

Original research article

Effectiveness of STP on Level of Knowledge and Attitude Regarding Immunization among the Mothers of under Five Children in Selected Rural Area, Guntur

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Abstract

Vaccination is probably one of the most cost effective interventions to reduce burden of childhood morbidity and mortality, provided used optimally and judiciously. Currently it is estimated that immunization saves the life of 3 million children a year but 2 million more lives could be saved by existing vaccines. In this study quantitative approach and quasi experimental one group Pre-test Post-test was used. Total 30 samples were in this study. Samples were selected through purposive sampling technique and setting was selected rural area, Guntur. Data are collected through structured questionnaire. The results shows that mean Post-test knowledge score of the mothers regarding immunization are significantly higher than their mean Pre-test knowledge scores. In order to find out the significant difference between the mean score of pre and Post-test knowledge score of the mothers regarding immunization paired 't' test was computed. The calculated value is higher than the table value, the null hypothesis was rejected and the research hypothesis was accepted. Hence the researcher concluded that gain in knowledge is not by chance but by STP on immunization. In order to find out the significant difference between the mean score of pre and Post-test attitude score of the mothers regarding immunization paired 't' test was computed. The calculated value is higher than the table value, the null hypothesis was rejected and the research hypothesis was accepted. Hence the researcher concluded that change of attitude is not by chance but by STP on immunization.

Key words: vaccination, morbidity, mortality, immunization and quantitative

Introduction

Immunization is defined as the process of inducing the immunity in an individual against an infectious organism or agent, through the vaccination. In May 1974, the WHO officially launched a global immunization programme known as Expanded Programme of Immunization (EPI), to protect all the children of the world against six vaccine preventable diseases namely- Diphtheria, Whooping Cough, Tetanus, Polio, Tuberculosis and Measles by the year 2000[1]. In India, the EPI was launched on January 1978. (K. Park). In 1990, by United Nations Integrated Children's Emergency Fund (UNICEF), EPI was renamed into Universal Child Immunization and it was launched in India on November 19, 1985 and was dedicated to the memory of Smt. Indira Gandhi. An important contribution of microbiology to medicine has been immunization [2]. By this, many vaccines preventable have been virtually eliminated. Vaccine is an immunological substance designed to confer specific protection against a given disease. It stimulates immune system to generate specific protection against an infectious agent. Vaccine may be prepared from live modified organisms,

inactivated or killed organisms, toxoids, or combination of these.

The immune system protects an individual against invasion by foreign bodies, specifically microbial agents and their toxic products. Today vaccination is very essential part of children health. Vaccination programme is a key step for the preventive services of children [3]. The field of paediatric vaccination is growing and changing as new vaccines are becoming available and previous diseases are being eradicated due to the complicity and evolution of vaccine preventable diseases. A review of immunology and the principles of vaccination provide background knowledge for information pertaining to disease transmission and the current recommended vaccine schedule [4]. The goal of vaccination is to protect the population from disease and decrease the incidence of disease and disease transmission.

The physical health of a child is important because it is associated with the mental and social development of children. Mothers are the first care providers of their children, is needed to reduce the under five mortality rate [5]. One of the ways to achieve reduction of under five mortality is to

educate the mothers on matters pertaining to child care. Approximately 2.5 million children under five years of age die every year as a result of disease that can be prevented by vaccination using currently available or new vaccines. India houses a large chunk of these unimmunized children. According to 2006 estimates, around 12 million children were not immunized; Uttar Pradesh with more than 3.0 million unimmunized children tops this list [6].

In India 22,616 cases of pertussis were reported in 2006. In developing countries pertussis is a major cause of infant mortality. The reported incidence for diphtheria has been 2472 (partial) and 10,231 cases in the year 2006 and 2005 respectively. Measles is the leading cause of childhood death. In India every 500 children die because of measles [7]. The most worrying factor is that the vaccine coverage against measles in India is only 66% and even below 50% in many states. There are 8.8 million estimated deaths in children under 5 years of age in worldwide due to haemophilic influenza in 2008 [8]. The estimated pneumococcal deaths in Indian children aged 1-5 months per 100,000 is between 100 and <300. An estimated 527,000 children aged <5 years die from rotavirus diarrhoea each year, with >85% of these deaths occurring in low income countries of Asia and Africa [9].

