

Assess the Effectiveness of Health Teaching Programme on Knowledge Regarding Immunization among Mothers of Fewer than Five Children

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Abstract: According To WHO: Immunization has been regarded as the most cost effective intervention for child health promotion. Immunizing a child significantly reduces cost of creating diseases thus providing a health childhood and reducing poverty and suffering. Objectives of the Study 1. To assess the knowledge regarding Immunization among Mothers of under Five Children. 2. To assess the effectiveness of health teaching programme on Immunization 3. To find out association between selected socio-demographic variables and knowledge scores. Research Approach was Evaluative Research Approach. Research Design was Quasi Experimental (one group pre-test and post-test) research design. Sample-The Mothers of under Five Children. Sample Size 40 Mothers of under Five Children are selected for this study. Sample Technique Purposive sampling technique. Settings Selected Community area. The 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 21.800 and SD as 4.207. Paired t-test shows statistical significance at 5 per cent level ($p < 0.05$) establishing the impact of planned teaching on knowledge regarding Immunization among Mothers of under Five Children in selected Community Setting. There was no significant association established between variables like Age, Educational Qualification, Occupation, Religion, and Number of children. Conclusion- In this study post test mean knowledge score of the mothers was indicated significant difference which is a net benefit to the mothers due to the effectiveness of health teaching program.

Keywords: effectiveness, health teaching, knowledge, Immunization, Mothers, Children

1. Introduction

Learning is the addition of new knowledge and experience Interpreted in the light of past knowledge and experience. Teaching and learning is an integral part of nursing. Nurses have the responsibility to educate patients related to various aspects and keep themselves updated. Various teaching strategies are used to increase knowledge, such as lecturing, demonstration, discussion and self-education. These methods of self-education has an advantage over the others as the learner can educate himself at his own pace and it also stresses on rereading [1]. Immunization is the process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine. Vaccines stimulate the body's own immune system to protect the person against subsequent infection or disease. Immunization is a proven tool for controlling and eliminating life-threatening infectious diseases and is estimated to avert between 2 and 3 million deaths each year.

The American Academy of Pediatrics (AAP) and the Advisory Committee on Immunization Practices (ACIP) have made recommendations for immunization schedules. Immunizations are a very important part of the childhood. [2] Immunization is considered as the most cost effective and safest public health intervention to reduce childhood morbidity and mortality although its full potential is not reached yet. The burden of infectious diseases has been reduced primary due to immunization. [3]

Immunization prevents diseases like diphtheria, measles, pertussis, pneumonia, polio, rotavirus diarrhoea, rubella,

tetanus and many more. The under five children can be saved from deaths by immunizing them at the right age and right time and by completing the full course of immunization. Childhood immunization is an act of inducing immunity to a child by applying a vaccine that almost guarantees protection from many major diseases. [3].

2. Justification of the Study

According to the World Health Organisation (WHO), vaccination annually averts 2 to 3 million infant deaths globally from diseases such as diphtheria, hepatitis B, measles, mumps, pertussis, polio and tetanus. And yet, one in five children, or an estimated 21.8 million infants worldwide miss out on basic vaccines. [4]

An effective, evenly targeted immunization programme and its ability to reduce the burden of vaccine-preventable diseases (VPDs) will greatly contribute to achieving the Millennium Development Goal 4 (MDG4) that aims for a two-third reduction in child mortality by 2015. India has the largest number of births in the world – more than 26 million a year – and also accounts for more than 20 per cent of child mortality worldwide. Nine million immunization sessions are organized each year to target these infants. Some improvement has taken place in the past few years, the country still accounts for the largest number of children who are not immunized: 7.4 million. [5].

The knowledge of mothers is an important factor for better immunization coverage. Less knowledge affects decision making regarding immunization. There is a need to

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strengthen Information Education and Communication (IEC) activities to improve knowledge regarding immunization among population. The role of media in the form of advertisements in radio and television and involving famous film personalities and politicians to encourage people for immunization activities is the need of the hour. Motivation of health workers is necessary to disseminate information regarding immunization.[5]

All vaccines under the routine immunization programme are provided free-of-charge. However, the figures for the coverage of routine immunization (RI) are lagging. The current level of coverage of „fully-immunized“ children under the national immunization programme is quite low, as pointed out by several studies.[5]

The mother plays a major role in promoting the health of children. Several misconception, ignorance and inadequacy of knowledge in relation to optional vaccine is prevalent among mothers especially under five children Mothers' awareness and knowledge of under five years children regarding immunization. mothers can be motivated by updating their level of knowledge regarding the importance of immunization, as the mothers of Under Five children are very receptive to advice given by doctors & para-medical staff regarding the health of the child.

