

## ORIGINAL ARTICLES

## A Correlational Study to assess the Knowledge and Attitude of Mothers Regarding Immunization of Children Below 5 Years of Age at Selected Areas under Keezhmad PHC, Aluva

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**ABSTRACT**

The present study aimed to assess the co-relation between the knowledge and attitude of mothers regarding immunization of children under 5 years of age. The objective of the study were to determine the level of knowledge regarding immunization of children among mothers, to Identify the attitude of mothers regarding immunization of children, to Find out the relationship between knowledge and attitude regarding immunization in children among mothers, to Find out the association of knowledge regarding immunization of children with selected demographic variables, to Find out the association of attitude of mothers regarding immunization with selected demographic variables. The present study adopted a descriptive co-relative design. The sample consisted of 60 mothers under the Keezhmad PHC Aluva. Non probability purposive sampling technique was used for the study. For assessing the knowledge and attitude, a structured questionnaire was developed by the researchers. Data were collected by administering the tool to 60 mothers. The data collected were tabulated and analysed by using descriptive and inferential statistics. The result shows that, majority of mothers 56.7% have an average knowledge regarding the immunization of children under 5 years, whereas 43.3% had only poor knowledge. No one had good knowledge among 60samples, 60 of them have positive attitude towards immunization of children below 5

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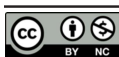
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years of age. No one had negative attitude. There is no correlation between knowledge and attitude of mothers regarding immunization of children below 5 years of age.

### KEYWORDS

• Knowledge • Attitude • Mothers • Immunization

### INTRODUCTION

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. Vaccines protect your child against serious illnesses like polio, measles and tetanus. Every year nearly 2 million children are dying before their 5<sup>th</sup> birthday. WHO had launched in 1974, an expanded program of immunization (EPI) against 6 vaccines preventable diseases (VPD) to reduce childhood mortality and morbidity i.e. BCG, DPT, OPV, TT. One in 5 children globally do not have access to essential immunizations. Lack of access to vaccines leaves children at risk of death, disability, and illness from preventable diseases.

Every child under 5 years of age should be completely vaccinated according to the immunization schedule in UIP. The mothers of children should have a good knowledge and attitude towards vaccination. In India, especially in the rural area many children are not able to receive vaccination due to inadequate knowledge and negative attitude of mothers towards vaccination. Every child should receive vaccination.

### OBJECTIVES

1. To determine the level of knowledge regarding immunization of children among mothers.
2. To identify the attitude of mothers regarding immunization of children.
3. To find out the relationship between knowledge and attitude regarding immunization in children among mothers.
4. To find out the association of knowledge regarding immunization of children with selected demographic variables.
5. To find out the association of attitude of mothers regarding immunization with selected demographic variables.

### LITERATURE REVIEW

The literature reviewed for the present study is organized and presented under the following sections:

- Studies related to the attitude of mothers regarding immunization.
- Studies related to association of knowledge and attitude of mother's towards immunization.

#### Studies related to the attitude of mothers regarding immunization.

A cross sectional descriptive study was conducted among mothers having children below 5 years age, by Dr. Pramila Ramawat in Index Medical College and Hospital and Research Centre, Indore, Madhya Pradesh between September to October 2020. 200 mothers were interviewed through a self-designed pre-tested structured questionnaire. The result showed that majority [77 percentage] was found to have good attitude towards child immunization.

#### Studies related to association of knowledge and attitude of mother's towards immunization

A descriptive study was conducted to assess and correlate the knowledge, attitude and practice of vaccination among mothers with educational status in a teaching hospital in south India by clinical pharmacist, Sagar hospital, Tilaknagar, Bangalore. Results shows even though most of the mothers had satisfactory knowledge, attitude and practice almost 25 percentage children were identified as unimmunized or partially immunized. Educational status if mothers we identified as independent factor in the determination of their children vaccination status.

### HYPOTHESIS

**H<sub>1</sub>:** There is significant association between knowledge of mothers regarding immunization of children and selected demographic variables.

**H<sub>2</sub>:** There is significant association between Attitude of mothers regarding immunization and selected demographic variables.

**H<sub>3</sub>:** There is significant association between the knowledge and attitude of mothers regarding immunization of children.

**H<sub>0</sub>:** There is no significant association between the knowledge and attitude of mothers regarding immunization of children.

- Mother’s those who are willing to participate in the study.
- Mothers who can communicate in Malayalam.
- Mothers who are living in the area under Keezhmad PHC.

