

An Effective Analysis on Risks in using Smart Mobile Phones

Mohammad Mushtaq Ahmed¹, Nesaian Reginal Wilfred¹, Wasim Haidar SK¹, Sutherlin Subitha George²

¹Department of Information Technology, Salalah College of Technology, Oman.

²Department of Computer Science and Engineering, Maria Group of Institutions, India.

Email: mm.ahmed@sct.edu.om, nesaian.r@gmail.com, sutherlinsubitha@gmail.com, wasims5@gmail.com

Abstract—In this current technological world, mobile phones have become a basic need for communication to human beings. On the other hand, mobile phones are identified as harmful medium of threat to lead a happy life. The main aim of this study is to provide enough health awareness to the public about the mobile devices. This study reviews and reports the facts and results about the danger of using mobile devices. In order to observe and analyze the public awareness, questionnaires are prepared holding twelve different questions and the survey results are generated from public residing in Sultanate of Oman. The important points of the results revealed that most of people predict that use of mobile phone can causes danger to human health and it can also affect the parts of the human body. In addition, this paper analyses and reports the safety precautions to be taken to reduce the risks.

Keywords—Mobile Phones, Mobile Devices, Health Hazards, Communication, Computing

I. INTRODUCTION

Modern world depends totally on mobile cellular phones, which makes a habit for people to carry everywhere. Continuous use of mobile phones is relatively high risk in our life. Radio frequency exposure from cellular phone directly or indirectly effects the human brain which leads to brain tumor. While taking quick decisions into consideration on not using cell phones at all specially while driving, among nationals those who least bothered about the cell phones accident hazard leads to high potential risk.

Most of the time when interviewed among the higher officials of national, received results subsequently phone related hazard issues when compared with others. Neither the male nor female have no restrictions of utilizing the cell phones while driving. It is clearly observed that high potential risks of cell phones are not being controlled at different levels. The successive chapters explore the review on this domain.

II. RISK FACTORS WHILE USING PHONES

A. Mobile during driving

Various problems should be noted for this approach at first instance, it does not register the single vehicle accidents. Thus, risk factors leading to an increased risk of single vehicle accident are not detected. Secondly as a result if it is considered as a police officer, it not so clear whether the driver is being involved in accidents really did not associated to the accident happening Thirdly mobile phone usage while driving the vehicle which is great risk of being as fault gives a good estimation of accident risk.[1]

B. Cyber bullying

Many researchers have recently come across risk factors for engagement in cyber bullying. This may have the positive approach of enhancing relationship quality of existing friendships. On the other hand, students who disclose personal information about themselves become more vulnerable to cyber bullying. Another reason of distinguishing cyber bullying is anonymity, with the cyber bullies able to remain unidentified behind the cell phones and aggress against their culprits' even people who they are physically far away. Risk factors have been observed with the use of internet, cell phone, to be more specific with a combination of both. Different methods adopted for bullying by phone call, text messages, instant messaging, posting and sending embracing photos, video clips. Harassment itself indicates that it is a type of sending repeatedly hurtful messages of insulting or sending harmful videos/audios [2].

III. SYMPTOMS ENCOUNTERED WITH RESPECT TO MOBILE PHONE USE

A. Sleep quality

In German-speaking countries, fatigue and disturbances in sleep quality belong to the most frequent complaints related to EMF. While with a number of different observation have noticed electromagnetic field effects further using cell phones for 60 minutes did not affect daytime fatigue in different experimental observations with 24 individuals. A detail analysis study from Austria did not expect an association between reported quality of sleep and exposure to base stations of mobile cellular communication.

