

## Addiction of Smart Phones Among Adolescents

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### ABSTRACT

This study aims to examine smart phone use patterns and smart phone addiction characteristics in adolescents. The study also demonstrates the effects of excessive usage of phone on their academics and in the sociological aspects of their life. The age group selected for this study are adolescents between 18-21 years. Mobile phone usage is so strongly integrated into young people's behaviour that symptoms of behavioural addiction, such as cell phone usage interrupts their day-to-day activities. Some mobile phone application usage while studying has negative effect on students' academic performance. Smart phones are undeniably convenient, helpful tools for study but also prove to be a hurtful source of distraction depending on the attitude and usage pattern of a student. Main aim of this paper is to review some aspects of the impact of phone on adolescent's life. There are several aspects such as- mobile phone addiction symptoms, negative effect of Mobile phone addiction on adolescents and role of Mobile phone addiction on adolescent's academics and social aspects.

**Keywords:** *Addiction, Smart Phones, Adolescents*

Smart phones are powerful communication devices that was first demonstrated by Motorola in 1973, and made commercially available from 1984. In the last few years, hand phones have become an integral part of our lives. The number of mobile cellular subscriptions is constantly increasing every year. In 2016, there were more than seven billion users worldwide. The percentage of Internet usage also increased globally 7-fold from 6.5% to 43% between 2000 and 2015. The percentage of households with Internet access also increased from 18% in 2005 to 46% in 2015.

Additionally, the addiction behaviour to mobile phone is also increasing. In 2012, new Time Mobility Poll reported that 84% people "couldn't go a single day without their mobile devices." Around 206 published survey reports suggest that 50% of teens and 27% of parents feel that they are addicted to mobiles. The recent studies also reported the increase of mobile phone dependence, and this could increase Internet addiction.

Teenagers are learning how to use cell phones and receiving their own at younger ages than ever before. Since teenagers have grown up in an era where cell phone use has been

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ingrained in them at such a vulnerable age, they are susceptible to developing an addiction to their smart phones or social media.

The human brain isn't finished developing until around the age of 25 years old. If a child or teenager suffers from cell phones addiction, it would have negative implications on brain development.

Research has revealed that there are a few adolescent personality traits associated with Internet addiction, which is closely related to smart phone addiction. These traits include.

1. High harm-avoidance: these individuals tend to be worrisome, fearful, pessimist and shy.
2. Altered reward dependence: the teen becomes dependent on rewards associated with the internet or cell phone as opposed to natural rewards such as spending time with friends and family, getting good grades or partaking in hobbies.
3. Low self-esteem and
4. Low co-operation.

Smart phone addiction is closely related to Internet addiction, which is considered an impulse-control addiction. Teens who are addicted to the Internet tend to experience the following-

1. Decreased brain connectivity in parts of the brain that regulate emotions, decision-making and impulse control.
2. An increased likelihood to consume alcohol and use tobacco.
3. An increased likelihood to have poor dietary habits.
4. Increased level of social loneliness.

Additionally, addiction to a smart phone could lead to a number of harmful ramifications such as-

1. Text neck: neck pain associated with looking down at a cell phone for too long.
2. Digital eye strain: burning and itching of eyes blurred vision associated with looking at a screen for at least 2 hours.
3. Car accidents: research has revealed that texting and driving is just as dangerous as drunk driving.

Teenagers utilise many different forms of social media such as Face book, Instagram, Snap chat and twitter that allows them to connect with their peers. While these applications provide the user with the ability to connect with others all around the world and access news and information they also can lead to compulsive and problematic cell-phone use, cyber bullying, and Face book depression a term coined by researchers to define the depression associated with excessive social media use.

If you suspect that a teenager is suffering from an addiction to his or her smart phone, there are some signs and symptoms to be on the look out for...

1. Anxiety
2. Depression
3. Significant weight change.
4. Change in diet.
5. Change in sleep patterns.
6. Fatigue.
7. Depressed or irritable mood.

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8. Flat effect or facial expression.
9. Little interest in activities they once found enjoyable.
10. Difficulty in paying attention.
11. Withdrawal from social interaction or activities
12. Neglecting other activities and is constantly on his or her phone.
13. Experiencing 'Phantom Vibration Syndrome' which means checking his or her phone when it hasn't vibrated or rung.
14. Using his or her cell-phone while driving or crossing the street.

Smart phone addiction is colloquially known as 'Nomo phobia' (fear of being without a mobile phone) and is often fuelled by an Internet over use problem or Internet addiction disorder. After all, it's rarely the phone or the tablet itself that creates the compulsion' but rather the games, apps and online worlds it connects us to.

