



# ROAD SAFETY MEASURES AMONG HIGH SCHOOL STUDENTS AT IRWIN CHRISTIAN HIGH SCHOOL, KOLHAPUR, WITH THE VIEW TO DEVELOP AN INFORMATIONAL BOOKLET

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## ABSTRACT

A Road Traffic Accident (RTA) was defined as accident, which took place on the road between two or more objects, one of which must be any kind of a moving vehicle. The major causes for RTAs in our country are rapid increase in personalized modes of transport, a mixture of slow and fast moving vehicles, lack of road discipline, drunken driving and use of mobile phones while driving. Road traffic accidents (RTA) are increasing in an alarming ways. Globally nearly 1.2 million people killed in RTA during the year 2002. In India every year RTA accounts for over 1,00,000 deaths, 2 million hospitalization, 7.7 million minor injuries and an estimated loss of 55,000 cores or nearly 3 % of the GDP every year. The objectives were to assess the existing level of knowledge regarding road safety measures among high school students at Irwin Christian high school, Kolhapur. To prepare and provide Informational Booklet on road safety measures. A descriptive research design was used for the present study. Samples were selected by using Non- probability, purposive sampling technique. The result indicates that, Among 65 students Majority 47 (72.30%) were between student 15 to 16 years and 17 (26.15%) student between 13 to 14 years and 1 (1.53%) student between 17 and above. Majority of students 43 (66.15%) are male and remaining students (22) (33.84%) are female. Among 65 high school student's 63 rides a bicycle (96.62%) and 2 does not ride bicycle. Majority of high school students knows to ride a bike (70.76%) and 19 (29.23%) high school students do not know how ride a bike. 24 (36.92%) met with an RTA and 41(63.07%) have not met with any RTA. Majority of high school students 56 (86.15%) are in average category and 9 (13.84%) are in poor category, none of the students are in good category. The knowledge scores distribution with a mean were 19.95, median 21, mode 21, standard

deviation 6.35 and range were 11. Study concluded that there is an emerging need to provide information booklet on road safety measure. It is high time we should understand that all the high school students should know the need of road safety measures which will help them to prevent from road traffic accident.

**KEY WORDS:** Safety measures, Road traffic accident, students.

## INTRODUCTION

A Road Traffic Accident (RTA) was defined as accident, which took place on the road between two or more objects, one of which must be any kind of a moving vehicle.

The major causes for RTAs in our country are rapid increase in personalized modes of transport, a mixture of slow and fast moving vehicles, lack of road discipline, drunken driving and use of mobile phones while driving.<sup>1</sup>

Since most of these causes are preventable, in order to create awareness, WHO's theme for 2004 was "ROAD SAFETY IS NO ACCIDENT". The timely quality care provided to the victims will definitely alleviate their pain and limit the disability associated with accident.<sup>2</sup> Nearly 90 percent of road traffic accidents involving junior high school students in 2008 happened while they were riding a bicycle, a study has shown. Bicycle accidents accounted for about 70 percent of all traffic accidents involving high school students during the same period, while the figure was around 60 percent for elementary school children. The number of accidents while riding bikes was extremely high among high school and younger students, while it accounted for only 20 percent of all the traffic accidents that took place in Japan in 2008.<sup>3</sup>

There were a total of 30,797 traffic accidents involving high school students, and 21,938, or 71.2 percent of them, involved bicycle riders. Among elementary school children, 13,472, or 60.6 percent of all traffic accidents, happened while riding a bike. Police officials said students from elementary school to high school age are the most likely victims of bike accidents as they use bicycles more often than other generations. Elementary school children tend to drift out onto the road and get hit by cars, while high school students are often involved in accidents while riding motorcycles.<sup>4</sup>

## NEED FOR THE STUDY:

In India every year RTA accounts for over 1,00,000 deaths, 2 million hospitalization, 7.7 million minor injuries and an estimated loss of 55,000 cores or nearly 3 % of the GDP every year. If the present scenario is continued, it is projected that deaths due to RTA's will be 1, 50,000 and 2.8 million victims will be hospitalized by 2016. The social and psychological suffering of the injured persons is increased and their families and also families with RTA deaths are phenomenal. It is sad to note that saved due to advancements in health and health related factor is now being wasted on the roads.<sup>5</sup>

