Effectiveness of structured teaching programme on Knowledge regarding Measles and its vaccination among mothers of under five year children at selected rural area.

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ABSTRACT:

Background of the study: Measles is common and serious childhood exanthemata’s illness, which still causes approximately 350,000 childhood deaths in developing countries of which 80,000 occur in India alone.1 Mortality of measles varies greatly in different part of the world. It is 100 to 400 more likely to cause the death in pre-schooler children in developing countries. Today measles is still a leading killer among vaccine preventable diseases of childhood.2

AIM: The main aim of this study was to evaluate the effectiveness of structured teaching programme on knowledge regarding measles and its vaccination among mothers under five year children.

METHOD: An evaluative approach and quasi experimental one group pretest and posttest research design was used with purposive sampling select the 50 mothers of under five children in rural area. Structured knowledge questionnaire was used to collect the data. Pretest was conducted and structure teaching program was given to mother and post test was conducted to assess the effectiveness of structured teaching program. Data was analyses by using descriptive and inferential statistics.

RESULT: The result shows that 60% of the mothers had inadequate knowledge and 40% of mothers had moderate knowledge level in the pretest. Further, none of them had adequate knowledge on Measles and its vaccination in the pretest. The post test result showed that 64% of the mothers had Adequate knowledge and 36% of mothers had moderate knowledge level in the post test. Further, none of them had adequate knowledge level in the post test.

The study revealed that the enhancement of mean knowledge found to be 30.53% from the pretest to post test. The statistical Paired ‘t’ test was found to be 34.7* that reflects significant enhancement of knowledge score from pretest to post test at P<0.05 revealing the effectiveness of structured teaching program on measles and its vaccination among mothers.

Study result showed that there is a significance association between age and knowledge level of mothers noticed ($\chi^2 = 6.69$*) at P < 0.05. It is found that there is a significance association between area of leaving and knowledge level. ($\chi^2 = 5.33$*) at P < 0.05. It is also found that there is a significance association between family income and knowledge level of mothers. ($\chi^2 = 9.848$*) at P < 0.05. The study also showed that there is a
significance association between age and knowledge level of mothers noticed ($\chi^2 = 8.611^*$) at $P < 0.05$.

**INTRODUCTION:**

Measles is an infectious disease most often occurs in infants and children. It is a viral disease and considered as one among the six killer disease of the child. It is caused by RNA Paramyxovirus, clinically characterised by fever, catarrhal symptoms of the upper respiratory symptoms, followed by a typical macular popular skin rashes and koplik spots. It usually seen in the infants, before the age of 3 to 4 months and mild in the next 6 months. The peak incidence is in the developing world ranges in the age group 1 to 5 years. Danger signs related to childhood illnesses should be explained to the mother and family members. Preventive measures against various child health problems should be informed.

Measles is an important cause of morbidity and mortality among the children of India. Hospital-based studies have found that 20%-70% of children with measles develop minor and major complications. Every year around 3 million cases of Measles are seen and about 900,000 children die because of Measles around the world. In India every day, 500 children die because of Measles. The most worrying part is that the vaccine coverage against Measles in India is only 66% and even below 50% in many states. Immunization with live attenuated measles vaccine is administered 0.5ml subcutaneously in single dose at 9 months of age. It provides protection to the susceptible children. MMR vaccine can be administered for protection against measles along with mumps and rubella.

**OBJECTIVES OF THE STUDY:**

1) To assess the pre-test level of knowledge regarding Measles and its vaccination among Mothers of under five year children.
2) To assess the post-test level of knowledge regarding Measles and its vaccination among Mothers of under five year children.
3) To evaluate the effectiveness of Structure Teaching Programme by comparing the pre test and post test knowledge scores.
4) To find the association between the pre test level of knowledge score of Mothers of under five year children with their selected socio demographic variables.

**CONCEPTUAL FRAMEWORK:**

to describe the relationship between the concepts general system theory by Ludwig von Bertalanffy is used. This theory is most suitable because it has components like input, throughput, output, feedback.

**HYPOTHESIS:**

$H_1$: There is significant difference between pre-test and post-test knowledge score regarding Measles and its vaccination among Mothers of under five year children.

$H_2$: There is significant association between Pre-test levels of knowledge score of Mothers of under five year children with their selected socio demographic variables.

Assumptions:
1. The Mothers of under five year children may not have adequate knowledge on Measles and its vaccination.
2. Structure teaching programme will help to gain the knowledge on measles and its vaccination among mothers.
Research approach: Evaluative approach was used to carry out the study.
Research design: Quasi experimental, one group pretest and posttest design was used.
Population: The populations of the present study consist of mothers of under five year children.
Sample: In this study samples are Mothers of under five year children
Sample size: Total samples comprising of 50 mothers. (N= 50)
Sampling technique: Purposive sampling technique was used to select the sample.
Research tool: In this study, the investigator has prepared tool comprising of 2 sections.
  - Section –I Socio-demographic data was prepared by the investigator.
  - Section-II Self structured knowledge questionnaires regarding Measles and its vaccination was prepared by the investigator to assess the knowledge of the mothers of under five year children.

