

A study to assess the effectiveness of structured teaching program regarding knowledge of immunization among the mothers of under five children in selected rural areas of New Delhi.

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Abstract: Pediatric is the branch of medicine that deals with the medical care of infants, children and adolescents. A major difference between pediatrics and adult medicine is that children are minors and in most jurisdictions, cannot make decisions for themselves. The physical health of a child is important because it is associated with mental and social development of children. Mothers are the first care providers for children. Killer diseases around the world are indeed difficult to halt. More than seven deadly infectious diseases – Tuberculosis, diphtheria, pertussis, measles, poliomyelitis, tetanus and hepatitis account for half of all premature deaths killing mostly children and young adults.

So in this concern, non-experimental descriptive study (comparative study) and quantitative approach was conducted to assess the knowledge regarding immunization among mothers of under five children before and after administering structured teaching program. The study was conducted on 30 mothers of under five children of Jafarpur village, New Delhi through convenient sampling technique. Findings reveal the Pre-test knowledge score is 24(80%) had average knowledge regarding immunization among under five children and the Post-test knowledge score revealed that 29(96.66%) had good knowledge regarding immunization among under five children. It was found that the mothers of the under five children gained knowledge about the immunization after the structured teaching program. Hence the structured teaching program was found to be effective in imparting knowledge about immunization among the mothers.

Keywords- Knowledge, Community, Mothers, Children

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I. Introduction

“The Childhood shows the man as morning shows the day”.

- John Milton.

A child's mother is not the only key player, each parent should be aware and safeguard the health of their children, as they are wealth of their family, society and the community. Physical health of a child is important because it is associated with mental and social development of children. Immunization is a vital to protect nearly ¾ of children against major childhood illness. Health workers desire all children immunized against vaccine preventable disease. The government wants them protected from progressive diseases. But many vaccines do not reach a majority of infants and children. Decreased awareness, patient compliance and cost effectiveness plays major role in limiting the success of vaccine.

Similar study was conducted on how to improve awareness and knowledge of mothers regarding vaccine preventable diseases and the immunization status of children under five through health education messages by medical students, at, Karachi. The mother's knowledge increased in the follow up from 60 percent to 76.5 percent and the immunization status increased significantly from 46.5 percent to 75 percent after the intervention. The survey showed that the health education messages significantly increased the vaccination status of children of under five years of age.

Many studies were conducted by previous researchers on the assessment of child immunization coverage and its determinants in Sinana District on the sample size of 591. Data was collected by using a pre-tested, interviewer administered questionnaire. The results showed that more than three fourth (76.8%) of the children aged 12 to 23 months were fully vaccinated.

Another study was conducted among mothers of under five year children who has attended OPD of pediatrics in a tertiary care hospital in Kollam, Kerala. The sample size was 210 and simple random sampling was used. Statistical analysis was done and chi-square test & percentages were calculated. The result of the study showed that 93.8% of mothers knew that vaccines are beneficial for their children. 58% were aware of 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.

A study in Ahmadabad was conducted to assess the awareness and knowledge of mothers of under five children regarding immunization. The respondents were tested by exit interviews with a pretested predesigned Performa and the sample size was 100. Result of the study revealed that mothers having inadequate knowledge regarding importance of immunization and its timings. A total of 100 mothers between age group of 21 to 50 years were assessed. Among these 73 % were in age group of 21-30 years. Mean age of the respondents was 28.4 years. 72% of the respondents were housewives and 65% of them were Hindus.

II. Material and Methods

The study was conducted in the month of December 2018. The method of the study was non experimental descriptive study. The population of the study was mothers of under five children from community area of New Delhi. Convenient sampling was done to select 30 sample objects, female for the study. The tool for data collection was developed and content validity was established by the experts. Data was collected through structured interview questionnaires, Section 1 was related to the background information of the sample subject, Section 2 regarding knowledge. The data was analyzed by using descriptive statistics and the findings were revealed in terms of the objectives for the study.

Study Design: Non experimental descriptive design

Study Location: Jafarpur village, New Delhi.

Study Duration: December 2018

Sample size: 30 mothers of under five children

Inclusion Criteria:

- Mothers of under five children who are willing to participate.
- Mothers of under five children who were present during the data collection.

Exclusion Criteria:

- Mothers of under five children who have discontinued the course.
- Mothers of under five children who were absent on that day.
- Mothers of under five children who are not willing to participate in the study.

Procedure methodology

After written informed consent was obtained structured interview questionnaires was used to collect the data among mothers. Section 1 describes the demographic characteristics of the sample of mothers of under

Five children under study which includes age of mother, education qualification, no. of children, per capita income.

Section 2 Structured knowledge questionnaire consists of 15 questions to assess the knowledge of mother of under five children regarding immunization that describes the pre and post knowledge score of the mothers of under five children which comprised of 3 items (**VERY GOOD AVERAGE, POOR**). The percentage score awarded for each item were (>73%, 34%-72%, <33%) respectively.

