Research Paper Medical Science

Assessment of the Level of Knowledge on Immunization Schedule Among the Mothers of Under Five Children with a View to Develop an Information Booklet

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ABSTRACT

Background : Vaccines are protecting more children than ever before nearly one in five infants-22.6 million children missed out on the basic vaccines they need to stay healthy. Low immunization levels compromise gains in all other areas of health for mothers and children. The poorest, most vulnerable children who need immunization the most continue to be the list likely to get it. Routine child immunization has greatly reduced the incidence of much infectious disease.

Aims and objectives: To assess the knowledge of mothers regarding immunization of under five children. To find the association between knowledge score of mothers regarding immunization of under five children with selected demographic variables

Material and Methods: The investigator has adopted purposive sampling method to select the Samples. Survey descriptive research method is used in the study to assess the level of knowledge on immunization schedule among the mothers of under five children in selected urban area of Vadodara district with a view to develop on information booklet. The Sample size comprised of the 40 under five children's mothers. Structured knowledge questionnaire was used for data collection according to the objectives of the study.

Results: Result of study reveals that The Majority of samples 28 (70%) had Inadequate knowledge, 12 (30%) has moderate knowledge; none of the sample has adequate knowledge. The study also found out that there is significant association between the demographic variables like Educational status, Occupation, information on Immunization, and Source of information with their chi square values $\chi 2 = 25.13^*$, $\chi 2 = 7.26^*$, $\chi 2 = 6.94^*$ and $\chi 2 = 10.56^*$ at 0.05 level of significance whereas, there is no significant association between the demographic variables like age group, religion, Family income/month with their chi square values $\chi 2 = 2.81$, $\chi 2 = 3.84$ and $\chi 2 = 1.98$ at 0.05 level of significance.

Conclusion: It is concluded that, The study revealed that the knowledge of women regarding immunization was low. The findings of association between knowledge and demographic variables revealed that there was significant association with some of the selected demographic variables like Educational status, Occupation, information on Immunization, and Source of information

KEYWORDS Immunization, knowledge, information booklet, mothers of under five children

INTRODUCTION

A stroll through any cemetery reminds us how many children used to die in any infancy. In the large century it was not uncommon for several children in the one family to die from overwhelming infection. The weathered headstones do not say but we know that pneumonia, measles, gastroenteritis, diphtheria and whooping cough were the main cause of death.

Global immunization coverage has greatly increased since WHO's expanded programme on immunization began in 1974. In India expanded programme on immunization was launched in January 1978 .UNICEF renamed the expanded programme on immunization as universal immunization programme (UIP) and it was launched in India in November 1985.[2]

Vaccines are protecting more children than ever before. But, in 2012, nearly one in five infants-22.6 million children missed out on the basic vaccines they need to stay healthy. Low immunization levels compromise gains in all other areas of health for mothers and children. The poorest, most vulnerable children who need immunization the most continue to be the list likely to get it.[3]

Almost one third of deaths among children among under 5 are preventable vaccine. UNICEF And its partners are working to change these numbers and ensure that the lives of all children's are successfully protected with vaccines .But, if immunization is not prioritized, the most marginalized children will not get vaccines, which could mean the difference between life and death.[4]

WHO data showed that number of children under one year of age who did not receive DPT3 vaccine worldwide: 21.8 million in 2013 compared to 22.8 million in 2012. From these 70% children from ten countries: Democratic Republic of the Congo, Ethiopia, India, Indonesia, Kenya, Mexico, Nigeria, Pakistan, Viet Nam and South Africa.[5]

STATEMENT OF THE PROBLEM

"A descriptive study to assess the level of knowledge on immunization schedule among the mothers of under five children in selected urban area of Vadodara District with a view

to develop an information booklet"

1. To assess the knowledge of mothers regarding immunization of under five children.
2. To find the association between knowledge score of mothers regarding immunization of under five children with selected demographic variables.

HYPOTHESES

H1- There is no significant association in Pre test knowledge level scores regarding immunization of under five children among the mothers of under five children with selected Socio-demographic variables.

