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A Study On School Students Understanding Of Road Traffic Accident Prevention Strategies

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ABSTRACT - According to the World Health Organization (WHO), 1.35 million people die in RTAs each year, and millions more suffer from non-fatal injuries that cause disability and financial hardship. Schoolchildren, who frequently use the roads as passengers, cyclists, or pedestrians, are especially vulnerable to RTAs for a variety of reasons, including a lack of awareness, reckless driving, a lack of supervision, and a failure to implement road safety measures. Understanding and executing preventive actions against RTAs is critical for protecting schoolchildren from injuries and deaths. A quantitative approach with descriptive research design was used for the survey. The duration of the survey was from 5th March 2023. The survey was conducted in Moradabad, J.M. Public School. The samples were selected by using convenient sampling technique. The sample for the survey were 60 8th class students studying in the J.M. Public School, Moradabad. A demographic checklist and self-structured observational checklist were prepared for the assessment. The study depicts that knowledge regarding the road safety measures among the 8th class students. It reveals that the knowledge level was good among 55% of participants, average among 37% of participants and poor among 8% of participants. The study conducted that student had good knowledge regarding preventive measures of road traffic accidents.

KEYWORDS: Knowledge, Road Traffic Accidents & School Students

INTRODUCTION –

People of all ages are affected by road traffic accidents (RTAs), which are a major cause of morbidity and mortality globally. According to the World Health Organization (WHO), 1.35 million people die in RTAs each year, and millions more suffer from non-fatal injuries that cause disability and financial hardship. Schoolchildren, who frequently use the roads as passengers, cyclists, or pedestrians, are especially vulnerable to RTAs for a variety of reasons, including a lack of awareness, reckless driving, a lack of supervision, and a failure to implement road safety measures. Understanding and executing preventive actions against RTAs is critical for protecting schoolchildren from injuries and deaths. Adherence to traffic rules, correct pedestrian behaviour, helmet and seatbelt use, safe cycling techniques, and understanding of road signs all help to reduce the likelihood of an accident occurring. Schools serve as the major platform for teaching road safety information in pupils through educational programs, awareness campaigns, and hands-on training sessions. Furthermore, parental supervision, community engagement, and government legislation all help to shape safe road behaviour in youngsters.

Studies indicate that schoolchildren frequently lack adequate information and awareness regarding preventive measures, despite a plethora of international and local initiatives to increase road safety education. Increased vulnerability to traffic accidents results from this knowledge gap, underscoring the pressing need for focused interventions and educational initiatives. To find gaps in current educational programs and create more successful road safety measures, it is crucial to gauge schoolchildren's awareness of road safety.

This study aims to evaluate schoolchildren's comprehension of traffic accident prevention techniques. In order to identify problem areas and provide solutions to enhance road safety training, which would ultimately help reduce the number of school-age traffic accidents, this study assesses students' knowledge and comprehension of road safety procedures.

METHODOLOGY-

The main aim of the assessment was to assess the knowledge regarding preventive measures of road traffic accidents among school students. A quantitative approach with descriptive research design was used for the survey. The duration of the survey was from 5th March 2023. The survey was conducted in Moradabad, J.M. Public School. The samples were selected by using convenient sampling technique. The sample for the survey were 60 8th class students studying in the J.M. Public School, Moradabad. A demographic checklist and self-structured observational checklist were prepared for the assessment. Data was collected by assessing the knowledge regarding preventive

measures of road traffic accidents Further data was arranged and analyzed by using inferential and descriptive statistics.

