

# Frequency of use of mobile phones during driving among citizens of Lahore

MASOOD NIZAM TABASSUM<sup>1</sup>, MUHAMMAD USMAN SHEIKH<sup>2</sup>, MUHAMMAD BILAL<sup>3</sup>, SANA NOOR<sup>4</sup>, ABDUL WAHAB GUREJA<sup>5</sup>, SHAFIQ TABASSUM<sup>6</sup>

<sup>1,2</sup>Professor of Community Medicine

<sup>3,4</sup>Demonstrator Community Medicine

Avicenna Medical & Dental College Lahore.

<sup>5</sup>PG Trainee, Shahdara Hospital, Lahore

<sup>6</sup>PG Trainee, Paediatric Department, Mayo Hospital, Lahore

Correspondence to Prof. Masood Nizam Tabassum, Email. [drmtabassumcm@gmail.com](mailto:drmtabassumcm@gmail.com), Cell:0321-4048800

## ABSTRACT

**Background;** Use of Mobile phone during driving is very common but very dangerous because it may distract driving and cause accidents. There are a high number of accidents due to attending calls and sending text messages during driving, some law experts have labeled the use of mobile phone during driving illegal.

**Aim:** To determine the frequency of use of mobile phones during driving among citizens of Lahore.

**Methodology;** This descriptive Case series study was conducted at Lahore from 1<sup>st</sup> July 2019 to 31<sup>st</sup> December 2019. After taking informed consent, 396 subjects, 302 males and 94 females of 18 years or above were included through convenient sampling. Data were collected on a specified questionnaire and interpreted as frequency and percentage distribution regarding the use of mobile phone during driving. The data were analyzed by SPSS

**Results;** In this study 396 subjects participated, 302(76.26%) males and 94(23.74%) females. 79(26.15%) males and 02(02.12%) females were motor cycle drivers, 140(46.36%) males and 82(87.23%) females motor car drivers, 67(22.19%) males and 02(02.12%) females motor cab drivers and 16(05.30%) males and 08(08.51%) females were van drivers. 158(52.32%) male and 37(39.36%) female drivers used mobile phones during driving.

**Conclusion;** the use of mobile phone was common among males. The young drivers from both sexes used mobile phone during driving. Majority of motor car drivers were more involved in using mobile phone.

**Keywords:** Accidents, Cell phones, Distract, Experts, illegal

---

## INTRODUCTION

Use of Mobile phone during driving is very common but is considered very dangerous and distracts driving to cause accidents. Due to the number of accidents those are due to attending calls and text messages during driving, some law experts have labeled the use of calling mobile phone during driving illegal. Many experts have suggested laws to ban on mobile phone use. Some law experts are in favor to permit the use of a hands-free set. Use of a hands-free set is not even safer than use of a mobile phone to conduct calls, as observed by different studies<sup>1,2</sup>, epidemiological<sup>3,4</sup> meta-analysis<sup>5,6</sup> and simulation<sup>7</sup>. Use of mobile phone during driving is one of the major source of morbidity and mortality all over the world. Motor vehicle accidents cause approximately 1.2 million deaths and 20–50 million injuries each year<sup>8</sup>.

Visual distraction of the road is reprovig in explaining the risks related to text messages and any other activity by attending mobile phone<sup>9,10,11,12</sup>. It has been reported the highest level of mobile phone-related accidents and near accidents by young drivers, relative to older drivers.<sup>13,14</sup>In some cases sanctions are advised only for children, those have got new licenses (of any age), or to drivers in areas nearby schools. In addition to texting messages during driving, use of video games, or general use of phones can increase the risk of a accidents. The increased workload in holding a chat may cause increased risk of

danger<sup>15,16,17</sup>. For example, a study found that listening to somebody on mobile phone lead to 37% less activity in the parietal lobe, where spatial tasks are arranged<sup>18</sup>. The consistency of increased accident risk between hands-free set and mobile phone use is at odds with rules and regulation in many areas that stops mobile phone use but use of hands-free set is allowed. It has been shown in a number of cases that bans on use of mobile phone during driving have led to be an effective way to stop public from attending mobile phones. Those not following the rules and regulations usually get challan and points entry on their license. Although an initial change in driving habits is to be expected. With the time, the numbers of peoples those violate these rules and regulations eventually become normal, sometimes higher levels with the passage of time, people go back to their old habits. Moreover traffic police officers face difficulties finding mobile phone use in vehicles, which decreases the results of imposition of rules and regulation for use of mobile phones during driving<sup>19</sup>.

