

# A STUDY TO ASSESS THE KNOWLEDGE OF POST NATAL MOTHERS REGARDING IMMUNIZATION AT SELECTED VILLAGES OF ALWAR, RAJASTHAN

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## ABSTRACT

*Immunization is the process by which resistance to an infection disease is produced. It is an act of creating immunity by artificial means. It is very important that parents follow national immunization schedule to avoid sickness and threats like death. Neonatal sepsis may be categorized as early or late onset of new-borns with early onset infection, 85% present within 24 hours, 5% present at 24-48 hours and a smaller percentage present within 48-72 hours. Onset is most rapid in premature under five mothers.*

*Improving neonatal survival is essential to achieve the millennium development goal of reducing child mortality; globally, there are 3.3 million neonatal deaths each year, accounting for 41% of all deaths of children under the age of five. The main aim of the study was to evaluate the knowledge of post natal mothers regarding immunization. Forty mothers were selected by convenient sampling techniques. Structured knowledge questionnaire was made which included all information about immunization. This helped the post natal mothers to gain more knowledge about knowledge.*

*After the detailed analysis, this study revealed the following conclusion. One shot case test mean score of post natal mothers was 9.25. There was no statically significant association found between the one shot case test knowledge score and selected demographic variables.*

**Keywords:** Immunization, Post Natal Mothers

## INTRODUCTION

Immunization is the process by which resistance to an infection disease is produced. It is an act of creating immunity by artificial means. It is very important that parents follow national immunization schedule to avoid sickness and threats like death.

As a result, when new-born get sick, they may need to spend time in the hospital or even the neonatal intensive care unit to recover. Although it can be frightening to see your baby hospitalized, a hospital stay is often the best way back to good health for a sick new-born.

A marked change in the baby's behaviour such as suddenly sleeping all the time or not sleeping much at all can also be an indication that something isn't right. These signs are of even greater concern if the baby is less than 2 months old. To ensure good health, have your baby checked by a doctor right away if you suspect a problem.

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### BACKGROUND OF THE STUDY

Immunization done more than just protect individual. It protects entire population, prevention the disease to spread. Mass vaccination has not only eliminated the incidence of diphtheria and tetanus from most of the developed world, it has actually eradicated smallpox from the world. This is remarkable achievement saves much suffering worldwide and save money.

Immunization averts an estimated 2 to 3 million deaths every year from diphtheria, pertusis, tetanus and measles. Global vaccination coverage, the proportion of the world's children who receive recommended vaccines have remained study for the past years. For example, the percentage of infants fully vaccinated against diphtheria- pertusis-tetanus (DPT-3) has held study at 83% for the last three years. During 2012, about 110.6 million infants worldwide got three doses of DPT3 vaccine, protecting them against infectious disease that cause serious illness and disability or to be fatal. By 2012, 131 countries had reached at least 90% of coverage of DPT-3(WHO-2012)

### NEED OF THE STUDY

India's rate of under-five mortality fell from 169 in 1990 to 69 in 2008, averaging an annual rate of decline of just 2.9% it is put India firmly in the insufficient progress category. Most of the studies revealed that people are not aware about the national immunization program, seven vaccines preventable disease in the immunization schedule, even though these are free of cost. The first week of the life is the most crucial period in the life of an infant. In India 50-60% of all infant death occurs within first month of life. The risk of death is greatest during the first 24-48 hours after birth. Communicable disease is the leading cause for neonatal mortality, now account up to two thirds of all infant deaths and half of under five year child mortality in developing countries.

Current status of neonatal health services in India was disorganizes. Recently 20 to 125 medical colleges in the country have special care neonatal units. A series of services of neonatal centres conducted in the country revealed that, out of 28 units, only 50% had satisfactory resuscitation facilities while 33% had inadequate. The present figure of 40 per 100 live births in India is too high. Neonatal morbidity was 56.8% and 37.3% amongst those living in slum.

