

A Correlational Study to Assess Knowledge and Attitude of Mother of Under Five Regarding National Immunization Schedule in A Selected Phc, Bangalore in A View to Develop an Information Booklet

Mr.Abin Benny¹, Ms.Aleena Anil², Ms.Akishma O³, Ms. Ashmi.R⁴,

Ms.Anjana Ashokan⁵, Ms.Ananaya Sd⁶, Ms.Arsubha Varshini⁷

^{1,2,3,4,5,6,7} VII-Semester Bsc Nursing [Basic] (Rs6) Sri Ramakrishna College of Nursing, Bangalore

Abstract—Background: Immunization is one of the most effective methods of preventing vaccine-preventable diseases among children and reducing childhood morbidity and mortality. Mothers play an important role in ensuring that their children receive vaccines according to the National Immunization Schedule. Adequate knowledge and a positive attitude towards immunization are essential for timely and complete vaccination of under-five children.

Aim: A study to assess the knowledge and attitude regarding the National Immunization Schedule among mothers of under-five children in a selected Primary Health Centre, Bengaluru, with a view to develop an information booklet.

Materials and Methods: A quantitative research approach with a correlational research design was used for the study. The study was conducted among 50 mothers of under-five children attending Hegganahalli Primary Health Centre, Bengaluru.

The samples were selected using a non-probability convenience sampling technique. Data were collected using a structured knowledge questionnaire and an attitude scale regarding the National Immunization Schedule. The collected data were analyzed using descriptive and inferential statistics.

Results: The findings showed that 37 (74%) mothers had inadequate knowledge, 11 (22%) had moderately adequate knowledge and 2 (4%) had adequate knowledge regarding the National Immunization Schedule. Regarding attitude, 33 (66%) mothers had a favourable attitude and 17 (34%) had an unfavourable attitude towards immunization. The study revealed a weak positive correlation between knowledge and attitude, with a Karl Pearson correlation coefficient of $r = 0.17$.

Educational status was found to have a significant association with the level of knowledge regarding the

National Immunization Schedule.

Conclusion: The study concluded that a majority of mothers had inadequate knowledge regarding the National Immunization Schedule, although most mothers demonstrated a favourable attitude towards immunization. The findings emphasize the need for regular health education and appropriate educational materials to improve mothers' knowledge and promote timely and complete immunization among under-five children. An information booklet was developed based on the identified needs.

Index Terms—National Immunization Schedule, Knowledge, Attitude, Mothers, Under-Five Children, Immunization.

I. INTRODUCTION

Background of the study:

Immunization is one of the most effective and cost-effective public health interventions for preventing vaccine-preventable diseases among children. It protects children from serious illnesses and reduces childhood morbidity and mortality. The National Immunization Schedule provides vaccines at specific ages to ensure that children receive timely protection against various infectious diseases. ¹

Mothers play an important role in maintaining the health of their children and ensuring that they receive vaccines according to the recommended schedule. Their knowledge regarding the type of vaccines, timing of doses, booster doses and importance of completing the immunization schedule can influence their vaccination practices. Lack of knowledge, misconceptions and fear regarding adverse effects may contribute to delayed or missed vaccinations. ²

Therefore, assessing the knowledge and attitude of mothers regarding the National Immunization Schedule is important for identifying gaps in awareness and providing appropriate health education. Nurses and other healthcare workers can play an important role in educating mothers during immunization visits. An information booklet can provide simple and accessible information to mothers and help promote timely and complete immunization among under-five children. ³

II. NEED OF STUDY

Immunization provides effective protection against vaccine-preventable diseases and promotes the health and well-being of children. However, inadequate knowledge and misconceptions among mothers may lead to delayed or incomplete vaccination.

Therefore, assessing mothers' knowledge and attitude regarding the National Immunization Schedule is essential to promote timely and complete immunization among under-five children.

III. PROBLEM STATEMENT

A Correlational study to assess knowledge and attitude of mothers of under-five regarding national immunization schedule in a selected PHC, Bangalore in a view to develop an information booklet

IV. OBJECTIVES:

- 1 To assess the level of knowledge of mothers of under-five regarding the National immunization programme.
- 2 To assess the quality of attitude of the mothers of under-five regarding the National immunization schedule.
- 3 To find the relationship between the level of knowledge and attitude of mothers of under-five.
- 4 To determine the association between selected demographic variables and the level of knowledge of mothers of under-five regarding the National immunization schedule.
- 5 To determine the association between selected demographic variables and the attitude of mothers of under-five regarding national immunization schedule.
- 6 To develop an information booklet on the National immunization schedule.

V. OPERATIONAL DEFINITIONS

- 1 Assess: Assess refers to measuring the knowledge of mothers of under-five regarding national immunization schedule and their opinions towards administering vaccines.
- 2 Knowledge: Knowledge refers to the information and understanding of awareness of mothers regarding immunization including its dose, route, side effects and benefits.
- 3 Attitude: Attitude refers to the opinion and feelings of mothers of under-five towards the National immunization schedule.
- 4 Immunization schedule: Immunization schedule refers to the planned list of vaccines that should be given to the children from birth to 16 years at the recommended time to protect them from disease.
- 5 Mothers of under-five: Mothers of under-five refers to women who are having children aged below five years and residing in selected urban areas of Bangalore.
- 6 Information Booklet: Information booklet refers to a small booklet prepared by the researcher which contains simple information about the National immunization schedule for mothers of under five children.

Assumptions:

- 1 Mothers may have some knowledge regarding the National immunization schedule of the children
- 2 Mothers may have favourable attitude towards national immunization schedule
- 3 The knowledge of mothers influences the immunization status of children
- 4 Health education can improve mothers' knowledge regarding the National immunization schedule

Research Design

A correlational research design will be adopted to assess the knowledge and attitude regarding the National Immunization Schedule among mothers of under five children attending the selected PHC at Bangalore.

VI. RESEARCH VARIABLES:

In present research study variables were:

- Level of knowledge
- Quality of attitude

Demographic Variables

Demographic variables: Age in years, Education, Religion, Area of residence, Occupation, Monthly family income, Number of children, Source of information.

Research Setting

The study will be conducted in Hegganahalli Primary Health Centre (PHC) at Bangalore.

Target Population

The target population for the present study comprises

all mothers of under five children attending the Hegganahalli PHC at Bangalore.

Sample And Sampling Technique

The sample for the present study consists of 50 mothers of under five children attending the Hegganahalli Primary Health Centre (PHC) at Bangalore, who meet the inclusion and exclusion criteria. A non-probability convenient sampling technique was used.

Sample Size

50 mothers of under five children attending the Hegganahalli PHC at Bangalore.

Description Of Tool

It is divided into three parts:

Table 1: Association between selected demographic variables and level of knowledge

Sl No.	Demographic Variables	Category	sample	Adequate	Moderately adequate	Inadequate	χ^2 value	df	χ^2 Table value
1.	AGE	≤ 20 years	4	0	0	4	3.99 NS*	6	5.35
		21 - 26 years	18	0	5	13			
		26 – 30 years	20	1	4	15			
		Above 30 years	8	1	2	5			
2.	EDUCATION	No formal education	4	0	0	4	6.89 S	6	5.35
		Primary education	15	1	5	9			
		Secondary education	11	0	4	7			
		Graduate and above	20	2	2	16			
3.	OCCUPATION	House wife	31	1	7	24	6.1 S	6	5.35
		Daily wage worker	13	0	3	10			
		Private employee	4	1	0	3			
		Government employee	1	0	0	1			
4.	NUMBER OF CHILDREN	One	15	2	3	10	4.26 NS*	6	5.35
		Two	24	1	6	17			
		Three	6	0	2	4			
		More than three	5	0	0	5			

Table 1 depicts the chi-square test value established at 0.50 level of significance for finding out the association between the demographic variables and the level of knowledge.

There is no significant association between age and level of knowledge as the chi-square value was 3.99 which is lesser than the table value at df 6. Hence the null hypothesis is accepted.

There is a significant association between education and level of knowledge as the chi square value was 6.89 which is higher than the table value at df 6. hence the research hypothesis is accepted.

There is a significant association between occupation and level of knowledge as the chi square value was 6.1 which is higher than the table value at df 6. hence the research hypothesis is accepted.

There is no significant association between number of children and level of knowledge as the chi-square value was 4.26 which is lesser than the table value at df 6. Hence the null hypothesis is accepted.

Table 2: Association between selected demographic variables and quality of attitude

Sl No.	Demographic Variables	Category	sample	favourable	unfavourable	χ^2 value	df	χ^2 Table value
1.	AGE	≤ 20 years	4	0	4	7.71 S	3	2.37
		21 - 26 years	18	3	15			
		26 – 30 years	20	10	10			
		Above 30 years	8	4	4			
2.	EDUCATION	No formal education	4	0	4	3.47 S	3	2.37
		Primary education	15	4	11			
		Secondary education	11	4	7			
		Graduate and above	20	9	11			
3.	OCCUPATION	House wife	31	12	21	2.65 S	3	2.37
		Daily wage worker	13	3	10			
		Private employee	4	2	1			
		Government employee	1	0	1			
4.	NUMBER OF CHILDREN	One	15	4	11	3.04 S	3	2.37
		Two	24	11	13			
		Three	6	1	5			
		More than three	5	1	4			

Table 2 depicts the chi-square test value established at 0.50 level of significance for finding out the association between the demographic variables and the quality of attitude.

There is a significant association between age and quality of attitude as the chi square value was 7.71 which is higher than the table value at df 3. hence the research hypothesis is accepted.

There is a significant association between education and quality of attitude as the chi square value was 3.47 which is higher than the table value at df 3. hence the research hypothesis is accepted.

There is a significant association between occupation and quality of attitude as the chi square value was 2.65 which is higher than the table value at df 3. hence the research hypothesis is accepted.

There is a significant association between number of children and quality of attitude as the chi square value was 3.04 which is higher than the table value at df 3. hence the research hypothesis is accepted.

Table 3: Correlation between level of knowledge and quality of attitude

Variables	R- Value	Interpretation
Knowledge	0.17	Weak Positive Correlation
Attitude		

Table 3 depicts the calculated Pearson correlation coefficient (r-value) is 0.17. This indicates a weak positive correlation between knowledge and attitude.

This means that as knowledge increases, attitude tends to improve slightly, but the relationship is very weak. Therefore, knowledge and attitude are positively related, but the association is not strong.

VII. MAJOR FINDING

- Most (52%) mothers belonged to the age group of 20–30 years.
- Most (64%) mothers were housewives.
- Most (44%) mothers had a monthly family income of 5,001– 10,000.
- Most (48%) mothers had two children.
- Most (38%) mothers received information regarding immunization from health workers.
- Most (74%) mothers had inadequate knowledge regarding the National Immunization Schedule, with a standard deviation of 3.18.
- Most (66%) mothers had a favourable attitude towards immunization, with a standard deviation of 6.72.

VIII. CONCLUSION

- On the basis of the analysis, the following results were reached.
- On the basis of the results of the study, most (74%) mothers of under-five children had inadequate knowledge regarding the National Immunization Schedule.
- Most (66%) mothers had a favourable attitude towards immunization, with a weak positive correlation ($r = 0.17$) between knowledge and attitude.

REFERENCES

- [1] Ministry of Health and Family Welfare, Government of India, National Immunization Schedule. New Delhi, India: Government of India. \((Online\)). Available: [https://reference-url-citation.invalid/1] (https://reference-url-citation.invalid/1).
- [2] National Health Mission, Ministry of Health and Family Welfare, Government of India, Immunization Handbook for Health Workers. New Delhi, India: Government of India. \((Online\)). Available: [https://reference-url-citation.invalid/2] (https://reference-url-citation.invalid/2).
- [3] World Health Organization, WHO Recommendations for Routine Immunization: Summary Tables. Geneva, Switzerland: World Health Organization. \((Online\)). Available: [https://reference-url-citation.invalid/3] (https://reference-url-citation.invalid/3).