Effectiveness of planned teaching programme on knowledge regarding immunization among antenatal mothers at selected villages of Waghodia Taluka


Abstract

Background of the study: Childhood is very precious period in human life cycle. It requires more care and protection from the diseases. The childhood period is also high risk for communicable diseases. Providing knowledge to mother about immunization and assess the knowledge of mother.

Objectives: The study was conducted to assess the effectiveness of planned teaching programme on knowledge regarding immunization among antenatal mothers at selected villages of Waghodia Taluka.

Setting: The study was conducted in selected villages of Waghodia Taluka.

Design: A pre-experimental one group pretest posttest design was used.

Sampling technique: Non probability convenience sampling technique.

Sample: 60 Antenatal women, from selected villages of Waghodia Taluka.

Tools for data collection: The structured questionnaire was used as an instrument to measure the level of knowledge regarding immunization among antenatal mothers at selected villages of Waghodia Taluka.

Result: In the pre-test 41.66% have moderately knowledge, 58.33% have inadequate knowledge and 10% have adequate knowledge. The post-test knowledge score showed 53.33% have moderately knowledge, 46.66 have adequate knowledge and no one have inadequate knowledge. The mean post-test knowledge score (36.42) also was higher than the mean pre-test score (18.93). Comparison of pre-test and post-test knowledge scores of antenatal mothers regarding Immunization the obtained ‘t’ value 25.508 is greater than the table value at 0.05 (2.00) level of significance. It indicates that there is a significant difference between pre-test and post-test knowledge of antenatal mothers regarding Immunization. The findings indicate all variables such as Monthly income (χ2 = 3.32), Educational status (χ2 = 5.72), Occupation (χ2 = 6.07), Number of pregnancies (χ2 = 3.79) were found to be significant at 0.05 level of significance & variables such as Mothers age ( χ2 = 0.27), Type of family (χ 2= 0.26), Religion (χ2 = 0.91) were not significant at 0.05 level of significance. Thus it can be interpreted that there is a significant association between pre-test level of knowledge among antenatal mothers with their selected socio-demographic variables such as Monthly income, educational status, Occupation, Number of pregnancies.

Conclusion: The study concluded that the planned health education programme was effective in improving knowledge of antenatal mothers regarding immunization.

Keywords: Effectiveness, planned teaching programme, knowledge, immunization, antenatal mother

Introduction

Childhood is very precious period in human life cycle. It requires more care and protection from the diseases. The childhood period is also high risk for communicable diseases. In India 72 babies are dying every 1000 babies born in a year. Disease of early childhood preventable by vaccination remains a serious problem in developing countries [1]. 5 million children were dying each year and another 5 million were disabled by infectious diseases [2]. Vaccination or Immunization is a way to protect the human body against infectious diseases through administration of vaccine. In 1974, WHO launched its "Expanded Programme on Immunization" (EPI) against six most common vaccine preventable childhood diseases. Government of India launched EPI during the year 1978. UNICEF renamed the programme as "Universal Child Immunization" (UCI) in 1985 and Government of India launched "Universal Immunization Programme" (UIP) in 1985.
The aim of Universal immunization programme is to protect infants under one year of age against six killer diseases namely childhood TB, Diphtheria, Pertussis (Whooping cough) Tetanus, Polio and Measles [3]. Children have an immature immune system and have no natural immunity against conditions. Therefore they are at an increased risk for contracting infections and diseases like mumps, rubella, typhoid and hepatitis B. Even today millions of children die each year from vaccine preventable diseases such as measles diphtheria, tetanus and pneumonia. Vaccines are meant to protect your child against a variety of preventable diseases and hence it is every child’s right to be vaccinated [4].

The government of India recommends and provides some vaccines as per the Expanded Program of Immunization (EPI). These vaccines include the BCG, oral polio vaccine, DPT (both primary and booster), measles and tetanus toxoid. Hepatitis B and MMR are included in some states. Apart from these there are a few mandatory and optional Vaccines can be classified as vaccines not covered under EPI but recommended by The Indian Academy of Pediatrics or IAP (the national body of Pediatricians). In These include: Rotavirus vaccination for below 6 months old, Haemophilus influenza B (Hib) vaccine, Influenza vaccine, Varicella (Chickenpox) vaccine at 15-18 months, Hepatitis A vaccination, Human Papilloma Virus vaccine, Meningococcal Vaccine [4].