RESULT - SECTION I: DESCRIPTIVE ANALYSIS OF DEMOGRAPHIC VARIABLES

Table 1: Frequency and Percentage distribution of 8th class students according to their age. (N=60)

Age of 8th class students (In Years)	Frequency	Percentage
11-13 years	38	63.3%
14-16 years	22	36.7%
Total	**60**	**100%**

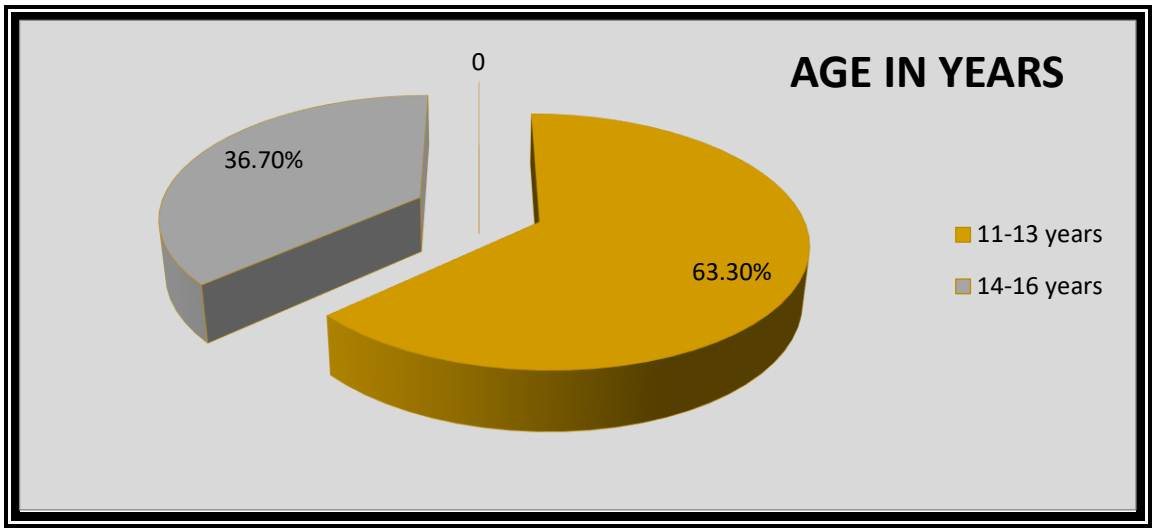


Fig 1; Column diagram representing percentage distribution of 8th class students according to their age.

As shown in above pie graph, according to their age, majority, i.e., 63.30% were from the age group of 11-13 years, 36.70% were from the age group of 14-16 years, respectively. Thus , it can be interpreted that highest percentage is in the group of 11-13 years.

Table 2: Frequency and Percentage distribution of 8th class students according to their gender. (N=60)

Gender of 8th class students	Frequency	Percentage
Female	32	53.3%
Male	28	46.7%
Total	**60**	**100%**

