

A STUDY TO ASSESS THE KNOWLEDGE REGARDING TRAFFIC RULES AND PREVENTION OF ROAD TRAFFIC ACCIDENTS AMONG STUDENTS OF SELECTED SCHOOLS AT KOLLAM.

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ABSTRACT

Road traffic accidents are the third leading cause of death now a day after coronary artery disease and cancer. Poor awareness regarding road traffic safety and increasing death rate among students enforces to think more deeply on traffic rules and preventive measures.

The present study was conducted to assess the knowledge regarding traffic rules and prevention of road traffic accidents among students of selected schools at Kollam. The objectives of the study were to assess the knowledge regarding traffic rules and prevention of road traffic accidents among students and to find out the association between knowledge and selected socio demographic variables. Main study was conducted in Craven LMS High School Kollam .Purposive sampling technique was used to select 50 samples from the age group of 13-15 years. On the same day, structured questionnaire was used to collect the data. The data collected was analysed by using descriptive and inferential statistics. The results revealed that among 50 students, 16% had good knowledge, 62% had average knowledge and 22% had poor knowledge. There is no significant association found between knowledge score and selected socio demographic variables at 0.05 level of significance.

KEYWORDS: Road traffic accidents, Traffic rules, Students.

About Author



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INTRODUCTION

Traffic rules are created to ensure safety and to decrease the number of accidents in the country. To reduce the chance of accidents and violation of traffic rules, the motor vehicle act 1988 was created.¹

Traffic laws are the laws, which govern traffic and regulate vehicles, while rules of the road are both the laws and the informal rules that may have developed over time to facilitate the orderly and timely flow of traffic.¹

Road traffic accidents among children are common in our country and day by day it is increasing. Main reason is that they have lack of knowledge regarding traffic rules and traffic instructions and the main victims are especially the school children.¹

Road traffic accidents are any injury due to clashes originating from a vehicle partially or fully on a public road. It is projected that road traffic injuries will move up to the third position by the year 2020 among leading causes of the Global disease burden.¹

The Global status report on road safety 2013 indicates the total number of road traffic death that remains unacceptably high at 1.24 million per year. Road traffic injuries are the leading cause of death among young people aged 15 to 29 years. There is one death every 4 minutes due to a road accident in India. Drunken driving is one of the leading causes of road fatality.¹

India has the highest number of road fatalities with a crash occurring every minute and one death every 4 minutes. India is having 1% of the world's vehicles, it accounts for over 10% of global road crash fatalities, the highest in the world.²

According to the road accident in India 2015 report released in June 2016 by the transport research wing (TRW) of ministry of road transport and highways (MORTH) 1,46,133 people were killed in road crashes in 2015 including 12,589 children. This number is not only the highest that India has ever recorded in history, but it represents a 53.9% increase over the last decade and nearly a 10 fold increase since 1970.²

The alarming increase in mortality and morbidity owing to the road traffic accident has been a matter of great concern globally. According to the WHO data for 2002, road traffic injuries accounted for 2.1% of all global death and ranked as the

11th leading cause of death. WHO data shows that in 2002 nearly 1.2 million people died as a result of road traffic injuries.²

Apart from the accident rates other traffic violations such as jumping red light at intersection have increased in affecting road safety. Compared to the bigger metros the traffic strength is lower in Bangalore despite the large number of vehicle on road. One percentage cases are billed for traffic violations and 13.43 crore rupees fine amount is collected.¹

According to WHO, over 50% of deaths are among adolescents in the age of 13 to 20 years. In other words, the WHO believes that the majority of RTA victims are young. Therefore the issue needs more attention and support from every individual in all communities around the world. Youth are permanent wealth and health of any society; they are the precious treasure of any developing nation.¹

Information of road safety rules is vital in preventing the road traffic accidents and safeguarding children from the accidents. Now a day's more accidents are seen among boys and girls. So we decided to create awareness among school children regarding road traffic rules and regulations which will help them to follow in future. Thus we have selected this topic for our research study.

An epidemiological study was conducted regarding road traffic accidents in Chitradurga city; the study population consisted of 1070 patients. Majority of them were males (85.4%). Most of the victims had education till high schools (37.1%) and 12.5% were illiterates. The vulnerable road users like drivers, occupants and pedestrians were 57.6%, 22.9% and 19.5% respectively. Only 8.8% of the road users wore a safety measure at the time of injury. 14.8% of victims gave history of having consumed alcohol prior to the injury. Among victims 15.1% suffered grievous injury.⁶

A cross sectional study was conducted to assess the knowledge, attitude and practice towards road safety rules and regulations among higher secondary students from the three selected schools. Among them 181 participants belonged to 11thstd (51.9%) and 173 participants ranged from 15-19 years. Out of 360 participants, 186 participants (51.7%) had adequate knowledge, 174 participants (48.3%) had inadequate knowledge on the road safety rules and regulations and only 45% used

zebra crossing for crossing road. 77.5% followed the road signs and symbols and only 201 participants (55.8%) had the habit of wearing seat belt while in a moving car.⁸

A cross sectional study design was used to assess the knowledge and practise on road safety regulations among school children in rural community. Fifty samples were selected from the primary school of rural community. Data was collected about socio economic variables followed by the assessment of the knowledge on road safety regulations by using multiple choice questions and the practice level was assessed by check list regarding knowledge on traffic rules and regulations. The result revealed that out of 50 samples, 16(32%) of them had inadequate knowledge, 20(40%) of them had moderately adequate knowledge and 14(28%) of them had adequate knowledge. Regarding practice on road traffic regulations 22(44%) of them had poor practice 24(48%) had good practice and 4(8%) had best practise.¹¹

A study to assess the effectiveness of video assisted teaching on knowledge regarding prevention of road traffic accidents among adolescents at selected colleges, Bangalore. Probability simple random sampling technique was used to select the samples, and 60 samples were selected by using lottery method. Data was analysed by using descriptive and inferential statistics. The first objective of the study was to assess the pre-test knowledge score on prevention of road traffic accidents among adolescents. In present study, out of 60 adolescents 35(58.3%) had inadequate level of knowledge and 25(41.7%) had moderate knowledge and none of subjects had adequate knowledge in pre-test. The mean pre-test knowledge score is 17.98 and standard deviation is 3.74. The second objective of the study was to assess the post knowledge on prevention of road traffic accidents among adolescents. Out of 60 subjects, 48(70%) had adequate level of knowledge, 18(30%) had moderate level of knowledge and none of the adolescents got inadequate knowledge. Post-test mean knowledge score is 30.80 and standard deviation is 3.30. 't' test value is 28.12.⁹

Objectives

The objectives of the study are to:-

- To assess the knowledge regarding traffic rules and its prevention of road traffic accidents among students.

- To find out association between the knowledge and selected socio demographic variables.

Hypothesis

- H₀₁: There is no significant association between knowledge regarding traffic rules and regulation and prevention of road traffic accidents and socio demographic variables.

MATERIALS AND METHODS

- Research Approach - Quantitative approach
- Research design - Descriptive design
- Research variables - Knowledge regarding traffic rules and prevention of road traffic accidents
- Setting - Craven LMS High School, Kollam.
- Population - School children in Craven LMS High School, Kollam.
- Sample size - 50 students
- Sampling technique - Purposive sampling technique
- Tools / instrument - Socio demographic Proforma and Structured knowledge questionnaire to assess knowledge regarding traffic rules and prevention of road traffic accidents among school children.

The researcher obtained prior permission for the study from the concerned authority of Craven LMS High School, Kollam.

Samples were selected by using purposive sampling. The questionnaire was given to the VIII standard students of Craven LMS High School, after obtaining their consent.

The purpose of the study was explained to the students and instructions were given. Time taken to complete the questionnaire was 30 minutes. Data is analysed by using descriptive and inferential statistics.

RESULTS

Section I: Description of sample characteristics.

Most of the samples, 74% belong to the age of 13 years, 60% samples were females and 40% were males, 44% samples belong to Christian, 56% were living in rural area, 60% students came from nuclear family, 56% of their family income was between Rs 1000 and 5000/-, 56% students mode of transportation was through other vehicles, 46% fathers were self-employed, 42% mothers were house wives, 26% students had previous knowledge regarding traffic rules and prevention of road traffic accidents.

Section II: Knowledge regarding traffic rules and prevention of road traffic accidents

Table 2: Frequency and percentage distribution of samples according to knowledge score.

n = 50

Sl.No	Level of Knowledge	Frequency	Percentage
1	Good	8	16%
2	Average	31	62%
3	Poor	11	22%

The above table shows that 62% of samples had average knowledge and 22% had poor knowledge on traffic rules and prevention of road traffic accidents.

Section III: Association between knowledge score and selected demographic variables.

Table 3: Association between knowledge score and selected socio demographic variables

n = 50					
Demographic Variable	Frequency (f)	Percentage (%)	df	Chi square	P
1. Age in years					
a) 13	37	74%			
b) 14	13	26%	2	0.502	5.99
c) 15	0	0			
2. Sex					
a) Male	20	40%	2	0.13	5.99
b) Female	30	60%			
3. Religion					
a) Christian	22	44%			
b) Hindu	18	36%	4	7.18	9.49
c) Muslim	10	20%			
4. Place of residence					
a) Urban	22	44%	2	0.394	5.99
b) Rural	28	56%			
5. Family type					
a) Nuclear	30	60%			
b) Joint	20	40%	2	0.372	5.99
c) Extended	0	0			

6. Family income					
a) 1000 – below	0	0			
b) 1000 – 5000	28	56%	2	0.687	5.99
c) 5000 & above	22	44%			
7. Mode of transport					
a) Walking	12	24%			
b) Bicycle	10	20%	4	3.6	9.49
c) Other vehicle	28	56%			
8. Occupation of father					
a) Private sector	17	34%			
b) Government sector	6	12%	6	3.12	12.59
c) Self employed	23	46%			
d) Un employed	4	8%			
9. Occupation of mother					
a) Private sector	19	38%			
b) Government sector	3	6%	6	2.45	12.59
c) Daily wage	7	14%			
d) House wives	21	42%			
10. Previous knowledge					
a) Yes	13	26%	2	0.9	5.99
b) No	37	74%			

Not significant

There is no significant association found between knowledge score and selected demographic variables.

The data presented in the above table shows that there is no significant association between knowledge score and socio demographic variables. Here the chi-square (χ^2) value was less than the table value. Hence the null hypothesis (H_0) was accepted and rejected research hypothesis (H_{01}).

DISCUSSION

A comparative study conducted to assess the knowledge and practice on road safety regulation among primary school children in rural community. The result revealed that out of 50 samples, 16 (32%) of them had inadequate knowledge 20 (40%) of them had moderately adequate knowledge and 14 (28%) of them had adequate knowledge. Regarding practice on road traffic regulations 22 (44%) of them had poor practice 24 (48%) had good practice and 4 (8%) had best practice.

CONCLUSION

The following conclusions were drawn on the basis of the findings of the study.

- Knowledge of the students regarding traffic rules and prevention of road traffic accident was 62% average and 22% poor.
- There was no significant association between knowledge score and selected socio demographic variables like age, sex, religion, place of residence, type of family, family income, mode of transport, occupation of mother, occupation of father and previous knowledge at 0.05 level of significance.

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