MATERIALS AND METHODS

Research Approach: *A non experimental descriptive research method survey was used*

Research Design :A group pre-test non experimental descriptive research design was adopted

Setting of the Study: The study was conducted in forty mother selected urban area kishanvadi vadodara .

Target Population: The target population for this study consisted of Kishanwadi . Mother between the age group of 20-40 years

Sample: The sample for the present study Mother in selected urban area of Kishanwadi

Sampling technique: Purposive sampling technique was used.

Development of tool for data collection: it consists of 2 Sections:-

Section A:-The demographic variables are age, Marital status, educational level, physical occupation, religion, family income/month, *information regarding Immunization* and source of information.

Section B:-It consists of 25 items on *information regarding Immunization* and source of information.. The questionnaires consist of total 3 sections this are:-

- ASPECT I: General information about Immunization schedule.
- ASPECT II: Immunization schedule
- ASPECT III: Adverse effect of immunization schedule

Validity of instrument: Prepared tool along with the objective of the study, criterion rating scale and the blue print were submitted to5 experts for content validity. 2 experts were from the field of Paediatric Nursing, one from OBG nursing, one from the Consultant Paediatrician, one from the field field of statistics.

Reliability: The reliability of Structured Knowledge Questionnaires was determined by test re-test Method; using Spearman Brown prophasy formula The reliability coefficient of the Structured Knowledge Questionnaire was 0.7. Hence tool was found to be reliable. Tool was finalized for final data collection of the study

Data collection procedure: The data collection was carried out from 05.06.2015. to 30. 06. 2015. The purpose of the study was explained to the sample and informed consent was taken before starting the study. A Pre test was conducted by self administered structured knowledge questionnaire to each sample. Duration of 30-40 minutes was given for each sample to complete the tool. All mothers of under five children co-operated well with the investigator during data collection. It was found that theinformation Booklet was appreciated by the mothers. The data collection procedure was terminated by thanking all mothers of under five children.

Analysis of data

Both descriptive and inferential statistics analyzed on the basis of the objectives and hypotheses of the study. The Knowledge scores of the Sample were analyzed in terms of frequency, percentage, mean, and mean percentage and standard deviation. Chi square was employed to measure the association between knowledge level and selected demographic variables. The test results were subjected for testing at 0.05% level of probability. The outcome of the result interpreted using diagrams and graphs.

RESULTS

The findings discussed under the following headings based on objectives of the study.

- **Section I:** - Description of demographic data of the samples.
- **Section II**: - Assessment of knowledge scores after administration of structured knowledge questionnaire
- **Section III**: - Association of the Pre test knowledge level Scores with selected Socio-demographic variables of Samples

SECTION I: - DESCRIPTION OF DEMOGRAPHIC DATA OF THE SAMPLE

TABLE – 1

Classification of Respondents by Age group and marital status

N=40

Characteristics	Category	Respondents	
		Number	Percent
Age group (years)	20-25	14	35.0
	26-30	13	32.5
	31-35	8	20.0
	36-40	5	12.5
Marital status	Married	40	100.0
	Widow/Divorced	0	0.0
Total		40	100.0

Table 1, reveals that highest 14 (35%) sample are in the group of 20 to25 years, followed by 13(32.50%) in 26 to 30 years, then 8(20%) 31 to 35years and the lowest 5(12.50%)sample belongs to the age group of 36 to 40 years. About marital status, all 40(100%) were married

TABLE – 2

Classification of Respondents by Education and Occupation

N=40

Characteristics	Category	Respondents	
		Number	Percent
Educational status	No formal schooling	15	37.5
	Primary	10	25.0
	High schooling	9	22.5
	Graduate	6	15.0
Occupation	Labourer	6	15.0
	Health professional	2	5.0
	House wife	32	80.0
Total		40	100.0

Table 2, Shows According to education majority 15(37.50%) had no formal schooling, followed by 10(25%) primary education, 9(22.50%) higher schooling and least with graduation 6(15%)

Regarding Occupation majority 32(80.00%) were house wife, followed by Labourer 6 (15%), and least 2(5%) were health professional.