Need for the Study
India may be considered a conglomeration of many countries within a country. A national policy must be evolved after considering many variables. One may justify selective protection of individuals with certain vaccines on a scientific basis (such as pneumococcal vaccine in splenectomised patients), but one must be cautious about the routine use of ‘optional’ vaccines. It is important to think beyond mere availability and affordability [5]. An estimated 550,000 children aged <5 years die from rotavirus diarrhea each year, with >85% of these deaths occurring in low-income countries of Africa and Asia [6]. Most (approx. 70%) cases of meningitis occur in children under the age of 5 or in people over the age of 60. Out of that, an annual incidence of 86 per 100,000 (95%CI 69 to 109) in 0-4 year old children, and 357 per 100,000 in 0-11 month infants in India [7].

In India rotavirus causes 5 lacks of hospitalization annually. Usually the hospitalization occurs within 6 months of age. The WHO estimates that the two bacteria alone Hib and pneumococcal causes 50% of pneumonia deaths in children under five years of age in India. In 2006, 206 polio cases were reported in India. In 2007 a total of 864 polio cases were reported.

From the above studies we have observed that the mother and infant mortality is increasing due to lack of knowledge regarding immunization. So we are interested to educate the mothers regarding immunization so that the mothers are aware about immunization. If the mother is educated at the antenatal phase it will prepare her in advance to care about her child and protect him/her from various diseases.

Objectives of the Study
- Assess the pre-existing knowledge regarding immunization among antenatal mothers at selected villages of Waghodia Taluka.
- Determine the effectiveness of planned teaching programme on immunization among antenatal mothers.
- Find out association between pretest knowledge scores with selected demographical variables.

Methodology

Hypothesis
- H1. There will be a significant difference in pre-test and post-test knowledge of mothers regarding immunization.
- H2. There will be significant association between the knowledge of mothers regarding immunization with their selected demographic variables.

Material and Methods
Research Design: One group pre-test, post-test research design, which belongs to pre-experimental design, was selected for this study.

Setting: The study was conducted in selected villages of Waghodia Taluka.

Population: The population consisted of antenatal women at the selected villages of Waghodia Taluka was selected for the study.

Sample: The sample size constitutes 60 Antenatal women, from selected villages of Waghodia Taluka.

Sampling Technique: The samples of the study were selected by using non probability convenience sampling technique.

Tools for data collection: The research tool was developed in English after an extensive of literature and experts opinion it was translated in to Gujarati by language experts. A self-reported structured questionnaire was used for collection of data. Questionnaire is considered to be the most efficient and objective method which is quick and generally inexpensive means of obtaining data from a large number of respondents.

Data analysis: The demographic variables were organized by using descriptive measures (frequency and percentage). The association between the level of knowledge and the selected demographic variables were assessed by Chi-square test.

Sampling Criteria
Inclusion criteria
- Antenatal women of the age between 21-35 years
- Antenatal women who are willing to participate.
- Antenatal women who are able to read Gujarati.

Exclusion criteria
- Antenatal woman who are not present at the time of data collection.

Results
Findings of demographic characteristics:
Age wise distribution of sample antenatal mothers 46 (76.7%) are in between the age group of 21-25 years. 11 (18.3%) of them are in between 26-30 years and only 03 (05%) are in between the age group of 31-35 years.
Antenatal mothers 40 (66.7%) have income < 5000 Rs/Month. 18 (30%) of them have income between 5000-10000, only 02 (3.3%) have between 10000-15000 & none of them have >15000 Rs/Month. Antenatal mothers 46 (76.7%) belongs to nuclear family & only 14 (23.3%) of them belongs to joint family. Antenatal mothers 49 (81.7%) have primary education, 12 (20%) of them are illiterates, only 07 (11.7%) completed secondary education & none of them have done graduation. Occupation of antenatal mothers 37 (61.7%) have government job, 22 (36.7%) of them are housewives, only 01 (1.7%) mother is a labor worker & none of them are working in health sector as health worker. Antenatal mothers 33 (55%) experienced one previous pregnancy, 23 (38.3%) of them had two pregnancies, 03 (5%) mothers were having three pregnancies & only one mother was pregnant more than three times. Antenatal visit during pregnancy of antenatal mothers 60 (100%) had antenatal visits during their pregnancy. Antenatal mothers 60 (100%) agreed that immunization is beneficial for their children.