Major causes of death is an under five mothers were due to respiratory disorders, GI disturbances and chickenguniya. More than 1025 million suspected cases have been reported from Karnataka state (7, 52,998), Maharashtra (2, 58, 998). Others affected states were Andhra Pradesh, Madhya Pradesh, Tamil Nadu and Gujarat.

### REVIEW OF LITERATURE

Review of literature is define as a broad, comprehensive in depth, systematic and critical review of scholarly publication, unpublished scholarly print material and personal communication. Review of literature provides the foundation on which to build new knowledge. Through a literature review, a researcher may also acquire information about available technique, instruments and methods of data analysis that have been used in prior research as well as potential and how to avoid them.

The literature reviewed under the following headings-

Review of literature related to knowledge of client on immunization.

Reviews of literature related to prevention of disease through immunization.

Reviews of literature related to immunization service and the problems due to improper immunization.

**PART 1** Review of literature related to knowledge of client on immunization

A study was conducted in Wardha district. One hundred and thirty mothers in the age group 15-44 years and 142 children aged 12-59 months were selected by cluster sampling method from nine villages in Wardha district. Out of this 100 mothers and 122 children could be contacted for evaluation of immunization coverage and assessing maternal knowledge and practice regarding immunization. Mother had a fair knowledge regarding need for immunization but a poor knowledge regarding the prevention of disease and doses of the vaccines.

**PART 2** Reviews of literature related to prevention of disease through immunization.

Centre for disease control and prevention (2011) in India reported that the global eradication of poliomyelitis has reached a critical stage. The disease remains endemic in only four countries (Afghanistan, India, Nigeria, and Pakistan) which have reported most of the cases in 2011.

**PART 3** Reviews of literature related to immunization service and the problems due to improper immunization.

A survey conducted to assess the methods of vaccines transportation and storage of 52 primaries vaccination offices inspected, 39 (76.5%) had a refrigerator vaccine storage but only 17, 33.3% kept records of received and stored doses, none of the 7 main offices selected for monitoring had a maximum and minimum thermometer, more over other faulty procedure such as storage of food, and laboratory specimens in the refrigerator door shelves, indicated that knowledge and practices of the vaccines storage and handling were often inadequate.

## OBJECTIVES

1. To assess the knowledge regarding immunization among post natal mothers.
2. To associate knowledge regarding immunization with selected demographic variables of post natal mothers.

## HYPOTHESIS

H<sub>1</sub>: Statistically there is no significant association between knowledge regarding immunization with selected demographic variable of post natal mothers.

## METHODOLOGY

**Research method-** Quantitative research method is used.

**Research approach-** the research approach for the study is quantitative, experimental research approach.

**Research design-** In the present study pre-experimental design, one shot case design was used.

## VARIABLES UNDER STUDY

**Independent variables-** Structured knowledge questionnaire

**Dependent variable-** knowledge

**Extraneous variable-** In this study, extraneous variable refers to age, qualification, religion, and type of family, income of family and sources of knowledge

**Setting of the study-** the study will be conducted at village Jindoli, Alwar (Rajasthan)

**Population of the study-** the population of the study was comprised all post natal mothers of village Jindoli at Alwar District.

**Sample-** the sample of the study was post natal mothers who fulfil the inclusion criteria.

**Sampling technique-** for the present study, selection of sample was done by probability and simple random sampling technique.

**Sample size-** In the present study, sample size comprises of 40 post natal mothers.

## SAMPLE SELECTION CRITERIA

Inclusion Criteria

Post natal mothers who were living at selected village of Alwar.

Post natal mothers who were able to read and write Hindi or English.

Post natal mothers who were willing to participate in the study.

Exclusion Criteria

Post natal mothers who were not residents at selected village of Alwar.

Post natal mothers who were not able to read and write Hindi or English.

Post natal mothers who were not willing to participate in the study.

