

Usage of mobile phones while driving and its relationship to car accident among medical students of Al-Imam Mohammad ibn Saud Islamic University

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Abstract Road traffic accidents have been a major problem in Saudi Arabia. Being one of the leading causes of death in the country. With the advancement of technology, its accessibility and the demand of keeping up with latest events all of which are attributes that lead to the rise of a new form of distracted car accidents. Hence, augmenting the severity of the problem. This is a cross sectional study of volunteer sampling among 1st, 2nd & 3rd year medical student at Al Imam Mohammad ibn Saud Islamic University conducted in December 2014, studying the prevalence of mobile phone usage while driving, its relation to the importance of the information and forms of using it, in addition to knowing the relation between mobile phone usage while driving and road traffic accidents. Results showed that 93% of subjects were using their mobile phones while driving most in form of calling. 35 subjects were involved in at least one accident while driving. The level of Importance for usage showed that 71 of subjects using their mobile phone while driving found it to be a factor, while the 22 did not.

1 INTRODUCTION

Road traffic accidents have been a major problem in Saudi Arabia being one of the leading causes of death in the country. With the advancement of technology, its accessibility and the demand of keeping up with latest events which led to the rise of a new form of distracted car accidents.

Distracted driving can be simply defined as any activities that could divert driver's attention away from Driving.

The increase in road traffic accidents caused by cell phone usage, can be seen from a study previously conducted in the United States [1]. Two major concern areas for distracted driving are younger drivers and cell phone use while driving; drivers under 20 years old are involved in most fatal crashes among all the age groups [2]. In addition, driving performance while talking is significantly worse [3] & tasks involving mental imagery are significantly different than tasks requiring simple communication [4]. Conversing on a cell phone led to significant decrements in simulated-driving performance [5].

2 METHODOLOGY

We performed a Cross sectional study of volunteer sampling, we distributed 120 paper questionnaires among 1st, 2nd and 3rd year medical students at Al Imam Mohammad bin Saud university. 5 questionnaires have been lost during collection, 3 were not completed and 12 were having conflicting results, so they were excluded and the remaining questionnaires were 100, 26 of them from 1st year, and 35 from 2nd, 39 from 3rd year medical students. We asked about demographic information and a group of focused questions about phone usage while driving including the frequency, types of usage and factors

affecting the usage, e.g. level of message importance. Subjects who answered yes regarding using social network applications while driving were added to the type of usage social networking. Statistical Package for the Social Sciences (SPSS) program was utilized for data analysis.

3 RESULTS

The data collected involved 100 volunteers, 93 of them use their phones while driving, 7 do not use their phone. 35 of the subjects were involved in an accident due to mobile usage, 9 of them more than once and 2 subjects more than 3 times. Out of all the data collected, the most common purpose of usage was calling (72%) & social networking (71%) followed by texting (62%) & using media (37) and the least form of usage was gaming (5.3%). Regarding phone usage addiction, 66 subjects agreed they have an addiction problem, -one of them is not using mobile phone while driving-. The level of Importance for usage among those using their mobile while driving showed that 71 subjects found it to be a factor, while the 22 subjects did not agree.

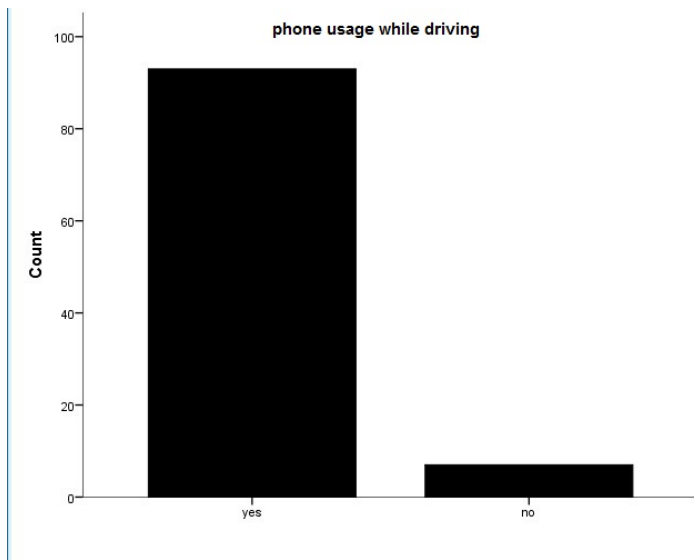


Chart 1

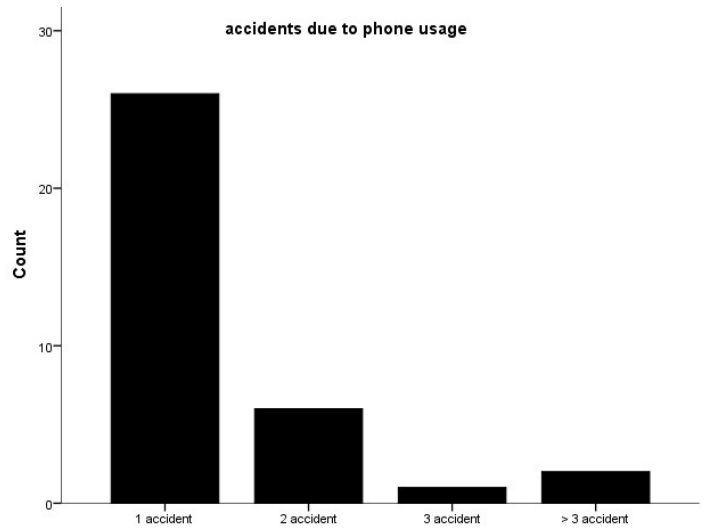


Chart 2

How often do subjects use phones while driving?				
	Frequency	Percent	Cumulative frequency	Cumulative percent
Always	21	22.58	21	22.58
Most of the time	24	25.81	45	48.39
Sometimes	37	39.78	82	88.17
Not that much	11	11.83	93	100
total	93	100		

Table 1

4 DISCUSSION

This research included 100 volunteers; was conducted to understand the association of phone usage while driving with car accidents. The study also showed that although phone usage while driving caused accidents, it still did not prevent some drivers from stopping, which led them to be involved in further accidents, in addition 1 subject has been involved in more than 3 accidents due to mobile usage while driving but he is still denying addiction to mobile phone. The level of significance of usage does influence most of the subjects, however when we asked about addiction most of the subjects believe they are addicted to phone usage which indicate that the level of importance is not the only factor influencing the usage.

5 CONCLUSION

Although authors found there is a clear correlation between incidence of car accidents and phone usage while driving, the different and multiple forms of usage amongst drivers makes it very difficult to assess the level of distraction, and therefore, a general assumption on the population cannot be obtained and further research is needed.

6 LIMITATIONS

The population chosen is too small and maybe biased. The study design chosen is not of high hierarchy and cannot be for highly qualitative results. Some answers of some subjects may be questionable, where some forms were not filled with accuracy.

7 RECOMMENDATION

In coordination with data collected and the broad array of usage amongst individuals, the level of distraction cannot be assessed and a general assumption on the population cannot be made. Therefore, further evaluation to be done on the topic and more thorough research with a high level of sampling and study design is recommended.

8 ACKNOWLEDGMENTS

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