



## **Epidemiological study of Road Traffic Accidents in a Private Tertiary Hospital**

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### **ABSTRACT**

Globalization has resulted in motorization pacing up the number of road traffic accidents, thereby affecting the families, community and nations as a whole. In 2010, the WHO member countries declared 2011–2020. To determine the sociodemographic profile of road traffic accident victims. By age group, 41.0% of the subjects belong to 45-60 years followed by 18-45 years (39%). A large majority of the subjects was males (80.0%) and married (76%).

**Keywords:** RTA, Shimoga, Motorization

### **INTRODUCTION**

Eighty per cent of road traffic deaths occur in middle socio-economic countries, which account for 72% of the world's population, but only 52% of the world's registered vehicles.<sup>1</sup> There is no comprehensive legislation on five key risk factors for road traffic injury which include speeding, drink-driving, use of motorcycle helmets, seat-belts and child restraints in any of the South-East Asia Region countries.<sup>2</sup> Road crashes deserve to be a strategic issue for any country's public health and can lead to overall growth crisis, if not addressed properly.<sup>3</sup>

**Objective:** To determine the sociodemographic profile of road traffic accident victims.

### **METHODOLOGY**

The present study was a hospital based, cross sectional study. The study was conducted in

Subbaiah Institute of Medical Sciences hospital, Shimoga from January 2015 to December 2015.

**Inclusion criteria:** All road traffic accident cases admitted for at least more than 24 hours were included into the study.

**Exclusion criteria:** Victims of road traffic accidents admitted for less than 24 hours. Victims who were immediately referred to higher centre.

Necessary permission was taken from the authorities concerned in order to collect data from different departments of the hospital. A total of 200 cases of road traffic accidents reported to the Emergency, Surgery, Orthopedic units of Subbaiah Institute of Medical Sciences Hospital at Shimoga were interviewed after taking prior consent using a predesigned questionnaire.

### **RESULTS:**

**Table 1: Age group, gender and marital status of subjects**

S.No.	Variable	Number of subjects	Percentage
1.	<b>Age group (Years)</b>		
(a)	≤18	10	5
(b)	18 – 45	78	39
(c)	45 – 60	82	41
(d)	≥60	30	15
2.	<b>Gender</b>		
(a)	Male	160	80
(b)	Female	40	20

3.	<b>Marital status</b>		
(a)	Married	152	76
(b)	Unmarried	44	22
(c)	Widowed/Divorced	4	2
(c)	Friends	36	4.4

By age group, 41.0% of the subjects belong to 45-60 years followed by 18-45 years (39%). A large majority of the subjects was males (80.0%) and married (76%).

**Table 2: Occupational status of subjects**

Occupational status	Number of subjects	Percentage
Unemployed	24	12
Employed	176	78
<b>Total</b>	<b>200</b>	<b>100.0</b>

Majority of the subjects was employed (78.0%).

**Table 3: Socioeconomic status and place of residence**

S.No	Variable	Number of subjects	Percentage
1.	<b>Socio-economic status</b>		
(a)	Upper	10	5
(b)	Upper Middle	12	6
(c)	Lower Middle	45	22.5
(d)	Upper Lower	88	44
(e)	Lower	45	22.5
2.	<b>Place of residence</b>		
(a)	Rural	132	71
(b)	Urban	68	39

It was found that majority of the subjects belonged to upper lower socio-economic status (44%) followed by lower middle and lower economic status (22.5%). Further, it was found that a large majority of them belonged to rural areas (71%).

**Table 4: Number of road traffic accidents by time period of the day**

Time of accident	Number of subjects	Percentage
6 AM to 12 noon	15	7.5
12 PM to 6 PM	45	22.5
6 PM to 10 PM	110	55
10 PM to 6 AM	30	15
<b>Total</b>	<b>200</b>	<b>100.0</b>

Regarding time period in a day, the proportion of accident cases reported during 6 PM to 10 PM was highest (55%) followed by 12 PM to 6 PM time (22.5%).

## DISCUSSION

One of the consequences of the rapid motorization in many countries is increasing numbers of crash deaths and injuries. In order to reduce this damage, countries need to adopt abroad array of research based measures. Despite being wide advocations of essential safety programmes, driver education or training programmes, motor vehicle crashes have not been reduced. Strict enforcement of traffic safety laws have made the necessary changes in the behavior of road users across the world.<sup>4</sup>

Road traffic accidents can be considered as global crisis and serious attention has to be made in order to search for more effective strategies to end the

pandemic of road traffic injuries. The action deserves no delay, as every hour is witness to the scourge of deaths, injuries and disabilities on the road.<sup>5</sup>

By age group, 41.0% of the subjects belong to 45-60 years followed by 18-45 years (39%). A large majority of the subjects was males (80.0%) and married (76%).

Similar observations were reported in studies done at Chandigarh<sup>6</sup> and Bhopal<sup>7</sup> where male victims accounted for 84% and 82.5% respectively. Whereas in another study at Gujarat,<sup>8</sup> 22.7% of the road traffic accident victims were found to be females. In the study conducted at NIMHANS,

Bengaluru<sup>9</sup> it was found that 50% of the RTA victims were married.

**Recommendations to public:** Sensitize public about the raise in road traffic accidents especially during weekends and in the peak hours of all week days and plan for travel accordingly. Encourage

road users to use public transportation where ever possible. Regular usage of protective wear like helmets for motorized two wheelers and seat belts for occupants of four wheelers while travelling.

**Conflict of Interest: Nil**

**Source of funding: Nil**

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