## ETHICAL CONSIDERATION

Formal permission was obtained from the Sarpanch of the selected village before conducting study. Written consent was obtained from all sample of the study after explaining the purpose of the study.

**TOOL FOR DATA COLLECTION**

The most important and main part of any investigation is the collection of appropriate information, which provides necessary data for the study.

The instrument selected in research should as far as possible be the vehicle that would be the best obtaining data for drawing conclusions pertinent to the study. Most important and crucial aspect of any investigation is the collection of appropriate information, which will provide necessary data to answer the questions raised in the study.

Structured knowledge Questionnaire was used to assess the knowledge of post natal mothers regarding immunization at selected village of Alwar, Rajasthan.

**DEVELOPMENT OF THE TOOL**

The instrument is a vehicle that could best obtain data related to the study and adds to the body of general knowledge in the discipline. Relevant research and non research literature were surveyed to develop the tool. Experts in the concerned areas were consulted for the relevance and feasibility of the items in the tool. The data collection tools were prepared based on the objectives of the study. A structured knowledge questionnaire was selected for the study.

**DESCRIPTION OF THE TOOL**

Structured knowledge questionnaire – the tool consists of the following sections:

Part I: Socio-demographic variables:- Age, Type of family, education, occupation of the mother, income of family, sources of knowledge related to immunization, No. of children, Religion. It consists of 8 questions.

Part II: a structured knowledge questionnaire includes assessing the knowledge of the post natal mothers. It consists of 20 questions.

