords: academic performance, impact on usage of mobile phone, internet access, mobile phone, social networking.

INTRODUCTION:

Mobile / hand phones are powerful communication device have become an essential part of daily life as there are extensive changes in the growth of mobile phone technology. Modern mobile phones also support a wide variety of applications such as MMS, internet, such as e-mail, business application, gaming, photography, whatsapp, tiktok, computing capabilities etc., in addition to telephony and text messaging. A nationwide survey conducted in 2010 shows that mobile phones are the most necessary medium of communication for adolescents. Educational system is taking larger responsibility in socialization rather than the traditional agents of socialization of families and schools due to expansion of technology (Ling, R., & Helmersen, P. 2000). The percentage of internet usage increased globally 7-fold from 6.5% to 43% between 2000 and 2015 and the percentage internet access by households also increased from 18% in 2005 to 46% in 2015 (ICT Facts and Figures-The World in 2015). India's monthly wireless data usage rose to 1.3 billion GB in March 2017 from 200 million GB in June 2016, according to the Internet Trends Report 2017 by Kleiner Perkins (Economictimes.Indiatimes.Com).

The use of mobile phones in education results in increasing parents' involvement in children's learning and capabilities, increase students' will to learn, students appear to be more engaged in learning processes, increases group participation in activities done during learning in class and take the initiative in using the mobile phone as a learning tool (Barker, A. *et al.*, 2004). However, over usage of mobile phones may cause both physiological and psychological illness such as dry eyes, computer vision syndrome, weakness of thumb and wrist, neck pain and rigidity, increased frequency of De Quervain's tenosynovitis, SMS thumb syndrome, tactile hallucinations, nomophobia, insecurity, delusions, auditory sleep disturbances, insomnia, hallucinations, lower self-confidence, and mobile phone addiction disorders (Peraman, R., & Parasuraman, S. 2016). Similarly the addiction behavior to mobile phone is also increasing (Duerson, M. H.). Reports from 206 published surveys suggest that 50% of teens and 27% of parents feel that they are addicted to mobiles (Wallace, K. 2016). Grosseck *et al.*, found that the majority of students spend significant time on Facebook more for social uses (to stay in touch with friends and family, to share / tag photos, to engage in social activism, volunteering etc.) and less for academic

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purposes, even if they take part in discussions about their assignments, lectures, study notes or share information about research resources etc (Grosseck, G. *et al.*, 2011).

National Institute of Mental Health and Neuro-Sciences (NIMHANS) clinic, SHUT (Science For Healthy Use Of Technology) gets 5 cases weekly of youngsters suffering from mobile addictive disorders (Economictimes.Indiatimes.Com). The signs of smartphone addiction are constantly checking the phone for no reason, feeling anxious or restless without the phone, waking up in the middle of night to check the mobile and communication updates, delay in professional performance as a result of prolonged phone activities, and distracted with smartphone applications (Chen, H.). A study finds that Indian college students check their phones at about 150 times a day on an average and spend 4-7 hours on their smartphones. It has been observed in past surveys like the Digital Commerce Report, 2015 that by 2018, around 54% of the internet user base of India would comprise of those above the age of 25 and of this, 70-80 % are expected to access the internet using smartphones. Also, Facebook /Twitter/WhatsApp are the preferred mode of communication for more than 70% of smartphone users today (www.news18.com). The mobile phone has fundamentally affected our society, accessibility, safety, and security, co-ordination of social and business activities (Ling, R. 2003). Usage of mobile phone and social networking sites has both negative and positive impact on the education of the students. Hence this study was conducted with the aims to assess the usage of mobile and its impact on the undergraduate students as this group is more attracted by the mobile phone.