Statistical analysis

Data was analyzed using t- test score by using descriptive statistics. The calculated test value 13.84 is more than the critical value 2.000 at 0.05 level of significance. The mean difference between the pre and post test is significant and not by chance. This reveals that the structured teaching programme was effective in increasing the knowledge of the mother of under five children regarding immunization.

III. Results

Figure 1: Pie chart showing distribution of age of mother.

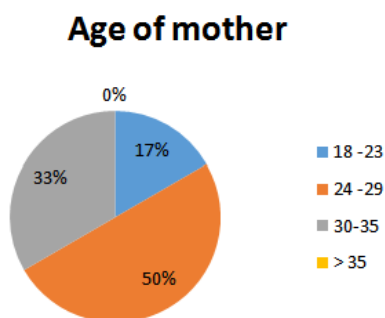


Figure 2: : Pie chart showing distribution of Education level of mother

Education qualifications

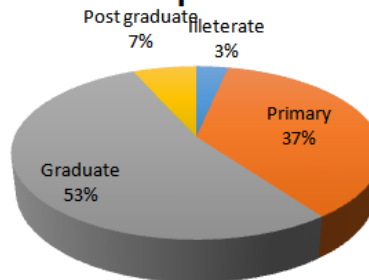


Figure 3: Pie chart showing distribution of the Number of children.

Number of children

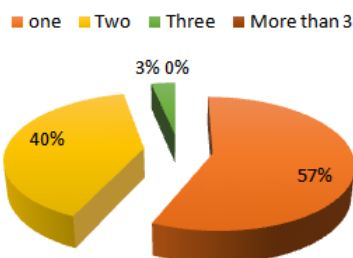


Figure 4Pie chart showing distribution of the Per capitaincome

Per capita income

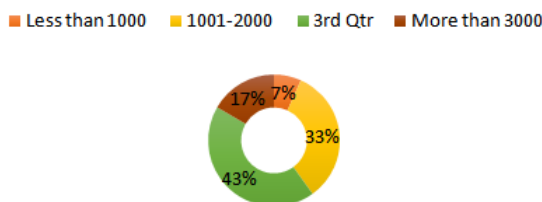


FIGURE 1 TO 4 SHOWS THAT

- Regarding age nearly half of the mother 15(50%)were in the age group at 24-29, whereas 10(33.33%) were between 30-35, and 5(16.67%) were between the age at 18-23.
- With respect to education nearly half of the mother 16(53.33%)were graduate. Whereas 11(36.67%) were primary educated, 2 (6.67%)were post graduate and 1(3.33%) was illiterate.
- Out of total samples more than half of the mother 17(56.67 %) were having one child, whereas 12(40%) were having two child and 1(3.33%)were having three child.
- Regarding per capita income less than half of the mother 13(43.33%) were having 2001-3000 income, whereas 10(33.33%)were having 1001-2000 income and 5 (16.6%) were having less than 3000 and 2 (6.67%) were having more than 1000 income.

TABLE 1 Frequency and percentage of the knowledge scores of the mothers

- In Pre- test knowledge,13.33% of mother of under five children have good knowledge, 80% of mothers of under five children have average knowledge and 6.67% of mothers of under five children have poor knowledge about immunization.
- In Post- test, 96.9% of mother of under five children have good knowledge, 3.33% of mother of under five children have average knowledge.

LEVELOF KNOWLEDGE	PRE TEST		POST TEST	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
VERY GOOD (>73%)	04	13.33%	29	96.66%
AVERAGE (34%-72%)	24	80%	01	3.33%

POOR (<33%)	02	6.67%	0	0%
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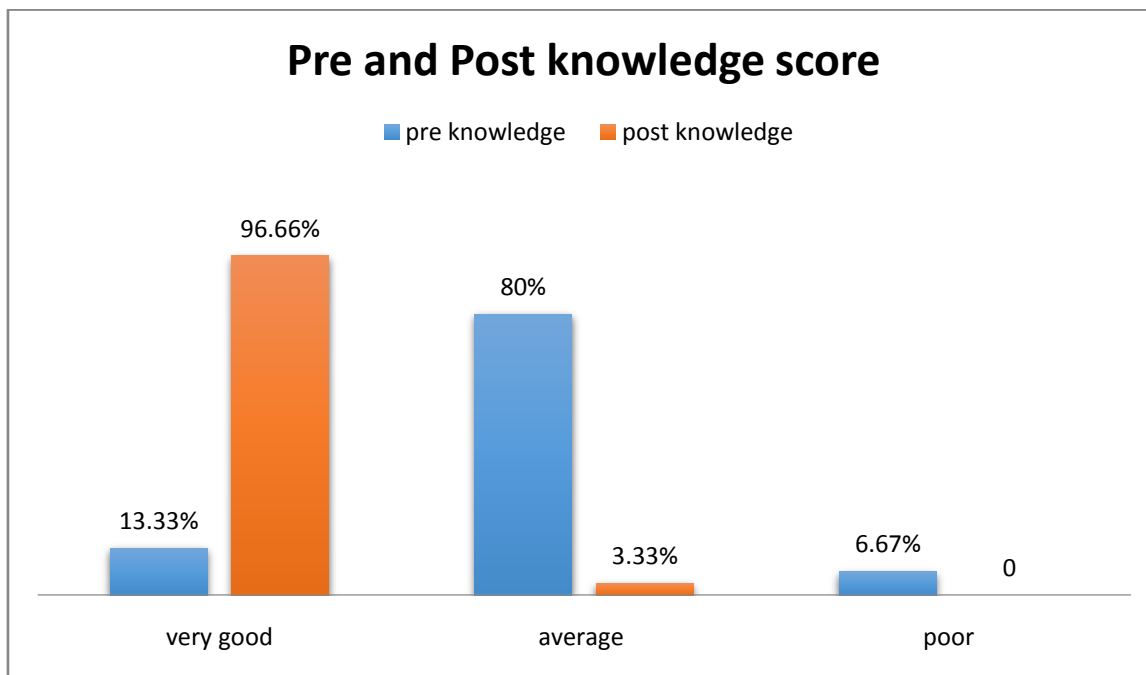


