

**Research article****Awareness regarding road safety rules among school children****Kale Kalpana. S**

Pravara Institute of Medical Sciences (DU) College of Nursing, Loni (Bk) Rahata, Ahmednagar

**Abstract**

**Background:** Accidents represent a major epidemic of non communicable diseases in present century [2]. According to WHO, nearly 1.17 million people lost their lives every year due to road accidents and more than 26000 children die and up to 10 million are injured in road crashes each year. India accounts for 6% of the world's road traffic accidents [1]. Maharashtra has highest number of road accidents in country. Maharashtra's roads continue to be the most unsafe in the country [7]. The present study was carried out with objectives to assess the awareness level regarding road safety rules among primary school going children.

**Material and Methods:** Non experimental, Descriptive cross sectional survey design was used for the study. Around 225 school children (10-13) age group 5<sup>th</sup> to 7<sup>th</sup> Standard from Rayat high school was selected by using probability method: stratified random sampling techniques. The pre tested structure interview schedule was used to collect the data. It consists of three sections. Section A: Socio Demographic data of children's (8 Items), Section B: Questionnaire to assess the knowledge regarding road safety measures while walking, travelling in vehicle (10 Items), Rules and symbols for road safety Measures (10 Items). After obtaining the informed consent, data was collected. The collected data was analyzed with descriptive and inferential statistics wherever required.

**Results:** The study findings revealed that, overall mean knowledge score was (13±3.4) which is 65% of total score indicating that the mother's had satisfactory level of awareness on breast feeding, while only mere percent (9%) had good knowledge, however 10% of them had poor awareness of road safety rules. There was a significant association was found between awareness with socio demographic variables like age, mothers education, and source of information at  $p \leq 0.05$  level.

**Conclusion:** Though the school children had satisfactory level of awareness, while considering the age, mother's education, source of information and Mode of travelling to school. it is important for health care professionals to impart education on road safety rules and its importance. If the children are educated regarding causes and prevention of road traffic accidents, rules and regulations for crossing the road and signal lights, such type of accidents can be reduced to an extent.

**Key words:** Awareness, Road safety, School going children

**\*Corresponding author: Mrs. Kale Kalpana S.,** Assistant Professor, Pravara Institute of Medical Sciences (DU) College of Nursing, Loni (Bk) Rahata, Ahmednagar, Maharashtra – 413736 Email: Kalpana\_kale70@yahoo.in

**1. Introduction**

The children of today is the adults of tomorrow they deserve to inherit a safer , fairer and healthier world, there is no task more important than safe guarding their environment [5]. According to WHO, nearly 1.17 million people lost their lives every year due to road accidents and more than 26000 children die and up to 10 million are injured in road crashes each year [1] According to central government report the state accounts for 13.8% of road accidents in India in 2011

about 1.47 people were killed in 1.21 lakh road accidents across the country of which 12,500 deaths occurred in Maharashtra. Maharashtra has highest number of road accidents in country. Maharashtra's roads continue to be the most unsafe in the country [7]. Road safety knowledge is essential for children walking to school so they can safely navigate traffic environments. At the same time walking to school increases children's awareness of their neighborhood and also has a positive influence on their health and wellbeing [6]. Road safety is very important for people of all age group to be safe and secure as well as reduce the number of road accidents and injury cases [11].

Children should be well practiced from the end of their parents at home and get proper study by the teacher in the school [9].

If the children are educated regarding causes and prevention of road traffic accidents, rules and regulations for crossing the road and signal lights, such type of accidents can be reduced to an extent [10] As a health care professional we can play an important role in awareness creation among school children. Information of road safety rules is vital in preventing the road traffic accidents, safeguarding children from road traffic accidents.

Prevention is acknowledged as the best public health option, thus the present study was conducted.

## 2. Material and methods:

It was Non experimental; Descriptive study with cross sectional survey approach was used for the study. Around 225 school children (10- 13) age group 5<sup>th</sup> to 7<sup>th</sup> Standard from Rayat high school was selected by using probability method: stratified random sampling techniques. The pre tested structure interview schedule was used to collect the data. It consists of three sections. Section A: Socio Demographic data of children's (8 Items), Section B: Questionnaire to assess the knowledge regarding road safety measures while walking, travelling in vehicle (10 Items), Rules and symbols for road safety Measures (10 Items). After seeking the written informed consent all the participants were interviewed, and the responses were voluntary; and no probing questions were asked. In relation to scoring key the correct response carries 1 score and wrong response carries 0 score. The awareness level was categorized in to poor, satisfactory and good respectively.

