

# To Assess the Knowledge on Prevention of Road Traffic Accidents among Undergraduate Students

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## ABSTRACT

Road safety is a multi-sectoral and multi-dimensional subject. Road traffic injuries are a leading cause of preventable death. They are the number one cause of death among those aged 15-29 years. The main aim of the study was to assess the knowledge on road traffic accidents among under graduate students in a selected college, Coimbatore. The objectives of the study are to assess the knowledge on prevention of road traffic accidents among under graduate students and to associate the level of knowledge of undergraduate students on prevention of road traffic accidents with their demographic variables. A descriptive design was used in the study. The purposive sampling technique was used to select 80 students of 2<sup>nd</sup> and 3<sup>rd</sup> year B. Com in PSG College of Arts and Science, Coimbatore. Data was collected using a semi structured knowledge questionnaire for assessing the level of knowledge on road traffic accidents. Inferential and descriptive statistics were used to analyse the data. Out of 80 samples, 36.25% of them have inadequate knowledge regarding road traffic accidents followed by 62.50% with moderately adequate knowledge and only 1.25% has adequate knowledge. There was a significant association between the level of knowledge on prevention of road traffic accidents and the demographic variable (driving license for a four wheeler). ( $p < 0.05$  level). There was no significant association for the other demographic variables

**Key Words:** Knowledge, Prevention, Road traffic accidents, under graduate students

## INTRODUCTION

A road accident refers to any accident involving at least one road vehicle, occurring on an open road to public circulation, and in which at least one person is injured or killed. It is projected that road traffic injures will move up to the third position by the year 2020 among leading causes of the global disease burden<sup>1</sup>. Every 30 hours, one person dies on Coimbatore roads, while three more are reported to be injured in road accidents". According to the data from the traffic police, 379 people were killed in 2016 with the rural limits and in 2017, 700 people were killed.<sup>2</sup> The UN General Assembly has declared 2011 to 2020 as the "DECADE OF ACTION FOR ROAD SAFETY" which seeks to halt the increasing trends in road traffic deaths and injuries worldwide. Prevalence of road traffic accidents are high among the age group between 15-18 years (31.8%) and those highly involved are those with two wheelers (74.9%). The contributing factors are less knowledge and negligence in following traffic rules.<sup>3</sup> The number of deaths due to motor vehicle accidents are increasing at a rate of 11.3% with an increase of 4% from 2010-2013. Majority of the public and the adolescents are not aware of the prevention of road traffic accidents.<sup>4</sup>

A study was conducted in 2016 with 50 samples in primary school of rural community. Demographic variables were collected and the knowledge on road safety regulations was assessed by using multiple

choice questions. The result showed that out of 50 samples, 16(32%) of them had inadequate knowledge, 20(40%) had moderately adequate knowledge and 14(28%) had adequate knowledge. Two youths namely Syed Thoufiq and Abuthakir, 19 years, had met with a road traffic accident due to rash driving in Avinashi road while heading to a mall in Peelamedu. Both of them suffered serious head injuries. Syed was rushed to the Coimbatore Medical Center hospital (CMCH) where he died without responding to the treatment. The other Abuthakir suffered injuries in his right leg, knee and left wrist and he was taken to the PSG hospital where first aid was given. Later, he was referred to CMCH where doctors declared that he was brought dead. The main reasons for the death were not wearing helmet, not following the traffic rules and rash driving.<sup>5</sup>The adolescents are lacking knowledge and this leads to many road traffic accidents and deaths at a very young age. So, Knowledge on prevention of road traffic accidents is very essential.

## OBJECTIVES

1. To assess the knowledge on the prevention of road traffic accidents among under graduate students
2. To associate the level of knowledge of undergraduate students on prevention of road traffic accidents with their selected demographic variables

## MATERIALS AND METHODS

Descriptive design was used to assess the knowledge on road traffic

accidents among undergraduate students. Purposive sampling technique was adapted to select 80 students of 2<sup>nd</sup> and 3<sup>rd</sup> year B.Com who are willing to participate in the study as study participants. Students who were absent during the study period were excluded from the study. The present study was conducted in PSG College of Arts and Science, Coimbatore. The sample's knowledge was assessed by a semi structured questionnaire. A pamphlet on prevention of road traffic accidents was distributed. The study was approved by IHEC and informed consent was obtained from all the participants of the study.

## TOOL

A semi structured questionnaire was used to collect the baseline data. This tool consists of two sections. Section A deals with demographic data which includes sample number, age, gender, course of study, locality, driving license, mode of transportation, witnessing any accidents previously, training/ awareness programs on road safety and the use of helmets.

Section B consist of 20 multiple choice question to assess the knowledge on road traffic accidents which includes general information about road traffic accidents, incidence, risk factors, effects, do's and don'ts while driving, road signs and the government rules on road safety.

## RESULTS AND DISCUSSION

The Significant Findings of the Study were:-

**Table 1: Assessment of level of knowledge of under graduate students on road traffic accidents, n=80**

S.No	Level of Knowledge of Adults	Frequency	Percentage (%)	Mean	Standard Deviation
1.	Inadequate knowledge	29	36.25		
2.	Moderately adequate knowledge	50	62.50	10.93	2.3348
3.	Adequate knowledge	1	1.25		

Table 1 reveals that out of 80 samples, 36.25% of them have inadequate knowledge regarding road traffic accidents followed by 62.50% with moderately

adequate knowledge and only 1.25% has adequate knowledge. The mean is 10.93 and the standard deviation is 2.3348.

