Turkish Online Journal of Qualitative Inquiry (TOJQI)
Volume 12, Issue 5, June 2021: 1621- 1628

# Knowledge, awareness and risk factors of using mobile phones while driving among adult population

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**ABSTRACT**
Mobile phones have become 24hrs attachment with most of the users worldwide. It is now very difficult to find people not using mobile/smart phones. The mobile users can not even think that the mobile phones are not working for an hour. The main advantage of using a mobile phone is that it keeps users online. The people are empowered as they access information and interact with everyone all the time, on the go. The effect of mobile phone use on driving behaviour is dependent on many parameters. An online survey was conducted among students of various fields. A questionnaire containing few questions were given to them and they were asked to fill it. The responses were collected from them and the results are analysed statistically. From the above survey conducted, it is analysed that 67% of the participants have the habit of watching mobile phones for more than 8 hours. 25% of them are not much addicted to mobile phones. 35% of them won't attend calls while driving. 57% of them have the habit of watching mobile phones at night times. 50%of the participants used to attend calls while driving.While typical behaviours such as texting and calling were low, the sub-tasks were highly reported and, in the case of locating and answering a ringing phone, erroneously assessed as less risky. This phenomenon might reflect a lack of safety literacy among the drivers.

**Keywords:** Mobile phones, addiction, health, driving, risk factors, road accidents.

## INTRODUCTION

Mobile phones have become 24hrs attachment with most of the users worldwide. It is now very difficult to find people not using mobile/smart phones. The mobile users can not even think that the mobile phones are not working for an hour(Regan, Lee and Young, 2008). The main advantage of using a mobile phone is that it keeps users online. The people are empowered as they access information and interact with everyone all the time, on the go. Mobile phones may be used for entertainment or playing games(Strayer and Johnston, 2001) There are many negative effects of mobile phones. Mobile phone usage in late nights affects our health. Even though the mobile phone makes our life smooth but it has many bad effects also(Strayer, Drews and Johnston, 2003) . In the present study, the negative side of using a smartphone or a mobile phone while driving is taken into the study. It changes personality and the behavior of a person.

The addiction level of mobile phones is increasing day by day among the general public (Gugerty, Rakauskas and Brooks, 2004) . A recent survey found that 84 percent of the world's population said they could not go one go about in their day without their smartphones, and current research shows that nearly two-thirds of teens and young adults check their phones every 15 minutes or less(Rakauskas, Gugerty and Ward, 2004). The effect of mobile phone use on driving behaviour is dependent on many parameters. Mobile phone use familiarity while driving was also found to influence the resulting impact(Svenson and Patten, 2005) .

At first glance, a combination of a definitive mobile phone ban while driving and strong enforcement should be the most effective approach to address this problem. However, research worldwide (e.g. Farmer, Klauer.) showing a large prevalence of mobile phone distracted driving has confirmed that legislation and enforcement is not necessarily preventing mobile phone usage while driving (Horrey, Lesch and Garabet, 2007). Pioneers and advanced road safety systems with strong laws on distracted driving such as Australia and the USA have been unsuccessful in stopping these behaviours (Rumschlag *et al.*, 2015) . Recent naturalistic driving estimates in the USA have confirmed that drivers are distracted in some way around half of the time, with mobile phone use making up about a quarter of the distracted time('International Journal of Advance Research in Community Health Nursing', no date) (Khurana *et al.*, 2009). Observational on-road studies have found that nearly 18.7% in the USA and 5% in Australia use a mobile phone while driving(Hepworth *et al.*, 2006).Previously our team has a rich experience in working on various research projects across multiple disciplines The (Somasundaram *et al.*, 2015; Hafeez and Others, 2016; Krishnan *et al.*, 2018)(Choudhari and Thenmozhi, 2016; Dhinesh *et al.*, 2016; Gurunathan and Shanmugaavel, 2016; Sneha and Others, 2016; GovinDaraju and Gurunathan, 2017; Kumar and Rahman, 2017; Felicita and Sumathi Felicita, 2018; Saravanan *et al.*, 2018; Vijayakumar Jain *et al.*, 2019; Wu *et al.*, 2019; Palati *et al.*, 2020; Paramasivam, Vijayashree Priyadharsini and Raghunandhakumar, 2020).