**MATERIALS AND METHODS**

**Research Approach**

The research approach of the present study is quantitative research method. Results are typically presented using statistics, tables or graphs because quantitative data is numeric, the collection and analysis of representatives sample is commonly used.

**Research Design**

The research design of the present study is a descriptive correlative design. A quantitative method was used to assess the knowledge and attitude of mothers regarding vaccination of children under 5 years of age under Keezhmad PHC Aluva.

**Setting of Study**

The study was conducted among mothers of children under 5 years, under Keezhmad PHC, Aluva.

**Population**

The population of the study include the Mothers of the children under 5 years of age, under Keezhmad PHC at the time of data collection.

**Sample**

A sample is a small portion of population of selected for observation and analysis. The sample of the study is 60 mothers of children under 5 years of age, under Keezhmad PHC Aluva.

**Sampling Technique**

The sampling technique used is non-probability purposive sampling.

**Inclusion Criteria**

- Mothers of children under 5 years of age.
- Mothers who were able to comprehended the instructions.

**Exclusion Criteria**

Mothers who have children above the age of 5 years of age.

**Description of Tool**

A structured questionnaire was developed for assessing the knowledge and attitude of mothers regarding vaccination of children under 5 years of age. The questionnaire contains 3 sections.

**Section A:** Questionnaire for demographic variables

Variables in the tool demographic includes age, education, employment status, financial status, number of children, place of delivery, type of family.

**Section B:** Knowledge questionnaire

It included 12 multiple choice questions to assess the knowledge of mothers regarding immunization of children under 5 years of age. Each correct response carried 1 mark and wrong response carried 0 mark. The possible maximum score is 12 and minimum score is 0.

**Level of Knowledge**

Knowledge level	Score
Poor	1-4
Average	5-8
Good	9-12

**Section C:** Attitude questionare

It included 12 multiple choice questions to assess the attitude regarding knowledge of mothers regarding immunization of children under 5 years of age. Each correct response carried 1 mark and each incorrect answer carried 0 mark. The possible maximum score is 12 and minimum score is 0.

**Level of Attitude**

Attitude level	Score
Agree	2
Disagree	0

## Pilot Study

A pilot study was conducted among mothers of children under 5 years, in areas under Okkal Gramapanchayath, Perumbavoor.

## RESULT

### Section I

Description of demographic variables of the mothers below 5 years in selected areas under Keezhmad PHC, Aluva

Determinants	Frequency (f)	Percentage (%)
<b>Age</b>		
Between 18-25	20	33.3
Between 26-35	24	40.0
Between 36-45	16	26.7
<b>Education</b>		
SSLC	12	20
Plus Two	4	6.7
Degree	36	60.0
Others	8	13.3
<b>Occupational Status</b>		
Employed	16	26.7
Unemployed	40	66.7
Coolie	2	3.3
Others	2	3.3
<b>Economic Status</b>		
8000-10000	21	35.0
10000-15000	12	20.0
Above 15000	27	45.0
<b>Number of children</b>		
1	27	45.0
2	23	38.3
3	9	15.0
More than 3	1	1.7
<b>Place of delivery</b>		
House	0	0
Hospital	60	100
<b>Family</b>		
Joint family	17	28.3
Nuclear family	43	71.7

Above table shows the frequency and percentage distribution of demographic variables such as age, education, occupational status, economic status, number of children, place of delivery and type of family of sample.

### Section III

Description of attitude of mothers regarding immunization of children below 5 years of age at selected areas under Keezhmad PHC Aluva

Attitude	Frequency	Percentage
Positive	60	100%
Negative	0	0%

Above table depicts the distribution of attitude of mothers regarding immunization of children below 5 years in selected areas under Keezhmad PHC, Aluva.

On the context of attitude level 60 (100%) mother have positive attitude and no one have negative attitude towards immunization.

### Section IV

Depicts the correlation between the knowledge and attitude of mothers regarding immunization of children below 5 years of age in selected areas under Keezhmad PHC, Aluva

Correlation	Mean	Sd
Knowledge	4.90	1.623
Attitude	13.93	2.016

Above table shows that there is no correlation between knowledge score and Attitude score

### Section V

This section reflects the association between the level of knowledge and selected demographical variables. For finding association chi square is used. The following hypothesis was tested at 0.05 level of significance.

