



A Study of Mobile Phone Addiction Among Adolescents

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Abstract:

Mobile phones have become an essential accessory for most of the people around the World. As an integral part of the modern world, mobile phone acts as our navigator, personal assistant, and entertainment source. Many mobile phone users can regulate the amount of time they spend staring at their screen. They are still able to engage in social situations and pay attention to their surroundings without the urge to check their phone. However, some users have become addicted to their mobile phones. They find it difficult to interact with the world around them and spend more time on their smartphones even at social events than chatting with friends. Every mobile phone user is at risk of developing an addiction to their device. Adolescents are found to be more likely to become addicted to this device than any other age group. The present study explores the level of mobile phone addiction among adolescents. It also compares the adolescents' mobile phone addiction on the basis of their gender and residential background. A sample of 200 adolescents studying in 9th class in schools of Malerkotla district of Punjab State was taken for the study. Mobile Phone Addiction Scale by Velayudhan & Srividya (2012) was used to collect the data. The data was analyzed by employing t-test. The results of the study showed no significant gender differences in mobile phone addiction among adolescents. But there was significant difference in mobile phone addiction of adolescents belonging to rural and urban areas, urban adolescents showing higher addiction to mobile phone as compared to their rural counterparts.

Keywords: Mobile Phone Addiction, Adolescents

1 Introduction

Mobile phones are powerful communication devices, first demonstrated by Motorola in 1973, and made commercially available from 1984 (Cooper, 2016). In the last few years, mobile phones have become an integral part of our lives. People spend their time more likely on social media, do business emails, academic search, finding answers to questions, and playing games. In recent years, most of the global populations (especially college and university students) use smartphones due to its wide range of applications. Over the last two three decades, mobile phones have become the dominant form of telecommunication technology. It is now well recognized that ICT based capture, processing, storage, organization and presentation of data and information facilitates a freer flow of information affecting all facets of modern life including mobile information systems, mobile payments, mobile commerce, mobile television and mobile government. Mobile phones are not just restricted to communication but have started playing major role in areas of social development, increasing quality of life, providing education, aiding financial inclusion, supporting law enforcement and in increasing social awareness. While beneficial in numerous ways, smartphones have disadvantages such as reduction in work efficacy, personal attention social nuisance, and psychological addiction (Jeong & Lee, 2015). Mobile phones make our lives easier, but on the other hand, it ties us. Every cell phone user is at risk of developing an addiction to their device. Whether it's online games, social media, text messaging, or emails, there are many ways that smartphone apps attract users and make it hard to look away. Adolescents are more likely to become addicted to cell phones than any other age group. According to a study published in *Frontiers in Psychiatry*, adolescents under 20 years old are the most at-risk for cell

phone addiction because this age group is more likely to experience behavioral problems. Teens can't always manage screen time effectively, and are also the group known for spending the most time on their phones, mostly because they haven't developed self-control skills yet. A study has reported that about 27% of smartphone owners between 11 and 14 years old never turn their cell phones off, even to sleep. Mobile addiction not only has physical effects but also psychological and academics effect at the same time. Over usage of mobile phones causes psychological illness such as dry eyes, computer vision syndrome, weakness of thumb and wrist, neck pain and rigidity, insecurity, delusions, auditory sleep disturbances, insomnia, hallucinations, lower self-confidence, and mobile phone addiction disorders (Peraman & Parasuraman, 2016). Excessive use of Mobile phone reduces thinking capabilities, affect cognitive functions, and induce dependency among adolescents. Some of the signs of smartphone addiction are constantly checking the phone for no reason, unable to cut back on cell phone usage, feeling anxious or restless when phone is out of reach/range, using cell phones as a solution to boredom, 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, 2016). Salvatore Insigna, a neurosurgeon at Northwell Health's Neuroscience Institute in Manhasset, New York, considered that nonetheless that there is no solid proof between cell phone radiation and tumor risk but the possibility still exists. Adolescents are at high risk of being smartphone addicts (Cha and Seo, 2018).

There are research results that show smartphones cause attention deficit disorder. Mobile phone addiction is a dependence syndrome which can be seen among certain mobile phone users. Mobile phone addiction, also referred to as problematic mobile phone use, is a type of behavioural addiction which leads to serious health hazard or danger to one's psychological health and wellbeing. These behaviours consist of symptoms like being preoccupied with mobile communication, too much of money and time spent on using mobile phone, using of mobile phone in a socially or physically inappropriate situation such as driving an automobile, having face to face interaction with someone.

A mobile phone addict uses the cell phone for a long span of time in order to achieve pleasure and satisfaction; repeated unsuccessful attempts to control or stop using the cell phone makes him feel lost and blank, impatient, apprehensive, irritable, low or prickly when attempting to curb the use of cell phone; engaged in the cell phone longer than usual: conceal from family and friends, etc. to disguise or deceive the extent of engagement with the cell phone; and using the cell phone as a means of breaking away and ignoring the existing problems or to get temporary relief from the feeling of seclusion, nervousness, solitude and dejection (leung, 2013).

