International Journal of Science and Research (IJSR)
ISSN: 2319-7064
Impact Factor 2024: 7.101

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge regarding Road Traffic Rules among High School Children in Selected School at Lucknow

Roopshikha Rai[1], Sharadha Charan[2]

[1, 2]M.Sc (N), Shri K. L. Shastri Smarak College of Nursing Lucknow

[1]Corresponding Author Email; *roopshikharai299[at]gmail.com*

Abstract: ***This chapter deals with the detailed discussion on the finding of the study obtain from the statistical analysis. The problem statement was "A experimental study to assess the effectiveness of the structure teaching programme among high school children in selected school lucknow (UP). The discussion was based on the objective of the study and the hypothesis mentioned in the study." Demographic characteristics of students which includes age in years, gender, Level of class, father's education, mother's education, father's occupation, mother's occupation, type of family, number of family members, residence, mode of travelling to school, playing out door games, previous knowledge about road safety. With regard to the demographic variables the majority of the students 40% were aged 14 years, 60% were Female, 100% were studying in 10th, 50% of parents were educated upto intermediate graduate and above, 80% of fathers were private job, 80% belonged to nuclear family, 90% had 3-5 members in the family, 70% were residing in urban area, 70% were used school vehicle, 90% used to play out door games, 100% had no previous knowledge about road safety. Pretest of high school children (70%) were having good level of Knowledge, (60%) were having average level of Knowledge, (3%) were having poor level of knowledge. The result of post test in research group (90%) were having good level of Knowledge, (9%) were having average level of Knowledge, (0 %) were having poor level of knowledge. Fig.4.13 Percentage distribution of pre –test and post –test score of students. The table 4.13 and Figure 4.13 depicts that in pre-test 3(50%) students have inadequate knowledge, 36(60%) students has moderate knowledge, 11 (70%) students has adequate knowledge. In post test 0 (70%) students has inadequate knowledge, 9 (80%) students has moderate knowledge, 41 (90%) students has adequate knowledge. Hence it shows that Planned structural Teaching programme is effective in improving knowledge regarding road traffic rules among middle school children. Hence the hypothesis H1 is accepted. The above table 4.14 and Figure 4.14 show the pre-test mean value is 17.6 and the post test value is 0.728 and the calculated 't' test value 4.93 is greater than that of the table valve (3.37). This show the structured teaching programme is effective and improving the level of knowledge of students. Hence the hypothesis H1 is accepted. Hence it shows that Planned structural Teaching Programme is effective in improving knowledge regarding road traffic rules among high school children. Hence the hypothesis H2 is accepted. The analysis results revealed that there is no statistical significant association between pre test knowledge score of experimental regarding road traffic rules among high school children with their demographic characteristics. Hence the hypothesis H3 is failed to accepted.***

Keywords: knowledge, high school children, road traffic rules

1. Introduction

Globally, road traffic injuries are estimated to be the leading cause of death among young people aged 15–29 years, and second leading cause of death in 10–14 years and 20–24years age groups. Every hour, forty youngsters die due to road traffic crashes. As a result, accident takes a heavy toll on the people entering the most productive years. Economically disadvantaged families are hardest hit by the losses arise from cost of treatment and reduced/lost productivity for the killed or disabled, and for their family members who need to take time off to care for the injured. Road traffic injuries are increasing, not able in low- and middle-income countries, rates being twice than those in high-income countries. Over a third of road traffic deaths in low and middle-income countries occur among pedestrians and cyclists. Current trends suggest that road traffic injuries will become the fifth leading cause of death by2030.

According to WHO 80% of all road accident deaths occurs in developing countries and nearly half in the Asia-pacific region. India account for about 10% of road accident fatalities worldwide. As estimated 1,275,000 persons are grievously injured on the road every year. Developing countries, such as India face the double burden of already existent communicable diseases and increasing burden of non communicable diseases including RTAs . In the South East Asian region of the WHO, India al one accounted for73% of RTA burden. In India the incidence rate of accidents in the children studies was found to be3.13/100 child per month or 0.35/child/year. The total no. of injuries recorded was 135.7 (B. BYULA BAVANA, 2015).

During the year 2021, a total number of 4,12,432 road accidents have been reported in the country, claiming 1,53,972 lives and causing injuries to 3,84,448 persons. Unfortunately, the worst affected age group in Road accidents is 18-45 years, which accounts for about 67 percent of total accidental deaths.

In 2022, there were 1,55,622 deaths due to road accidents were registered in India and 59.7% of fatalities occurred due to over–speeding .In fact ,62% of these accidents were recorded on just 5% stretch of the highways, hinting that preventing measures need to be taken to reduce accident on these stretches.

Lucknow Uttar Pradesh witnessed 22,595 fatalities in road accidents in 2022, recording an increase of 1,368 deaths from the 2021 figure.

2. Objectives of the Study

- To assess the level of knowledge regarding road traffic rules among high school children.
- To compare the pre test and post test knowledge score regarding prevention of road traffic rules among high school children.
- To evaluate the effectiveness of structured teaching programme on knowledge regarding road traffic rules among high school children.
- To find the association between pre-test level of knowledge regarding road traffic rules among high school children with their selected socio-demographic variables.

Development and Description of the Tool
After an extensive review of literature, discussion with the expert and the investigator's professional experience, the tool was developed to assess the knowledge on the road traffic rules among high school children.

The tool constructed for the study consist of two part:
Part 1: Data collection tool
Part 2: Intervention tool

Part 1: Data Collection Tool

Section A: Assessment of demographic variables Personal data sheet on the demographic characteristics of students which includes, Age, Gender, Level of class, Parents education, Parents occupation, Type of family, Number of family, Residence, Mode of going to school, playing out door games, Previous knowledge.

Section B: Structured self administered questionnaire to assess the level of knowledge on road traffic rules.

It consists of 30 closed ended questions.

S. No.	Components	Items
1.	Basic knowledge	10
2.	Road risk &Prevention	10
3.	Traffic signs & Traffic symbols	10
	TOTAL	30

Scoring and interpretation:
The overall score is 30 with a minimum score of 0, and maximum is 30.
1) Correct answer was score of (1) one
2) Wrong answer was scored as (0) zero.

Score	Total	Interpretation
10-15	<50%	Inadequate knowledge
15-20	50-60%	Moderately adequate knowledge
20-30	70-100%	Adequate Knowledge

Part II: Intervention Tool
The intervention tool was prepared by the investigator, including power point preparation for teaching method which includes 14 slides, containing teaching contents with pictures.

Teaching programme consists of eight components

S. No.	Components	Time (Minutes)
1	Introduction	3
2	Definition	2
3	Purpose	3
4	Causes	5
5	Sign & Symbol of road traffic	10
6	Important of traffic sign	5
7	Basic traffic rules	10
8	Traffic laws	7
	Total	45

Ethical Consideration
The research study was approved by the institutional Ethics Committee of K. L. Shastri College of Nursing and the principle followed were:

Reliability
The reliability of the questionnaires to assess the level of knowledge was assessed using test-retest method. The reliability score obtained was 0.8 for the self-administered questionnaire. This showed that the tool was highly reliable and feasible for conducting the main study proceeding with pilot study.

3. Method

Research Approach
The research approach used in this study was Quantitative research approach in accordanceto the nature of the problem and to accomplish the objectives of the study.

Research Design
The research design selected for this study was true-experimental design.
Sample –High school children
Sample Size-60
Sampling Technique -Purposive sampling technique.

Table

Score	Total	Interpretation
10-15	<50%	Inadequate knowledge
15-20	50-60%	Moderately adequate knowledge
20-30	70-100%	Adequate Knowledge

Distribution of subject according to pre and post test

Table 4.13: N=50

Level of knowledge	Pre-test		Post-test	
	F	%	F	%
Inadequate	3	50	0	70
Moderate	36	60	9	80
Adequate	11	70	41	90

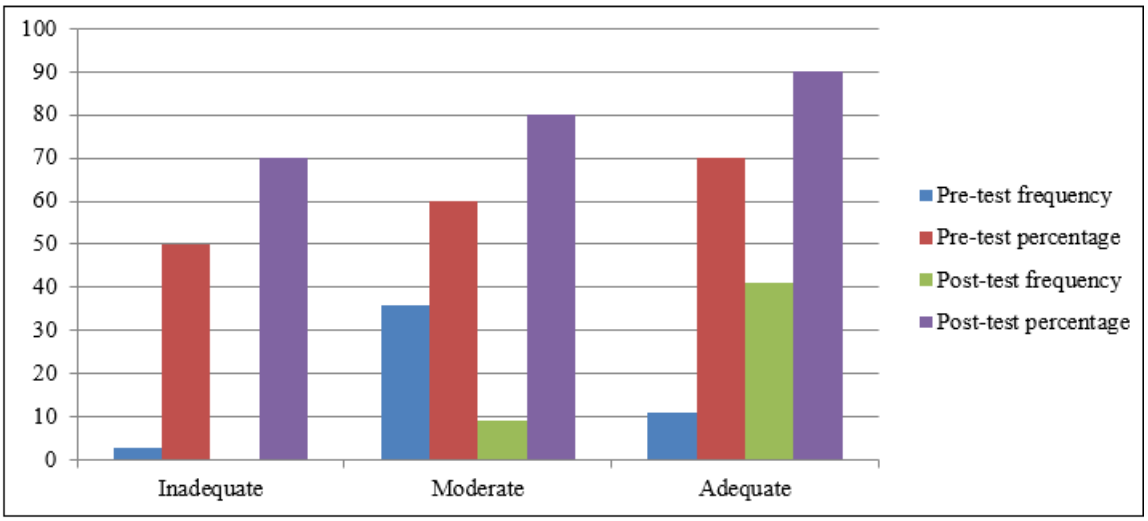

Figure 4.13: Percentage distribution of pre –test and post –test score of students.

The table 4.13 and Figure 4.13 depicts that in pre-test 3(50%) students has inadequate knowledge,36(60%) students have moderate knowledge,11 (70%) students have adequate knowledge. In post test 0 (70%) students have inadequate knowledge ,9 (80%) students have moderate knowiedge,41 (90%) students have adequate knowledge.

4. Results

Percentage distribution of pre –test and post –test score of students. in pre-test 3(50%) students have inadequate knowledge,36(60%) students has moderate knowledge,11 (70%) students has adequate knowledge. In post test 0 (70%) students has inadequate knowledge ,9 (80%) students has moderate knowiedge,41 (90%) students has adequate knowledge. hence it shows that Planned structural Teaching programme is effective in improving knowledge regarding road traffic rules among high school children. Hence the hypothesis H1 is accepted.

The pre-test mean value is 17.6 and the post test value is 0.728 and the calculated 't' test value 4.93 is greater than that of the table valve (3.37). This show the structured teaching programme is effective and improving the level of knowledge of students. Hence the hypothesis H1 is accepted. Hence it shows that Planned structural Teaching Programme is effective in improving knowledge regarding road traffic rules among high school children. Hence the hypothesis H2 is accepted.

Section D: Association between pre-test level of knowledge regarding road traffic rules among high school children with their selected demographic variables

The analysis results revealed that there is no statistical significant association between pretest knowledge score of experimental regarding road traffic rules among high school children with their demographic characteristics. Hence the hypothesis H3 is failed to accepted.

5. Conclusion

The present study to assess the knowledge on road traffic rules using planned structured teaching programme among children studying in selected schools. The study findings revealed that there was a significant difference in the pre-test and post-test level of knowledge on road traffic rules using planned structured teaching programme. Hence the planned structured teaching programme had a significant impact on the knowledge on the road traffic rules children studying in selected schools.

References

Websites:

[1] http://www.eenet.org. Retrieved on 8/3/2015.
[2] http://www.ncbi.nlm.nih.gov/.
[3] http://www.child-to-child. Retrieved on 22/11/2014. Kulkarni .V (2013).
[4] http://wwwjflmjournal.org. Retrieved on 5/3/2015. Muzaffar Bhutta (2006).
[5] http://www.child-to-child.org. Retrieved on 8/11/2014. Olutoke O Ayorinde, et al (2015).
[6] http://www.child-to-child.org.Retrieved on 5/3/2015.
[7] http://www.jebmh.com/jebmh.jpg. Retrieved on 8/8/2015.
[8] http://www.eenet.org. Retrieved on 8/3/2015. Ansu Maliyaka. (2015).
[9] http://www.ijird.com/. Retrieved on 5/3/2015.

Books

[10] Textbook of Pediatric Nursing. Haryana: Elsevier publication. Bala (2007).
[11] Fundamentals of Biostatistics. New Delhi: Anne publications. Basavanthappa B.T. (2007). Nursing Research. New Delhi: Jaypee brothers medical publication. Bhaskara elakkuvana. (2011).
[12] Nursing Theories A Practical View. Haryana: Jaypee brothers medical publication. Bowden, Vicky. R. (2012).
[13] Pediatric Nursing Procedure. China: LWW. Bowden, Vicky. R. (2010). Children and Their Families.
[14] Textbook of Medical- Surgical Nursing II. New Delhi: Lww. Camm and McCarthy. (2003). First Aid Step by Step. New Delhi: CBS Publishers and Distributors. Denise, F. Polit. (2010).