



# **“A study to assess the effectiveness of structured teaching programme (STP) on knowledge regarding optional vaccines and its purpose among mothers of under five children in selected community area at Hassan.**

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## **Abstract:**

There are about 16-33 million cases of typhoid fever annually, accounting for nearly 6 lakh deaths. An earlier surveillance study conducted by the AIIMS, in a Delhi slum showed a peak incidence of typhoid in children between age 1 and 5 years and that the disease was as severe in children as in adults. Vaccination can help control the increasing morbidity and mortality.

Sample of fifty mothers of under five children were selected by using convenient sampling technique. Pretest was conducted by distributing the structured knowledge questionnaire and the subject were requested to mark the correct answer and then conducted a structured teaching programme on knowledge regarding optional vaccines. Teaching regarding optional vaccine was given and then the post test of the study was carried out on the eighth day, using same tool as the pretest.

The overall pretest knowledge score of mothers of under five children was 7.18 and posttest score was 21.08. This difference pretest and post test mean score is 13.9 with a paired t value of 13.28 and it is statistically significant. Difference between pretest and posttest score was analyzed using paired 't' test and it was found highly significant at 0.005 level. Hence the objective 3 is achieved. The above findings of the second objective are supported by a study was conducted to evaluate the effectiveness of structured teaching programme on knowledge regarding optional vaccines among mothers of under five children at Coimbatore, India One group pretest and post test experimental design was used for the study 40 mothers selected by convenience sampling technique. A structured interview schedule was used to assess the knowledge. The pretest mean score of knowledge was 19.35 and the post test score of knowledge among the rural mothers was 22.5. The study concluded that the mean post test score of knowledge was higher than mean pretest knowledge score.

The overall pretest scores was 23.9 % and the posttest scores was 70.3%. The student paired 't' value 13.28 was greater than the table value at P.

Hence it can be concluded that the teaching was effective in improving the optional vaccine

**Key Words:** Structured teaching programme (STP), knowledge, optional vaccines, mothers of under five children , community area at Hassan.

## Introduction

Immunization protects future generations. Vaccines have reduced and, in some cases, eliminated many diseases that killed or severely disabled people just a few generations ago. For example, smallpox vaccination eradicated that disease worldwide. If we continue vaccinating now, and vaccinating completely, parents in the future may be able to trust that some diseases of today will no longer be around to harm their children in the future.<sup>1</sup>

A study investigated a large-scale outbreak of hepatitis among children living in a residential colony in Pune District of India. In total, 123 overt and 56 sub-clinical cases were detected. This report of a large-scale, explosive outbreak of hepatitis A in Indian children once again emphasizes the need to evolve proper public health strategies, especially for vaccination, in countries in the transitional phase from hyper endemicity to intermediate endemicity.<sup>2</sup>

There are about 16-33 million cases of typhoid fever annually, accounting for nearly 6 lakh deaths. An earlier surveillance study conducted by the AIIMS, in a Delhi slum showed a peak incidence of typhoid in children between age 1 and 5 years and that the disease was as severe in children as in adults. Vaccination can help control the increasing morbidity and mortality.<sup>3</sup>

In 2018, an estimated 18.6 million infants worldwide were not reached with routine immunization services. More than 60% of these children live in 10 countries: the Democratic Republic of the Congo, Ethiopia, India, Indonesia, Iraq, Nigeria and Pakistan, the Philippines, Uganda and South Africa. Priority needs to be given to strengthening routine vaccination globally, especially in the countries that are home to the highest number of unvaccinated children.<sup>4</sup>

Karnataka ranks 15th among all states of India ranked in order of percentage of vaccine coverage. In 2014, planning commission of India estimated that 63.4 % of children in Karnataka have completed all recommended vaccines. But the coverage of optional vaccines were only 14%.<sup>5</sup>

Fear of injection, due to pain during the procedure is one of many factors leading people to delay or refuse vaccinations. Concerns over vaccine safety and mistrust in the health care system are also factors that may lead to vaccine hesitancy and lower vaccination rates. Globally, 1 in 5 children still do not receive routine life-saving immunizations, and an estimated 1.5 million children still die each year of diseases that could be prevented by vaccines that already exist. Addressing vaccine hesitancy is essential to close the global immunization gap.<sup>6</sup>

The mother plays a major role in promoting the health of children. Several misconception, ignorance and inadequacy of knowledge in relation to optional vaccine are prevalent among mothers especially under five children. Immunization is a high priority area in care of infants and children. High immunization rates have almost eliminated many infectious diseases which used to cause mortality of sizable of the population. A number of deadly and disabling infectious diseases can be prevented by timely administration of vaccines when child is effectively immunized at the right age, most of these diseases are either entirely prevented or at least modified so that child suffer from a mild disease without any disability.<sup>7</sup>

Access to immunization and up to date immunization coverage are essential for protecting every age group from debilitating and potentially life threatening effects of infectious diseases. The risk of mortality and morbidity is statistically high during childhood period. Prevention is ultimately the most effective defence system in controlling infectious diseases. So the knowledge regarding immunization in prevention of infectious disease among mothers of under five children is important.<sup>8</sup>

The investigator had observed during the clinical experience that children often get admitted to community area with the complaints of diarrhea, Typhoid, Meningitis, Pneumonia etc. It can be observed that receiving optional vaccines are better to prevent infectious disease than suffering. Hence, the investigator felt that there is a need for educational intervention to create awareness to mothers regarding optional vaccines.<sup>9</sup>

