"A pre-experimental study to evaluate the effectiveness of planned teaching programme on first aid management of selected emergencies among adolescents in selected schools of district Ganderbal"

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Abstract: Today's child is tomorrow's citizen. The development of the country can be determined by estimating the health status of the children in that country. Children are the major consumers of health care. In India about 35% of the total population is children below 15 years of age. This group is considered as special risk group as they are vulnerable to various health problems. An accident is defined as "an unexpected unplanned occurrence which may involve injury". Also accident is the "occurrence of sequence of events that usually produce unintended injury, death or damage to property". School children being more active and adventurous, they are prone to falls, sports injury. Accidents and injuries are major cause for disability and death among children. Children between the ages of 5-14 years contribute one fourth of India's total population and they spend most of their time in school. The aim of study was to evaluate the effectiveness of planned teaching programme on first aid management of selected emergencies among adolescents in selected schools of district Ganderbal. An experimental approach with Pre-experimental one group pre-test and post-test design was used for this study. The population of main study comprised of 60 adolescents studying in Government High and Higher Secondary Schools of Lar Ganderbal. Simple random sampling technique was adopted to select the sample. Data was collected by using self-Structured questionnaire. The findings of study revealed that the knowledge score of students was higher 65% in post-test as compared to pre-test knowledge 10%. The difference between pre-test and post-test knowledge score was calculated with the paired ‘t’ which was found statistically significant at p value < 0.05. Hence it was revealed that the mean post-test knowledge score was significantly higher than the mean pre-test knowledge score of adolescents in first aid management of selected emergencies. Moreover, there was a significant association of pre-test knowledge score with selected demographic variable such as gender (p<=0.05). There was no association between pre-test knowledge score and demographic variables such as education status of mother, education status of father, family income, type of family and source information on first aid.

Index Terms: Planned teaching programme, first aid management of selected emergencies, adolescents.
INTRODUCTION 1.1
"Adolescence is a wonderful experience, for the youth, Believe me, it makes them face the pragmatic truth, For it is the correct stage of knowing That's when really one learns about ones growing"
Stephen Chbosky

Today's child is tomorrow's citizen. The development of the country can be determined by estimating the health status of the children in that country. Children are the major consumers of health care. In India, about 35% of the total population is children below 15 years of age. This group is considered as special risk group as they are vulnerable to various health problems. Good health is given prime importance in all countries. Karl Meniner said "what is done to the children, they will do to the society." An accident is defined as "an unexpected unplanned occurrence which may involve injury". Also accident is the "occurrence of sequence of events that usually produce unintended injury, death or damage to property". A child is a unique individual. The child hood period is vital because of socialization process by transmission of attitude, customs and behavior through the influence of family and community.' the school is the place where the process of socialization occurs. In the school the child is adequately prepared, where his needs as growing person are regarded and if he is successful, the experience will have positive influence. School children being more active and adventurous, they are prone to falls, sports injury. Accidents and injuries are major cause for disability and death among children. Children between the ages of 5-14 years contribute one fourth of India's total population and they spend most of their time in school. The school is an ideal place for learning and growing up. Schools should be powerhouses of health education. The WHO considers school as a health promoting one when it is constantly strengthening its capacity as a health setting for living, learning and working. Health education, health services and healthy school environment are components of such schools. School can do more than any institution in society to help young people to live healthier, longer, more satisfying and more productive lives. Accidents are identified on an increase in India. Overcrowding, lack of awareness, poor implementation of safety precautions etc result in an increasing number of accidents. Globally about 16,000 people die of injuries every day. In India the accident death rate is increasing sharply. The significant observation is that 2% of the total injuries are occurring at schools. School health services are providing comprehensive care to the health and wellbeing of the children throughout the school years. First aid and emergency care are important aspects of school health service.

