



Original Article

## Knowledge and Attitude Regarding prevention of Road Traffic Accidents among Adolescents

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### Abstract

**Introduction:** Each year more than 20 million people are injured and 1.7 million are killed due to road traffic accident. According to WHO Global Burden of Disease Project for 2002, version 5; Road traffic accidents stand as 6th Rank of leading causes of death in children and adolescents. The objective of the study was to assess the effectiveness of a structured teaching programme on prevention of 'Road Traffic Accidents' among adolescents (13-17 years). **Materials and Methods:** quasi-experimental one-group pre and post-test design was used. The sample for study was n=150 adolescent students studying in VIII to XI standard, selected by using simple random sampling technique. The pre-test was introduced to assess the knowledge among the group of samples in view with pretest results. STP was formulated and introduced to the samples after that the post-test was conducted and the results were evaluated through structured questionnaire and attitude scale. The data was analyzed using Wilcoxon signed rank test. **Results:** The average pretest knowledge and attitude score among adolescent students found to be 34.753, 17.540 respectively. After the STP; the mean posttest knowledge and attitude score was 49.033, 25.520 respectively. Thus the difference in level of the knowledge and attitude was confirmed by the obtained Wilcoxon signed rank test values (5.767), (6.158) respectively. This was statistically significant ( $P < 0.001$ ). **Conclusion:** The study concluded that the structured teaching program was effective in improving knowledge and attitude of adolescents on prevention of road traffic accidents.

**Keywords:** Road Traffic Accidents, Adolescents, teaching program

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### 1. Introduction

We have had great success in fighting disease that kill and claim children. We can't now sit and watch children die (or) severely disabled due to injuries that can be prevented.

It is time to take an active approach to prevent child injuries".

Adolescence is like a bridge between childhood and adulthood, during which the individual is gaining further physical maturity,

further education and training that will enable him (or) her to fulfill a useful role in adult society.

According to WHO, India has the second largest road network in the world with over 3 million km of roads of which 46% are paved. The traffic contains an incredible mix of pedestrians, animal drawn vehicles, bicycles, motorcycles, cars, buses and trucks.

Road traffic accidents (unintentional injuries) are defined as an accident, which take place on the road between two or more objects, one of which must be any kind of moving vehicle.

Each year more than 20 million people are injured and 1.7 million are killed due to road traffic accident. According to WHO Global Burden of Disease Project for 2002, version 5; Road traffic accidents stands as 6<sup>th</sup> Rank of leading causes of death in children and adolescent. The death toll is on the higher side for the countries where pedestrians, motorcyclists and passengers are vulnerable and vehicles lack the safety norms, like India.

Every day one person dies every 6 minutes on Indian roads; by 2020 the rate is expected to be more than 1 every 3 minutes. According to the India Injury Report 2005, injury is the third cause of mortality in India.

### Need for the study

We have a duty to protect children from injury and violence. Children live in a world designed for adults, but they have special needs and are more vulnerable to forces on their body than adults.

Road accidents kill 1.2 million people a year and injuring or disabling between 20 to 50 million people worldwide. The Asia-Pacific region accounts for about 60% of global road deaths, despite having only 16% of the world's vehicles. Every day thousands of people are killed and injured on our roads

In response to a growing concern about road traffic injuries, the WHO Director-General has, for the first time in the history of WHO devoted a WHD specifically to Road Safety. The theme for the year (2004) World Health Day is "Road safety is no accident".

Rathinam. C. et al. conducted study on Self-reported motorcycle riding behavior among school children aged between 10 and 16 years in India. The study found that most of the behavioral and all the non-behavioral factors have a statistically significant influence on accident proneness

Nilambar Jha et al conducted a study on mortality among youth ages between 10-24 years. The leading cause of mortality among youths in RTA is 31%.

Study related to prevention of road traffic accidents. The present study was developed to assess the knowledge and attitude on prevention of Road traffic accidents among adolescents after a structured teaching programme.

### Statement of the problem

A study to assess the effectiveness of structured teaching programme on prevention of 'Road Traffic Accidents' among adolescents (13-17 years) is studying in Sri Krishna international school and PU College ITI colony at Bangalore 560085.

#### • Objective

- To assess the knowledge, attitude of adolescents regarding the prevention of road traffic accidents (RTA).
- To evaluate the effectiveness of structured teaching programme on prevention of road traffic accidents (RTA).
- To associate selected demographic variables of adolescents with the knowledge, attitude on prevention of road traffic accidents (RTA).

#### ➤ Hypothesis

- The mean post test knowledge and attitude score regarding prevention of road traffic accidents will be significantly higher than the mean pre test knowledge and attitude score of adolescents who had structured teaching programme on prevention of road traffic accidents.
- There will be association between the selected demographic variables with

knowledge and attitude of adolescents who had STP on prevention of road traffic accident.