## RESEARCH METHODOLOGY

This descriptive case series study was conducted at Lahore from 1<sup>st</sup> July 2019 to 31<sup>st</sup> December 2019. After taking informed consent, 396 subjects 18 years or more from both sexes were included through convenient sampling. 302 males and 94 females participated in this study. Data were collected on a specified questionnaire by a doctor and his team and required information regarding the use of mobile phone during driving were recorded. The questions regarding age group of the drivers, type of driving, use of mobile phones during driving, often use of

Received on 23-01-2020

Accepted on 17-06-2020

mobile phones, off and on use of mobile phones, use of mobile phones for songs or emergency purposes and use of mobile phones with handset free or blue tooth were asked. The data were entered and interpreted as frequency and percentage distribution. Only those subjects fulfilling the inclusion criteria were included in this study. The data were analyzed by SPSS version 24.

**RESULTS**

In this study 396 subjects participated, 302(76.26%) were males and 94(23.74%) females. It was observed that 79(26.15%) males and 02(02.12%) females were motor cycle drivers, 140(46.36%) males and 82(87.23%) females motor car drivers, 67(22.19%) males and 02(02.12%) females motor cab drivers and 16(05.30%) males and 08(08.51%) females were van drivers.

It was also noted that 64(21.19%) male and 19(20.21%) female drivers belonged to age group 18-30 years. 117(38.74%) male and 53(56.38%) female drivers belonged to age group 31-45 years. 77(25.50%) male and 16(17.02%) female drivers belonged to age group 46-60

years whereas 44(14.57%) male and 06 (06.38%) female drivers belonged to age group 61 years or above (Table-1).

It was observed that 41(13.58%) male motor cycle drivers were using mobile phone during driving whereas no lady motor cycle driver used mobile phone during driving. Seventy three(24.17%) male motorcar drivers and 33(35.10%) female motorcar drivers used mobile phone during driving. 37(12.25%) male motor cab drivers and only 01(01.06%) lady motor cab driver used mobile phone. 07(02.31%) male van drivers out of 16 and 03(03.19%) female van drivers out of 08 used mobile phone. 144(47.68%) male and 57(60.63%) female drivers from all categories did not use mobile phone during driving.

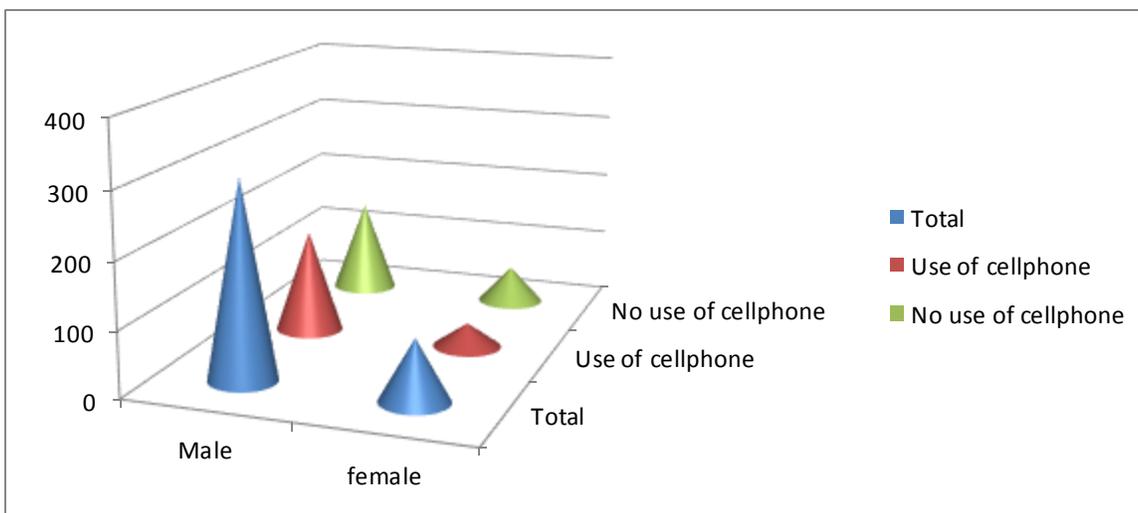
Study showed that 37(23.41%) male and 07(18.92%) female drivers often used mobile phone, 41(25.95%) male and 12(32.43%) female drivers used mobile phone off & on, 21(13.29%) male and 09(24.32%) female drivers used mobile phone only in case of an emergency calls, 26(16.46%) male and 04(10.81%) female drivers used mobile phone for songs, 11(06.96%) male and 02(05.41%) female drivers used mobile phone with Bluetooth device whereas 12(07.59%) male and 03(08.11) female drivers used mobile phone with hands free device\ (Table-2).