A study was conducted to evaluate the effectiveness of structured teaching programme on knowledge regarding optional vaccines among mothers of underfive children at Coimbatore, India One group pretest and post test experimental design was used for the study 40 mothers selected by convenience sampling technique. A structured interview schedule was used to assess the knowledge. The pretest mean score of knowledge was 19.35 and the post test score of knowledge among the rural mothers was 22.5. The study concluded that the mean post test score of

knowledge was higher than mean pretest knowledge score. So flashcard assisted teaching on knowledge regarding optional vaccines has significant influence on the rural people. The mothers with under five children gained knowledge regarding optional vaccines after the planned teaching programme.<sup>10</sup>

A study was conducted to evaluate the tutorial's effectiveness regarding childhood immunizations. After pretesting, expert review, and revision, the 45-minute Penn State Immunization Project tutorial was tested with pediatric and family medicine residents at 7 training programs in 4 states. Knowledge and attitudes were assessed by using a 26-item pretest/posttest, the results of which were then analyzed by using standard statistical methods. The results showed that a Tutorial is effective in improving general knowledge, knowledge of adverse events, and attitudes.<sup>11</sup>

A study was conducted to assess the effectiveness of health teaching program on knowledge regarding Immunization among 40 Mothers of under five Children at Aurangabad. The Research Design was Quasi Experimental (one group pre-test and post-test) research design. The result had shown that overall pre-test mean knowledge score was found to be 14.675 and SD as 4.226 and the overall post-test mean knowledge score was found to be 21.80 and SD as 4.207. Paired t-test shows statistical significance at 5 percent level ( $P < 0.05$ ). The study concluded that there is effectiveness in planned teaching programme among Mothers of under Five Children.<sup>12</sup>

A study was conducted to evaluate the effectiveness of structured teaching programme on knowledge of optional vaccines among mothers of under five children in selected rural areas. The Sample includes 30 mothers of under five children. Research approach was quantitative - evaluative approach and design used was quasi experimental pretest posttest design. The mean post-test knowledge score was 16.73 was higher than mean pre-test knowledge score which was 6.46. The mothers with under five children gained knowledge regarding optional vaccines after the structure teaching programme.<sup>13</sup>

Objective: . To evaluate the effectiveness of Structured Teaching Programme on knowledge regarding optional vaccines and its purpose among mothers of under five children.

Methods: An experimental approach was adopted for the study with one group pre test post test design. The main study was conducted Shanthigrama village at Hassan. Sample of fifty mothers of under five children were selected by using convenient sampling technique. Pretest was conducted by distributing the structured knowledge questionnaire and the subject were requested to mark the correct answer and then conducted a structured teaching programme on knowledge regarding optional vaccines. Teaching regarding optional vaccine was given and then the post test of the study was carried out on the eighth day, using same tool as the pretest.

Results:

Comparison of pretest and posttest knowledge score of subjects regarding optional vaccines and its purpose. **n=50**

Area of knowledge	Knowledge score				Paired 't' test	DF	Significance
	pretest		posttest				
	Mean	SD	Mean	SD			
General knowledge on optional vaccines	0.88	0.96	3.6	1.21	t= 12.59	49	p=0.001*** significant

Vaccines which prevent bacterial diseases	1.88	1.15	5.28	1.53	t= 12.68	49	p=0.001*** significant
vaccines which prevent viral diseases	4.42	3.24	12.2	2.38	t= 13.72	49	p=0.001*** significant
Overall	<b>7.18</b>	<b>2.76</b>	<b>21.08</b>	<b>2.06</b>	<b>t=13.28</b>	<b>49</b>	<b>p=0.001***</b> <b>significant</b>

\*\*\*very high significant at  $p < 0.005$

Comparison of overall knowledge score between pretest and post test showed that subjects had 7.18 mean score in pretest and 21.08 mean score in posttest. Difference in mean score is 13.9, and there is a large difference between pretest and posttest knowledge scores and it is statistically significant ( $t' = 13.28$ ). Student paired t' test was used to test statistical significance; it is highly significant at 0.005 levels.

#### Discussion:

The pretest knowledge score of mothers of under five children regarding general knowledge about vaccine was 0.88 where as post test score was 3.6. This difference between pretest and post test mean score is high with a paired t value of 12.59 and it is statistically significant. The pretest knowledge score of mothers of under five children on optional vaccines preventing bacterial diseases was 1.88 where as posttest score was 5.28. This difference pretest and post test mean score is high with a paired t value of 12.68 and it is statistically significant. The pretest knowledge score of mothers of under five children on optional vaccines preventing viral diseases was 4.42 where as posttest score was 12.2. This difference pretest and post test mean score is high with a paired t value of 13.72 and it is statistically significant.

The overall pretest knowledge score of mothers of under five children was 7.18 and posttest score was 21.08. This difference pretest and post test mean score is 13.9 with a paired t value of 13.28 and it is statistically significant. Difference between pretest and posttest score was analyzed using paired 't' test and it was found highly significant at 0.005 level. Hence the objective 3 is achieved. The above findings of the second objective are supported by a study was conducted to evaluate the effectiveness of structured teaching programme on knowledge regarding optional vaccines among mothers of under five children at Coimbatore, India One group pretest and post test experimental design was used for the study 40 mothers selected by convenience sampling technique. A structured interview schedule was used to assess the knowledge. The pretest mean score of knowledge was 19.35 and the post test score of knowledge among the rural mothers was 22.5. The study concluded that the mean post test score of knowledge was higher than mean pretest knowledge score. So flashcard assisted teaching on knowledge regarding optional vaccines has significant influence on the rural people. The mothers with under five children gained knowledge regarding optional vaccines after the planned teaching programme<sup>35</sup>

Conclusion: Descriptive and inferential statistics were employed to analyze the data. The data analysis was carried out on the basis of objectives and hypotheses of the study and has been presented on the sample characteristics with their knowledge. The overall pretest scores was 23.9 % and the posttest scores was 70.3%. The student paired 't' value 13.28 was greater than the table value at P.

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