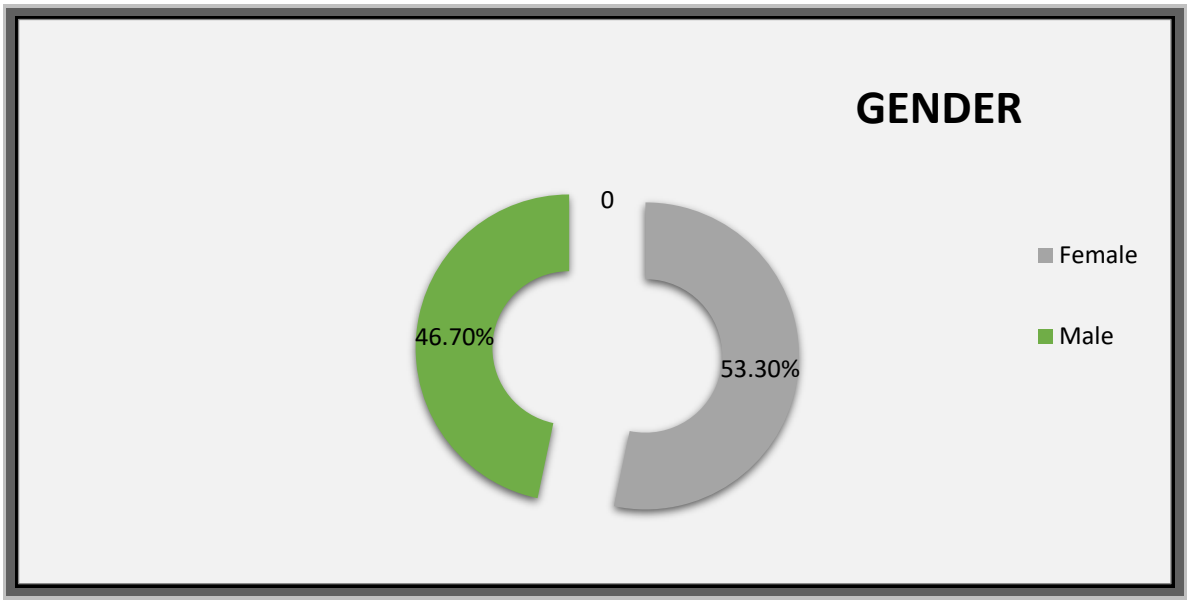


Fig. 2; Doughnut diagram representing percentage distribution of 8th class students according to their gender.

As shown in above doughnut diagram, according to their gender that 53.3% of them were female and 46.7% of them were male students. It shows that most of the students were females.

Table 3: Frequency and Percentage distribution of 8th class students according to their educational status of parents. (N=60)

Educational status of Parents	Frequency	Percentage
Primary Education	37	61.7%
Secondary Education	12	20.0%
Higher Education	11	18.3%
Total	**60**	**100%**