First aid to sick and wounded has been practiced since ancient times. Infact the famous German Surgeon General Esmarch (1823-1908) is considered to have conceived the idea of the first aid. The person giving first aid, the first aider, deals with the whole situation, the injured person, and the injury or illness. He knows what not to do as well as what to do; he avoids errors that are frequently made by untrained persons through well-meant but misguided efforts. He knows, too that his first aid knowledge and skill can mean the difference between life and death, between temporary and permanent disability, and between rapid recovery and long hospitalization. First aid training is of value in both preventing and treating sudden illness or accidental injury and in caring for large numbers of persons caught in a natural disaster. A first aider is prepared to help others: he/she is better able to care for himself in case of injury or sudden illness. Even if his own condition keeps him from caring for himself, he can direct others in carrying out correct procedures to follow in his behalf. Having studied first aid, he is prepared to give others some instruction in first aid, to promote among them reasonable safety attitudes, and to assist them wisely if they are stricken. There is no greater satisfaction than that resulting from relieving sufferings or save a life. Unintentional injury remains the leading cause of morbidity and mortality among children worldwide. Adolescents have significant energy and drive with innovative ideas. The future productivity of any nation is fully dependent on the adolescents. Hence it is essential that healthy development of adolescents needs to be carried out in a positive manner. In any country, adolescents are considered healthy due to low mortality rate in that age group. However mortality is a misleading measure of adolescent health. In fact adolescents do have a range of health problems that cause a lot of
morbidity as well as definite mortality. It is a common observation that adolescents do not access the existing health services despite having definite health problems.\(^5\)

Adolescence both in terms of age (spanning the ages between 10-19 years) and in terms of a phase of life marked by special attributes which includes rapid physical growth and development, physical, social and psychological maturity but not all at the same time, sexual maturity and the onset of sexual activity, experimentation, development of adult mental process and adult identity. Adolescents make up about 20 per cent of the world's population (of whom 85 per cent live in developing countries), India has the second largest population in the world having one billion plus people(censes 2001) out of which adolescents (age 10-19 years) contribute to 22.5% section of population i.e. 225 million.\(^6\) A world fit for children is one in which all children, including adolescents, have ample opportunity to develop their individual capacities in a safe and supportive environment. Many young adults are injured each year in competitive sports. The value of sports such as football, during the adolescent years is currently being investigated. Consideration is also being given to the kinds of shoes, equipment and turf used and their relations to the injuries that occur. To a degree, adolescents must be safeguarded when they want to do something beyond their physical endurance, to prevent injury.\(^8\) Most common cause of severe injury and death in adolescents in the school is motor vehicle accidents either as pedestrian or as passenger. The adolescent's desire for riding bicycles increases the risk for injury on streets and byways. Other serious injuries include accidents on skate boards, roller skates and other sports equipment. Most of the injury occurs near home or school. The most effective means of prevention is education of adolescent and family regarding the hazards of risk taking and improper use of equipment.\(^9\)

Reported that 50% of deaths occur within the first hour of the accident, 30% between one hour and one week and 20% occur after first week. The 'golden hour' and platinum hour of early trauma care. Important factors responsible for increasing secondary injuries and complications are non-availability of first aid, delay in transfer of patients from the injury site to the hospital, lack of definitive treatment in first contact hospitals, absence of triage and external medico-legal problems.\(^10\)

In most of the cases, the complications of the injuries and fractures can be reduced by proper application of the first aid at proper time. Lack of the first aid management at the accidental scene leads to major complications, disability or even death. By considering the importance of first aid it is imperative that every person should be capable of rendering first aid to sick and injured person till the patient reaches in the safe hands of specific medical personal.\(^11\) According to Jones Elizabeth Pryce, children are at school for a larger part of their lives and it is vital time in their emotional and physical development. They are away from caring parents and exposed peer groups and wide variety of adults. It is bewildering time with many problems which they will find difficult to solve. The combined intent of parents, teachers and nurses can help to ensure that they are able to reach their full potential.\(^12\)

Based on so much literature, it is felt that it is essential to give adequate knowledge about first aid and emergency care to children especially adolescents. At the time of accidents, emergencies, disasters etc the adolescents have a significant role in rescue services. The knowledge regarding first aid and emergency care help them to play a major role in emergency management in adverse conditions where the medical professionals find difficulty to reach. Thus the researcher felt that the adolescents need more information on first aid management. A planned teaching program me for adolescents on first aid management will enhance their knowledge.

1.2 STATEMENT OF PROBLEM

"A Pre- experimental study to evaluate the effectiveness of planned teaching programme on first aid management of selected emergencies among adolescents in selected schools of district Ganderbal"
1.3 OBJECTIVES OF STUDY

1. To assess the existing knowledge of adolescents on first aid management of selected emergencies.
2. To evaluate the effectiveness of planned teaching programme on first aid management of selected emergencies.
3. To determine the association between pretest knowledge scores and selected socio-demographic variables.

II. RESEARCH METHODOLOGY

2.1 Research Approach and Design: An experimental approach with Pre-experimental one group pre-test and post-test design was used for this study.

2.2 Population and Sample: The population of main study comprised of 60 adolescents studying in Government High and Higher Secondary Schools of Lar Ganderbal. Simple random sampling technique was adopted to select the sample.