B. Dizziness

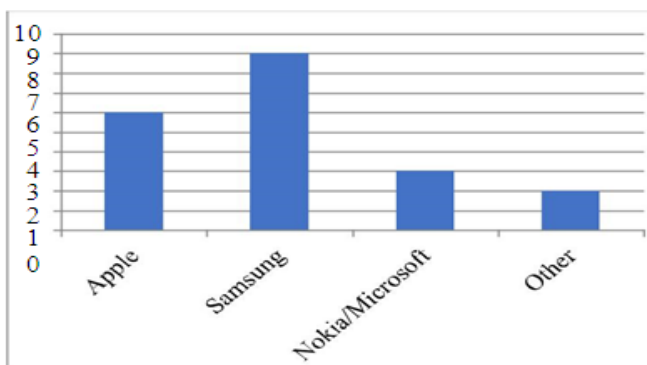
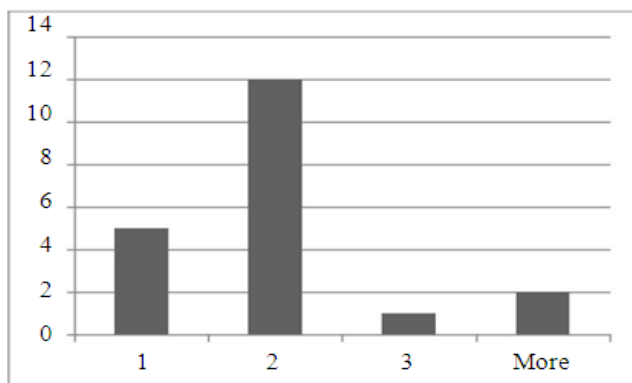
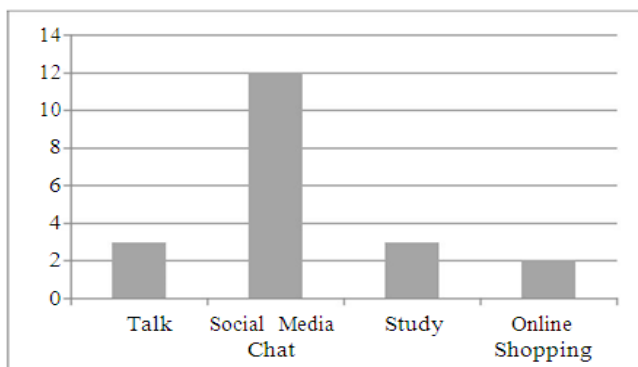
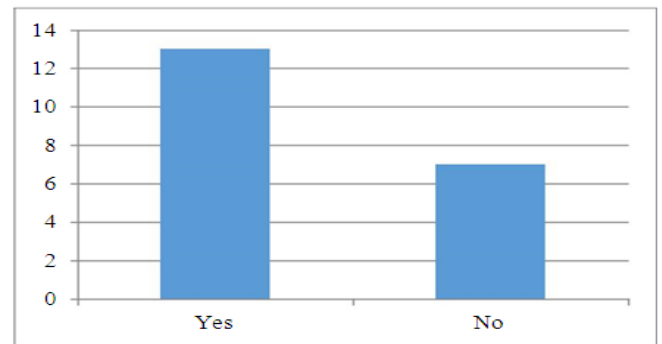
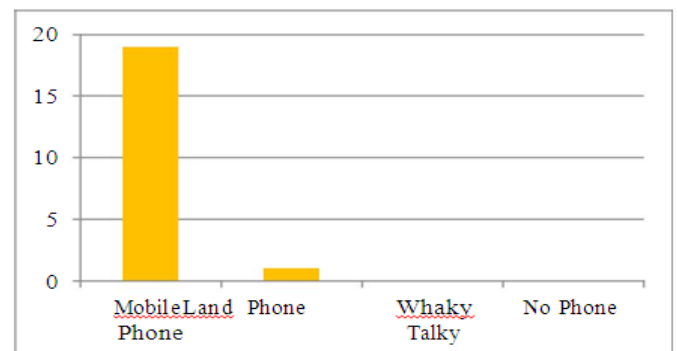
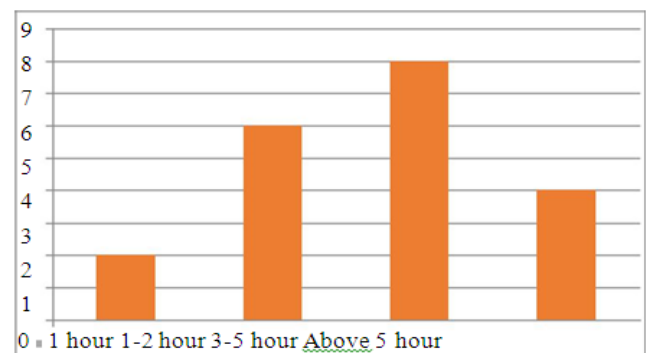
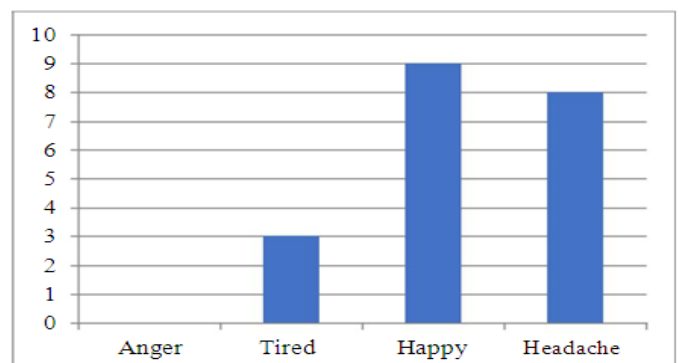
With concern of dizziness, one of the randomized cross-over studies in 48 subjects did not find an association to cell phone handset in one or more experiments. Results of observational studies on mobile phone users were contradictory: while Norwegian study in 2800 individuals described an association, studies from Sweden (n=7800), Singapore (n=808) and a French university (n=161) were not able to confirm this.