Globally, injuries result in death of 16,000 people everyday and rank third in overall mortality. Injury is the leading cause of death in productive age group. As per WHO estimates that 5 million persons lost their lives in the year 2002 due to an injury, contributing for 10% of total deaths.<sup>6</sup>

In addition to this, campus atmosphere and peer pressure is forcing and influencing the adolescents to indulge in rash driving mainly due to lack of adequate knowledge about the consequences of its use or falsely perceived knowledge and attitude towards accidents as the students have driving for 'curiosity', prevention and education are important aspects of nursing care in any setting. Nurses are vital source in educating the public on various health related issues. There is a paucity of data regarding the accidents and road safety measures in the contemporary world. Therefore, the investigators felt that there is a compelling need to assess the knowledge of adolescent regarding road safety measures based on this, a specific content of informational booklet can be developed and it would enhance the knowledge of adolescent and prevent the accidents.

### **STATEMENT OF THE PROBLEM:**

**“A STUDY TO ASSESS THE KNOWLEDGE REGARDING ROAD SAFETY MEASURES AMONG HIGH SCHOOL STUDENTS AT IRWIN CHRISTIAN HIGH SCHOOL, KOLHAPUR, WITH THE VIEW TO DEVELOP AN INFORMATIONAL BOOKLET.”**

### **OBJECTIVE OF THE STUDY:**

- 1) To assess the existing level of knowledge regarding road safety measures among high school students at Irwin Christian high school, Kolhapur.
- 2) To prepare and provide Informational Booklet on road safety measures.

### **METHODOLOGY**

In the present study, focusing the nature of the research problem and to fulfill the objectives, quantitative survey research approach was considered to carry out the study.

Descriptive research design was chosen for this study. The main purpose of the descriptive study is to observe, describe and document aspects of a situation as it naturally occurs. They are Independent variable, Dependent variable and Socio-demographic variable. The study was conducted at Irwin Christian High School, Kolhapur. In the present study, population includes high school students. The sample size of the present study consisted of 65 high school students of 9<sup>th</sup> standard from Irwin Christian high school, Kolhapur. Non-probability, purposive sampling technique was used to select the samples for the present study.

### **RESULT & DISCUSSION**

#### **Section A: Findings related to distribution of demographic data of highschool students.**

In this section, the researchers analyzed and categorized the samples of the study to various groups based on the socio demographic variables.

TABLE-I: DISTRIBUTION OF SOCIO DEMOGRAPHIC DATA

(n=65)

<i>Sr. No.</i>	<i>SOCIO DEMOGRAPHIC DATA</i>	<i>FREQUENCY (f)</i>	<i>PERCENTAGE (%)</i>
1	<b>Age of students in years</b>		
	a) 13 to 14	17	26.15
	b) 15 to 16	47	72.30
	C) 17 & above	01	1.53
2	<b>Gender</b>		
	a) Male	43	66.15
	b) Female	22	33.84
3	<b>Religion</b>		
	a) Hindu	33	50.76
	b) Muslim	17	26.15
	c) Christian	09	13.84
	d) Others	06	9.23
4	<b>About Father:</b>		
	<b>Education</b>		
	a) Illiterate	01	1.53
	b) Primary	00	00
	c) Secondary	28	43.07
	d) Higher secondary	13	20.00
	e) Graduation	20	30.76
	f) Post graduate	03	4.61
	<b>Occupation</b>		
	a) Professional	10	15.38
	b) Skilled labor	13	20.00
	c) Business	26	40.00
	d) Others	16	24.61
5	<b>About Mother:</b>		
	<b>Education</b>		
	a) Illiterate	01	1.53
	b) Primary	09	13.84
	c) Secondary	27	41.53
	d) Higher secondary	09	13.84