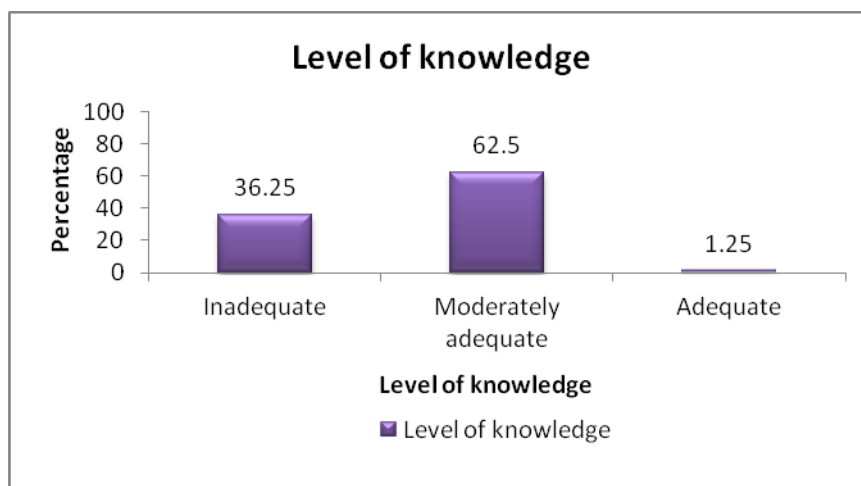


Figure 1: Percentage distribution of level of knowledge of adults on road traffic accidents

Table 2 Association of level of knowledge of undergraduate students on road traffic accidents with selected demographic variables. n=80

S.No	Demographic variables	Level of knowledge			Df	Calculated value	Tabulated value
		Inadequate	Moderate	Adequate			
1.	Age				6	7.26	12.59 (NS)
	a)18 yrs	12	29	0			
	b)19 yrs	12	17	1			
	c) 20 yrs	1	3	0			
	d)21 yrs	4	1	0			
2.	Gender				2	2.51	5.99(NS)
	a)Male	12	28	1			
	b)Female	17	22	0			
3.	Family Monthly Income				6	5.72	12.59 (NS)
	a)<5000	1	0	0			
	b)5001-10000	0	3	0			
	c)10001-15000	10	11	0			
	d)>15000	18	36	1			
4.	Locality				2	2.50	5.99 (NS)
	a)urban	22	38	1			
	b)rural	7	12	0			
5.	Driving license for 2 wheeler				4	1.046	9.48 (NS)
	a) Yes	15	27	1			
	b) No	3	2	0			
	c) Have applied	1	1	0			
6.	Driving license for 4 wheeler				4	10.54	9.48* (S)
	a) Yes	12	24	1			
	b) No	16	24	0			
	c) Have applied	1	2	0			
7.	Mode of transportation				6	7.12	12.59 (NS)
	a) By walk	6	7	0			
	b) Two wheeler	6	14	0			
	c) Four wheeler	12	12	0			
	d) Bus	5	17	1			

Note: Statistically significant - \* $p < 0.05$ , NS-not significant

Table 2 shows that there is a significant association between the level of knowledge of undergraduate students on road traffic accidents with the demographic variable driving license for 4-wheeler.

The first objective was to assess the level of knowledge on road traffic accidents among undergraduate students from PSG College of Arts and Science attending

The present study which was done to assess the knowledge on road traffic

accidents among the undergraduate students showed that 36.25% have inadequate knowledge, 62.50% have moderately adequate knowledge and only 1.25% has adequate knowledge.<sup>3</sup>

A similar cross-sectional study was conducted with 50 samples. The study revealed that, 16 (32%) of them had inadequate knowledge, 20 (40%) had moderately adequate knowledge and 14 (28%) had adequate knowledge. Regarding

the practice on road traffic regulations, out of the 50 samples, 22(44%) of them had poor practice, 24(48%) had good practice and 4(8%) had the best practice.

The second objective was to find out the association between levels of knowledge of students on road traffic accidents with their demographic variables.

The study finding showed that there is a significant association between the level of knowledge of students with the demographic variable (driving license for a four-wheeler). This showed that the students who had a driving license for a four-wheeler have adequate knowledge on prevention of road traffic accidents when compared to others.<sup>5</sup>

The findings of our study are contradicted by another study, a study to assess the association between the level of knowledge of the adolescents with the demographic variables. The study revealed that the knowledge adequacy about road safety and regulations had statistically significant association with age and gender.

## CONCLUSION

The study was conducted to assess the knowledge on prevention of road traffic accidents among undergraduate students of PSG College of Arts and Science, Coimbatore. The study findings showed that about 62.5% of the students had moderately adequate knowledge on road traffic accidents. This gave an insight to the investigator that more awareness needs to be imparted to the student population to control the risk factors and prevent the complications of road traffic accidents.

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