Objectives

- To assess the Pre-test level of knowledge and attitude regarding the immunization among mothers of under five children.
- To assess the Post-test level of knowledge and attitude regarding immunization among mothers of under five children.
- To evaluate the effectiveness of structured teaching program on knowledge and attitude regarding immunization among mothers of under five children in terms of gain in Post-test knowledge and attitude score.
- To find the correlation between the knowledge and attitude regarding immunization among the mother of under five children.
- To find out the association between Post-test level of knowledge with their selected demographic variables.

Hypothesis

H₁: The mean Post-test knowledge score is higher than the mean Pre-test knowledge score regarding immunization among the mothers of under five children.

H₂: The mean Post-test attitude score is higher than the mean Pre-test attitude score regarding immunization among the mothers of under five children.

H₃: There will be significant relationship between knowledge and attitude regarding immunization among the mothers of under five children.

H₀₁: There will be no significant association between the Post-test knowledge scores of mothers regarding immunization and selected demographic variables.

H₀₂: There will be no significant association between the Post-test attitude scores of mothers regarding immunization and selected demographic variables.

Assumption

- The Post-test score will be higher than the Pre-test score.
- Under five children's mother will not have adequate knowledge and attitude regarding immunization.
- Demographic variable of the sample may have an influence over knowledge and attitude regarding immunization.

Limitation

- Data collection was limited to 6 weeks.
- The study was limited to mothers of under five children.
- The sample size is 30.

Materials and Methods:

Research Approach: Quantitative Approach.

Research Design: One group Pre-test Post-test design.

Variables

Independent variable: Structured Teaching programme regarding immunization.

Dependent variable: Knowledge and attitude regarding immunization.

Setting: The study was conducted at community area Mandhapadu.

Sample size: 30 Mothers of under five children.

Sampling Technique: Purposive sampling Technique

Criteria for Sample Selection

Inclusion criteria

- Mothers of under five children living in Mandhapadu community area.
- Mothers those who are have first child in family

Exclusion criteria

- Children who are not willing to participate in the study.
- Those who don't understand Tamil and English.

Description of Tool

The tool consisted of three sections.

Section-A: Demographic variables of the mother. The demographic data consisted of baseline information of mothers of under five children regarding their age,

religion, education, occupation, source of information about obligatory vaccination.

Section-B: It consists of knowledge questionnaire on immunization; number of items was 30 questions. The total score for the entire item was 30.

Section-C: 3 point likert scale to assess the attitude of mother with under five children. The number of item was 15. The total score for the entire item was 40.

Results and Discussion:

Distribution of samples according to the Pre-test and post level of knowledge scores of mothers regarding immunization

Table 1: Level of knowledge in Pre-test and Post-test N=30

Level of knowledge	Pre-test		Post-test	
	Frequency	%	Frequency	%
Adequate	0	0	4	13.3%
Moderately adequate	14	46.6%	25	83.3%
In adequate	16	53.3%	1	3.3%

It shows that the frequency and percentage distribution of samples according to the Pre-test knowledge score of mothers regarding immunization. It revealed that 16(53.33%) mothers had inadequate knowledge, and 14(46.66%) mothers had moderately adequate knowledge about immunization.

It shows that the frequency and percentage distribution of samples according to the Post-test knowledge scores of mothers regarding immunization. It revealed that 4 (13.33%) mothers had adequate knowledge, 25(83.33%) mothers had moderately adequate knowledge 1(3.33%) about immunization.

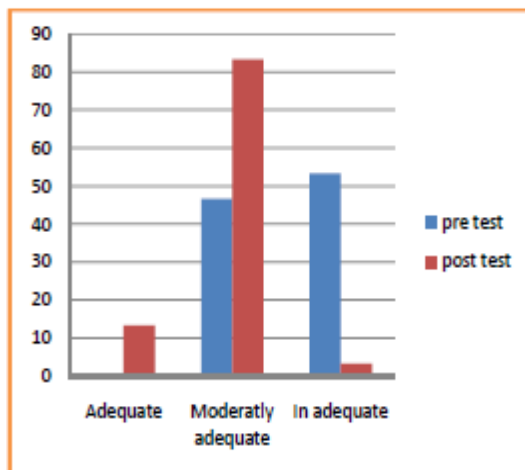


Figure 1: Level of knowledge in both Pre-test and Post-test

Distribution of samples according to the Pre-test and Post-test attitude scores of mothers regarding immunization