The aim of this study is to assess the knowledge and awareness on risk factors of using mobile phones while driving among the adult population.

## MATERIALS AND METHODS

The survey was conducted through an online setting. The questionnaire contained knowledge and awareness based self-structured standard questions based on risk factors of using mobile phones while driving. The questions were distributed among the adult population through an online link. The responses were collected and the results are analysed. The total number of participants was 100 and all the responses were categorised as demographic details and survey responses in an Excel sheet for further analysis. This survey was done based on conventional sampling. The responses were represented as frequency distribution among the population and expressed in percentage.

## RESULTS AND DISCUSSION

From the above survey conducted, it is analysed that 50% use mobile phones while driving, 20% won't use and the remaining 30% use mobile phones sometimes (Figure 1). 65% of them have the habit of attending the calls while driving whereas the rest of 35% do not have the habit of attending the calls (Figure 2). 57% of the people have the habit of watching mobile phones during night time driving, 10% do not have the habit and the remaining 33% have the habit of watching mobile phones sometimes (Figure 3). 67% of the people have the habit of using mobile phones for more than 8 hours a day, 19% for 4 to 6 hours and the remaining 14% use mobile phones for less than 2 hours a day (Figure 4). 73% of people responded that they are aware about the effects of using mobile phones while driving, 21% not aware and 6% not concerned about the risks (Figure 5). 9% of people responded that the risk factor of accidents on using mobile phones while driving are due to locating a mobile phone, 26% responded due to voice call, 28% said it was because of texting, 14% responded it was due to browsing and 23% responded for entertainment like music and videos (Figure 6).

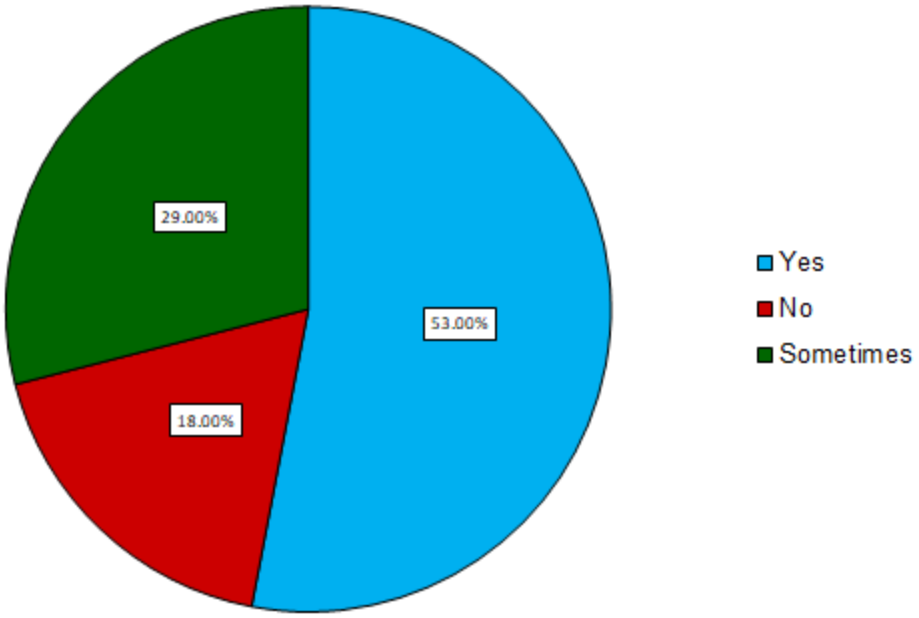


Figure 1: Pie chart showing percentage distribution of responses on the people who have the habit of using mobile phones while driving.