Table-1 Drivers' category according to vehicle and Age groups in years

Gender	Driver's category according to vehicle			
	Motorcycle riders	Motorcar riders	Motor cab Drivers	Van drivers
Male(n=302)	79(26.15%)	140(46.36%)	67(22.19%)	16(05.30%)
Female(n=94)	02(02.12%)	82(87.23%)	02(02.12%)	08(08.51%)
	Age groups in years			
	18-30 years	31-45 years	46-60 years	61 years or more
Male(n=302)	64(21.19%)	117(38.74%)	77(25.50%)	44(14.57%)
Female(n=94)	19(20.21%)	53(56.38%)	16(17.02%)	06(06.38%)

Table-2 Use of mobile phones by drivers and type of use of mobile phones

Gender	Use of mobile phone by different drivers					
	Motor cycle riders	Motor cycle riders	Motor cab Drivers	Van drivers	No use by Drivers	
Male(n=302)	41(13.58%)	73(24.17%)	37(12.25%)	07(03.31%)	144(47.68%)	
Female(n=94)	NIL	33(35.10%)	01(01.06%)	03(03.19%)	57(60.63%)	
	Different type of use of mobile phones					
	Often Use	On & Off Use	Emergency Use	Use for Songs	Use with Bluetooth	Use with ear aids
Male(n=158)	37(23.41%)	41(25.95%)	21(13.29%)	26(16.46%)	11(06.96%)	12(07.59%)
Female(n=37)	07(18.92%)	12(32.43%)	09 (24.32%)	04(10.81%)	02(05.41%)	03(08.11%)



## DISCUSSION

Driving is a responsibility. Whenever you are behind the steering wheel of a vehicle or riding a motorbike, it is your legal and moral obligation to protect all the living beings around yourself whether they are human or animals. Unfortunately, drivers nowadays don't realize such responsibility anymore. The public sector drivers especially don't pay attention to it. This is the fact that even educated class is not following the traffic rules. And as far as the motorbikes are concerned, it's a street or the main road, they always ride like they are doing a stunt<sup>20</sup>.

In this study majority of the males and one fourth female drivers participated from all over the Lahore. Authorities of Lahore traffic police is making challan against the use of mobile phones during driving but that is strictly implemented on Mall road and Jail road only. That's why drivers from these roads are not included in this study. E-challan system was started at Lahore but could not be continued due to unknown reasons. It was observed that majority of the drivers from both categories were motor car drivers whereas majority of the motor cycle were males and a few number was female drivers. One fourth motor cab drivers were males whereas a few numbers was female motor cab drivers. Majority of male drivers were motor cycle, motor car and motor cab drivers whereas majority of female drivers were motor car drivers only.

It was also noted that one fifth of male and female drivers belonged to age group 18-30 years. Less than half male and more than half female drivers belonged to age group 31-45 years. One fourth male and less than that female drivers belonged to age group 46-60 years whereas number of male drivers was double the number of female drivers those belonged to age group 61 years or above. Majority of the male and female drivers belonged to age group 18-60 years. Age group has great impact on use of mobile phones during driving.

In the United States a list of distracted driving laws has been maintained by Public health research law. A detailed view of the provisions of laws those stop the use of mobile phone devices while driving for all 50 states of USA and the District of Columbia between 1992, when first law was imposed, through 1<sup>st</sup> December, 2010 is provided by database of laws. The database includes information on 22 ways, continuous or categorical variables including, i.e activities regulated (e.g. hands-free versus handheld, texting versus talking), targeted populations, and exemptions<sup>21</sup>.

It was observed that tendency to use mobile phone during driving was more among male motor cycle drivers whereas no lady motor cycle driver used mobile phone during driving. Use of mobile phone by motor bikers is very dangerous during driving. Majority of female motor car drivers was engaged in the use of mobile phone as compared to male drivers. It was observed that use of mobile phone among male motor cab drivers was more whereas a few lady motor cab drivers used mobile phone. The majority of motor cab drivers belonged to UBER and CAREEM drivers. Their excuse was that they had to attend the calls of customers. Use of mobile phone among male and female van drivers was very less. This is appreciable

that half of the male drivers and more than half female drivers from all categories did not use mobile phone during driving. They attended calls after stopping vehicle on side. It was observed during this study that use of mobile phone was common among males. The young motor car drivers of both sexes were commonly involved in using mobile phones.

Study showed that often use of mobile phone was common among male drivers as compared to female drivers. Off and on use of mobile phone during driving was common among female drivers. Attending mobile phone during driving was common among females as compared to males. Use of mobile phone for songs was common among males whereas very less female drivers used mobile phones for songs. Approximately equal number of male and female drivers used mobile phone with Bluetooth device and hands free device. Attending emergency call with Bluetooth and hands free device might be acceptable in an emergency but routine use of these devices may cause distraction of driving.

Driving licenses and occurrence of minor or major accidents related to this issue were not included in this study because true statistical data was not available in public and private sectors. When drivers were asked about their licenses and any an accident during attending mobile phones, they didn't reply satisfactorily.