	e) Graduation	17	26.15
	f) Post graduate	02	3.07
	<b>Occupation</b>		
	a) Professional	09	13.84
	b) Skilled labor	05	7.69
	c) Housewife	50	76.92
	d) Others	1	1.53
<b>6</b>	<b>Mode of transport to the school</b>		
	a) Bus	12	18.46
	b) Car	00	00
	c) Bicycle	36	55.38
	d) Bike	03	4.61
	e) Others	14	21.53
<b>7</b>	<b>Do you ride a bicycle?</b>		
	a) Yes	63	96.62
	b) No	02	3.07
<b>8</b>	<b>Do you ride a bike?</b>		
	a) Yes	46	70.76
	b) No	19	29.23
<b>9</b>	<b>Have you ever met with a road traffic accident?</b>		
	a) Yes	24	36.92
	b) No	41	63.07
<b>10</b>	<b>Where do you play?</b>		
	a) Always in playground.	52	80.00
	b) Only in the street	11	16.93
	c) Others	02	3.07

The data presented in table No. I indicate that,

Among 65 high school students,

- ✓ Majority of students 47 (72.30%) were between 15 to 16 years and 17 (26.15%) students between 13 to 14 years and only 1 (1.53%) student between 17 and above
- ✓ Majority of students 43 (66.15%) were male and remaining students 22 (33.84%) were female.
- ✓ Majority of the 33 (50.76%) high school students were Hindus where as 17 (26.50%) high school students were Muslims and 9 (13.84%) high school students were Christians.

- ✓ Majority of students father were educated and had completed their secondary education 28 (43.07 %), higher secondary 20 (20%), post graduation 3 (4.61 %) and only 1 (1.53%) was illiterate.
- ✓ Majority of students father were business man 26 (40%), skilled labour 13 (20%), professionals 10 (15.38%) and 16 (24.61%) belonged to other occupation.
- ✓ Majority of the student's mother were educated and have completed their secondary education 27 (41%), Higher secondary education 9 (13.84%), graduation 17 (26.15%) and post graduation 2 (3.07%).
- ✓ Majority of high school students 36 (55.38%) used bicycle as a mode of transport and some of the high school students 14 (21.53%) came school by walk and some students 12 (18.46%) used bus and some students 3 (4.61%) used bike.
- ✓ Majority of students 63 (96.62%) ride a bicycle and 2 (3.07%) did not ride bicycle.
- ✓ Majority of high school students knew to ride a bike 46 (70.76%) and 19 (29.23%) high school students did not know how to ride a bike.
- ✓ Majority of high school students 41 (63.07) had not met with an RTA and 24 (36.92%) high school students met with an RTA.
- ✓ Majority of the high school students 52 (80%) used playground to play and only 2 (3.07%) play indoor games.

The findings of this study are supported with the study done in Lahore on the Knowledge, Attitude and Practice Regarding Road Safety among Peri-Urban School Children. Among the respondents, 58% were males and 90% were between the age of 9-13 years. Major representation was from classes 4 (22%) and seven (21%). Most of the study participants (88%) had driven bicycles while motorbikes were used by only 27%. The students of class 4, 5, 6 were not able to recognize the road signs (56%) but the rest of the students easily identified the road sign. The awareness regarding traffic signs was 52% among males and 51% females. The knowledge level of study participants regarding road signs was considerably high especially in case of what do the traffic signal lights indicate (94%), not to horn (79%) zebra crossing (95%) and pedestrian prohibited (75%). Majority of students agreed that driving without a valid license is an offence (69%) and chance of accidents increase when driving bikes and motorcycles without a helmet (89%) and using mobiles while driving (92%). Among the respondents, 86% had driven a cycle and 27% had driven a motorcycle but only 10% wore a helmet while riding. Valid license was present with 4% students and 29% of school children had been involved in a roadside accident.<sup>7</sup>