TABLE – 3

Classification of Respondents by Religion and Family income

N=40

Characteristics	Category	Respondents	
		Number	Percent

Religion	Hindu	22	55.0
	Christian	5	12.5
	Muslim	13	32.5
Family income/month	Below Rs.3,000	7	17.5
	Rs.3,001-6,000	16	40.0
	Rs.6,001-9,000	17	42.5
Total		40	100.0

Table 3, depicts Regarding the religion, maximum 22(55%) samples were Hindu, followed by 13 (32.50%) Muslim, after that 5(12.50%) were Christian.

Regarding income of the family per month majority17 (42.5%) had with 6001-9000, followed by 16(40.0%) with 3001-6000, 7(17.50%) had <3000.

TABLE – 4
Classification of Respondents by Information on Immunization and Source of information
N=40

Characteristics	Category	Respondents	
		Number	Percent
Have information on Immunization	Yes	7	17.5
	No	33	82.5
Source of information	Mass media	3	7.5
	Health professional/ Worker	4	10.0
	No	33	82.5
Total		40	100.0

Table 4, Shows Regarding information about immunization majority 33(82.50%) had no information whereas 7(17.50%) had information about it.

According to source of information majority 33 (82.5%) has no source of information followed by 4(10.0 %) had health professional/ Worker as source of information and 3(7.5%) had information from Mass Media.

Section – 2 : Overall and Aspect wise Mean Knowledge Level on Immunization of under five children
TABLE – 5
Classification of Respondent Knowledge level on Immunization of under five children

Knowledge Level	Category	Respondents	
		Number	Percent
Inadequate	≤ 50% Score	28	70.0
Moderate	51-75% Score	12	30.0
Adequate	> 75% Score	0	0.0
Total		40	100.0

Table 5, defines that the Majority of samples 28 (70%) had Inadequate knowledge, 12 (30%) has moderate knowledge; none of the sample has adequate knowledge.

TABLE -6
Mean Knowledge scores of Respondents on Immunization of under five children
N=40

No.	Aspects	Statements	Max. Score	Knowledge Scores			
				Mean	SD	Mean(%)	SD(%)
1	Knowledge	25	25	8.78	3.9	35.1	15.4

Table 6, Shows that the mean knowledge score was 8.78 (35.1%) and the standard deviation was 3.9 (15.4%) of the Respondents on Immunization of under five children

TABLE -7
Aspect wise Mean Knowledge scores of Respondents on Immunization of under five children
N=40

No.	Knowledge Aspects	Statements	Max. Score	Knowledge Scores			
				Mean	SD	Mean(%)	SD(%)
I	General information about Immunization schedule	6	6	2.68	1.5	44.6	24.8
II	Immunization schedule	16	16	5.58	2.4	34.8	15.0
III	Adverse effect of immunization schedule	3	3	0.53	0.7	17.5	24.7
	Combined	25	25	8.78	3.9	35.1	15.4

Table 7,depicts that the mean knowledge score was 2.68 (44.6%) in the aspect of General Information about Immunization schedule and the standard deviation was 1.5 (24.8%). The mean knowledge score was 5.58 (34.8%) and the standard deviation was 2.4 (15.0%) in the aspect of Immunization schedule.The mean knowledge score was 0.53 (17.5%) and the standard deviation was 0.7 (24.7%) in the aspect of Adverse effect of immunization schedule.The combined mean knowledge score was 8.78 (35.1%) and the standard deviation was 3.9 (15.4 %)

Section - 3 : Association between Demographic variables and Knowledge Level on Immunization of under five children

TABLE – 8
Association between Demographic variables and Knowledge level on Immunization of under five children
n=40