## CONCLUSION

The use of mobile phone was common among males as compared to females. Majority of the young and middle aged drivers from both sexes used mobile phone during driving. Majority of motor car drivers were more involved in using mobile phone during driving. Approximately one fourth drivers used mobile phones with devices.

## REFERENCES

1. McEvoy, S. P.; Stevenson, M. R.; McCarty, A. T.; Woodward, M.; Haworth, C.; Palmira, P.; Cercarelli, R. (2005). "Role of mobile phones in motor vehicle crashes resulting in hospital attendance: A case-crossover study". *BMJ*. **331** (7514): 428.
2. Redelmeier DA, Tibshirani RJ. Association between cellular-telephone calls and motor vehicle collisions. *New England Journal of Medicine*. 1997 Feb 13;336(7):453-8.
3. Laberge-Nadeau C, Maag U, Bellavance F, Lapierre SD, Desjardins D, Messier S, Saïdi A. Wireless telephones and the risk of road crashes. *Accident Analysis & Prevention*. 2003 Sep 1;35(5):649-60.
4. Bellavance F. Linking data from different sources to estimate the risk of a collision when using a cell phone while driving. *International Conference on Distracted Driving*, Toronto, Canada, <http://www.DistractedDriving.ca/english/documents/FrancoisBellavance001.pdf> 2005 Oct 2.
5. Caird JK, Scialfa CT, Ho G, Smilev A. Effects of cellular telephones on driving behaviour and crash risk: Results of meta-analysis. *CAA Foundation for Traffic Safety*, Edmonton, AB. 2004 Oct 25.
6. Horrey WJ, Wickens CD. Examining the impact of cell phone conversations on driving using meta-analytic techniques. *Human factors*. 2006 Mar;48(1):196-205. Archived from the original(PDF) on 2009-02-25. Retrieved 2007-12-14.

7. Strayer DL, Drews FA, Crouch DJ. A comparison of the cell phone driver and the drunk driver. *Human factors*. 2006 Jun;48(2):381-91. Archived from the original (PDF) on 2009-04-11.
8. Zhu M, Zhao S, Coben JH, Smith GS. Why more male pedestrians die in vehicle-pedestrian collisions than female pedestrians: a decomposition analysis. *Injury prevention*. 2013 Aug 1;19(4):227-31.
9. Klauer SG, Guo F, Simons-Morton BG, Ouimet MC, Lee SE, Dingus TA. Distracted driving and risk of road crashes among novice and experienced drivers. *New England journal of medicine*. 2014 Jan 2;370(1):54-9.
10. Oviedo-Trespalacios O, Haque MM, King M, Washington S. Understanding the impacts of mobile phone distraction on driving performance: A systematic review. *Transportation research part C: emerging technologies*. 2016 Nov 1;72:360-80.2.
11. Card JK, Johnston KA, Wellness CR, Abridge M, Steel P. A meta-analysis of the effects of texting on driving. *Accident Analysis & Prevention*. 2014 Oct 1;71:311-8.
12. Oviedo-Trespalacios O, King M, Haque MM, Washington S. Risk factors of mobile phone use while driving in Queensland: Prevalence, attitudes, crash risk perception, and task-management strategies. *PLoS one*. 2017;12(9).
13. Saifuzzaman M, Haque MM, Zheng Z, Washington S. Impact of mobile phone use on car-following behaviour of young drivers. *Accident Analysis & Prevention*. 2015 Sep 1;82:10-9
14. Sullman MJ, Prat F, Tasci DK. A roadside study of observable driver distractions. *Traffic injury prevention*. 2015 Aug 18;16(6):552-7.
15. Recarte MA, Nunes LM. Mental workload while driving: effects on visual search, discrimination, and decision making. *Journal of experimental psychology: Applied*. 2003 Jun;9(2):
16. Strayer DL, Drews FA, Johnston WA. Cell phone-induced failures of visual attention during simulated driving. *Journal of experimental psychology: Applied*. 2003 Mar;9(1):23.
17. Strayer DL, Johnston WA. Driven to distraction: Dual-task studies of simulated driving and conversing on a cellular telephone. *Psychological science*. 2001 Nov;12(6):462-6.
18. Just MA, Buchweitz A. What brain imaging reveals about the nature of multitasking. *Oxford handbook of cognitive science*. 2016 Nov 10;1.
19. Oviedo-Trespalacios O. Getting away with texting: Behavioural adaptation of drivers engaging in visual-manual tasks while driving. *Transportation Research Part A: Policy and Practice*. 2018 Oct 1;116:112-21.
20. Kirschman E. I love a cop: What police families need to know. Guilford Publications; 2018 May 3
21. Delgado MK, Wanner KJ, McDonald C. Adolescent cellphone use while driving: An overview of the literature and promising future directions for prevention. *Media and communication*. 2016. Jun 16;4(3):79.