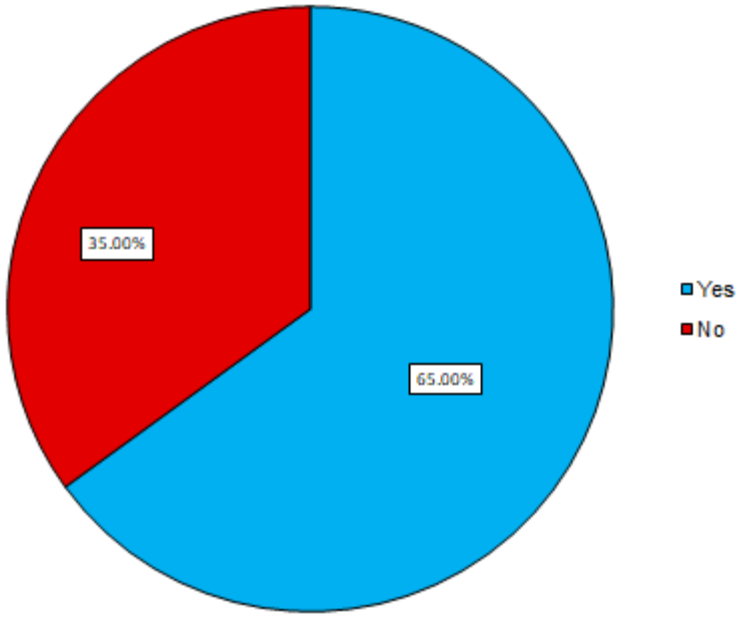


Figure 2: Pie chart showing percentage distribution of responses obtained from the people who attend the calls and use mobile phone while driving.

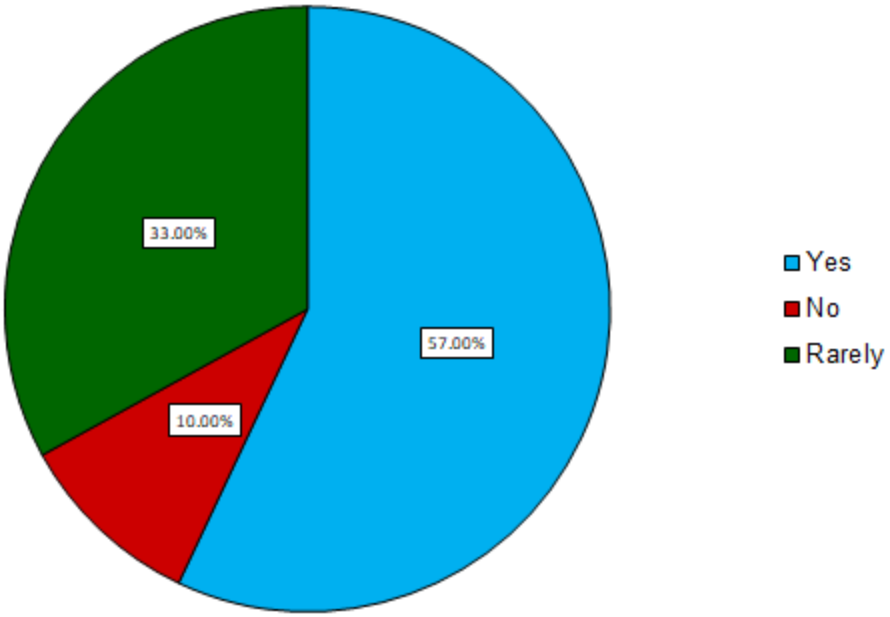


Figure 3: Pie chart showing percentage distribution of responses of people who have the habit of using mobile at night time driving.