TABLE 2 Mean of the pre and post knowledge score of mother of under five children regarding immunization.

MOTHERS	KNOWLEDGE SCORE	
	N	MEAN
PRE KNOWLEDGE	30	8.6
POST KNOWLEDGE	30	13.

- It depicts that the mean post knowledge score is higher (13) as compared to pre knowledge (8.6)

TABLE 3: 't' test value showing the effectiveness of the structured teaching program.

[N=30]

ITEM	MEAN	STANDARD DEVIATION	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE	t TEST
PRE TEST	8.6	2.204 2.204	4.4	0.329	t=-13.84
POST TEST POST	13	1.107			

The calculated 't' test value 13.84 is more than the critical value 2.000 at 0.05 level of significance. The mean difference between the pre and post-test is significant and not by chance. This reveals that the structured teaching program was effective in increasing the knowledge of the mother of under five children regarding immunization.

IV. Discussion

Findings conducted by Saadia Gul, Rehana Khalil (2007) across sectional study to evaluate the knowledge of mothers regarding vaccine preventable diseases and immunization status of children under five,

Kemari town, Karachi. Sample size was 165 mothers. It was done through a semi structured questionnaire regarding immunization's knowledge, attitude and practices and data was collected through a questionnaire method and analyzed by using SPSS program version 15. The proportion of mothers who could name the EPI diseases were as follows; Tuberculosis (26%), Diphtheria (25.2%), Pertussis (5.4%), Tetanus (4.2%), Measles (57.5%), Polio (66.7%) and Hepatitis B (26.6%). 62% children had completed all the vaccine doses.

Another study conducted by **Rahman M Banerjee M Rahaman M Akhter FO (2006)** across sectional study which was to find out the vaccination status of the tribal mothers and their children under five years at Durgapur Village. The sample consisted of 92 tribal mothers and 91 mothers whose children were under five years. The study was carried out in 4 tribal villages. According to national EPI schedule it was revealed that 58.2% of the children were fully vaccinated 26.4% incompletely and 15.4% not vaccinated. The study observed that vaccination status in tribal children was satisfactory in relation to national coverage but the vaccination status of the tribal mothers was not satisfactory.

On the same line, **Elangovan R, Shanmugan M (2006)** conducted an exploratory study regarding the level of 300 mothers' knowledge whose children were under five years about immunization status in thuraiyurtalut of Trashy district in Tamilnadu. The result showed that 255(85%) mothers knew about six major killer diseases which could be prevented by immunization. The mothers' knowledge about six major killer diseases prevented by immunization seemed to depend on the family size.

One more study **Manjunath et al (2011)** conducted a research on knowledge, attitude and practices of 155 mothers/responsible guardians of children in the age group of 12 to 23 months for immunization of children in Urban Slums of Bijapur City, Karnataka, India. House to house survey was done. Children of 54 out of 155 respondents (34.84%) were fully immunized, 97 (62.58%) were partially immunized and 4 (2.58%) were unimmunized. The main reason for partial and non-immunization was found to be lack of information.

- It was found that the mothers of the under five children gained knowledge about the immunization after the structured teaching program. Hence the structured teaching program was found to be effective in imparting knowledge about immunization among the mothers.
- In pre- test knowledge, 13.33% of mother of under five children have good knowledge. 80% of mothers of under five children have average knowledge and 6.67% of mothers of under five children have poor knowledge about immunization.
- In post -test, 96.9% of mother of under five children have good knowledge, 3.33% of mother of under five children have average knowledge.

This reveals that the structured teaching program was effective in increasing the knowledge of the mother of under five children regarding immunization.

V. Conclusion

It was found that the mothers of the under five children gained knowledge about the immunization after the structured teaching programme. Hence the structured teaching programme was found to be effective in imparting knowledge about immunization among the mother.

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