## SECTION B: FINDINGS RELATED TO DISTRIBUTION OF KNOWLEDGE SCORES OF HIGH SCHOOL STUDENTS ON ROAD SAFETY MEASURES.

**Table II: Distribution of knowledge scores of high school students on road safety measures.**

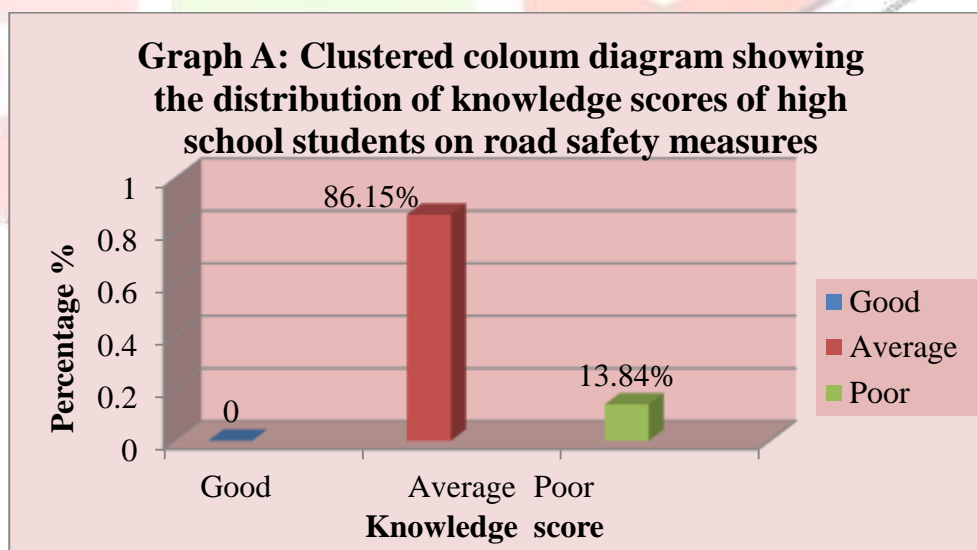
(n = 65)

<i>Level of knowledge Score</i>	<i>Frequency (f)</i>	<i>Percentage (%)</i>
<b>Good</b>	00	00
<b>Average</b>	56	86.15
<b>Poor</b>	09	13.85

The data presented in table No. II indicate that,

Majority of high school students 56 (86.15%) were in average category and 9 (13.84%) were in poor category, none of students were in good category.

The findings of this study are supported by the study on Self reported motorcycle riding behavior among school children in India. The study findings reveals that, behavioral and non behavioral factors that leading to motorcycle use and the predisposition to accidents among male school children aged between 10 and 16 years, as evidenced by conclusion, 15 % of subjects had an accident due to lack of knowledge regarding road safety measures while riding motorcycle. Most of the behavioral and all the non behavioral factors have a statistically significant influence on accident proneness.<sup>8</sup>



## SECTION C: FINDING RELATED TO MEAN, MEDIAN, MODE, STANDARD DEVIATION AND RANGE, OF KNOWLEDGE SCORES OF HIGH SCHOOL STUDENTS REGARDING ROAD SAFETY MEASURES

**Table III: Mean, median, mode, standard deviation, and range of knowledge scores of high school students regarding road safety measures.**

(n- 65)

Mean	Median	Mode	Standard Deviation	Range
19.95	21	21	6.35	11

The data presented in table No. III indicate that,

The mean was 19.95, median was 21, mode was 21, standard deviation was 6.35 and range was 11 of knowledge scores of high school students regarding road safety measures.

## RECOMMENDATIONS

1. Similar study on a large setting with more samples for a longer period of time would be pertinent in making broad generalization of the findings.
2. Similar study can be conducted in future regarding attitude and practice towards road traffic accidents and road safety measures.
3. Pre- experimental study can be conducted to evaluate the effectiveness of informational booklet.

## MAJOR FINDINGS OF THE STUDY

In the present study, out of 65 high school students,

Majority of high school students 56 (86.15%) were in average category and 9 (13.84%) were in poor category, none of students were in good category. The mean was 19.95, median was 21, mode was 21, standard deviation was 6.35 and range was 11 of knowledge scores of high school students regarding road safety measures.

There is an emerging need to provide information booklet on road safety measure. It is high time we should understand that all the high school students should know the need of road safety measures which will help them to prevent from road traffic accident.

## CONCLUSION

Based on the findings of the study, the following conclusions were drawn; Most of the high school students (86.15%) were having average knowledge scores and some of the high school students (13.84%) had poor knowledge score regarding road safety measure. There is an emerging need to provide information booklet on road safety measure. It is high time we should understand that all the high school students should know the need of road safety measures which will help them to prevent from road traffic accident.



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