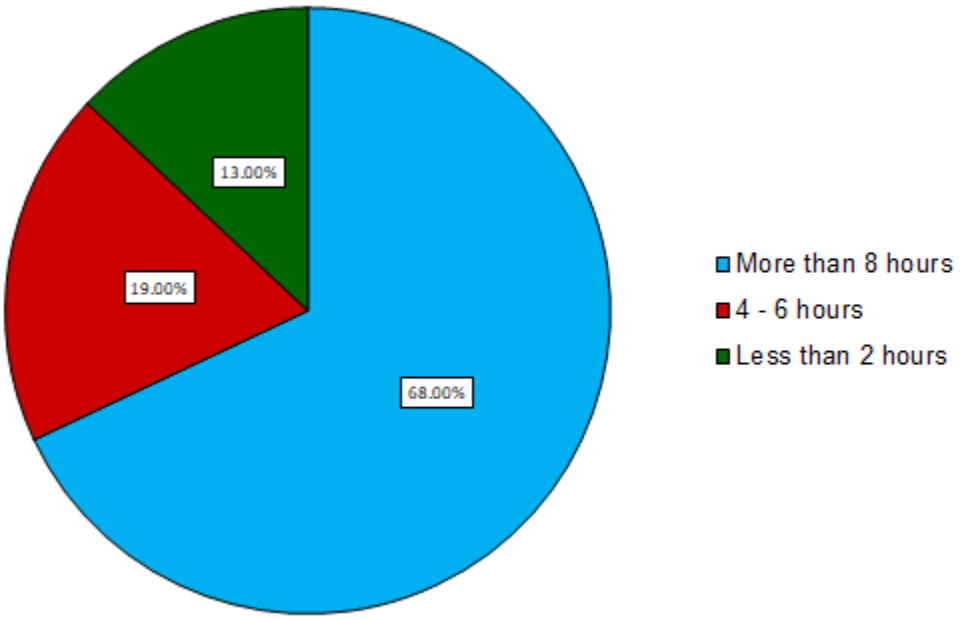


Figure 4: Pie chart showing percentage distribution of responses of people who use mobile phones for the categorised number of hours in a day.

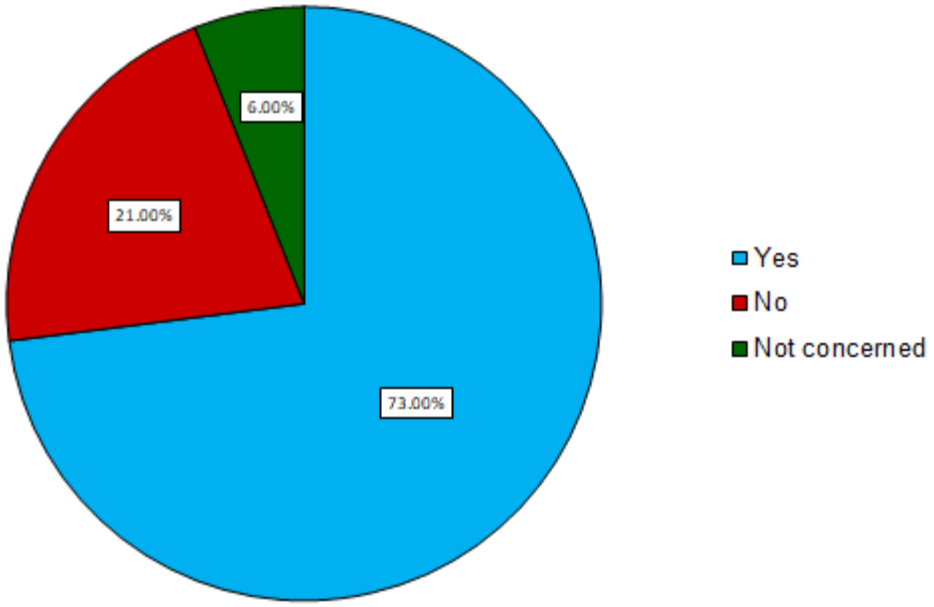


Figure 5: Pie chart showing percentage distribution of responses of people who are aware about the effects of using mobile phones while driving.