The youth and the adult are the most susceptible to develop mobile phone addiction because they are considered to be the extensive users of digital technology. They use their mobile phones not only to make phone calls but also to send the text messages, to click photos or to record videos, to listen to music, to watch videos, to interact, to communicate with family and friends, to browse, to play games, to manage their everyday life and to learn. Addiction is evident when this obsession disrupts the more important things in life like personal relationships, schooling, or jobs. Shy and low self-esteem people are more likely to become cellular addicts, spend more money and time on mobile phones use and more vulnerable to have negative emotions, sleep disorders and mental disorders (Bhardwaj, et al, 2015). These addicts distract from realities, have worries and fears, feeling of depression and can have a counterproductive effect. The longer time they spend online, the higher their stress level will be. Psychiatrists even consider very much internet chatting to be an Obsessive- Compulsive Disorder.

Haug et al. (2015) conducted a study on a sample of 1519 students from 127 Swiss vocational schools and found that smart phone addiction was more prevalent in younger adolescents compared with young adults.

Enez Darcin, et al. (2016) studied the relationship of smart phone addiction with social phobia and

loneliness on a sample of 367 university students in Istanbul, Turkey. The result of the study indicated that social phobia was associated with the risk for smart phone addiction in young people, they had successive pattern of smart phone use.

De-Sola Gutiérrez et al. (2016) revealed that the problematic cell phone usage had been associated with sleep deficit, depression, anxiety, and stress.

Choi et al. (2015) found in their study that the risk factor for smart phone addiction was more in female gender and internet addiction risk was more in males.

Dikec et al. (2017) studied the relationship between smart phone addiction and loneliness in a group of high school students in 'Izmir'. The study found that the students who feel a sense of loneliness tend to use smartphone a lot and are at risk of smart phone addiction.

Yildiz et al. (2017) studied to examine the strategies of adolescence emotional regulation to predict the internet and smart phone addiction on a sample of 262 high school students (132 female and 130 male) aged 14-19. It was revealed that internal/external dysfunctional emotion regulation predicted both the smart phone and internet addiction.

Yang et al. (2018) in his study on a sample of 218 adolescents found that adolescent females as compared to adolescent males exhibited significantly higher degree of smart phone dependence and smart phone influence.

Zou et al. (2019) conducted a study to investigate the prevalence of hypertension and its association with smart phone addiction among junior school students in China. A sample of 2639 junior school students (1218 boys and 1421 girls) were used. It was found that smartphone addiction was new risk factor for high blood pressure in adolescents.

Pereira et al. (2020) investigated the association between problematic smart phone use and mood. The sample consisted of 208 boys and 359 girls aged 13-18 years. The study found that physically inactive adolescent students were more likely problematic smart phone users than those who were physically active.

Liu et al. (2020) conducted a study to explore association between subjective social status and smart phone addiction tendency as well as the mediating effect of relative deprivation. A sample of 1636 high school students from 'Hubei' province of China participated in the study. The findings revealed that both high and low level of subjective social status would lead to smart phone addiction tendency.

Mobile phone is the most dominant portal of information and communication technology. Mobile phone addiction and withdrawal from mobile network may increase anger, tension, depression, irritability, and restlessness which may alter the physiological behavior and reduce work efficacy. Hence, the present study was planned to study the addiction behavior of mobile phone usage among adolescents.

2. Statement of the Study

A Study of Mobile Phone Addiction Among Adolescents.

3. Objectives of the Study

- 1.To study the Mobile Phone Addiction Among Adolescents.
- 2.To compare Mobile Phone Addiction among adolescents across gender and locale.

4. Hypotheses of the study

- Ho₁:** There is no significant difference between male and female adolescents on Mobile Phone Addiction.
- Ho₂:** There is no significant difference between rural and urban adolescents on Mobile Phone Addiction.

5. Delimitations of the study

- 1.The study was delimited to the adolescents studying in the schools of Malerkotla district of Punjab State only.
- 2.Only adolescents studying in 9th standard were included in the study.

6. Research Method Used

In this study, the descriptive survey method was employed. School students of Malerkotla district have been taken to find out the mobile phone addiction among adolescents. Groups were made on the basis of locale and gender.

7. Universe of the Study and the Sample

Adolescents studying in ninth class in the schools of district Malerkotla of Punjab State constituted the Universe of the study. The schools were selected as per the convenience of the investigator and a sample of 200 students was selected with randomization technique of sampling.

8. Research Tools Used

1. Mobile Phone Addiction Scale (MPAS) by Velayudhan & Srividya (2012).

9. Statistical Techniques Used

The statistical techniques used to analyze the data were:

- 1.Descriptive statistics: Mean and S.D were used to describe the variable.
- 2.‘t’-test was employed to compare male and female; and rural and urban adolescents on the variable under study.

10. Analysis of the data

1.Mobile Phone Addiction Among Adolescents.: A Descriptive Analysis

The Mobile Phone Addiction scores of total samples (N= 200) are presented in the form of frequency distribution in table 1.

