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## Original Article

# A Study to Assess the Effectiveness of Plan Teaching Programme on Road Traffic Accidents (RTA) among early Adolescents of RC International School, Bengaluru, India

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## ABSTRACT

Road traffic accidents are the everyday routine occurrences throughout the world. A purposive sampling technique was adopted for the study and pre-experimental one group pre-test and post-test design. A descriptive study was conducted among 40 early adolescents and the data was collected between 21st June 2024 to 31st June 2024 at the R C international school, Bengaluru, Karnataka, India. Collected data was analyzed and the result was the majority of respondents 87.5% had inadequate knowledge on road traffic accidents. Effectiveness of planned teaching programme pre-test score SD (4.23) and post-test score SD (3.98), P- value (2.085) and T-value (4.30). The calculated 'T' value showed a significant difference between pre-test and post-test knowledge scores. Calculated  $\chi^2$  values showed significant association between age, resident, previous session attended by samples, language spoken at home, mode of transport, involvement of samples in accident, religion respondents with their pre-test knowledge scores.

**Keywords:** Effectiveness; Planned teaching programme (PTP); Knowledge; Road traffic accidents (RTA); Early adolescents.

## Introduction

Road traffic accident is the 8th leading cause of death among all age groups globally and top leading cause of death for children and young adults aged 5 to 29 years, signalling a need for a shift in the current child health agenda, which has largely neglected the road safety.

The global population has balanced the number of fatalities in the past few years, and one of the major causes of these fatalities worldwide is road traffic accidents. According to the Global Status Report on Road Safety of the World Health Organization (2018), more than 1.35 million people die annually, and up to 50 million on injuries occur on the roadways. In

addition, the fact is, everyone those deaths and injuries are preventable. We know which interventions work.

According to detailed analyses of global accident statistics by the United Kingdom (UK), the change in road accident fatalities in low-and middle-income countries from 1965-85 was found to be highly increasing. It has been estimated that more than 3,00,000 people die and that 1-1.5 people are injured every year in road accidents worldwide. Detailed analyses of global accident statistics indicate that fatality rates per licensed vehicle in developing countries are very high in comparison with those in industrialized countries. Moreover, road accidents have been shown to cost approximately 1% of the

annual gross national product (GNP) resources of developing countries, which can cause people to become ill-affordable.

The various factors that cause accidents can be broadly categorized into road-related, vehicle-related and driver-related factors. In this paper, an attempt is made to implement road-related factors for predicting accident prone points on roads and thus help in identifying the required remedial measures.

### **Need of the study**

Road traffic crashes are a routine occurrence on roads throughout the world. Thousands of people lose their lives on the roads every day. Many millions more are left with disabilities or emotional scars that they will carry for the rest of their lives. Children and young adults are among the most vulnerable. Road traffic accident means an accident which occurred or originated on a way or street open to public traffic; resulted in one or more person's being killed or injured, and at least one moving vehicle was involved.

A road traffic accident (RTA) is any injury due to crashes originating from, terminating with or involving 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. They are considerable economic losses to victims, their families, and to countries as a whole.

In the WHO South- East Asia Region, of the 80 400 people under 25 years of age who die each year from road traffic accidents, the majority are aged between 15 and 24 years, which may be a reflection of the high use of two-wheeled vehicles among this age group in this region.

Globally, 1.2 million people die and another 20-50 million sustain injuries from road accidents every year. Road accidents are 9 leading cause of deaths and are estimated to become the 5 leading cause of death by 2020 [4] . The main aim of this study was to develop awareness regarding prevention and management of road traffic accidents among high school going children so they will change their behaviour and adopt in their future life. Behaviour change communication is a major part of this study.

### **Objective of the Study**

1. To assess the level of knowledge of students on road traffic accident.

2. To develop and conduct the planned teaching programme on road traffic accident on early adolescents.
3. To assess the effectiveness of planned teaching programme on road traffic accident.
4. To determine the association between pretest and post-test knowledge score of early adolescents and selected demographic variables.

### **Assumption**

The study assumes that planned teaching programme may improve the knowledge of school children's regarding road traffic accidents.

### **Methods**

#### **Research design**

Research design is the plan, structure and strategies of investigation of answering the research question. Selection of research design depends on the purpose of the study, research approach and variables to be studied.

The research design selected for the present study is pre-experimental one group pre-test post-test design.

#### **Setting of the study**

Setting is the physical location and the condition in which data collection takes place. The setting of the study was at RC International School, Bengaluru, Karnataka.

#### **Participants**

#### **Population**

The target population is the entire population in which the researcher is interested to generalize the result of the study.

The selected population is 7<sup>th</sup> and 8<sup>th</sup> class early adolescents studying in RC International School, Bengaluru.

#### **Sample and sample technique**

#### **Sample**

Samples are early adolescents of RC International School, Bengaluru.

### Sample size

The sample size for the present study is 40 early adolescents of age 10-14 at RC International School, Bengaluru.

### Sample technique

Sampling is the process of selecting a group of people or other elements with which to conduct a study.