3. Review of Literature

Literature review is a critical summary of research on a topic of interest generally prepared to put a research problem in context or to identify gaps and weakness in prior studies so as to justify a new investigation. [6]

Efficacy of Planned Teaching

Kadam,A.(2014) found that Structured education programme was highly effective to improve the knowledge score and to improve the attitude score of subjects/ caregiver towards colostomy care of patient [7]. Anjum,S.(2014)conducted study to assess knowledge of contraceptives methods and appraisal of health education among married women and concluded After the health education married women knowledge was improved to 100% about female sterilization followed by condom 99%, skin implants 86%, oral pills 85% and emergency contraceptives 85%.Sociodemographic variable were significantly associated with existing knowledge and level of married women specially age at marriage, age at first child, occupation,, income ,education [8][9]. Babu, R. L. (2014) The findings of the study concluded that care takers had inadequate knowledge regarding non-curative care of terminally ill cancer patients. The planned education programme on non-curative care of terminally ill cancer patients was highly effective in improving the knowledge of care takers regarding non-curative care of terminally ill cancer patients.[10] Shinde,M.(2014) concluded that demonstration regarding feeding of hemiplegic patient among caregivers was effective in increasing the skill of the caregivers regarding feeding of hemiplegic patient [11].

Deshmukh, M., & Shinde, M. (2014). concluded that the structured education was effective on knowledge and practice of staff nurses regarding venous access device care[12]. Bhudhagaonkar, J., & Shinde, M. (2014). Concluded that Structured Education Regarding Menstrual Hygiene Practices was effective among Adolescent Girls.[13]

3.1 Knowledge regarding Immunization among Mothers of Under-Five children

Farha Azmi Immunization is one of the most effective, safest and efficient Public Health Interventions for the prevention from several diseases among under five children. While the impact of Immunization on childhood morbidity and mortality has been great, its full potential has yet to be reached. India has the highest number of morbidity and mortality rate among under five. This article presents the systematic collection of data and analysis presents the actual picture of status of knowledge of immunization among mothers of fewer than five. Objectives of study are as followed, to assess knowledge regarding immunization among mothers of under-five and prepare health education programme regarding immunization. Methodology: For this study Research approach is quantitative , Research Design non experimental survey method, target population is mothers of under-five, settings is town Kunderki, district Moradabad, Data Source sample size fits for the study was 30 mothers, sampling technique was convenient sampling methods. Results: Knowledge Score categorized in 3 categories (good, average and poor). Good knowledge score is 10%. Average knowledge score is 23.34%. Poor knowledge score is 66.66%. Most of the mothers of under-five having poor knowledge score, that's why researcher felt to take the problem for survey [14]

Immunization has saved the lives of more children than any other medical intervention in the last 50 years. Vaccines are safe, simple and one of the most cost-effective way to save and improve the lives of children. The present study was taken up to evaluate the knowledge and attitude among mothers of underfive, pertaining to immunization coverage. Results of the study revealed that, majority, 289 (96.33%) mothers knew that BCG vaccine prevents Tuberculosis. Only 26(8.66%) mothers were knowledgeable about the measures that can be done if the child has not given DPT. 11 (3.66%) mothers knew that chicken pox can be prevented by varicella vaccine. The study concluded that even though the mothers had good attitude regarding vaccines , but they were unaware of Hib vaccine and rotavirus vaccine.[15]

The knowledge of mothers“ is an important factor for better immunization coverage. Less knowledge affects decision making regarding immunization. A Cross sectional study was done among mothers of under five children attending the OPD of pediatrics in a tertiary care hospital in Kollam, Kerala from 1st to 30th May, 2014. The sample size was 210 and simple random sampling was used. Statistical analysis was done and chi-square test & percentages were calculated. Result: 93.8% of mothers knew that vaccines are beneficial for their child. 58% were aware about the side effects of few vaccines. 50% of mothers believed that as polio is eradicated from India, there is no need to give polio vaccine. 35% of

mothers acquired knowledge regarding immunization through health workers. All of them had knowledge about polio vaccine but only half of them knew about rotavirus vaccine. 60% mothers believed that multiple vaccines are beneficial although 26% hold their view that it has no benefit at all. 39.5% of mothers had adequate knowledge about immunization. It was positively associated with education, working class and high socio-economic status of mothers. Conclusion: There are several loopholes in the mother's knowledge regarding immunization. Many of them had no knowledge about optional vaccines. There is a need to improve knowledge regarding immunization among general population. Adequate information about completing the schedule and correct knowledge about optional vaccines should be given to mothers.[16]

4. Statement of the Problem

“A study to assess the effectiveness of health teaching Programme on knowledge regarding Immunization among Mothers of under Five Children in selected Community Setting”.

4.1 Objectives of the Study

- 1) To assess the knowledge regarding Immunization among Mothers of under Five Children.
- 2) To assess the effectiveness of health teaching programme on Immunization
- 3) To find out association between selected socio-demographic variables and knowledge scores.