Table 1: Frequency Distribution of Mobile Phone Addiction Scores of Adolescents.

Class Interval	Frequency	Cumulative frequency	Percentage	CPF
160-169	4	200	2	100
150-159	12	196	6	98
140-149	34	184	17	92
130-139	38	150	19	75
120-129	60	112	30	56
110-119	35	52	17.5	26
100-109	10	17	5	8.5
90-99	5	7	2.5	3.5
80-89	2	2	1	1

Mean	Median	Mode	S.D.	Skewness	Kurtosis
129.46	130.83	133.57	15.33	0.09	0.296

Mobile Phone Addiction scores range from 80-169 on a scale ranging from 1-185. The table 1 reveals that the mean score on mobile phone addiction of adolescents is 129.46 with S.D. 15.33. The distribution of scores indicates that 30 % of the adolescents lie in mean interval i.e. 60 adolescents have average level of mobile phone addiction. It may be observed from the table that 26 % of the adolescents have scores less than mean interval and 44% have mobile phone addiction scores higher than the mean interval. It can be inferred that most of the adolescents show above average level of mobile phone addiction.

2.Mobile Phone Addiction Among Adolescents: A Comparative Analysis

2.1Significance of Difference between Male and Female Adolescents on Mobile Phone Addiction

Table 2 shows that mean score of male and female adolescents on mobile phone addiction scale is 130.54 and 129.23 respectively and their S.D is 14.21 and 14.72 respectively. The value signifying the difference between the means of mobile phone addiction scores of male and female adolescents is 0.64 which is not significant even at 0.05 level of significance.

Table-2: Significance of Difference between the Means of Mobile Phone Addiction Scores of Male and Female Adolescents

Groups	N	Mean	S. D.	S. E _d	t-value
Male	100	130.54	14.21	2.05	0.64 NS*
Female	100	129.23	14.72		

*NS not significant

Therefore, it can be said that hypothesis 1 stating “there is no significant difference between male and female adolescents on mobile phone addiction” is accepted. Male and female adolescents do not differ significantly on their mobile phone addiction. It can be said that male and female adolescents possess almost same level of mobile phone addiction.

2.2 Significance of difference between Rural and Urban Adolescents on Mobile Phone Addiction

Table 3 shows that mean score of rural and urban adolescents on mobile phone addiction scale is 127.23 and 133.97 respectively and their S.D is 13.80 and 15.72. The value signifying the difference between the means of mobile phone addiction scores of rural and urban adolescents is 3.22 which is significant at 0.01 level of significance.

Table-3 Significance of difference between Means of Mobile Phone Addiction Scores of Rural and Urban Adolescents

Groups	N	Mean	S. D.	S.E _d	t-value
Rural	100	127.23	13.80	2.09	3.22**
Urban	100	133.97	15.72		

** significant at 0.01 level of significance

Therefore, it can be said that hypothesis 2 stating “there is no significant difference between rural and urban adolescents on mobile phone addiction” is rejected. Rural and urban adolescents differ significantly on their mobile phone addiction, adolescents belonging to urban areas showing higher addiction to mobile phone than their rural area counterparts.

11. Conclusions

1. The study shows that 30% of the adolescents have average level of mobile phone addiction, 26% of the adolescents have below average level of mobile phone addiction and 44% of the total sample of adolescents have high level of addiction to mobile phones.
2. Male and female adolescents do not differ significantly on their mobile phone addiction.
3. Rural and urban adolescents differ significantly on their mobile phone addiction, adolescents belonging to urban area showing higher addiction to mobile phones as compared to those belonging to rural areas.

12. Educational Implications

The study results showed that a significant number of adolescents had addiction to mobile phone usage, but they were not aware of it as mobile phones have become an integral part of life. Mobile phone abuse is rising as an important issue among the world population causing physical problems such as eye problems, muscular pain, and psychological problems such as tactile and auditory delusions (De-Sola, et al, 2017). Along with mobile phone, availability of Wi-Fi facility in residence place and work premises also increases mobile phone dependence. The continuous and constant usage of mobile phone reduces intellectual capabilities and work efficacy. Researches have shown that people affected by mobile phone dependence have difficulty in focusing on work and are unsociable, eccentric, and they use phones in spite of facing hazards or having knowledge of its harmful effects.

We are social creatures. We are not meant to be isolated or to rely on technology for human interaction. The adolescents should be made to interact socially with other persons face-to-face—making eye contact, responding to body language so that they can feel calm, safe, and understood, and

quickly put the brakes on their stress level. They should be made to realize that interacting through text, email or messaging bypasses these nonverbal cues so they won't have the same effect on their emotional well-being. Besides, online friends can't hug them at the time of crisis, visit them when they are sick, or celebrate a happy occasion with them. Parents and teachers should help the adolescents to set aside some time daily for their friends and family. They should be made to join a sports team or book club, enrolled in an education class, or volunteer for a good cause. They will be able to interact with others, let relationships develop naturally, and form friendships that will enhance their life and strengthen their health.

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