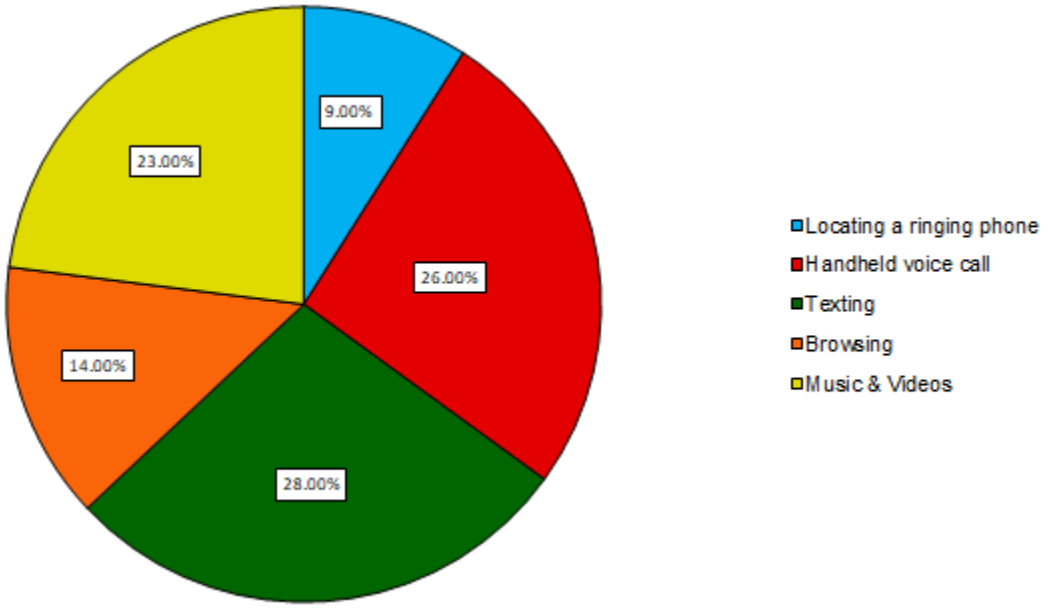


Figure 6: Pie chart showing percentage distribution of responses on the various risk factors related to using mobile phones while driving.

Long time effects may be worse, permanent and affecting the more subconscious layer of behavior. So the advice is to keep the phone away for awhile and enjoy all the other good things life has to offer. Drivers are engaging in risky tasks that have been consistently linked with an increased crash risk. While typical behaviours such as texting and calling were low, the sub-tasks (with equal or more risk) were highly reported and, in the case of locating and answering a ringing phone, erroneously assessed as less risky. This phenomenon might reflect a lack of safety literacy

among the drivers. Additionally, drivers reported more safety attitudes towards talking on a mobile phone and more frequent engagement in task-management strategies for texting / browsing (Sivani and Sudarsanam, 2013).

Ravichandran et al conducted a survey where a questionnaire was prepared which included questions on general knowledge about road safety. The sample size was 151 and the responses were recorded through a survey planet. Among this, 51.98% were aware of the road safety measures. 47.1% of the students use a mobile phone while walking whereas 52.9% of the students do not. Various general knowledge questions based on road safety among college students were captured in this survey and data was collected and statistically analyzed. Among this, 51.98% were aware of the road safety measures. 47.1% of the students use a mobile phone while walking whereas 52.9% of the students do not.

Various general knowledge questions based on road safety among college students were captured in this survey (Ravichandran, Priya and Gayathri, 2019). Pretty et al, conducted a survey based on cell phone usage and sleep deprivation.Based on that survey, most of the participants had about 4-6 hrs sleep at night and their sleeping was also satisfied about 58%. Due to lack of sleep, they experienced symptoms like daytime fatigue. The cause for delay going to bed was long term usage of the phone and doing academic assignments (Preety, Devi and Priya, 2018) .Our institution is passionate about high quality evidence based research and has excelled in various fields ( (Pc, Marimuthu and Devadoss, 2018; Ramesh *et al.*, 2018; Vijayashree Priyadharsini, Smiline Girija and Paramasivam, 2018; Ezhilarasan, Apoorva and Ashok Vardhan, 2019; Ramadurai *et al.*, 2019; Sridharan *et al.*, 2019; Vijayashree Priyadharsini, 2019; Chandrasekar *et al.*, 2020; Mathew *et al.*, 2020; R *et al.*, 2020; Samuel, 2021).

## CONCLUSION

Mobile phones are one of the causes for emerging road accidents.The use of a mobile phone entails various types of distraction: manual auditory, and cognitive. Most countries adopt the hands-free legislation, hence in most countries using the mobile phone under Bluetooth or the speaker mode is allowed. This eliminates manual distraction, while the remainder three types of distraction are still present. Smartphone addiction is known to cause trauma and high level anxiety pains. Addiction to remain online, compulsion to be active on social sites leads to low productivity and impacts the emotional health of the person. While typical behaviours such as texting and calling were low, the sub-tasks were highly reported and, in the case of locating and answering a ringing phone, erroneously assessed as less risky. This phenomenon might reflect a lack of safety literacy among the drivers.

## ACKNOWLEDGEMENT

Nil.

## CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest in the present study.

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