While you can experience impulse control problems with a laptop or desktop computer, the size and convenience of smart phones means that we can take them just about anywhere and gratify our compulsions at anytime. In fact, most of us are rarely ever more than five feet from our smart phones. Like the use of drugs and alcohol they can trigger the release of the brain chemical dopamine and alter your mood. You can also rapidly build up tolerance so that it takes more and more time in front of these screens to derive the same pleasurable reward.

A new study by researchers from Baylor University in Waco-TX suggests a new form of dependence and is becoming an increasing concern i.e., cell phone or smart phone addiction. The study of teenage students found that 60% say they may be addicted to their smart phones and some say they become agitated if the phone is not near by.

Study results suggest that certain activities performed on one's smartphone are more likely to lead to dependence than others and that these addictive activities vary across gender. Additionally, time spent on a particular activity does not necessarily signal the activity's addictive potential.

The smartphone allows us the freedom to gather information, communication and socialize in ways only dreamed of before the discovery of cellular technology. The smartphones have become inextricably woven into our daily lives. Recently, Medical News Today reported on a study claiming cell phone use among college students is linked to anxiety and poorer academic performances.

Teenagers are spending an ever-increasing amount of time with technology. First it was the radio then the television and followed quickly by the Internet. The current day fascination with the smart phone highlights the technology that for better or worse, appears to be encouraging students to spend relatively more time with technology and less with fellow humans.

College students commonly view their cell-phone as an integral part of who they are and/or as an important extension of themselves. Many young adults today cannot envision an existence without cell-phones. Smart-phones are quickly replacing the laptops or desktop computers as the preferred method of accessing the Internet. A large per cent of Internet users access the web via their cell-phones.

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An increasing reliance on cell/smart phones among teenagers may signal the evolution of cell-phone use from a habit to addiction. Although the concept of addiction has multiple definitions, traditionally it has been described as the repeated use of a substance despite the negative consequences suffered by the addicted individual's. More recently, the notion of addiction has been generalized to include behaviours like gambling, sex, exercise, Internet and smart-phone use. Any entity that can produce a pleasurable sensation has the potential of becoming addictive.

Technological addiction is the subset of behavioural addiction and is defined as “non-chemical (behavioural) addiction that involves human-machine interaction”. As the cost of cell-phone use drops and the functionality of these devices expand, cell-phones have ensconced themselves into the everyday lives of consumers around the globe. In behavioural addiction features what many consider to be the core components of addiction are namely: silence, euphoria (mood modification), tolerance, withdrawal symptoms, conflict and relapse.

It is no big secret that teens have a complex relationship with technology. They are expected to use technology both in and out of the classroom to make the grade, they manage their social lives through various apps and social media platforms, and they use technology to stay organised and on top of their many activities. Today teens face intense level of pressure, sometimes their phone use is tied to recreational activities and can help them relieve stress, but other times they use their phones to keep up with their busy lives. Ensuring that kids technology use doesn't result in more stress for them isn't an easy task; there is no clean-out way to delete stressful technology activity.

Although there is no recognised “smart-phone addiction” diagnosis, it's natural for parents to wonder if teen's apparent obsession with a smart-phone qualifies as addictive. After all, it can be incredibly frustrating to attempt to hold a conversation with someone when they can't peel their eyes away from their phone. Given that teens use their smart-phones for a variety of reasons, both personal and academic, it helps to focus less on counting the minutes of use and more on how they use their smart-phones. Parents hear a lot about the importance of teaching balance, but part of evaluating for a healthy balance lies in understanding how teens actually use their phones and what purpose does it serve them. YouTube for example can be both recreational and academic.

Importantly, cell-phone addiction does not happen overnight and like most forms of behavioural addiction occurs via a process.

### **METHODOLOGY**

The study included a 13-question survey that asked questions about participants' daily use of smart phones, and hours spent using them. There was no time limit and the subject had to furnish his personal experience in the space provided. There were 60 participants in the study. They had to indicate their answers to each question by putting a (✓) mark on responses yes or no. The responses were analysed on the basis of number of (✓) mark in either of the columns.

### **Limitations**

- Only a small group of individuals who frequently use smart phones will be evaluated in this study.
- Every type of social interaction will not be measured.