C. Headache

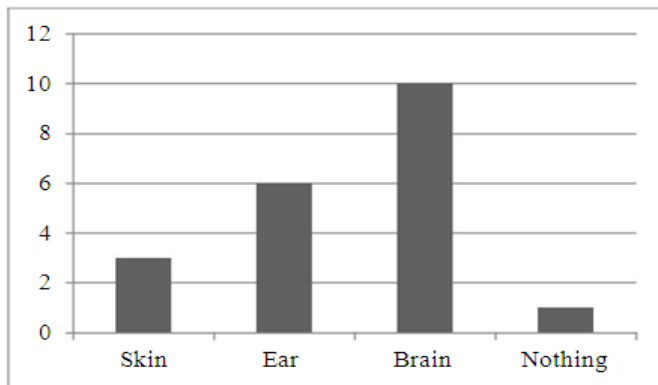
One of the randomized studies might have confirmed an association with the exposure to mobile phones and headache. Most of the people in Norway and Sweden reported headache which leads to migraine. These results were consistent for number of times cell phones were used phone calls, number of times cell phones were used which inculcate more symptoms when using mobile phones with higher output power.

D. Memory Loss

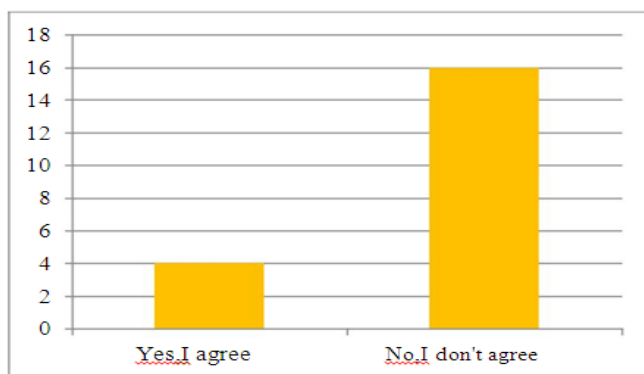
There are also causes and problems in regular concentration and memory loss. With the study of the risk factors of using mobile phones and the evaluation of the presented analysis only refer to “problems in concentration” and “disturbances in memory”, as a fact which affect everyday life and which can be reported. In the Scandinavian study analysis, an observation for disturbances in concentration was noticed for those reporting more than four calls per day. Further more complaints were reported by the risk associated while using mobile phones [3].

