



ORIGINAL RESEARCH PAPER

Management

A STUDY OF IMPACT OF EXCESSIVE SMART PHONE USAGE ON HUMAN HEALTH

KEY WORDS: Mobile phone; Human health; Diseases

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ABSTRACT

This paper is about the excessive usage of smart phone human health. The result of this research is conducted on the basis of quantitative data collected from medical practitioners. There are so many diseases can occurred by excessive usage of mobile phone but we have included only three diseases i.e. Brain tumor, male infertility and ear impairment. In conclusion, doctors have given their own ideas about the effects of mobile phones on the human.

I.INTRODUCTION

The wireless technology was invented in the year 1880 by Alexander Graham Bell and Summer Tainted when first time the smart phone was invented . In the today's era, there are dissimilar types of smart phones which are used for communicating with each other. Apart from communication, smart phones are also a part and parcel of everyday life all over the world. The Wi-Fi technology are used to exchange the information and data by using the smart phones. This Wi-Fi device also produces the radio waves. [Wireless devices](#) like cell phones, tablet PCs, audio players, digital cameras and the PC, all devices being used Wi-Fi.

The radiations utilize the frequency range from 3 kHz to 300 GHz, which consists of different wireless devices. For instance, a laptop is connected to the Wi-Fi and it is placed on laps in the distance of 60 cm, it is very harmful . With the rapid growth of mobile phone device, the technology developed an alarming situation for the normal functioning of the biological systems of the human body and lead to serious ailments such as: diseases of brain like cancer, brain tumor and so on. Also it can harm the short term effects like hormone disruption, sleep disruption, on cent ration, impairment of cognitive function, behavior, attention and long term effects like DNA damage, Male infertility .

For children, the wireless devices are more serious because they have thinner bony skulls and their neural systems are thin. The network developed during the installation of WLAN by using the router, transmitter, receiver and the admission levels are solid and all the devices communicate with each other through it.

II.IMPACT OF SMART PHONE ON HUMAN HEALTH

In present situation, smart phones are being used everywhere because these devices do not use the physical cable/wire which is important for the communications purposes where smart phones requires for the electromagnetic radiation for receiving and transferring the data in the air; either it is a network or a sound data. These radiations are harmful which effects to the human health because such type of radiations are available everywhere and their existence cannot be felt.

These radiations also enter in the body and they affect the cell structure and the DNA. The different types of radiations are being used for connecting the smart phones with each other and each type of radiation having own frequency and wavelength, the frequency mostly ranges from 3 kHz to 300 GHz. There are several devices such as cell phones, wireless router, tablet PC, cell telephone tower, wireless hand free, Bluetooth device, audio player, laptop connected to the wireless router (Wi-Fi) also give off harmful radiations which can contribute too many harmful diseases such as Brain Tumor, Male Infertility, and Ear Hearing Impairment, effect on the fetus, asthma, Heart trouble, insomnia, high blood pressure, leukaemia, birth defects, Immune system, and rheumatoid arthritis. These Radiations are also causes of some symptoms which are: headache, sleep disruption, tiredness, and so on DNA damage can also happen because the wireless radiation which given off by the mobile phone devices during transferring data between sender and receiver . The study is aimed with the

help of doctors . This survey contains some of the diseases which are induced by these radiations like male infertility, brain tumor and the ear hearing impairment.

III.DISEASES INTRODUCTION

Male infertility: The reproduction is a lifelike experience for couples. Nevertheless, it is very hard to contrive for the child. Basically the infertility is a wider problem in the universe due to different causes. The male infertility problem creates the sperm production (sperm production in low number) or the transfer process of sperm. The infertility problems are sperm motility, sperm count, sperm morphology, functions of sperm, impaired Leydig cell, Sertoli cell, abnormality of sperms, to stop delivery of sperm, a chronic health problem . The causal agent of male infertility is because of testicular impairment resulting in the testicles not producing the sperm cells, the infertility of man includes the imbalance of hormone, behavioural problem and psychological troubles. The negative impacts on male fertility are smoking, use of drugs, alcohol abuse, tight underwear, radiation exposure, pesticides, paint, lead, and radioactive.

Brain tumor: It is a mass of tissue which is abnormal and in this condition the body cells die and replaced by the cells and other tumors. The abnormal cells grow and they produce a flock which is named as the main neoplasm. These come out of the several cells, which constitute the brain, CNS (Central Nervous System). There are several cases of brain tumors such as astrocytic and the gliomas tumors. There are two types of Brain Tumor: Malignant Tumor (Cancerous Tumor)

Malignant Tumor (Cancerous Tumor): The malignant tumor is a cancerous tumor that is either primary or secondary. The malignant tumor can be elementary or secondary brain tumors. It starts in the mind. The primary malignant brain tumor is fast growing tumor than the secondary malignant brain tumor where immediate treatment is important for primary malignant tumors because it can open rapidly and damages the spinal cord and other regions of the head.

Benign tumor (Non-cancerous tumor): The Benign tumor is noncancerous tumor means that stay in one spot and do not attack the other region of the head or body. It is a very slow growing brain tumor. It can be removed by the treatment and not come back. The brain tumor can occur at any age and the cause of brain tumors has been still not solved. In that respect are various symptoms of brain neoplasms that are: numbered, headache, seizures, mood changes, memory trouble, trouble walking, hearing, visual sensation, vomiting and nausea. The brain tumor is divided into two grading which are:

Low grade tumors: The low grade brain tumor's grade 1 or 2 which are slow in growing and facing pages. These contain freely malignant cells, that means to detain in the one place and do not engage the other body sections and regions of the head. The level 2 is glamorous that will arise after the discussion.