## REVIEW OF LITERATURE

**A Study by Adriana Bianchi and Dr James G. Philips Ph. D (2005)** Using predictors from addiction literature, the study sought to predict problematic mobile phone usage. It keyed in on factors they believed to cause mobile phone disorder. 195 subjects of both genders and an average age of 20 (ranging from 18-21 years old) were interviewed. The results lead to the creation of the mobile phone problem use scale. This scale was compared to the addiction potential scale fundamentals that were used to compare the scales and create the mobile phone problem. Use scale were the time amount of time one uses their cell phone and the types of usage. The behavioural predictors that influenced the amount of cell phone usage were being extroverted, possessing low self-esteem. These characteristics were fundamental in determining problematic cell phone use. The study showed that these behavioural predictors did not influence the amount of cell phone usage, gender and neuroticism. The scale developed was designed to help with implementing any interventions for potential addictive behaviour.

**Hyun Young Koo and Hyun Sook Park (2010)- Study of Adolescence, usage of smart phones.** In which 548 students were asked to fill out a questionnaire regarding their cell phone use. The result of the questionnaires was that, just fewer than 89% believed they were average cell phone users. While 8.4% believed they were heavy users and only 2.6% believed they were addicted to the cell phones. This study found that gender, texting, monthly charges, impulsiveness, recreational and cultural reasons was all influential to cell phone addiction. There are some contradicting findings from Koo and Parks (2010 study) when compared c, PhD (2005) study. The biggest contradiction was that Bianchi and Dr. Phillip's study indicated that gender was not a predictor for problematic cell phone use, while Koo and Parks' did.

**X. Sanchez- Carbonell, M. Beranuy, M. Castellana, A. Khamarro and Uoberst (2008)** Say that cell phones can be used in a maladaptive way; however, this should be considered abuse and not addiction. Their study results continue to say that the Internet does pose addiction potential, but that cell phones do not, because their use does not promote in rapid emotional changes. Again, we see a different point of view to Bianchi and Dr. Philip's study results, in the sense that although cell phones were considered to be used, in an abusive manner, it was not considered addictive.

**Prof. Mufkhtar-Al-Hashimi** According to his study, addiction is the term, used to refer to loss of control over once behaviour, usually with negative consequences.

Information technology addiction is related to the obsessive and compulsive usage of information technologies such as smart phones, Internet, games or any other computing devices. These have changed commutation and interaction to the extent that a person can be addicted to this technology. Literatures reveal that IT addition by following symptoms-

- IT dominates a person's behaviour withdrawal, which indicates release of negative emotions when a person ceases using smart phone for a period of time.
- Conflict, which suggests that because of using IT other tasks or activities, is affected negatively.

Therefore, excess use of these platforms may result in health issues, social isolation and overall decrease in productivity. There is however no enough evidence in the study to support that information seeking has an affect on the smart phone addition as driving forces.

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Major benefits of this study pertain to the increased level of parents' awareness of smart phone addiction and the proposal use of smart phone applications to control utilisation of such technology by teenagers.

**Hafidha Suleiman Al- barashdi, Abdel Majid Barazza and Naeema H Jabur.** Smart Phone Addiction among University Students (UG)- it is based on literature published during the period 1996- 2013. The paper reviews the relation between smart phone addiction among undergraduates and their academic achievements. Finally significant differences in additions among undergraduates according to their gender, field of study, parent's education and family income level will be examined. Some studies have proved that gender and smartphone use are not significantly related. Some have found that humanity students have a higher addiction level than physical science students. So far little is known about the extent of relationship between socio-economic factors (Such as parental education and family income), mobile phone use behaviour and addiction among university students. The originality and value of the study identifies trends and problems and methodological issued regarding smart phone addiction among university students.

The study concludes a mixed investigation approach consisting of both quantitative and qualitative methods, recommended to provide a comprehensive understanding of addiction and its impact on students' academic achievements.

### *Hypothesis*

**1.Excess usage of smart phones affects the students academically as well as in sociological aspects.**

### *Data Sampling*

#### **Girls Sampling**

No of Girls	Score	Interpretation
30 girls	62	Low

**Discussion-** From the table it can be seen that the subject, 30 girls has obtained the scores 62 showing that usage of smart phone does not affect either her academic or sociological aspects of her. It can be deduced that she does not use her phone very often and she does not feel depressed, bored and anxious when she does not have her phone with her.

