IMPACT OF SMARTPHONE ON CHILDREN FROM SOME AREAS OF AMRAVATI CITY

Vaishali A. Meshram

Abstract: The study and survey of Smartphone impact was carried out in different colonies. This study based on survey questionnaire. The survey was carried out to examine the effect of Smartphone. The impact of excessive Smartphone use on the child health is studied. The survey questionnaire consists of 15 questions referred to the topic which adequately covered the data related to the Smartphone device and the impact that it create in the human physical structure. Data collection was started from January 2019 to March 2019 from different areas in Kiran Nagar, Kalyaan Nagar, Laxmi Nagar, Cotton Market Area, Mudliyar Nagar, Sanjay Gandhi Nagar, Jewad Nagar. During the study 50 persons from the families were studied and 15 questions are there on child and parent. The questionnaire which has been used in this studies filled by the household members. The primary data was collected by information and personal observation. The questionnaires have been used to collect the data about the Smartphone impact in general at selected places in Amravati. Results shows that Smartphone are keeping the brain continuously busy without any break, kids tend to be more annoying. The worst case is that children stop communicating with the family all together. Excess use of Smartphone affected outdoor gaming.

Keywords: Children, Smartphone, Impact.

I INTRODUCTION

The Smartphone is a source of the eminence of electromagnetic waves. Numerous studies have been conducted in the past years to identify the effect of electromagnetic waves emitted from the Smartphone on human health. The topic been studied for a long time, but in past, it touched on a rather narrow circle of people, mostly staff of broadcast and specialized radio stations. Even at that time, measures taken to protect people from radiation apply only on those who work near powerful sources of radiation. And, despite the revolutionary changes in the field of telecommunications, as well as many discoveries and emissions. The impact of electromagnetic waves of different frequencies hotly debated ever since. The addiction to Smartphone can be described as wanting to be in constant communication with people even though when there is no real need for communication. the effect of RF on self-reported symptoms and detection of fields after a prolonged exposure time Lena Hillert et al. (2008) The use of digital technology has grown rapidly during the last couple of decades. During use, mobile phones and cordless phones emit radiofrequency (RF) radiation. No previous generation has been exposed during childhood and adolescence to this kind of radiation. The brain is the main target organ for RF emissions from the handheld wireless phone. An evaluation of the scientific evidence on the brain tumor risk was made in May 2011 by the International Agency for Research on Cancer at World Health Organization Hardell (2017). Headache is more commonly reported after RF exposure Anderson et al. (1995). Maximum temperature rises on the side of the face after 6min of continuous cell phone operation. It suggested that direct RF heating of the skin only contributes a small part of the temperature rise due to heat conduction from the handset. Carina Storrs et al. (2016) Smartphone radiation increases cancers in rat. High-dose exposure to Smartphone radiation increased brain tumors in male rats, however most studies in humans have failed to find a link between Smartphone use and greater cancer risk. Hirata et al. (2006) there is correlation between peak SAR and maximum temperature increase is blood flow in tissue. Kleinlogel et al. (2008) the effects of both types of EMF, 1950 MHz (0.1 and 1 W/kg) and pulsed 900 MHz (1W/kg) on the behavioral parameters, reaction time in 15 healthy subjects. A double-blind, randomized, crossover application of the test procedure is used. The result were also indicated no evidence for the effect of the EMF on normal healthy cell phone users. Many of the cell phone effects studies have shown evidences of negative effects. Hardell et al. (2006) and Rrpacholi et al. (1997) there is risk of developing brain tumor due to the exposure to EMF radiation generated by cell phone. Marquez-Gamino et al. (2008) there is significant thickness increase in cortical and tubercular in vivo stimulated bone tissue. In this case young adult rats were exposed to 1 Hz, 30mT pulsed magnetic fields. Ten female rats were exposed to the 30 min magnetic stimulation sessions for 20 consecutive days. The anterior and posterior cortical bone transverse thickness was measured. The
magnetic stimulation system which approved for human therapy was used to generate pulsed EMF. Phillips et al. (1998) DNA damage due to exposure to EMF radiation. Togo et al. (2001) heart Rate Variability (HRV) in the very low –frequency (VLF) range (0.003-0.04 Hz) during deep sleep in good sleepers. There is very low-frequency heart rate variability during deep sleep in humans. Tracy Lightfoot et al. (2005) there are memory errors, cognitive function and mental health problems due to exposure to EMF. Over usage of mobile phones may cause 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, tactile hallucinations, nomophobia, insecurity, delusions, auditory sleep disturbances, insomnia, hallucinations, lower self-confidence, and mobile phone addiction disorders Peraman (2016). As the gadgets are increasing day by day, it is leading to the technology addiction among children Sundus (2018)

II MATERIALS AND METHODS

During the study 50 persons from the families were studied and there are 15 questions on child and parent. The questionnaire which has been used in this studies filled by the household members. The primary data was collected by information and personal observation. The questionnaires have been used to collect the data about the Smartphone impact in general at selected places in Amravati.