4.2. Operational Definitions

Planned teaching Programme: In this study, planned teaching programme refers to the systematic teaching programme regarding immunization.

Immunization: In this study, Immunization refers to “The Process of Protecting the body against disease by means of vaccines or serum.”

Mothers of under five children: Mothers of under five children refers to mothers who are having children below five years.

Community: - In this study, Community refers to a group of people who live in the same area [13]

4.3 Hypothesis

H0: There will be no significant difference between pre-test and post test score.

H1: There will be significant difference between pretest and post test score.

H2: there will be significant association between post knowledge score selected socio- demographic variable.

4.4 Assumption

- 1) Mothers play an active role in preventing child hood infections by immunization of their children.
- 2) Health teaching programme will help the mothers to gain knowledge regarding importance of immunization.

4.5 Ethical Aspect

Informed consent had been taken from the participants before applying the questionnaire, confidentiality and anonymity had been maintained for the information given by participants.

4.6 Research Methodology

The methodology of research indicates the general pattern of organizing the procedure for gathering valid and reliable data for the purpose of investigation

4.6.1 Research Approach Evaluative Research Approach.

4.6.2 Research Design Quasi Experimental (one group pre-test and post-test) research design.

4.6.3 Independent Variable The independent variable is the planned teaching programme on knowledge regarding Immunization among Mothers of under Five Children.

4.6.4 Dependent variable Knowledge of Immunization among Mothers of under Five Children.

4.6.5 Sample The Mothers of under Five Children.

4.6.6 Sample Size 40 Mothers of under Five Children are selected for this study.

4.6.7. Sample Technique Purposive sampling technique.

4.6.8. Settings Selected Community area.

Inclusion Criteria

- Mothers who are having under five children.
- Mothers who are living in selected community area
- Mothers who are willing to participate in the study.
- Mothers who know Marathi or English.

Exclusion Criteria

- Mothers who are unable to understand and read Marathi and English.
- Mothers who are not willing to participate in the study.
- Mothers who are not available at the time of data collection.

4.6.9 Data Collection Instrument

In this study, the structured questionnaire has 2 parts:

4.6.10 Description of the Tool

The instrument consists of two sections.

Section I: Consisted of demographic variables such as Age, Educational Qualification, Occupation, Religion, Number of children.

Section II: The knowledge part consisted of total 30 structured questionnaires.

4.7 Feasibility of the Study

The feasibility of the study assessed in terms of outcome and availability of subjects as well as Pilot study report shows that there is significant difference between pre and posttest after intervention.

4.8 Protection of Human Rights

Informed consent had been taken from the participants before applying the questionnaire indicating their willingness to participate in the study.

4.9 Data Collection

The main study was conducted on three phase

Phase 1: Pre-test was done by conducting a structured questionnaire and planned teaching was administered on the 2nd day of the pre-test.

Phase 2: Post-test was conducted on the 4th day using the same knowledge questionnaire on same students.

Phase 3: The data collected in the phase 1 and 2 were analysed using descriptive and inferential statistics and interpreted in terms of the objectives and hypothesis of the study.

4.10 Plans for Data Analysis

Descriptive and inferential statistics will be used for data analysis. Data will be analysed by computing mean, standard deviation, P value and chi – square.

5. Findings

5.1.1 Table: It deals with the analysis of the demographic data of the samples, N= 40

Sr. No.	Variable	Frequency	Percentage
1	Age In Years		
	19-24	13	32.5%
	25-30	16	40%
	31-36	11	27.5%
2	Educational Qualification		
	Primary	16	40.0%
	Secondary	15	37.5%
	Graduate	09	22.5%
3	Occupation		
	Housewives	20	50%
	Labourers	09	22.5
	Service	11	27.5
4	Religion		
	Hindu	15	37.5%
	Muslim	12	30%
	Others	13	32.5%
5	Number of children		
	1	21	52.5%
	2	13	32.5%
	3 or more	06	15%

5.1.2 To assess the knowledge regarding Immunization among Mothers of under Five Children. Table: knowledge score in pre test

Sr. No.	Knowledge score	Pre Test	
		Frequency	Percentage
1	Poor knowledge:	7	17.50%
2	Average knowledge:	29	72.50%
3	Good knowledge	4	10.00%
	Total	40	100.00%

The result of the above table clearly indicates that in the pretest there are 7 respondents who belong to poor knowledge category and 29 average knowledge category. And 4 samples belong to good knowledge category.

5.1.3. To assess the effectiveness of health teaching programme on Immunization

Graphic presentation of posttest knowledge score.