The collected data was analyzed by using descriptive statistics such as mean, standard deviation (SD) and mean percent for continuous variables; and frequency, percentage for categorical variables. These were to understand the distribution of subjects on the socio demographic and other variables to assess the awareness of Road safety Rules among school children. The inferential statistics like chi square test was used to find association between the variables. The p value ( $p < 0.05$ ) was considered statistically significant level.

## 3. Results:

**Socio demographic characteristics of antenatal mothers:** Nearly half (46%) of children's were in the age group of 10 – 11 years, more than half (56%) of children are male and nearly one third (33%) of children were from 5<sup>th</sup>, 6<sup>th</sup> and & 7<sup>th</sup> standard respectively. Most (36%) of fathers had Farmers occupation. Nearly half (47%) children's father and mother had secondary school education respectively. Nearly half (45%) of school children's received

information on road safety rules through mass media's (32%) from News paper magazine and (23%) got the information from friends and relatives, Many (44%) of school children's mode of travel to school was bicycle, (16%) of them are using bicycle, (12%) using Bus and (28%) of them were using other mode of travelling to the school.

**Awareness on road safety rules:** The mean awareness score was ( $13 \pm 3.4$ ) which is 65% of total score indicating that the school children's had 'satisfactory level' of awareness on road safety rules. However children had significantly higher percent of awareness in relation to road safety measures while walking, travelling on symbols and rules of road safety (Figure No. 1). Overall 65% of them had satisfactory level of awareness followed by, 21% of school children had 'poor level' of awareness and remaining 14% had 'good level' of awareness on road safety rules. There was a statistically significant association was found between awareness on road safety rules and the socio demographic variables like age (9.13), mothers education (7.47), Mode of travelling to school (7.41) and source of information (7.98) at  $p \leq 0.05$  level. (Table No.1)

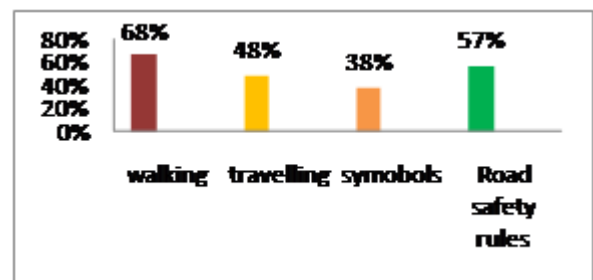


Figure No. 1 Bar diagram showing area wise awareness on Road safety Rules.

Table No.1 Association of awareness with socio demographic variables. (n= 225)

S N	Variable	Chi - square value	Level of significance
1	Age	9.13	Significant
2	Sex	2.08	Not Significant
3	Standard	0.44	Not Significant
4	Fathers Occupation	2.17	Not Significant
5	Fathers education	1.09	Not Significant
6	Mothers Education	7.47	Significant
7	Source of information	7.98	Significant
8	Mode of travelling to school	7.41	Significant

#### 4. Discussion

A correct knowledge about road safety breast feeding is the fundamental right of mother. The present study found that the majority (81%) of children had satisfactory level of awareness on road safety rules and symbols this finding was consistent with the study of *H.M. Swami, S. Puri, V. Bhatia et al* found 68% of children had satisfactory knowledge about road safety rules and symbols similarly [8].

Manoj Kumar, Mandeep Baweja, Amarjeet Singh, and Vijay Lakshmi Sharma et al also found more than 85% of children had correct knowledge about various items related to Road safety rules and symbols [2].

The study revealed that the socio demographic variables like age, mothers education, and source of information, Mode of travelling to school (knowledge on road safety rules and symbols had statistically significant association with the awareness at  $p \leq 0.05$  level.

There is key role of parents, school teacher to provide information on road safety rules to children to reduce the mortality and morbidity due to road traffic accidents in some extent. The information about road safety rules must be given during the school health program.

#### Conclusion

The study highlights that the school children had a satisfactory level of awareness on road safety rules and other related aspects; however significant portion had poor awareness. Currently there is a need for the strengthening of information, education and communication activities in relation to road safety rules to all school children during school health program. Death of any schools child in a road traffic accident while driving a vehicle or crossing the road is a serious issue. But this is certainly preventable. Basically four stakeholders are involved - parents, students, teachers and traffic police. Parents should not let their children drive at an early age. Students should refrain themselves from traffic rule violations [12]. School teachers should inculcate road safety among students and enforce traffic rules within school premises. Law enforcement agencies like traffic police, license issuing authorities must also be stringent. They should also ensure that the community is aware of road safety signs which will help in reducing existing high accident rate, prevalent in developing countries as India.

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