

## Study of co-variables among victims of road traffic accidents admitted to a tertiary care hospital

Roshan Timmappa Mudaraddi<sup>1,\*</sup>, Jannatbi Ladsab Iti<sup>2</sup>

<sup>1,2</sup>Assistant Professor, GIMS, Gadag

\*Corresponding Author:

Email: roshanraddi@gmail.com

### Abstract

**Background:** Road traffic accidents are increasing at an alarming rate throughout the world. Rapid growth of transportation system, industrialization, urbanization and increase in population is responsible for the 'veritable epidemic'. Inadequate traffic planning and lack of traffic sense have worsened the situation particularly in the developing countries.

**Objectives:** To study the co-variables among victims of road traffic accidents.

**Method:** Information regarding Road Traffic Accident was taken from casualty register for the month of October and November.

**Results:** 72% were males, vehicles involved in accident by two wheeler was 40% and 70% of the accidents occurred within city limits. Weekend accidents accounted for 37% and 42% of passengers were involved in accidents. 83% were conscious when brought to the hospital and 67% had simple injuries compared to 33% with grievous injuries. 12% were found to be under the effect of alcohol when brought to casualty.

**Conclusion:** The number of accidents is significantly more during 10am to 2pm and 5pm to 8pm. The percentage of female drivers was significantly less than that of males. Weekend accidents were more compared to weekdays and 2/3<sup>rd</sup> of them had simple injuries. So there is a need for proper traffic planning and strict enforcement of traffic rules.

**Key words:** Road traffic accidents, Injuries, Driver.

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### Introduction

Road traffic accidents are increasing at an alarming rate throughout the world. Rapid growth of transportation system, industrialization, urbanization and increase in population is responsible for the 'veritable epidemic'. Inadequate traffic planning and lack of traffic sense have worsened the situation particularly in the developing countries.

Projected estimations reveals that fatalities due to RTA will increase by 66% over the next 20yrs and will be the 3<sup>rd</sup> leading cause of death by 2020 moving from its present 9<sup>th</sup> position.<sup>1</sup>

It is sad to note that life saved due to advancements in health and health related sector is now being wasted on the roads.<sup>1</sup>

The major causes of RTAs in our country are rapid increase in personalized modes of transport, a mixture of slow and fast moving vehicles, lack of road discipline, drunken driving and use of mobile phones while driving.<sup>2</sup>

The timely quality care provided to the victims will definitely alleviate their pain and limit the disability associated with accident.<sup>3</sup>

### Objective

To study the co-variables among victims of road traffic accidents.

### Method

Information regarding Road Traffic Accident was taken from casualty register for the month of October and November 2012 in Raichur Institute of Medical Sciences, Raichur, Karnataka.

**Inclusion criterion:** All the cases in the months of October and November were taken

**Exclusion criterion:** Cases which didn't give consent were excluded.

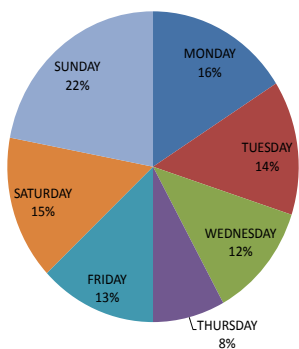
### Results and Discussion

Out of 400 cases (288) 72% were males whereas study from Nilambar Jha et al<sup>4</sup> found 83% to be males, vehicles involved in accident by two wheeler was (160) 40% Nilambar Jha study found 39% of the accident was due to two wheelers and (280) 70% of the accidents occurred within city limits. Weekend accidents accounted for (148) 37% and (168) 42% of passengers were involved in accidents. (332) 83% were conscious when brought to the hospital and (268) 67% had simple injuries compared to (132) 33% with grievous injuries. (48) 12% were found to be under the effect of alcohol when brought to casualty.

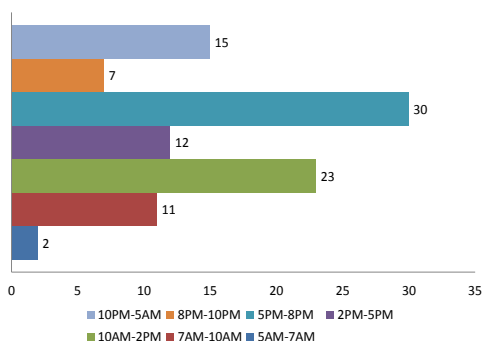
1. Frequency distribution among various variables

	FREQUENCY	%
SEX-MALE	288	72
FEMALE	112	28
PLACE OF ACCIDENT-WITHIN CITY LIMITS	280	70
OUTSIDE CITY LIMITS	120	30
NATURE OF INJURIES-SIMPLE	268	67
GRIEVOUS	132	33
TYPE OF VICTIM-PEDESTRIAN	112	28
DRIVER	120	30
PASSENGER	168	42
TYPE OF VEHICLE INVOLVED-2 WHEELER	160	40
OTHERS	240	60
STATE OF PATIENT WHEN BROUGHT TO HOSPITAL		
-CONSCIOUS	332	83
-UNCONSCIOUS	068	17
STATE OF ALCOHOLIC INTOXICATION OF VICTIMS		
-UNDER THE EFFECT OF ALCOHOL	48	12
- NOT UNDER THE EFFECT OF ALCOHOL	352	88

2. Day wise distribution of accidents



3. Time wise distribution of accidents among victims



Conclusion

The number of accidents is significantly more during 10am to 2pm and 5pm to 8pm. The percentage of female drivers was significantly less than that of males. Weekend accidents were more compared to weekdays and 2/3<sup>rd</sup> of them had simple injuries. So there is a need for proper traffic planning and strict enforcement of traffic rules.

Advice

Follow traffic rules, use helmets in case of two wheeler and seat belts in case of four wheeler, health education.

Acknowledgements

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