The study and survey of Smartphone impact was carried out in different colonies. The survey was carried out to examine the effect of Smartphone. The impact of excessive Smartphone use on the child health is studied. The survey questionnaire consists of 15 questions referred to the topic which adequately covered the data related to the Smartphone device and the impact that they create in the human physical structure. Data collection was started from January 2019 and March 2019 from different areas in Kiran Nagar, Kalyaan Nagar, Laxmi Nagar, Cotton Market Area, Mudliyar Nagar, Sanjay Gandhi Nagar and Jewad Nagar. This study is based on survey questionnaire.

**Questionnaire for Child and Parents**

<table>
<thead>
<tr>
<th>Name: ____________________________</th>
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<tbody>
<tr>
<td>Age: ____________________________</td>
<td></td>
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<tr>
<td>Area: __________________________</td>
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</tbody>
</table>

1) Do you have Smartphone?
   A) Yes  
   B) No

2) How many Smartphone do you have?
   A) 1 
   B) 2

3) Which company Smartphone/HHD are use?
   __________________________

4) Please mention your hand dominance?
   A) Right hand 
   B) Left hand

5) Where do you keep the Smartphone while ambulatory?
   __________________________
A) Trouser pocket
B) Shirt pocket
C) Variable

6) In which mode do you use the Smartphone?
   A) Handheld
   B) Earphone
   C) Speaker
   D) Bluetooth

7) Do you aware of any literature linking cell phone and cancer?
   A) Yes
   B) No

8) When does your child use mobile devices for learning?
   A) Yes
   B) No

9) Do you known about Smartphone safety for children?
   A) Yes
   B) No

10) Does your child use mobile devices for studying?
    A) Yes
    B) No

11) Have you experienced continued use of Smartphone can cause in eyes pain as well as some time blindness can occur in small age?
    A) Yes
    B) No

12) Does your child show anger after using Smartphone?
    A) Yes
    B) No

13) Is your child’s skin irritated after using Smartphone?
    A) Yes
    B) No
14) Is use of Smartphone affecting your child outer door gaming?

A) Yes  
B) No

15) Is your child use phone for many hours?

A) Yes  
B) No

III OBSERVATIONS AND RESULTS

The study and survey of Smartphone impact was carried out in different colonies. This study is based on survey questionnaire. The survey was carried out to examine the effect of Smartphone. The impact of excessive Smartphone use on the child health is studied. The survey questionnaire consists of 15 questions referred to the topic which adequately covered the data related to the Smartphone device and the impact that they create in the human behavior. Data collection was started from January 2019 to March 2019 from different areas in Kiran Nagar, Kalyaan Nagar, Laxmi Nagar, Cotton Market Area, Mudliyar Nagar, Sanjay Gandhi Nagar, Jewad Nagar.

Child and Parents:

During the study 100% of parents used Smartphone and they have also more than one Smartphone. Most of parents used Samsung Smartphone. Maximum parents use right hand for carry the Smartphone that is 70% and minimum parents use left hand for carry the Smartphone that is 30%. During the study, maximum parents put their Smartphone on table, kitchen, bed, etc. Maximum 70% and minimum parents put their Smartphone in trouser that is 30%. In this study, 90% of parents aware about the impact of smartphone and 10% of parents are not aware about the impact of smartphone on child. 60% of parent known about smartphone safety for children and 40% of parent do not know about smartphone safety for children. 70% of child use mobile devices for study and 30% of child not use mobile devices for studying. During the study, 90% peoples experienced continue use of smartphone can cause pain in eyes as well as some time blindness can occur in small age. 90% of child show angers after using smartphone and 10% of children not do exactly. 50% parents said that child feels skin irritation after use of Smartphone and 50% of parents said that they do not feel skin irritation after use of smartphone. 70% parent said that smartphone is affecting their child’s outer door gaming and 30% of parents said that because of smartphone it does not affecting child outer door gaming.
Fig 1: Survey result Impacts of Smartphone on Child.

Fig 2: Survey result Impacts of Smartphone on Child.

Fig 3: Survey result Impacts of Smartphone on Child.
Fig 4: Survey result Impacts of Smartphone on Child.

Fig 5: Survey result Impacts of Smartphone on Child.

Fig 6: Survey result Impacts of Smartphone on Child.
IV CONCLUSION

Today’s children are growing up in a radio-frequency environment that never existed in human history before. The radiation emitted by smartphone can have adverse effect on children. The survey shows that Children, just like the teens, are addicted to smartphone. Mostly children use smartphone in study. They also play games on smartphone all the time. The effect of the smartphone on children’s academic is very noticeable. Continuously use of smartphone in small ages cause harmful effect in children like eye pain, blindness, watery eye and skin irritated after use of smartphone. Smartphone are keeping the brain continuously busy without any rest, kids tend to be more annoying. The worst case is that children stop communicating with the family all together. Excess use of smartphone affected outdoor gaming.

V REFERENCES


