



## HEALTH EFFECTS OF THE USAGE OF MOBILE PHONE OF STANDARD XI STUDENTS

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### ABSTRACT:

Mobile phones have become increasingly popular in current scenario, especially among young generations. As these gadgets are not only convenient, but attractive too for young minds that are becoming more and more dependent on them. The present study is conducted on health effects of the usage of mobile phone among students. The study probes the ill effects of radiations emitted by mobile phone. It can be extremely harmful causing tumors, memory loss, depression, stress, vision problem etc., among students. The study has been conducted among standard XI students of seven different schools in Tiruvallur district, from urban and rural backgrounds. The findings revealed that girls have higher health effects than boys, urban students have higher health effects than rural students, Government aided management school obtained higher health effects than government and self-financing management school and Girl's school obtained higher health effects than boys and co-education school on the usage of mobile phone. This study confirms that the younger generation, who are the most frequent mobile phone users need an awareness about the health effects of mobile phone usage and should take preventive measures to reduce and control the same.

**KEYWORDS :** Mobile Phone, Health effects.

### INTRODUCTION

The concept "mobile phone" and the research on it reflects investigator's personal undertaking to comprehend the health effects of the usage of mobile phones on students. Mobile phone uses electromagnetic waves which are transferred to the body through radio-frequency and microwave signals that in turn causing health problems especially affecting neurons concerned with hearing. Students spend their valuable time over mobile phone instead of their studies. Over usage of mobile phone leads to many negative impact on students' health. It leads to deafness, blurring of vision and migraine. Using mobile phones all day long are prone to high blood pressure and other symptoms such as hot ears, burning skin, headache and fatigue. The World Health Organisation (WHO) has classified mobile phone radiation on the IARC scale into Group 2B - possibly carcinogenic, which means "could be some risk" of carcinogenicity. Many national radiation advisory authorities have come up with recommendations as a precautionary approach against health hazards caused by mobile phone usage.

### ADVERSE EFFECT OF MOBILE PHONE

Children are at a greater risk of procuring diseases from the excess usage of mobile phones because their skull is very thin compared to adults. Students who are in adolescent age using mobile phones beyond the limits run into a major risk of procuring brain damage, due to increased heating of brain cells. A study by the Centre on Media and Child Health found that teens that excessively use mobile phones may be more

prone to depression, anxiety and low self-esteem. Students develop dependency over the mobile phone and get a sense of ill-being when they forget to carry with them. They have a feel that, they have missed something that is never recoverable and get disturbed academically. Students, who excessively use mobile phones, are prone to lose, sleep which leads to more stress and fatigue. Reduced sleep over a period of year may lead to cognitive problems and an inability to perform task effectively. Breast cancer among women, tumours among adults and nasal bleeding among young school children were some of the other health issues that were attributed to excessive use of mobile phone that were in proximity for over 15 years. Radiation from cell phones is not only associated with cancer but also with chronic diseases like heart problems. A study published in European Journal of Oncology states that, radiations emitted by mobile phone, contribute to abnormalities in heart function. Students use their mobile phones to read e-books; do web surfing, playing games apart from texting. It leads them to suffer from chronic eye sight problem and other diseases pertaining due to the strain on their eyes, especially when they read small fonts in the dark. Mobile devices have a smaller screen so it tends to squint or open up the eyes wide and blink lesser number of times. This can cause dry eyes, irritation and reddening.

### NEED OF THE STUDY

World has become digitalized. Even before entering school, children are exposed to use mobile phone. Mobile phone is meant for communicating with others. But students are using it for playing games, hearing music, sharing messages, pictures and videos in WhatsApp, Facebook, and Twitter. The fantasy world present within it makes them get addicted to it. But this inadvertent and inappropriate use of mobile phone poses a risk to healthy life among children.

### OBJECTIVES

- To find out the health effects of the usage of mobile phones of XI standard students based on gender, locality, type of management, and type of school.

### HYPOTHESES

1. There is no significant difference in the health effects of the usage of mobile phone of XI standard boys and girls.
2. There is no significant difference in the health effects of the usage of mobile phone of XI standard students with respect to locality.
3. There is no significant difference in the health effects of the usage of mobile phone of XI standard students with respect to type of management (Govt./Govt. Aided/Self-financing).
4. There is no significant difference in the health effects of the usage of mobile phone of XI standard students with respect to type of school (Co-Education/Boy's & Girl's School).

### METHODOLOGY

The present study is based on survey method. In the present investigation, the investigator had chosen the rating scale as a tool for collecting information about a study on health effects of the usage of mobile phone on standard XI students. The survey instrument was prepared meticulously, keeping students' comprehension in mind. There were 20 statements prepared and submitted to the experts in the field of education. Finally 15 statements were finalized for survey based on radiation, thumb sprain, eye problem, depression, stress, memory loss. The tool with 15 statements was subjected to pilot study to check the reliability and validity. The reliability coefficient of the score of thirty students was found to be 0.68. Validity was found to be 0.824. Purposive random sampling is the sampling technique used in the study. The size of the sample was 320 in which 140 were boys and 180 girls. The sample was selected from seven different schools situated in Tiruvallur district.

**Data Analysis****Table 1: Health Effects of Usage on Mobile Phone on Standard XI Students based on Gender**

Gender	N	Mean	SD	t-value	P-value	Remark
Boys	140	52.6857	7.27871	2.881	0.004	Significant @0.01 level
Girls	180	54.9667	6.82331			

Table-1 depicts that the t-value 2.881 is significant at 0.01 level. Hence, the hypothesis-1 is rejected. Thus there is significant difference in health effects of the usage of mobile phone of XI standard students based on gender. By comparing mean values, girls have higher health effects than their counterparts.

**Table 2: Health Effects of Usage on Mobile Phone on Standard XI Students based on Locality**

Locality	N	Mean	SD	t-value	P-value	Remark
Urban	159	55.2830	7.14509	3.340	0.001	Significant @0.01 level
Rural	161	52.6708	6.84450			

Table-2 shows that the t-value 3.340 is significant at 0.01 level. Hence, the hypothesis-2 is rejected. Thus there is significant difference in health effects of the usage of mobile phone of XI standard students based on locality. By comparing mean values, urban students have higher health effects than their counterparts.

**Table 3: Health Effects of Usage on Mobile Phone on Standard XI Students based on Type of Management**

Government (1)		Government Aided (2)		Self-financing (3)		F	P	Group Differed Significantly
Mean	SD	Mean	SD	Mean	SD			
53.0286	7.37519	56.8400	5.56690	51.0778	7.29203	20.887	0.00	(1,2) (2,3)

Table-3 depicts that there is significant difference between government and government aided management school and government aided and self-financing management school on health effect of usage of mobile phones. Government aided management school stands in the first place who are vulnerable to highest health effects on the usage of mobile phone than government and self-financing management school. Secondly, Government management school stands in higher health effects followed by Self-financing school.

**Table 4: Health Effects of Usage on Mobile Phone on Standard XI Students based on Type of School**

Girls (1)		Boys (2)		Co-Education (3)		F	P	Group Differed Significantly
Mean	SD	M	SD	M	SD			
56.0845	6.17309	54.0426	5.54412	53.290	7.5939	4.399	0.013	(1,3)

Table-4 shows that there is significant difference between girls and co-education school on the health effects on the usage of mobile phones. Girl's school stands in the first place who are vulnerable to highest health effects on the usage of mobile phone than boys and co-education school. Secondly, boy's school stands in higher health effects followed by co-education school.

## FINDINGS

- There is significant difference in the health effects of the usage of mobile phone of XI standard students in terms of gender and locality.
- Government and self-financing as well as self-financing and govt. aided schools are significantly differ from each other and there is no significant difference between government and self-financing management of school on the usage of mobile phone on standard XI students.
- There is significant difference between girl's school and co-education school and there is no significant difference between girls and boys as well as boys and co-education school on the health effects on the usage of mobile phone on standard XI students.

## CONCLUSION

In this fast moving world, mobile phones and its usage is an unavoidable for everyone. And every day the technology is growing. Now we have the world in our finger tips. The purpose of usage varies from one person to another and these studies would help to identify that. Since the usage of mobile phone among the students has been increased to great extent, our interest is to focus more on the scope through which we can know about the students approach towards mobile phone and how much it has influenced their life. This study confirms that the younger generation, who are the most frequent mobile phone users need an awareness about the health effects of mobile phone usage and should take preventive measures to reduce and control the same.

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