METHODS AND MATERIALS:

A descriptive study design was chosen to assess the usage of mobile phone and its impact among undergraduate students. A study was conducted after obtaining formal permission from the College authority with 50 samples. The target population for the study was undergraduate students and who met the inclusion criteria were taken as a sample. Students who were present during the study, interested to use mobile phone, no impact on usage of mobile phone and willing to participate in the study were included in the study Samples and were selected by convenience sampling technique. Explained the importance of the study in detail and obtained informed consent from the participants. Socio demographic variables were collected by structured questionnaire. It consists of consisting of age, gender, year of study and sleep pattern. Usage of mobile phone and its impact was assessed by self-administered questionnaire and instructed them to give their response. Confidentiality was maintained throughout the procedure. Collected data were analyzed by using descriptive statistics.

RESULTS:

Regarding demographic variables, majority of them were in the age group of 20-21 years and around 80% were female, more or less equal participants from each batch from I year to IV year and higher percentage (40%) of sleeping of hours was 5-6 hours.

Table 1: Frequency and percentage distribution of socio-demographic variables in the undergraduate students

S.No	Demographic Variables	Frequency	Percentage
1	**Age in Years**		
	a.18-19	10	20
	b. 19-20	11	22
	c. 20-21	15	30
	d. 21-22	14	28
2	**Sex**		
	a. Male	10	20
	b. Female	40	80
3	**Year of Study**		
	a.I Year	10	20
	b. II Year	15	30
	c. III Year	10	20
	d. IV Year	15	30
4	**Sleeping hours**		
	a. 4-5	15	30
	b.5-6	20	40
	c. 6-7	15	30

Table 2: Frequency and percentage distribution of usage and its impacts on mobile Among the undergraduate students.

S.No	Usage and impact on mobile phone	Frequency	Percentage
1.	Do you think usage of mobile phone is inevitable nowadays		
	Yes	50	100
	No	-	-
2.	On average how many hours do you spend on social media per day		
	Less than 1 hour	-	-
	2 to 3 hours	10	20
	4 to 5 hours	10	40
	More than 5 hours	30	60
3.	Do you access internet facility in the mobile for academic purpose		
	Yes	45	90
	No	5	10
4.	Are you often use your phone to		
	Calls	5	10
	Whatsapp	45	90
	Listen music	40	80
	Gaming	35	70
	Watching movie	10	20
	Social networking	20	40
	Photography & Tiktok	36	72
5.	Are you sleep with your mobile next to you		
	Yes	43	96
	No	7	14
6.	Do you use your phone when you are eating		
	Yes	35	70
	No	15	30
7.	Do you use your phone in the middle of the night		
	Yes	28	56
	No	22	44
8.	Are you aware about the possible health risk of using mobile phone		
	Yes	48	96
	No	2	4
9.	Is your concentration changes while using a mobile phone		
	Yes	35	70
	No	15	30
10.	Do you have sleep disturbances		
	Yes	30	60
	No	20	40
11.	Do get irritated while not able to use the mobile phone		
	Yes	38	76
	No	12	24
12.	Do you feel lonely are isolated if not using the phone		
	Yes	45	90
	No	5	10
13.	Do you feel your mobile phone is interfering with your studies		
	Yes	49	98
	No	1	2
14.	Do you think there is a chance of the learning negative influence by smart phone		
	Yes	10	20
	No	40	80
15.	Have you noticed any changes in your behavior in certain situation		
	Yes	30	60
	No	20	40
16.	Have you experienced any physical problems		
	Dry eye	35	70
	Neck Pain	40	80
	SMS thumb syndrome	20	40
	Any other	30	60

Table II shows that 100% of respondents reported that mobile phone is inevitable nowadays, majority (60%) were using mobile more than 5hours per day, 90% were access the internet facility in mobile phone for academic purpose as well as whatsapp and very less (10%) only using mobile phone to call. More

than 70% had the habit of sleep with their mobile next to them and used their phone while eating. 56% used mobile phone in the middle of the night and 98% were aware about the possible health risk of using mobile phone, approximately 70% had concentration changes while using a mobile phone, sleep disturbances and got irritated while not able to use the mobile phone. More than 90% felt lonely or isolated if not using the phone and usage of mobile phone interfering with studies. 80% thought that there is no chance of the learning negatively influence by smart phone and 80%, 70% , 40%, 60% reported that physical problems experienced are neck pain, dry eye, SMS thumb syndrome and other problems of head ache, fatigue respectively.