Comparison of pre-test and post-test knowledge scores

the 17.5% of sample in pre-test were having Poor knowledge (scores 0-10), 72.5% of participant in pre-test were having Average knowledge (scores 11-20) and only 10% of participant in pre-test were having Good knowledge (scores 21-30), whereas in post-test majority 57.5% of the participant had Good knowledge (scores 21-30) and 42.5% of participant in post-test were having Average knowledge (scores 11-20), which indicates that the planned teaching programme improved knowledge regarding Immunization among Mothers of under Five Children.

5.1.3. To find out association between selected socio-demographic variables and knowledge scores

Age

The calculated chi square value 8.501 and p value 0.386 is greater than the table value ($p > 0.05$), that means there is no significant association of age with pre – test knowledge of regarding Immunization among Mothers of under Five Children. Therefore H2 is rejected as there is no significant association of pre-test knowledge score with demographic variable age.

Education qualification

The calculated chi square value 4.161 and p value 0.385 is greater than the table value ($p > 0.05$), that means there is no significant association of education qualification with pre – test knowledge regarding Immunization among Mothers of under Five Children. Therefore H2 is rejected as there is no significant association of pre-test knowledge score with demographic variable education qualification.

Occupation

The calculated chi square value 5.993 and p value 0.423 is greater than the table value ($p > 0.05$), that means there is no significant association of Occupation with pre– test knowledge regarding Immunization among Mothers of under Five Children. Therefore H2 is rejected as there is no significant association of pre test knowledge score with demographic variable Occupation.

Religion

The calculated chi square value 7.396 p value 0.286 is greater than the table value ($p > 0.05$), that means there is no significant association of Religion with pre – test knowledge regarding Immunization among Mothers of under Five

Children. Therefore H₂ is rejected as there is no significant association of pretest knowledge score with demographic variable Religion.

Number of children

The calculated chi square value 3.218 p value 0.200 is greater than the table value ($p > 0.05$), that means there is no significant association Number of children with pre – test knowledge regarding Immunization among Mothers of under Five Children. Therefore H₂ is rejected as there is no significant association Number of children of pretest knowledge score with demographic variable Number of children.

There all variables do not show significant association between a radiations induced mucositis and demographic variables.

6. Discussion of Findings

Analysis of data related to knowledge of mother before and after administration of planned teaching regarding Immunization among Mothers of under Five Children in selected Community Setting. Mean knowledge scores regarding Immunization among Mothers of under Five Children in selected Community Setting. The overall pre-test mean knowledge score was found to be 14.675 and SD as 4.226. And the overall pre-test mean knowledge score was found to be 21.800 and SD as 4.207. Paired t-test shows statistical significance at 5 per cent level ($p < 0.05$) establishing the impact of planned teaching on knowledge regarding Immunization among Mothers of under Five Children in selected Community Setting.

Association between knowledge regarding Immunization among Mothers of under Five Children in selected Community Setting with selected socio-demographic variables. There was no significant association established between variables like Age, Educational Qualification, Occupation, Religion, and Number of children.

To assess the effectiveness of planned teaching on knowledge regarding Immunization among Mothers of under Five Children in selected Community Setting.

Analysis of data related to knowledge of mothers before and after administration of planned teaching programme regarding Immunization among Mothers of under Five Children in selected Community Setting. This assessment was done using paired t-test. The p value was found 0.000, by comparing both the means of pre-test and post-test, using paired t-test. As the $p < 0.005$ the test is significant at 0.001 level. So the planned teaching was highly effective in increasing knowledge regarding Immunization among Mothers of under Five Children in selected Community Setting.

7. Conclusion

Based on the findings the result of the study shows that the total knowledge score of the mothers was indicates that the

mothers had inadequate Knowledge regarding Immunization. In the post test the mean knowledge score of the mothers was indicated significant difference which is a net benefit to the mothers due to the effectiveness of health education program. Mothers need education on importance of National Immunization Schedule and adherence to the timings in the given immunization card. Educational campaigns will help to reduce the incidence of Vaccine- Preventable Diseases. Nursing practice optimally enables mothers to explain the importance of Immunization in childhood. Majority of the mothers had good knowledge of immunization and that immunization could prevent childhood diseases, their knowledge of immunization schedule as well as of vaccine preventable diseases is poor. A better understanding of the immunization schedule is important in the design and implementation of immunization programmes. Educating mothers about vaccines and vaccine preventable diseases are recommended.

8. Scope of the Study

Nursing practice

Health education program can be used to reinforce learning needs of the mothers on Immunization. Students can be motivated to teach the mothers about the control and prevention of vaccine preventive disease with the help of immunization in the wards and community settings.

Implication for nursing administration

Nurse as an administrator can plan and organize educational program. Nurse administrator can organize education camp & health teaching program for the ANC, PNC and mother of under five children to abreast their knowledge on Immunization.

Implication on nursing research

Based on the study results the mothers can be educated based on their learning needs. Present research knowledge helps to prevent the vaccine prevented disease and improve general health status of the children thereby reduces mortality and morbidity among the under five children

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