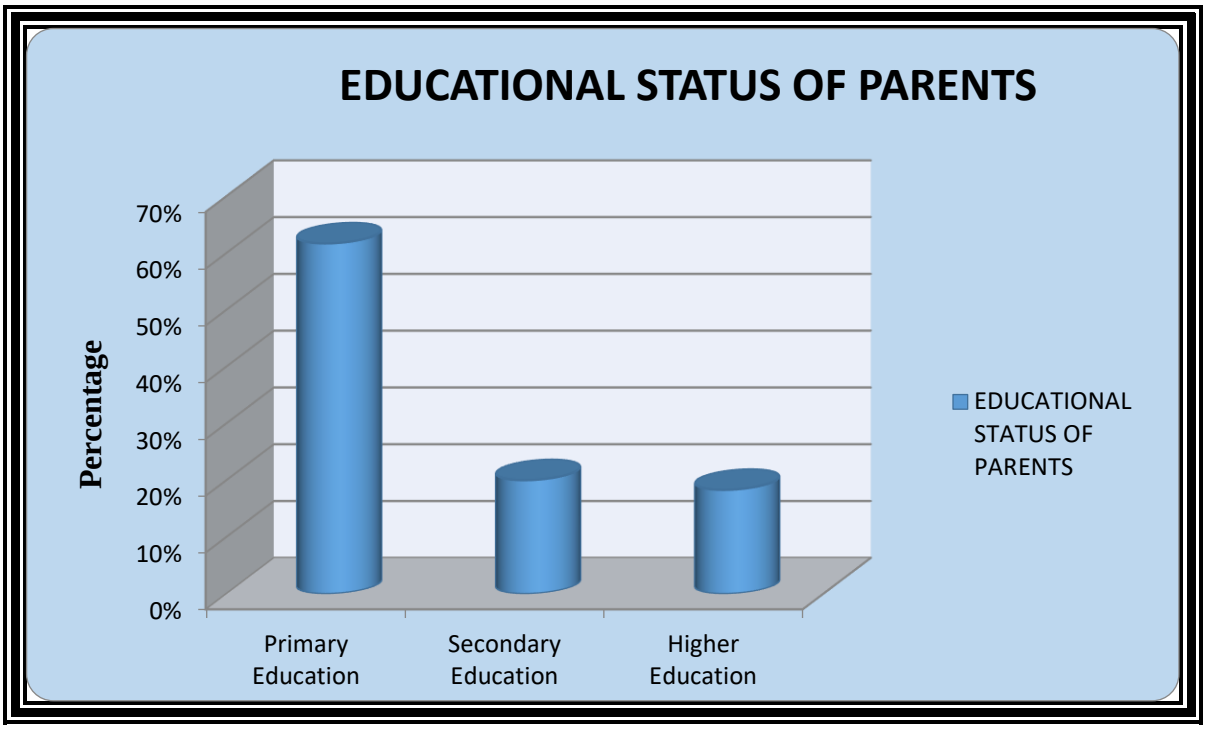
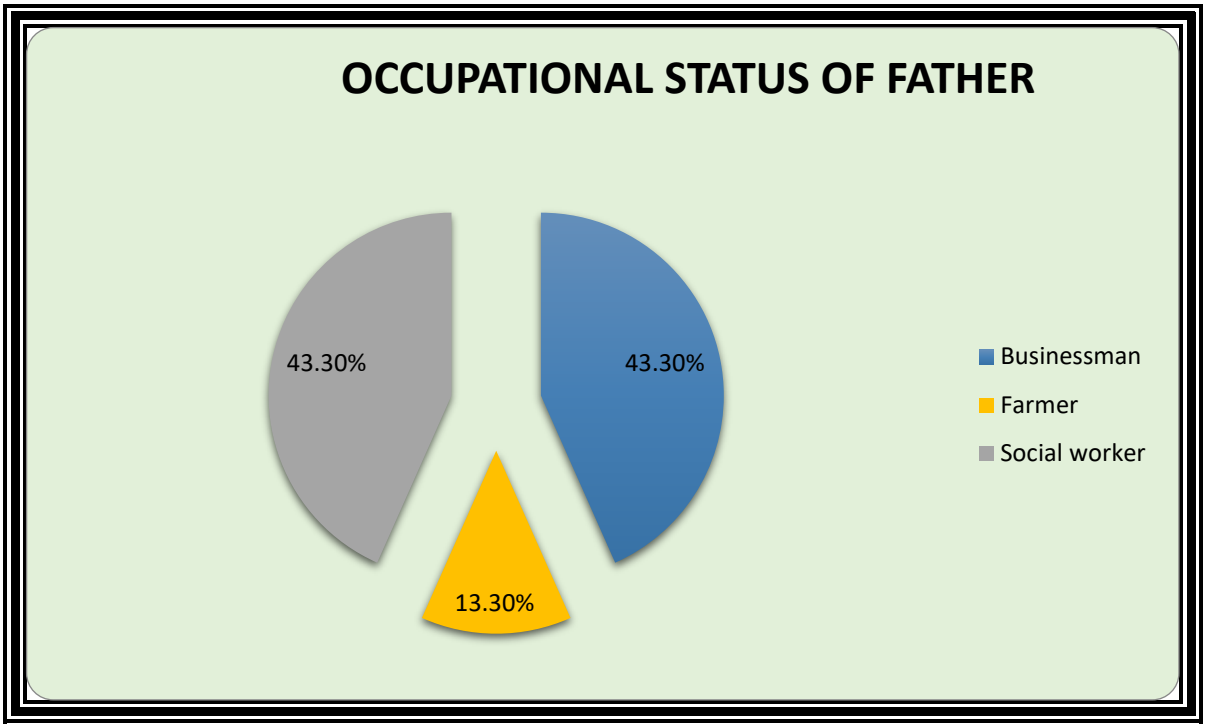


Fig. Bar graph representing percentage distribution of 8th class students according to their educational status of parents.

According to their educational status of parents 61.7% of parents have primary education, 20.0% of parents have secondary education, and 18.3% of parents have higher education. It shows that majority parents have primary education.

Table 4: Frequency and Percentage distribution of 8th class students according to their occupational status of father. (N=60)

Occupational status of Father	Frequency	Percentage
Businessman	26	43.3%
Farmer	8	13.3%
Social worker	26	43.3%
Total	**60**	**100%**