**Conclusion-** The hypothesis is not proven.

#### **Boys Sampling**

No of Boys	Score	Interpretation
30	280	High

**Discussion-** From the table it can be seen that the subjects has obtained a score of 280 showing high usage of smart phone, which has negatively influenced his sociological behaviour due to the contents shown on the internet like smoking, alcohol consumption etc. and that he will choose to use his smart phone than engage in physical exercise

**Conclusion-** The hypothesis is proven, since the effect is high

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### *Analysis of the Data*

The questionnaire was distributed among 60 students, 30 girls and 30 boys, the data collected for the girls' sampling shows that among 30 girls, for 20 girls the hypothesis, does usage of smart phones affects the students academically as well as in sociological aspects has not been proven and for one subject the hypothesis stands proven. However, when the data of boys sampling is analysed, it can be seen that 30 out of 25 boy are adversely affected both academics and sociological aspect.

### *Comparative Analysis*

The study shows that boys are more affected by the contents viewed on the internet when compared to girls. It can be seen that over usage of phones distracts them and hampers their work and study, influences them negatively and indulge in recreational activities. It also affects their social relations leading to some amount of deviance in their behaviour.

No of students	60
No of Boys	30
No of Girls	30
Total scores	342
Mean	117

The study concludes that boys spend more time on using mobile phones than girls. The table also shows the raw score and the mean score of the subjects who answered the questionnaire. The mean score of the group is 117, showing moderate influence on students of age group 18-21 years regarding academic performances and sociological aspects through usage of smart phones. This study proves that the hypothesis framed i.e., "excess usage of smart phones affects the students academically as well as in sociological aspects" is proved to an extent that it considerably affects, the subjects academically as well as sociological aspects. It shows that the hypothesis has been proven. Majority i.e., 5.7% of the respondents say that the frequent use of mobile phone sometimes interferes their learning, where as 4.3% are of the agreement that it also assists them in learning some times. The respondents are of the opinion that the usage of phone impacts on their ability to concentrate and it happens to them often. Also, that usage of smart phones during their study time distracts them some time. Majority of them are of the opinion that they get anxious, depressed, bored and lonely when their phone is not with them.

## **DISCUSSION**

Smart phones are mobile phones that perform many of the same functions as a computer, typically having a touch screen interface, Internet access, and an operating system capable of running downloaded applications. Smart phones have changed the way individuals interact and bond with the entire world around them. In most circumstances, smart phones engage individuals in many more ways than computers can. With the many social networking sites that are available and popular to younger individuals, there is a way to communicate through any medium, whether that is social networking websites, messaging, or e-mail communication. Although the social networking sites accessible to these smart phones have some positive effects, they also have their share of negative effects. The negative effects will be explored more in depth in this study.

From the study it can be established that the convenience of the smart phone are all factors that contribute to an individual's dependence on the smart phone that they possess. People,

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in this day and age, are attached to their smart phones and use them to access any information they may need. Social needs are the strongest force that allow students and people in general, to be most dependent on the smart phones. This dependence on social networking sites and smart phones for facts and different issues occurring could be misleading, because there is information that is not completely reliable on these websites. Since so many individuals are so vulnerable to information they find through these mediums, it is becoming more difficult for them to distinguish what is real and what is not. Smart phones and social media that is associated with them, can also serve as a “distraction” to the individuals who rely on it the most. In addition, it can “decrease productivity” among the students who are consumed by it.

According to data analysis above, it is now easy to draw conclusion on the impact of smart phone on the academic performance of higher learning students, in which the results has revealed that the smart phone brings negative results or progression on students’ performance academically. So, there is a need to evaluate and understand better the use of smart phones for higher learning students because students make their own choice and preference on which mobile application to use.

The study conducted also demonstrates that, there is a negative correlation between addiction to cellular phone and academic success and between addiction to cellular phone and the level of depression. The first and the foremost negative impact associated with the excessive use of mobile phones or sophisticated versions on smart phones is the academic performances of students can get impacted very badly. One can get easily distracted and carried away by instant chats, memes, watching Face book and downloading apps. This can invariably have its own set of consequences when it comes to achieving robust performances in academics. There are students who download educational apps too to help them cope up with their studies in a better manner, but how many uses it effectively is always a question.

### CONCLUSION

Though there are both good and bad influences of smart phones, the social aspects are steadily changing and making it more difficult to maintain regular social lives with the heavy reliance on smart phones. There are several impacts that these smart phones have on individual’s lives, and will continue to have as the capabilities grow every day. It is concluded that, mobile phone usage significantly influences academic performance among male and female adolescents, age difference was not a significant factor in mobile phone usage on academic performance among adolescents.

### *Recommendation*

For the student grade to improve even though they are with their smart phones, some restrictions must be made on the usage of smart phone like making regulations that no student is allowed to enter into lecture room with his/her smart phone switched on in order to make them concentrate on listening and taking notes from the lecturer.

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