IV. SURVEY RESULTS*A. What Mobile phone brand do you use?**B. How many mobile phones do you have?**C. What kind of phone do you use to communicate with others?**D. Do you think that using mobile phone is dangerous to human health?**E. How much of time do you use mobile phone in a day?**F. If you use mobile phone for a long time, what emotion do you feel?**G. Do you think that using a mobile phone affects human body. If Yes, Which part of the body?*

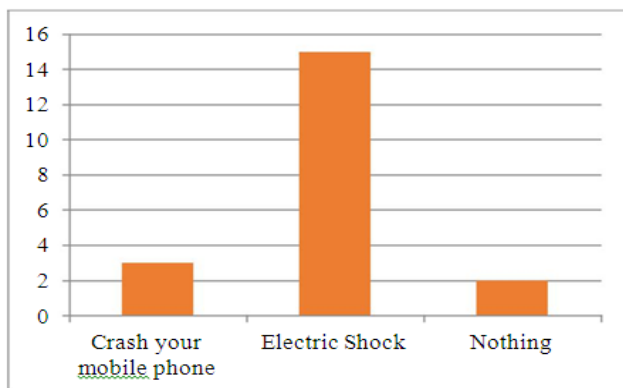
H. Why do you use a mobile phone? Can you use the mobile phone while it is charging ?



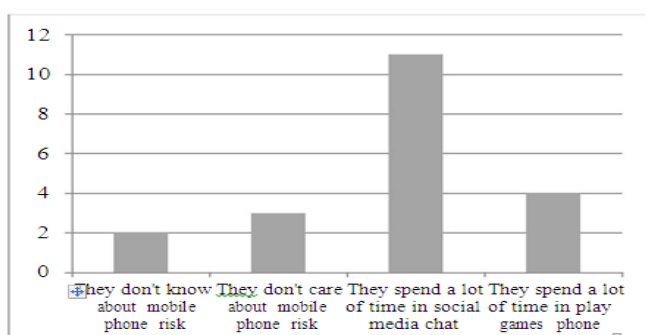
G. When you use a mobile phone while charging may cause?



K. Are you aware that mobile phone is danger for human health?



L. Some people become addicted to the use of mobile phone because?



M. Few Tips to avoid Mobile Radiations

1. Use less time
2. Use Headset
3. Don't charge in Bed Rooms
4. Children and Pregnant ladies must avoid
5. Keep phone away from body
6. Keep phone in bag, but not in pockets
7. Don't use when phone in charge
8. Don't use when charge is below 25%

The customers and mobile users are strictly instructed to use the safety tips to avoid spreading radiations [4-6]. Therefore, for happy and safe life, the instructions could be followed.

V. CONCLUSION

The survey questionnaires which hold twelve different questions produce a positive impact and awareness through the results. When the research team approaches the public to fill the survey after the thorough analysis, few of the people were happy to know about electronic dangers and mobile phone radiations. The important points of the results revealed that most of people predict that use of mobile phone can cause diseases to human health and it can also affect the primary parts of the human body. This intellectual analysis and reports provides a platform to understand the safety precautions to be taken to reduce the risks. Communication technologies are important, at the same time health and safety are prime concern for the human beings.

References

- [1] M. Vollrath, T. Meilinger, and H. Kru'ger, "How the presence of passengers influences the risk of a collision with another vehicle", *Accident Analysis and Prevention* 34, 2002, 649–654.
- [2] N.V. Mare'es, and F. Petermann, "Cyberbullying: An increasing challenge for schools", *School Psychology International* 33(5), 2012, 467–476.
- [3] H. Seitz, D. Stinner, Th. Eikmanna, C. Herra, and M. Ro'o'sli, "Electromagnetic hypersensitivity (EHS) and subjective health complaints associated with electromagnetic fields of mobile phone communication—a literature review published between 2000 and 2004", *Science of the Total Environment* 349, 2005, 45–55.
- [4] H. Chen, R.H.L. Chiang, and V.C. Storey, "Business Intelligence and Analytics: From Big Data to Big Impact", *MIS Quarterly*, Vol. 36 No. 4, 2012, pp. 1165-1188.
- [5] Radiations, Website <https://www.uswitch.com/mobiles/guides/mobile-phone-radiation/>, Retrieved February 28, 2017.
- [6] Statista, "Statistics of the most popular categories in the Apple App Store", Retrieved April 23, 2016, Website <http://www.statista.com/statistics>