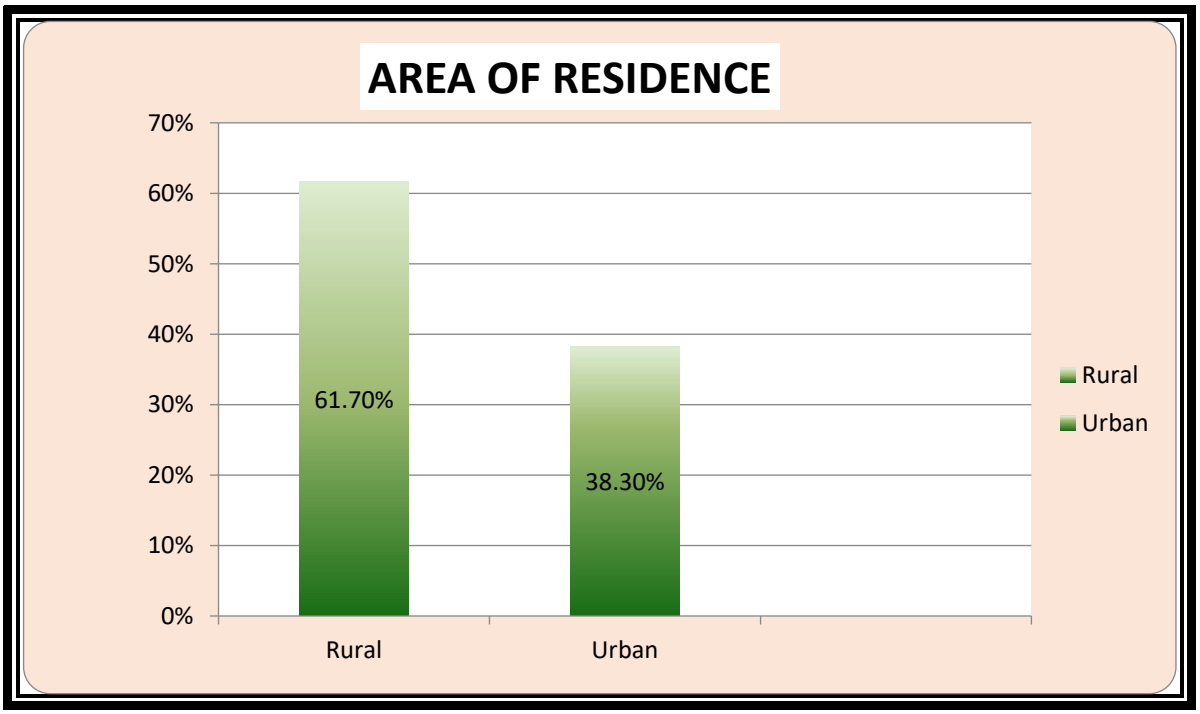


Fig; Pie chart representing percentage distribution of 8th class students according to their occupational status of father.

According to their occupational status of father 43.3% of father were businessman, 43.3% of father were social worker, and 13.3% of father were farmer.

Table 4: Frequency and Percentage distribution of 8th class students according their area of residence. (N=60)

Area of residence	Frequency	Percentage
Rural	37	61.7%
Urban	23	38.3%
Total	**60**	**100%**