#### I. Association Between Knowledge of Mothers with Age

Age (In Years)	Level of Knowledge		Df	Chi Square	P Value
	Average	Poor			
18-25	10	10			
26-35	14	10	2	0.611	0.737
36-45	10	6			

**Impression:** The above result shows that the chi square value for association of level of knowledge with age of mother is 0.611 and P value is 0.737. Hence the null hypothesis is accepted and there is no significant association

between knowledge of mother with age of mother.

## II. Association Between Level of Knowledge of Mothers and Education

Education	Level of Knowledge		Df	Chi Square	P Value
	Average	Poor			
SSLC	4	8	3	14.016	0.003
Plus 2	2	2			
Degree	27	9			
Others	1	7			

**Impression:** Above table shows that chi square value for association between level of knowledge and education is 14.016 and p value is 0.003. Hence  $H_1$  is accepted and there is significant association between level of knowledge and education.

## III. Association Between Level of Knowledge of Mothers and Employment

Employment	Level of Knowledge		Df	Chi Square	P Value
	Average	Poor			
Employed	16	0	3	20.905	0.000
Unemployed	16	24			
Cooley	0	2			
Others	2	0			

**Impression:** Above table shows that chi square value for association between the level of knowledge and employment is 20.905 and P value is 0.000. Hence  $H_1$  is accepted and there is significant association between knowledge of mother and employment.

## IV. Association Between Level of Knowledge of Mothers and Financial Status

Financial Status (Annual Income)	Level of Knowledge		Df	Chi Square	P Value
	Average	Poor			
8000-10000	11	10	2	2.356	0.308
10000-15000	5	7			
>15000	18	9			

**Impression:** The above table shows that the chi square value for association between level

of knowledge and financial status is 2.356 and P value is 0.308. Hence null hypothesis is accepted and there is no significant association between knowledge of mothers and financial status.

## V. Association Between Level of Knowledge of Mothers and Number of Children

Number of Children	Level of Knowledge		Df	Chi Square	P Value
	Average	Poor			
1	14	13	3	2.095	0.553
2	14	9			
3	6	3			
More than 3	0	1			

**Impression:** Above table shows that the chi square value for association between level of knowledge and number of children is 2.095 and P value is 0.553. Hence null hypothesis is accepted and there is no significant association between knowledge of mother and number of children.

## VI. Association Between Level of Knowledge of Mothers and Type of Family

Type of Family	Level of Knowledge		Df	Chi Square	P Value
	Average	Poor			
Joint Family	4	11	2	7.567	0.023
Nuclear Family	29	14			
Others	1	1			

**Impression:** Above table shows that the chi square value for association between level of knowledge and type of family is 7.567 and P value is 0.023. Hence  $H_1$  is accepted and there is significant association between knowledge of mother and type of family.

## DISCUSSION

### Findings of the study

The following are the major findings of study.

#### Section I: Socio demographic variables data

- **Age:** The findings of the study revealed that majority of samples 40% were between the age of 26 – 35 years.
- **Education:** Most of the samples 60% were graduated while remaining 40% having primary education.

- **Occupational status:** Majority of samples were unemployed 66.7%, where as 30% were employed or coolie and remaining 3.3% are others.
- **Economical status:** Majority of samples 455 have annual income above 15000, whereas 35% have between 10000 – 15000 and remaining 20% account for 8000 - 10000.
- **Number of Children:** Most of the samples 45% have one child, 38.3% have 2 children and remaining 16.7% have 3 and more children.
- **Place of delivery:** 100% of samples have place of delivery at hospital.
- **Family:** Most of the sample 71.7% are belongs to nuclear family and 28.3% were joint family.

**Section II:** Level of knowledge of mothers regarding immunization of children below 5 years of age

The findings of the study proved that majority of people 56.7% have an average knowledge regarding the immunization of children under 5 years, whereas 43.3% had only poor knowledge. No one had good knowledge.

**Section III:** Level of attitude of mothers regarding immunization of children below 5 years of age

The findings of the study revealed that among 60 samples, 60 of them have positive attitude towards immunization of children below 5 years of age. No one had negative attitude.

**Section IV:** Find out the correlation between knowledge and attitude regarding immunization of children below 5 years of age

There is no correlation between knowledge and attitude of mothers regarding immunization of children below 5 years of age.

**Section V:** Association between knowledge of mothers regarding immunization and demographic variables

There is significant association between level of knowledge of mother and education.

There is significant association between knowledge of mother and employment.

There is significant association between knowledge of mother and type of family.

## CONCLUSION

After conducting the study the investigator reached the conclusion that majority of sample had an average knowledge about the immunization of children under 5 years of age.

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