2.3 Research Tools: In this study tool consists of two parts; Section A: Socio Demographic Data, Section B: Structured questionnaire

2.4 Data Collection Method: Before the collection of data, formal written permission was obtained from Director School Education and Chief Education Officer of District Ganderbal. The data was collected from 25th to 15th of December 2013 from Government Schools of District Ganderbal. The investigator conducted pre-test by personally handling over the Self-Structured knowledge questionnaire to the subjects. Average time spent by the subjects for completing pre-test was approximately 15-20 minutes. After the pre-test, students were given planned teaching programme and a post-test was administered with the same questionnaire to the same group after 7 days.

2.5 Data Analysis: Results were analyzed through descriptive and inferential statistics.

III. RESULTS AND DISCUSSION:

The analyzed data was organized and presented in the form of tables which was organized under the following sections:

Section -A

Frequency and percentage distribution of subjects according to their selected socio-demographic variables.

Table 1: Percentage distribution of adolescents by their age

<table>
<thead>
<tr>
<th>Age in years</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 years</td>
<td>3</td>
<td>5.0</td>
</tr>
<tr>
<td>14 years</td>
<td>10</td>
<td>16.7</td>
</tr>
<tr>
<td>15 years</td>
<td>14</td>
<td>23.3</td>
</tr>
<tr>
<td>16 years</td>
<td>15</td>
<td>25.0</td>
</tr>
<tr>
<td>17 years</td>
<td>11</td>
<td>18.3</td>
</tr>
<tr>
<td>18 years</td>
<td>7</td>
<td>11.7</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>
**Table 2: Percentage distribution of adolescents by their gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>20</td>
<td>33.3</td>
</tr>
<tr>
<td>Female</td>
<td>40</td>
<td>66.7</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Table 3: Percentage distribution of adolescents by their mother's education**

<table>
<thead>
<tr>
<th>Mothers education</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiterate</td>
<td>39</td>
<td>65%</td>
</tr>
<tr>
<td>Primary-middle</td>
<td>14</td>
<td>23.3%</td>
</tr>
<tr>
<td>9th-12th</td>
<td>7</td>
<td>11.7%</td>
</tr>
<tr>
<td>Graduation and above</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Table 4: Percentage distribution of adolescents by their father's education**

<table>
<thead>
<tr>
<th>Fathers education</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiterate</td>
<td>12</td>
<td>20.0%</td>
</tr>
<tr>
<td>Primary-middle</td>
<td>12</td>
<td>20.0%</td>
</tr>
<tr>
<td>9th-12th</td>
<td>35</td>
<td>58.3%</td>
</tr>
<tr>
<td>Graduate &amp; above</td>
<td>1</td>
<td>1.7%</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Table 5: Percentage distribution of adolescents by their monthly income of family

<table>
<thead>
<tr>
<th>Monthly income</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5000</td>
<td>40</td>
<td>66.7</td>
</tr>
<tr>
<td>5000-7000</td>
<td>6</td>
<td>10.0</td>
</tr>
<tr>
<td>7000-10000</td>
<td>7</td>
<td>11.7</td>
</tr>
<tr>
<td>10000 &amp; above</td>
<td>7</td>
<td>11.7</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 6: Percentage distribution of adolescents by their type of family

<table>
<thead>
<tr>
<th>Type of family</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear</td>
<td>42</td>
<td>70.0</td>
</tr>
<tr>
<td>Joint</td>
<td>18</td>
<td>30.0</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 7: Percentage distribution of adolescents by their previous of information

<table>
<thead>
<tr>
<th>Source of information</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family members</td>
<td>11</td>
<td>18.3</td>
</tr>
<tr>
<td>Teachers</td>
<td>32</td>
<td>53.3</td>
</tr>
<tr>
<td>TV/Radio</td>
<td>8</td>
<td>53.3</td>
</tr>
<tr>
<td>Newspapers/magazines</td>
<td>9</td>
<td>13.3</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 8: Percentage distribution of overall knowledge scores of adolescents on first aid management of selected emergencies related to pre-test and post-test.