Material and Method:

**Research design**

In the present study, quasi experimental one group pre and post-test design was used.

**Sample & sampling technique:**

150 adolescent’s students studying in VIII TO XI standard were selected by using simple random sampling.

**Criteria for sample selection**

**1. Inclusion criteria**

1. Adolescent students belong to the age group of 13-17yers.

**2. Exclusion criteria**

1. Students who were not willing to participate.
2. Students who were not present at the time of data collection.

**Development of the data collection instrument**

A structured questionnaire was used during data collection and this was developed based on the objectives of the study and through review of literature.

**Data collection instrument**

Structured questionnaire (pretest & posttest)

**Tool description**

The instrument consisted of 3 sections

**Description of data collection instrument**

The instrument used for data collection was structured questionnaire, which consisted of 3 sections.

Section I: Demographic profile

Section II: Knowledge questionnaire was used to assess knowledge on prevention of road traffic accidents.

Section III: Rating Scale was used to assess Attitude regarding prevention of road traffic accidents.

**Score interpretation**

**Knowledge**

- 76-100% - Adequate
- 51-75% - Moderately Adequate
- 50 & below - Inadequate

**Attitude**

- 21-30 - Positive attitude
- 11-20 - Uncertain

O <sub>1</sub>	X	O <sub>2</sub>
Pretest	Structure Teaching Programme	Post Test

- 10 & below - Negative attitude

**Results and Discussion**

Parameter	Group	N	Mean	SD	Mean change	Wilcoxon signed rank test	P-Value
Knowledge score	Pretest	150	34.753	3.445	14.280	5.767	<0.001 (s)
	Posttest	150	49.033	6.139			
Attitude score	Pretest	150	17.540	2.694	7.980	6.158	<0.001 (s)
	Posttest	150	25.520	2.636			

S- Significant

The average pre test knowledge score among adolescent’s students found to be 34.753. After the STP; the mean posttest knowledge score was 49.033. The standard deviation in pre and posttest were 3.445, 6.139 respectively. Thus the difference in level of the knowledge was confirmed by the obtained Wilcoxon signed rank test value (5.767). This was statistically significant (P<0.001).

The average pre test attitude score among adolescent’s students found to be 17.540. After the STP, the mean posttest attitude score was 25.520. The standard deviation of pre and posttest were 2.694, 2.636 respectively. Thus the difference in level of the attitude score was confirmed by the obtained Wilcoxon signed rank test value (6.158), which was statistically significant (P< 0.001)

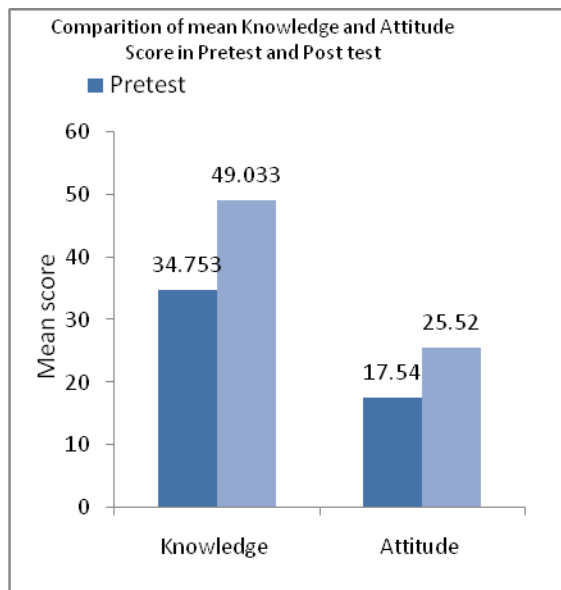
Hence research hypothesis is accepted. That is

the mean post test knowledge and attitude score regarding prevention of road traffic accidents was significantly higher than the mean pre test knowledge and attitude score of adolescents who had structured teaching program on prevention of road traffic accidents.

### Recommendations

1. A comparative study can be conducted between the various age groups of children.
2. A similar study can be conducted to assess the practice of adolescents towards utilization of road safety practices.

Graph 1: Comparison of the mean attitude score of adolescents in pre and posttest. n=150



3. A similar study can be done by using other teaching strategies i.e. video teaching, comic books, audio cassette etc. for school children.

### Conclusion

The present study assessed the knowledge and attitude of adolescents on prevention of road traffic accidents and found that there was a significant improvement on knowledge and attitude of students on prevention of road traffic accidents after giving structured teaching program. The study concluded that the structured teaching

program was effective in improving knowledge and attitude of adolescents on prevention off-road traffic accidents.

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