DISCUSSION

Mobile phones are used widely in our day-to day lives to stay connected anytime and anywhere with family members and friends. The recent mobile phones are incorporated with advanced features with fashion accessories like high resolution camera, high sound quality, 3G & 4G technology, and different kinds of apps and the list goes on. The latest mobile phones have highly influenced all classes of people and all age group from kids to old age and especially college going students. This present study analyzed the usage of mobile and its impact among undergraduate students and reported that majority felt that usage of mobile is inevitable and it's useful for academic as well as entertainment purpose. Many were aware about the potential risk of using mobile phone 60% were use mobile phone more 5 hours per day. 90% were using for whatapp, 80% for listening music, 70% for gaming and 72% for photography and only 10% were using to call often. The findings of the present study supported by the study conducted by Samuel Chris Quist *et al.*, who revealed that 20.0% of the respondent always listening to music on their mobile phones, playing games 7.9%, watching movie 2.0%, social networking 46.5%, work-related research 12.9%, educational related research 17.8%, religious programmes 3.2%, personal finance 15.0%, current events 3.2% and making and receiving calls 65.0% (Quist, S. C., & Quarshie, H. O. 2016). In another study by Sumathi *et al.*,, who explores the impact of Smart phone on academic performance of higher learning students and revealed high level of awareness about the usage of smart phones by higher learning students for their academic works as well as the results showcases that smart phones have tremendous impact on their higher education with easy internet access and high speed browsing as it saves time and money rather than going to cyber cafe/college library (Sumathi, K. *et al.,* 2018). In present study also highest participants were using mobile for academic purpose to refer the recent advancement, lecture notes, preparation for group discussion and research aspect. A study conducted by Naveenta Gupta *et al.,* who found that Total time spent on mobile phones was significantly associated with waking time tiredness and difficulty in waking up and highly significantly with decline in study habits, increase in missed classes, and going late for classes (Gupta, N. *et al.,* 2015). In the current study also participants had the habit of using mobile at midnight sleeping with mobile phone next to them but do not associate with the academic performance as such. Subramanian *et al.*,, who study mobile phone addiction behavior and awareness on electromagnetic radiation (EMR) and observed that the study participants were aware about mobile phone/radiation hazards and many of them were extremely dependent on smart phones and one-fourth of the study population was found having feeling of wrist and hand pain because of smart phone use which may lead to further physiological and psychological complication (Parasuraman, S. *et al.,* 2017). This finding is consistent with current study findings which found that many of the participants had either physiological problem like neck pain, dry eye or psychological problems such as sleep disturbances, lack of concentration, changes in behavior or both still they are highly depending on mobile phone. Sarwar *et al.,* who proved that Smartphone addiction is interfering with night's sleep (Sarwar, M., & Soomro, T. R. 2013). Similarly Fischer found that nearly 50% of those surveyed said, they wouldn't even think of going to bed without have their Smartphone's tucked under their pillows (Fischer, N., & Smolnik, S. 2013, January). Hence the study may be conducted extensively by associating the usage of mobile phone with academic performance and other parameters like radiation exposure.

CONCLUSION

The study findings concluded that the usage of mobile phone is increasingly and has impact on both physically and psychologically which affect their academic performance. This study is conducted in metropolitan city of Chennai hence similar study can be conducted in the rural area to compare the usage and impact on the mobile phone. The study findings also recommended to train more psychologists and psychiatrists and appoint them in the respective educational institutions could help students suffering from the usage of mobile phone associated disorders.

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CONFLICT OF INTEREST

The authors declare none

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