The sampling technique adopted for the study is purposive sampling technique.

### Inclusion criteria

Early adolescents of age 10-14 years who are studying at RC international school, Bengaluru.

### Exclusion criteria

- student who does not know the language.
- student who are not willing to participate at the time of data collection.

### Development of tool:

A structured questionnaire was developed to assess the knowledge on road traffic accidents among early adolescents.

### The steps followed in preparing the tools were

- Discussion with teachers
- Previous research from library
- Internet

### Description of the tool

A structured questionnaire was designed in two sections.

### Section A

It Consist of 10 items on demographic data of early adolescents such as age, gender, residence, type of family, class, language spoken at home, previous source of information and involvement.

### Section B

It consists of 16 questions related to knowledge on road traffic accidents. All items carry equal marks. For correct answer score "1" and for incorrect score answer score "0" was given. Tool was in English language.

## Results

### Major findings of the study

#### Section I: Socio-Demographic Data of Respondents

#### Frequency and percentage distribution of distribution of each demographic variable.

- Majority of respondents 58% were female.
- Majority of respondents 50% were in between the age group of 12-13.
- Majority of respondents 57% were nuclear family.
- Majority of respondents 85% were from urban area.
- Majority of respondents 85% were not attended previous session.
- Majority of respondents 68% were speaking Kannada.
- Majority of respondents 52% were 8<sup>th</sup> class students.
- Majority of respondents 47% were travelled to school-by-school van.
- Majority of respondents 90% were no involvement of samples in road traffic accident.
- Majority of respondents 65% were Hindu religion.

#### Section II

The majority of respondents, as per the pre-test score 87.50% had inadequate knowledge on road traffic accidents.

The majority of respondents, as per the post-test score 90% had adequate knowledge on road traffic accidents.

#### Section III

Paired T test value was computed to determine the knowledge scores at 0.05% level of significance.

Chi square test was done to determine the association between the pretest score with selected demographic variables at 0.05% level of significance.

There was a significant relationship found between the knowledge scores and selected demographic variables. Calculated  $\chi^2$  values showed significant association between age, resident, previous session attended by samples, language spoken at home, mode of transport, involvement of samples in accident, religion respondents with their pre-test knowledge scores.

### Conclusion

As per the pre-test knowledge scores the majority had inadequate knowledge regarding road traffic accidents.

After providing planned teaching programme to the student's post-test was given to the students

Then comparing the pre-test and post-test score of 40 samples the knowledge has been improved.

### Impact and implication of the study

The findings of the study showed that there was a deficit in knowledge of early adolescents before administration of PTP. The results indicated that the PTP is effective in increasing knowledge of early adolescents on road traffic accidents (RTA).

### Funding

No financial assistance was provided for this project.

### Conflict of Interest

None declared.

### References

1. Books Group, & General Books. (2012). The Alabama medical and surgical age (volume7). General Books. WHO Road Traffic Injuries. Available from: [http://www.who.int/Road\\_safety/about/resolutions/download/en/](http://www.who.int/Road_safety/about/resolutions/download/en/). [Last accessed on 2020 Oct.

2. Sharma S, Saini P. Knowledge, attitude and practices towards road traffic safety regulations among health science students in Uttarakhand: A cross-sectional study. *Int J Adv Res* 2017;5:608-14.
3. Keerthana B, Vishnu Priya V, Gayathri R, Awareness on Road Traffic Accidents Among College Students, *J Res Med Dent Sci*, 2021, 9 (1): 81-86
4. Petridou, E., Skalkidou, A., Ioannou, N., Trichopoulos, D., & Hellenic Road Traffic Police. (1998). Fatalities from non-use of seat belts and helmets in greece: A nationwide appraisal. *Accident; Analysis and Prevention*, 30(1), 87-91.
5. Zeedyk, M. S., Wallace, L., Carcary, B., Jones, K., & Larter, K. (2001). Children and road safety: Increasing knowledge does not improve behaviour. *The British Journal of Educational Psychology*, 71(4), 573-594.
6. Hossain, S., Maggi, E., Vezzulli, A., & Mahmud, K. T. (2021). Determinants of awareness about road accidents and knowledge of traffic rules: Empirical evidence from Khulna city in Bangladesh. *Theoretical Economics Letters*, 11(06), 1247-1272.
7. Deresse E, Komicha MA, Lema T, Abdulkadir S, Roba KT. Road traffic accident and management outcome among in Adama Hospital Medical College, Central Ethiopia. *Pan African medical journal*. 2021 Feb 19;38(1).
8. Hossain, M., Islam, M., Ali Khan, M., C. Mani, K., & Min, R. (2020). Road traffic accidents in Bangladesh: Why people have poor knowledge and awareness about traffic rules? *International Journal of Critical Illness and Injury Science*, 10(2), 70.
9. United Nations Road Safety Collaboration: The world unites to halt death and injury on the road. (2011).
10. National Road Safety Coordination Office: Overview of Road Safety Activities in Ethiopia; (2006).

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