Analysis of pre-test and post-test knowledge scores of antenatal mothers regarding immunization.
The findings of pre-test data showed that 41.66% were having moderately adequate knowledge while 58.33% had inadequate knowledge. Findings of post-test data show that 46.66% of the respondents possess adequate knowledge as compared to 53.33% of the respondent noticed with moderate adequate knowledge.

Effectiveness of planned teaching program on knowledge regarding immunization among antenatal mothers.
Comparison of pre-test and post-test knowledge scores of antenatal mothers regarding Immunization the obtained ‘t’ value 25.508 is greater than the table value at 0.05 (2.00) level of significance. Therefore “t” value is found to be significant. It indicates that there is a significant difference between pre-test and post-test knowledge of antenatal mothers regarding Immunization.

![Fig 1: Overall aspect wise pre-test and post-test knowledge scores.](image)

Association of pre-test level of knowledge of antenatal mothers with selected socio demographic variables.
The findings indicate all variables such as Monthly income ($\chi^2=3.32$), Educational status ($\chi^2=5.72$), Occupation ($\chi^2=6.07$), Number of pregnancies ($\chi^2=3.79$) were found to be significant at 0.05 level of significance & variables such as Mothers age ($\chi^2=0.27$), Type of family ($\chi^2=0.26$), Religion ($\chi^2=0.91$) were not significant at 0.05 level of significance. Thus it can be interpreted that there is a significant association between pre-test level of knowledge among antenatal mothers with their selected socio-demographic variables such as Monthly income, educational status, Occupation, Number of pregnancies.

### Table 1: Association in pre-test level of knowledge among antenatal mothers with their selected socio demographic variables.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Variables</th>
<th>Pre test knowledge</th>
<th>Chi square Value</th>
<th>df</th>
<th>Inference</th>
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<tr>
<td></td>
<td></td>
<td>Inadequate</td>
<td>Moderate</td>
<td></td>
<td></td>
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<tr>
<td>01</td>
<td>Mother Age (in Years)</td>
<td>21-25</td>
<td>26</td>
<td>20</td>
<td>0.27</td>
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<tr>
<td></td>
<td></td>
<td>26-30</td>
<td>7</td>
<td>4</td>
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<td></td>
<td></td>
<td>31-35</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>Monthly income (in Rs)</td>
<td>&lt; 5000</td>
<td>23</td>
<td>17</td>
<td>3.32</td>
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<tr>
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<td>5000-10000</td>
<td>12</td>
<td>6</td>
<td></td>
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<td></td>
<td></td>
<td>10000-15000</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>Type of family</td>
<td>Nuclear</td>
<td>26</td>
<td>20</td>
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<td></td>
<td></td>
<td>Joint</td>
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<td>5</td>
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<td>Religion</td>
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<td>Muslim</td>
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<td>6</td>
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<td>05</td>
<td>Education status</td>
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<td></td>
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<td>Primary Edn.</td>
<td>23</td>
<td>18</td>
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<td></td>
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<td>Secondary Edn.</td>
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<td>06</td>
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<td>Govt. Job</td>
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<td>07</td>
<td>Number of pregnancies</td>
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<td>Three</td>
<td>3</td>
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<td>Four &amp; above</td>
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Conclusion
The present study assessed the knowledge regarding immunization among antenatal mothers residing at Waghodia Taluka and found that the majority of women had inadequate knowledge related to immunization. After planned teaching programme on immunization there was significant improvement on knowledge of the antenatal mothers regarding immunization. The study concluded that the planned teaching programme was effective in improving knowledge of antenatal mothers regarding immunization.

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