RESULT:

Table: shows that over all Pretest and posttest knowledge levels on Measles and its vaccination among Mothers of under five year children. n=50

<table>
<thead>
<tr>
<th>Knowledge Levels</th>
<th>Range of Score</th>
<th>Pretest</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate</td>
<td>&lt; 50 Score</td>
<td>30 60</td>
<td>0 0</td>
</tr>
<tr>
<td>Moderate</td>
<td>50% - 75% Score</td>
<td>20 40</td>
<td>18 36</td>
</tr>
<tr>
<td>Adequate</td>
<td>&gt;75% Score</td>
<td>- -</td>
<td>32 54</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>50 100</td>
<td>50 100</td>
</tr>
</tbody>
</table>

The above table and figure result shows that 60% of the mothers had inadequate knowledge and 40% of mothers had moderate knowledge level in the pretest. Further, none of them had adequate knowledge on Measles and its vaccination in the pretest.

Above Table and figure also depicts that 64% of the mothers had Adequate knowledge and 36% of mothers had moderate knowledge level in the post test. Further, none of them had inadequate knowledge level in the post test.

Table: shows area wise Pretest mean knowledge scores on Measles and its vaccination among Mothers of under five year children. n =50

<table>
<thead>
<tr>
<th>Aspect wise</th>
<th>Max. score</th>
<th>( \bar{x} )</th>
<th>(σ)</th>
<th>Mean %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge regarding Measles</td>
<td>7</td>
<td>3.08</td>
<td>1.23</td>
<td>44</td>
</tr>
<tr>
<td>Knowledge regarding causes and signs/symptoms</td>
<td>7</td>
<td>2.7</td>
<td>1</td>
<td>38.57</td>
</tr>
<tr>
<td>Knowledge regarding diagnostic test and complication</td>
<td>6</td>
<td>2.48</td>
<td>0.67</td>
<td>41.33</td>
</tr>
<tr>
<td>Knowledge regarding management and vaccination</td>
<td>10</td>
<td>5.24</td>
<td>1.11</td>
<td>52.4</td>
</tr>
<tr>
<td>Over all Total</td>
<td>30</td>
<td>13.7</td>
<td>2.35</td>
<td>45.66</td>
</tr>
</tbody>
</table>
Above table and figure showed the area wise pretest mean knowledge of mothers. The result indicates that mothers had highest mean knowledge score of 52.4% in the aspect of management and vaccination followed by mean knowledge score of 44% in the aspect of regarding general aspect of measles and a mean knowledge score of 41.33% in the aspect of test diagnosis and complication, a mean knowledge score of 38.57% in the aspect of regarding causes and signs/symptoms. However, the overall pretest mean knowledge score was found to be 45.66%
Above Table and figure showed the aspect wise posttest mean knowledge of mothers. It findings indicates that highest mean knowledge score 78% was found in the aspect of Knowledge regarding management and vaccination, followed by 77.33% mean knowledge score was in the aspect of Knowledge regarding test and complication. Followed by the mean knowledge score of 74.57% were seen in the aspect of Knowledge regarding measles. Further, mean knowledge score of 74.28 were seen in the aspect of regarding causes and symptoms. However, the overall posttest means knowledge score was found to be 76.2.

Table: shows over all differences of Pretest and Posttest Mean Knowledge scores on measles and its vaccination among mother n=50

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Max score</th>
<th>Mean</th>
<th>σ</th>
<th>Mean %</th>
<th>Paired 't' test value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre test</td>
<td>30</td>
<td>13.7</td>
<td>2.3</td>
<td>45.6</td>
<td></td>
</tr>
<tr>
<td>Post test</td>
<td>30</td>
<td>22.86</td>
<td>2.14</td>
<td>76.2</td>
<td>34.07*</td>
</tr>
<tr>
<td>Enhancement</td>
<td>-</td>
<td>9.1</td>
<td>1.9</td>
<td>30.53</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at p=0.05% level, t (0.05, 49 df) = 1.96

Above Table and figure reveals the comparison of overall Pretest and Posttest Mean Knowledge on measles and its vaccination. Knowledge of the mean of the Pre-test was 45.66% whereas; the mean knowledge of posttest was 76.2% respectively. Further, the enhancement of mean knowledge found to be 30.53% from the pretest to post test. The statistical Paired ‘t’ test was found to be 34.7* that reflects significant enhancement of knowledge score from pretest to post test at P< 0.05 revealing the effectiveness of structured teaching program on measles and its vaccination among mothers.

Findings related to association between demographic variables and level of knowledge of mothers

Study result showed that there is a significance association between age and knowledge level of mothers noticed ($\chi^2 = 6.69*$) at P < 0.05. It is found that there is a significance association between area of leaving and knowledge level. ($\chi^2 = 5.33*$) at P < 0.05.
It is also found that there is a significance association between family income and knowledge level of mothers. ($\chi^2=9.848^*$) at P < 0.05. The study also showed that there is a significance association between age and knowledge level of mothers noticed ($\chi^2=8.611^*$) at P < 0.05.

**RECOMMENDATIONS:**

On the basis of the findings of the study following recommendations have been made.

- A similar study can be replicated on large sample to generalize the findings.
- An experimental study can be conducted with control group for the effective comparison of the results.
- A study can be carried out to evaluate the efficiency of various teaching strategies like self-instruction module, pamphlets, leaflets, and computer assisted instruction on measles and Immunization.

**CONCLUSION:**

Measles is a dangerous communicable disease in below five children. It is a preventable disease with timely immunization with Measles or MMR vaccine. The main objective of the study was to assess the mother's knowledge regarding measles and its vaccination and to assess the effectiveness of structure teaching program. The study results show that the 30.53 mean enhancement in the pretest-posttest knowledge score of the mothers regarding measles and its vaccination. It suggested that the structure teaching program was effective in improving the mother's knowledge regarding measles and its vaccines.