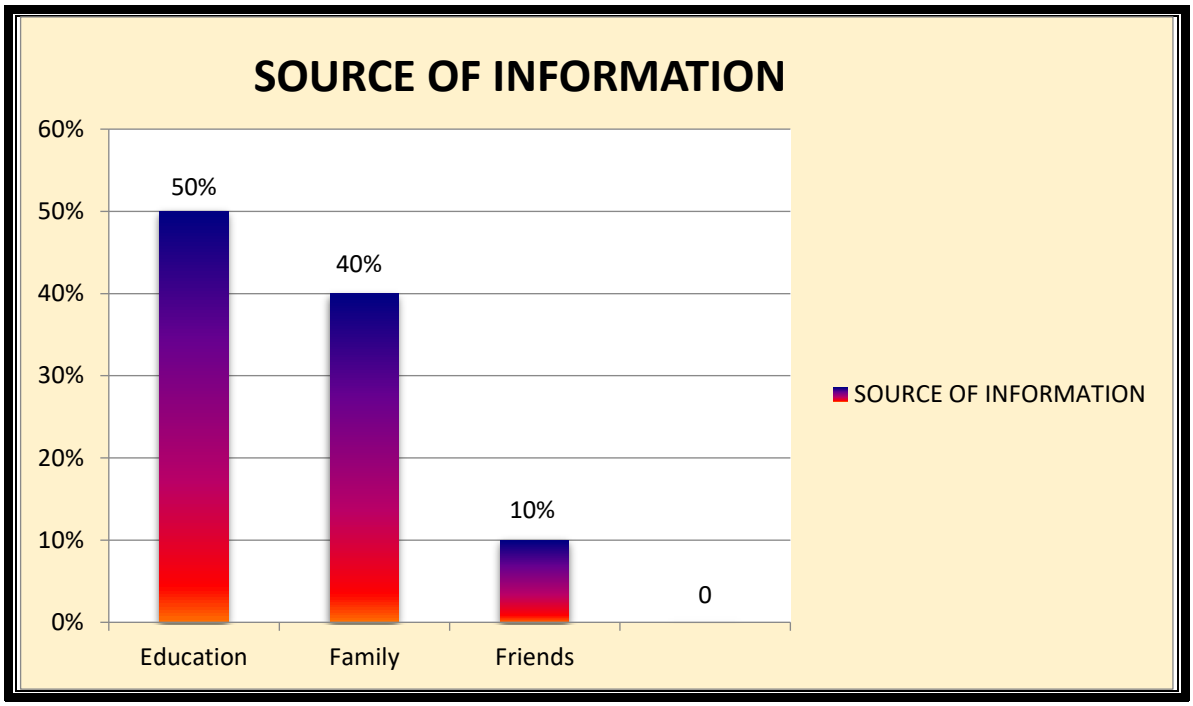


Fig; Bar graph representing percentage distribution of 8th class students according to their area of residence.

The above bar graph shows that majority, 61.7% of students were from rural area and 38.3% of students were from urban area.

Table 6: Frequency and Percentage distribution of 8th class students according to their source of information. (N=60)

Source of information	Frequency	Percentage
Education	30	50%
Family	24	40%
Friends	6	10%
Total	**60**	**100%**



Fig; Area graph representing percentage distribution of 8th class students according to their source of information.

According to their source of information 50% of students were aware through education, 40% of students were aware through family and 10% students were aware through friends.

SECTION II: ASSESSMENT OF KNOWLEDGE AMONG THE 8TH CLASS STUDENTS.

Table 7: Frequency and Percentage distribution of 8th class students regarding their knowledge scores. (N=60)

Level of knowledge	Range	Frequency	Percentage
Poor knowledge	0-13	5	8.3%
Average knowledge	14-19	22	36.7%
Good knowledge	20-25	33	55.0%
Total		**60**	**100%**

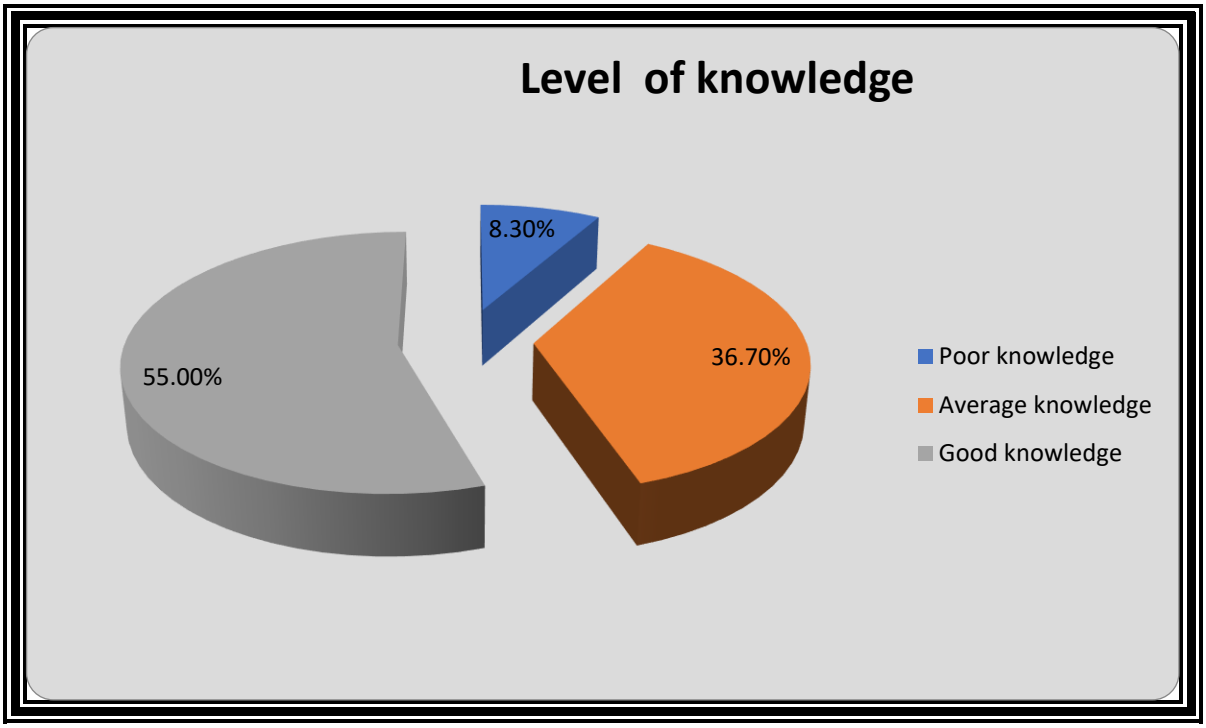


Fig.7: Doughnut diagram representing percentage distribution of 8th class students according to their level of knowledge.

The above doughnut diagram shows that 55.0% of the students having good knowledge, 36.7% of the students having average knowledge and 8.3% of the students are having poor knowledge regarding the preventive measures of road traffic accident.

Table 8: Assessment of knowledge of subjects regarding preventive measures of road traffic accidents

No. of items	Range		Knowledge score			
	Min	Max	Mean	SD	Median	Mode
25	**12**	**25**	**19.15**	**3.18**	**20.0**	**20.0**

SECTION 3: Association between the awareness regarding preventive measures of road traffic accidents among the 8th class students with their selected demographic variables.

Demographic Variable	Poor knowledge	Average knowledge	Good knowledge	Chi-square value & df	P value	Inference
Age in years						
11-13	5	15	18	4.215 Df=2	0.122	Not Significant.
14-16	0	7	15			
Total	**5**	**22**	**33**			
Gender						
Female	5	8	19	7.159 Df=2	0.028	Significant
Male	0	14	14			
Total	**5**	**22**	**33**			
Education Status of parents						
Primary education	2	13	22	2.050 Df=4	0.726	Not Significant .
Secondary education	2	4	6			
Higher education	1	5	5			
Total	**5**	**22**	**33**			
Occupation status of father						

Demographic Variable	Poor knowledge	Average knowledge	Good knowledge	Chi-square value & df	P value	Inference
Businessman	3	8	15	1.708 Df=4	0.789	Not Significant.
Farmer	0	3	5			
Social worker	2	11	13			
Total	**5**	**22**	**33**			
Area of residence						
Rural	3	13	21	0.122 Df=2	0.941	Not Significant.
Urban	2	9	12			
Total	**5**	**22**	**33**			
Source of information						
Education	1	9	20	6.309 Df=4	0.177	Not Significant.
Family	3	12	9			
Friends	1	1	4			
Total	**5**	**22**	**33**			

The above table depicts that there was only one significant association found between knowledge score with gender variable and no significant association found between knowledge score with their selected socio-economic variables age, educational status of parents, occupational status of father, area of residence and source of information. So it showed that there was only one significant association. Hence the research hypothesis was accepted completely.

LIMITATIONS

The study has the following limitations:

- Sample size was limited to 60 school students.
- It was limited to 8th class school students.

CONCLUSION

The study depicts that knowledge regarding the road safety measures among the 8th class students. It reveals that the knowledge level was good among 55% of participants, average among 37% of participants and poor among 8% of participants. The study conducted that student had good knowledge regarding preventive measures of road traffic accidents.

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