High grade tumors: The high grade brain tumor's grade 3 or 4

that is either primary tumors or secondary tumors. There are several cases of primary high grade tumor, according to the case of the brain cells. The Glioma is also the case of primary high grade brain tumor that can be either grade 3 or tier 4. The more immediate treatment for the high grade brain tumors is important, it can propagate rapidly and damages the spinal cord and other regions of the head. The discussion of secondary brain tumors will vary according to the type of tumor like (breast, lung, etc.) [7].

Ear hearing function: Hearing problem usually develops according to the age and it can occur due to the loud disturbance. In that respect are different cases of hearing problems which creates trouble in hearing means the people cannot listen clearly and they continue on asking people again and again. One of the cause of hearing loss is listening to the music with high bulk. The classification of hearing loss can be sensory, conductive, neural, mixed hearing loss. The hearing loss may be one-sided (single spike) or may be bilateral (both ears). That point having some degree losses that are (Deaf/Deafness, Hard of hearing, Hearing Impaired, Residual hearing) [8].

Conduct: Conductive loss of hearing is caused by disease or barrier in the center or outer ear that often disturb all the hearing frequencies.

Syndrome: The Hearing loss defects took place with the other birth, such as Pendred syndrome can have effect on hearing function, balancing in hearing sense. Ring loss that occurs when a child had a bun in the oven.

IV. DATA COLLECTION

Data collection was started from October 2015 to February 2018 from different hospitals. The questionnaires were distributed to all doctors and also interviewed for data collection around the effects on Mobile phone on the human health.

V. RESULTS

150 medical doctors were interviewed about the effects of mobile phone devices on the human health. From the source of patients in their treatment, 97% medical doctors reported positive effects of mobile phone on human health and 3% medical doctors were reported negative effects of mobile phone devices on the human Health. The Results are exposed in the below **Figure 1**.

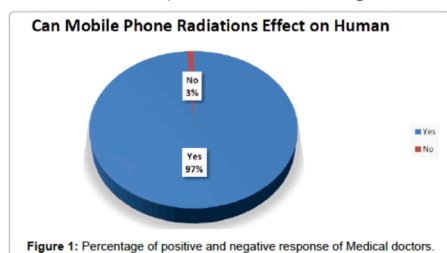


Figure 1: Percentage of positive and negative response of Medical doctors.

Agreeing to this survey of Medical Doctor's the disease cause by mobile phone devices are Brain Tumor 74%, Male Infertility 37%, Heart Disease 45%, and Effect on Fetus 21%, Ear Hearing Function 80%. These results are evidenced in the below **Figure 2**.

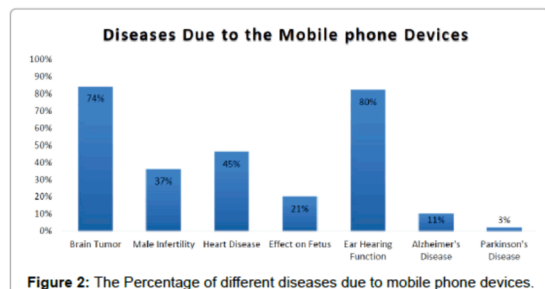


Figure 2: The Percentage of different diseases due to mobile phone devices.

According the survey from different doctors of hospitals, the using of mobile phone leaving chronic disease like: Brain Tumor (76%), **Male Infertility** (38%) and Ear impairment (91%). The following **Figure 3** shows results:

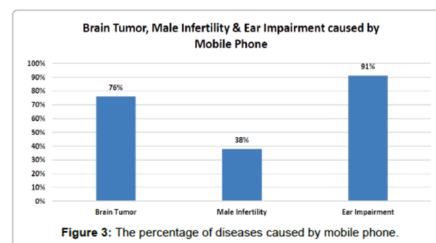


Figure 3: The percentage of diseases caused by mobile phone.

I. DISCUSSION

Comparatively space below the study has not been explored for the investigation of the potential of the results of radiations emitted by mobile phone. With slight variation gift study confirms the harmful effects of the radiation on human of the individuals of space handicapped for the study as discovered by medical doctors. Purposefully, correct study aimed to make awareness among the individuals in journal and therefore, the individuals living within the space below the study, to avoid the employment of such devices that is concerned within the onset of draining diseases mentioned in our study. Our study has discovered. The survey results from the doctors indicates regarding several dangerous results linked with the use of cellular phone on human health, this device release different types of diverse rays which affect the human Health. These rays damage the human body DNA when they penetrate in it. The doctors have given the 97% optimistic response in support of dangerous effect for which they are treating above stated patients.

II. CONCLUSION

It is concluded that by usage of the mobile phones three diseases such as the brain tumor, male infertility and ear hearing function can be affected on human health. Agreeing to our survey from the various hospitals, it found that the use of smart phones are more dangerous on human health, as doctors believed that all wireless devices are accountable for the development of diseases of brain tumor, male infertility, hearing function. It is advised that one should keep away from the use of smart phone or decrease its usage as low as possible because it may affect the human.

RECOMMENDATIONS

- Do not keep the cell phone in a trouser pocket.
- Do not utilize the cell phone for long time chat; use the headphones for extended calls.
- Do not put the mobile phone on women's stomach during pregnancy.
- Create awareness among the public about the harmful effects of mobile phone rays on the human Health. Such workshops be established as soon as possible.
- The scheme of placing the mobile phone towers in the area should be ostracized. If they are already existing, they should be shifted without any delay to preserve up the masses from their hazardous effects

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