<table>
<thead>
<tr>
<th>Knowledge score</th>
<th>Pre-test</th>
<th></th>
<th>Post- test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Low knowledge</td>
<td>54</td>
<td>90%</td>
<td>1</td>
<td>1.66%</td>
</tr>
<tr>
<td>&lt;50%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average knowledge</td>
<td>6</td>
<td>10%</td>
<td>20</td>
<td>33.34%</td>
</tr>
<tr>
<td>50-75%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High knowledge</td>
<td>0</td>
<td>0%</td>
<td>39</td>
<td>65%</td>
</tr>
<tr>
<td>&gt;75%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9: Effectiveness of planned teaching program on knowledge on first aid management of selected emergencies among adolescents by comparing pretest and post test

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Mean difference</th>
<th>Standard deviation</th>
<th>Paired “t” value</th>
<th>P value</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall knowledge</td>
<td>20.083</td>
<td>0.7</td>
<td>28.790</td>
<td>&lt;0.05</td>
<td>S</td>
</tr>
</tbody>
</table>

S = significant
Table 10: Association between the ages of the adolescents with their pre-test knowledge regarding first aid management of selected emergencies by using linear regression

Hypothesis $H_{0.1}$: There is no association of demographic variable with pre-test knowledge score at 0.05 level of significance

<table>
<thead>
<tr>
<th>Pretest Knowledge</th>
<th>Age in years</th>
<th>Pearson’s Correlation</th>
<th>$P$ value</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean ±SD</td>
<td>Minimum</td>
<td>Maximum</td>
<td>Range</td>
</tr>
<tr>
<td></td>
<td>15.7±1.39</td>
<td>13</td>
<td>18</td>
<td>5</td>
</tr>
</tbody>
</table>

S = Significant

Table 11: Association of demographic variables with pre-test knowledge score by using one way ANOVA and independent T test.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Knowledge Score Mean ±sd</th>
<th>Mean Difference</th>
<th>$P$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENDER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>20.55±5.26</td>
<td>5.10</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Female</td>
<td>15.45±3.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOTHERS EDUCATION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>16.69±5.01</td>
<td>1 vs 2 = 1.81</td>
<td>0.520</td>
</tr>
<tr>
<td>Primary-middle</td>
<td>18.50±4.62</td>
<td>1 vs 3 = 0.31</td>
<td></td>
</tr>
<tr>
<td>9th – 12th</td>
<td>17.00±6.13</td>
<td>2 vs 3 = 1.5</td>
<td></td>
</tr>
<tr>
<td>FATHERS EDUCATION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>15.25±2.52</td>
<td>1 vs 2 = 2.5</td>
<td>0.532</td>
</tr>
<tr>
<td>Primary-middle</td>
<td>17.75±5.15</td>
<td>1 vs 3 = 2.38</td>
<td></td>
</tr>
<tr>
<td>9th – 12th</td>
<td>17.63±5.61</td>
<td>1 vs 4 = 0.75</td>
<td></td>
</tr>
<tr>
<td>Graduate and above</td>
<td>16.00±0</td>
<td>2 vs 3 = 0.12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 vs 4 = 1.75</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 vs 4 = 1.63</td>
<td></td>
</tr>
</tbody>
</table>
The above tables indicate that the knowledge score of students was higher 65% in post-test as compared to pre-test knowledge 10%. The difference between pre-test and post-test knowledge score was calculated with the paired 't' which was found statistically significant at p value < 0.05. Hence it was revealed that the mean post-test knowledge score was significantly higher than the mean pre-test knowledge score of adolescents in first aid management of selected emergencies. Moreover, there was a significant association of pre-test knowledge score with selected demographic variable such as gender (p=<0.05). There was no association between pre-test knowledge score and demographic variables such as education status of mother, education status of father, family income, type of family and source information on first aid.

IV: CONCLUSION:

Education programmes should be included in the curriculum of of adolescents which will provide an awareness regarding first aid management of selected emergencies in schools.

V: IMPLICATIONS OF THE STUDY:

Nursing Practice

Nursing professionals working in hospitals as well as in the community can impart the health education to adolescents regarding first aid management of selected emergencies

Nursing Education

As a nurse educator, there are abundant opportunities for nursing professionals to educate adolescents as well as their family members regarding first aid management of selected emergencies.

Nursing Administration

The nursing administrator can emphasize on conducting workshops, seminars and exhibitions on first aid management of selected emergencies.
Nursing Research

Further researches can be done by using different modalities based on present research finding will help to develop nursing knowledge and upliftment of nursing profession.

VI: RECOMMENDATIONS

- Study can be replicated on large sample size with longer duration in different setting so that the findings can be generalized to large population.
- A study can be conducted with two groups like experimental and control group for comparison between pre and post knowledge score.
- The study can be replicated in different settings to strengthen the findings.
- A comparative study can be done between nursing and non-nursing students.

ACKNOWLEDGMENT:

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REFERENCES: