Effectiveness of structured teaching programme on road safety among adolescents in Boys higher secondary school at Ussoor, Vellore

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Abstract

Road safety is the method used by users to prevent road users from being killed or seriously injured. According to WHO, India has the second largest road network in the world with over 3 million km of roads of which 4.6% are paved. Each year 20 million people are injured and 1.7 million are killed due to road traffic accident. The aim of the study was to assess the effectiveness of structured teaching programme on road safety among adolescent boys in higher secondary school, Ussoor. A pre experimental one group pre and post test research design was used. The sample of 60 adolescents selected were studying in government boys higher secondary school at ussoor by probability randomized sampling technique and data were collected by using structured multiple choice questionnaires and demographic variables. The data was analyzed by descriptive and inferential statistics. The result revealed that regarding the effectiveness of structured teaching programme, the pretest knowledge mean score was 10 and the post test knowledge mean score was 16.08 and the calculated paired “t” test value, 18.96 was higher than the table value 3.4632 which was significant at p<0.001 level. Regarding the association between post test levels of knowledge and selected demographic variables such as age, religion, using vehicle are statistically significant at p<0.001 level. The study concluded that, there was significant increase in the level of knowledge of adolescent boys after structured teaching program. This shows that the structured teaching program was effective.

Keywords: Road safety, structured teaching program, knowledge, education

Introduction

Road safety refers to the methods and measures used to prevent road users from being killed or seriously injured. According to WHO, India has the second largest road network in the world with over 3 million km of roads of which 4.6% are paved. Globally each year 20 million people are injured and 1.7 million are killed due to road traffic accident. Every day one person dies every 6 minutes on Indian roads. In 2014 injury has become the 2nd cause of mortality because the adolescent age group 13 -18 years are more prone to get the accidents due to not following the road safety. Studies on accidents among children was found to be 3.13/100 child per month or 0.035/child year. The total number of injuries recorded was 135.7. So the researcher wanted to educate the adolescent age group regarding road safety, road traffic signs, causes of accidents and prevention of road traffic accidents.

Statement of the problem

Effectiveness of structured teaching programme on road safety among adolescents in boys higher secondary school at Ussoor, Vellore.

Objectives

- To assess the pre test level of knowledge regarding road safety among adolescents.
- To determine the effectiveness of structured teaching programme on knowledge regarding road safety among adolescents.
- To find the association between the post test level of knowledge regarding road safety among adolescents and selected demographic variables.
Hypotheses
H1: There is a significant difference between the pre and post test levels of knowledge regarding road safety among adolescents.
H2: There is significant association between the post test levels of knowledge on road safety among adolescents and selected demographic variables.

Methodology
The research approach used for the study is Quantitative approach with pre experimental one group pre test and post test design. The study was conducted in government boys higher secondary school, Ussoor, Vellore. By using probability-Randomized sampling technique 60 adolescents were selected between age group of 13 -18 years based on inclusion and exclusion criteria. The study was conducted by using structured multiple choice questionnaire. It consists of two sections.

Section A: It consists of demographic variables like age, religion, education, father occupation, family monthly income, previous accident history, using of vehicles, bad habits, living area.

Section B: It consists of 20 structured multiple choice questionnaires to assess the knowledge regarding road safety among adolescents.

Score Interpretation
The knowledge of road safety was assessed by structured multiple choice questionnaire. Each correct response was given a score of ‘one’ and wrong answer score was of ‘zero’. The maximum score was 20, to interpret levels of knowledge the scores were distributed as follows:
Upto 50%: Inadequate knowledge.
51-75%: Moderately adequate knowledge
Above 75%: Adequate knowledge

Data collection procedure
Pretest was conducted by using structured multiple choice questionnaire and after seven days post test was conducted on the same samples using the same questionnaire. The collected data were coded, tabulated and analyzed by using descriptive and inferential statistics.

Results

Table 1: Frequency and percentage distribution of pre and posttest levels of knowledge regarding road safety. n=60

<table>
<thead>
<tr>
<th>Level of Knowledge</th>
<th>Pretest</th>
<th>Post Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency %</td>
<td>Frequency %</td>
</tr>
<tr>
<td>Inadequate knowledge (Upto 50%)</td>
<td>28 46.7</td>
<td>-</td>
</tr>
<tr>
<td>Moderately adequate knowledge (51-75%)</td>
<td>32 53.3</td>
<td>18 30</td>
</tr>
<tr>
<td>Adequate knowledge (Above 75%)</td>
<td>-</td>
<td>42 70</td>
</tr>
<tr>
<td>Total</td>
<td>60 100</td>
<td>60 100</td>
</tr>
</tbody>
</table>

Table 1 represents that in pretest among 60 boys, 28(46.7%) had inadequate knowledge, 32(53.3%) had moderately adequate knowledge and no one had adequate knowledge regarding road safety. In post test, 42(70%) boys had adequate knowledge, 18 boys (30%) had moderately adequate knowledge and no one had inadequate knowledge regarding road safety.

Regarding the effectiveness of structured teaching programme

Table 2: Mean, standard deviation and paired ‘t’ value of pre and post test levels of knowledge regarding road safety among adolescent boys.

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Mean difference</th>
<th>Paired t’ test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>10</td>
<td>1.92</td>
<td>6.08</td>
<td>18.96</td>
</tr>
<tr>
<td>Post test</td>
<td>16.08</td>
<td>1.29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*statistically significant (p<0.05)

The above table shows that the pre test mean value is 10 and the standard deviation is 1.92 and after structured teaching programme the post test mean value is 16.08 and the standard deviation is 1.29. The paired t’ test value 18.96 is significant at p<0.001. It is interpreted that there was significant increase in level of knowledge of adolescent boys after structured teaching programme. Hence it is interpreted that the mean score values are true and the hypothesis H1 is accepted.

Regarding the association between post test levels of knowledge and selected demographic variables, education, father’s occupation, family income, previous accidental history, bad habits, living area are not statistically significant. Selected variables like age, religion, using vehicle are statistically significant at p<0.05. Hence it is interpreted that the difference in mean score values are true and the hypothesis H2 was partially accepted.

Conclusion
The present study assessed the effectiveness of structured teaching programme on road safety among adolescent boys at government boys higher secondary school, Ussoor, Vellore. Before the study the boys had inadequate knowledge regarding road safety. After the structured teaching programme the boys had adequate, moderately adequate knowledge and none of them had inadequate knowledge. This shows that the study was effective. So education regarding road safety will prevent deaths and injury caused due to road traffic accidents in country like India were the accident rates are high.

References