Demographic Variables	Category	Sample	Knowledge Level				χ^2 Value	P Value
			Inadequate		Moderate			
			N	%	N	%		
Age group (years)	20-25	14	10	71.4	4	28.6	2.81 NS	P>0.05
	26-30	13	8	61.5	5	38.5		
	31-35	8	5	62.5	3	37.5		
	36-40	5	5	100.0	0	0.0		
Educational status	No formal schooling	15	15	100.0	0	0.0	25.13*	P<0.05
	Primary	10	9	90.0	1	10.0		
	High schooling	9	4	44.4	5	55.6		
	Graduate	6	0	0.0	6	100.0		
Occupation	Labourer	6	6	100.0	0	0.0	7.26*	P<0.05
	Health professional	2	0	0.0	2	100.0		
	House wife	32	22	68.8	10	31.2		
Religion	Hindu	22	16	72.7	6	27.3	3.84 NS	P>0.05
	Christian	5	5	100.0	0	0.0		
	Muslim	13	7	53.9	6	46.1		
Family income/ month	Below Rs.3,000	7	5	71.4	2	28.6	1.98 NS	P>0.05
	Rs.3,001-6,000	16	13	81.3	3	18.7		
	Rs.6,001-9,000	17	10	58.8	7	41.2		
Have information on Immunization	Yes	7	2	28.6	5	71.4	6.94*	P<0.05
	No	33	26	78.8	7	21.2		
Source of information	Mass media	3	2	66.7	1	33.3	10.56*	P<0.05
	Healthprofessional/Worker	4	0	0.0	4	100.0		
	No	33	26	78.8	7	21.2		
Combined		40	28	70.0	12	30.0		

* Significant at 5% Level,
NS : Non-significant

Table 8, reveals that there is no significant association between the demographic variables like age group, religion, Family income/month with their chi square values $\chi^2 = 2.81$, $\chi^2 = 3.84$ and $\chi^2 = 1.98$ at 0.05 level of significance. whereas, there is significant association between the demographic variables like Educational status, Occupation, information on Immunization, and Source of information with their chi square values $\chi^2 = 25.13^*$, $\chi^2 = 7.26^*$, $\chi^2 = 6.94^*$ and $\chi^2 = 10.56^*$ at 0.05 level of significance.

DISCUSSION

The present study attempted to assess knowledge of mother and associated factors with immunization in urban area of Vadodara district in Gujarat.The study reveals that there is no significant association between the demographic variables like age group, religion, Family income/month with their chi square values $\chi 2 = 2.81$, $\chi 2 = 3.84$ and $\chi 2 = 1.98$ at 0.05 level of significance. whereas, there is significant association between the demographic variables like Educational status, Occupation, information on Immunization, and Source of information with their chi square values $\chi 2 = 25.13^*$, $\chi 2 = 7.26^*$, $\chi 2 = 6.94^*$ and $\chi 2 = 10.56^*$ at 0.05 level

CONCLUSION

The following conclusions were drawn on the basis of findings. This study revealed that the knowledge of women regarding immunization was low. The findings of association between knowledge and demographic variables revealed that educational status of mother had significant association with immunization service utilization.. Hence, the Researcher based on the findings, states that the hypothesis (H_{01}) has been accepted for the demographic variables like Educational status, Occupation, information on Immunization, and Source of information 0.05 level and the hypothesis (H_{01}) it has been rejected for the demographic variables like age group, religion, Family income/month .

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LIMITATIONS OF THE STUDY

1. The study did not assess the attitude Under five children mothers regarding immunization schedule
2. Small number of sample subjects leads in limiting the generalization of the study..

RECOMMENDATIONS

On the basis of the findings of the study following recommendations have been made are:

A similar study can be replicated in large samples and in the other district of Gujarat state or other state so that findings can be generalized for a larger population.

A similar study can be replicated to rural slum areas of district of Gujarat state.

A comparative study of utilization of institutional facilities in terms of Knowledge of mother regarding immunization should be carried out between urban and rural areas of selected districts.

A study to identify the factors responsible for immunization should be carried out in tribal areas.

A study to assess the factors responsible for immunization coverage in urban slums is Districts.

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