Table 2: level of attitude in both Pre-test and Post-test N=30

Level of knowledge	Pre-test		Post-test	
	Frequency	%	Frequency	%
Good	5	16.66%	5	16.66%
Average	6	20%	24	80%
Poor	19	63.33%	1	3.33%

It shows that the frequency and percentage distribution of samples according to the Pre-test attitude score of mothers regarding immunization. It revealed that 5(16.66%) mothers had good attitude, and 6(20%) mothers had average level of attitude about immunization, 19(63.33%) mothers had poor attitude.

It shows that the frequency and percentage distribution of samples according to the Post-test attitude score of mothers regarding immunization. It revealed that 5(16.66%) mothers had good attitude, and 24(80%) mothers had average level of attitude about immunization, 1(3.33%) mothers had poor attitude.

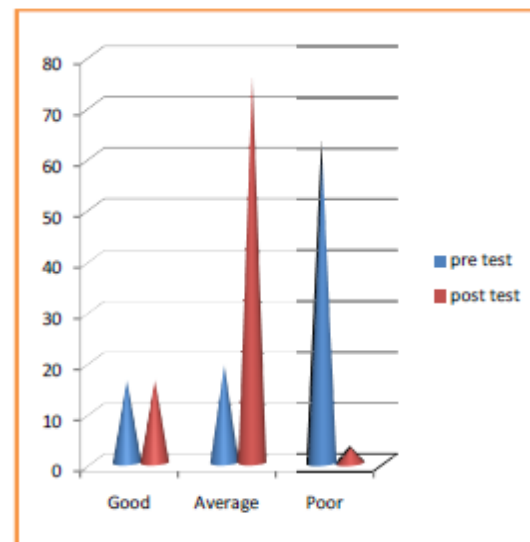


Figure 2: Level of attitude in both Pre-test and Post-test

Comparison of the Pre-test and Post-test knowledge score on mothers regarding immunization.

Table 3: Comparison of both Pre-test and Post-test level of knowledge score N=30

Knowledge score	Mean	SD	't' VALUE
Pre-test	11.16	3.42	7.65*
Post-test	14.2	3.37	

In order to find out the significant difference between the mean score of pre and Post-test knowledge score of the mothers regarding immunization paired 't' test was computed. The calculated value is higher than the table value, the null hypothesis was rejected and the research hypothesis was accepted. Hence the researcher concluded that gain in knowledge is not by chance but by STP on immunization.

Comparison of the Pre-test and Post-test attitude score on mothers regarding immunization

Table 4: It shows comparison of both Pre-test and Post-test level of attitude score N=30

Knowledge score	Mean	SD	't' VALUE
Pre-test	14.6	4.2	6.46*
Post-test	17.4	3.25	

In order to find out the significant difference between the mean score of pre and Post-test attitude score of the mothers regarding immunization paired 't' test was computed. The calculated value is higher than the table value, the null hypothesis was rejected and the research hypothesis was accepted. Hence the researcher concluded that change of attitude is not by chance but by STP on immunization

Relationship between Post-test level of knowledge and attitude among under five mothers.

Table 5: Relationship between Post-test level of knowledge and attitude. N=30

S.No	Calculated "r" value	Table "r" value
1	-0.22 ^{NS}	0.381

The 'r' value of Post-test level of knowledge and attitude was -0.22, there was a negative correlation between knowledge and attitude which was not significant.

Recommendations

- A comparative study can be done between urban mothers and rural mothers who have under 5 children.

- A similar study can be conducted with large samples.
- Study can be done using different methods of teaching.
- Future studies can be conducted on knowledge and factors influence noncompliance of optional vaccine among mothers.

Conclusion

The structured teaching programme through flash cards found to be very effective in improving the knowledge and attitude among mothers who have below 5yrs children on immunization. The knowledge and attitude regarding immunization was improved by health teaching through flash cards. Being as a nurses, our main responsibility is try to make our India, free from communicable disease by providing immunization for all under five children.

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