The result was scored into:-

Poor (0-5 scores)- 0-25%

Average (6-13 scores)- 30-65%

Good (14-20 scores)- 70-100%

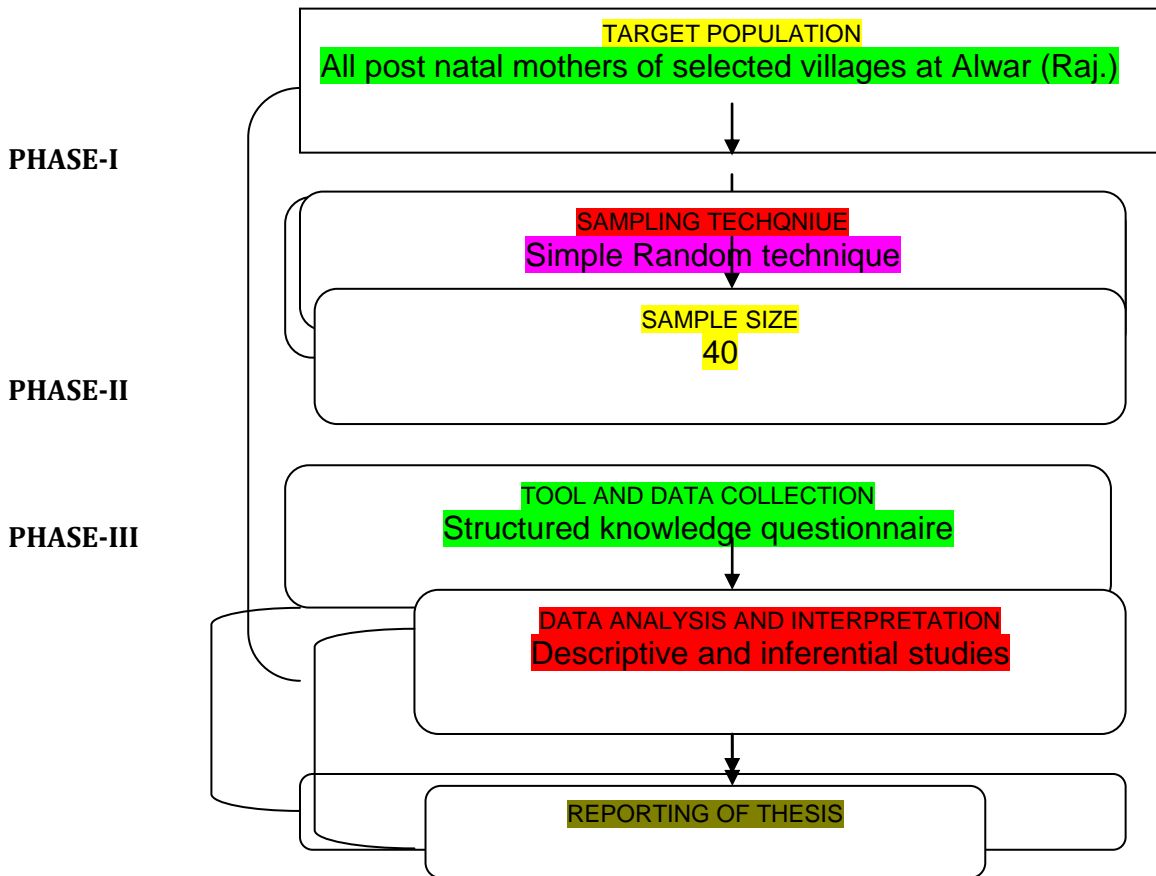


Figure 01: Schematic presentation of Research Design

**DATA COLLECTION PROCEDURE**

**PHASE I:** The researcher obtained written permission from the sarpanch of the village.

**PHASE II:** the investigator introduced self to the post natal mothers and maintained good communication. Before collection the data, the investigator had informed about the importance of this study and ascertained the willingness of the post natal mothers and taken written consent from the post natal mothers.

**PHASE III:** Written test was conducted.

**PLAN FOR DATA ANALYSIS**

After data collection procedure, data analysis was done by using descriptive and inferential statistics.

Demographic data analysis by using frequency and percentage

Mean, median and standard deviation of the one shot case test knowledge score

Chi-square test to determine the association between selected variable.

**RESULTS****SECTION I: DESCRIPTION PF SOCIO-DEMOGRAPHIC VARIABLES OF POST NATAL MOTHERS**

S. NO.	Variables	Groups	Frequency	Percentage
1.	Age in years	20-25 years	15	37.5 %
		26-30 years	15	37.5 %
		31-40 years	8	20 %
		>40 years	2	5 %
2.	Type of family	Nuclear	15	37.5 %
		Joint	25	62.5 %
3.	Education of mothers	Up to 10 <sup>th</sup>	15	37.5 %
		Up to 12 <sup>th</sup>	15	37.5 %
		Graduate	8	20 %
		Post graduate	2	5 %
4.	Occupation	House wife	25	62.5 %
		Government servant	5	12.5 %
		Private servant	7	17.5 %
		Other specify	3	7.5 %
5.	Income of family (Monthly)	10000-15000	22	55 %
		15001-20000	10	25 %
		20001-25000	3	7.5 %
		>25000	5	12.5 %
6.	Source of knowledge	TV	25	62.5 %
		Radio	2	5 %
		News paper	5	12.5 %
		Magazines	5	12.5 %
		Other specify	3	7.5 %
7.	No. Of child	1-2	25	62.5 %
		3-5	10	25 %
		>5	5	12.5 %
8.	Religion	Hindu	25	62.5 %
		Muslim	5	12.5 %
		Sikh	10	25 %
		Christian	0	0 %

**Table 01: Frequency and Percentage distribution of subjects according to demographic variables**

The finding of the study revealed that maximum post natal mothers belonged to the age group

of 20-25 and 26-30 years, 15 each (37.5% each) and lowest 2 (5%) were of more than 40 years. 25 (62.5%) of the mothers are from joint family and 15 (37.5%) are from nuclear family. The maximum post natal mothers are taken education up to 10<sup>th</sup> and 12<sup>th</sup>, each 15 (37.5%) and 2 (5%) are up to post graduate. 25 (62.5%) post natal mothers are house wife, 5 (12.5%) are in government service, 7 (17.5%) are in private service whereas 3 (7.5%) are specify their occupation.

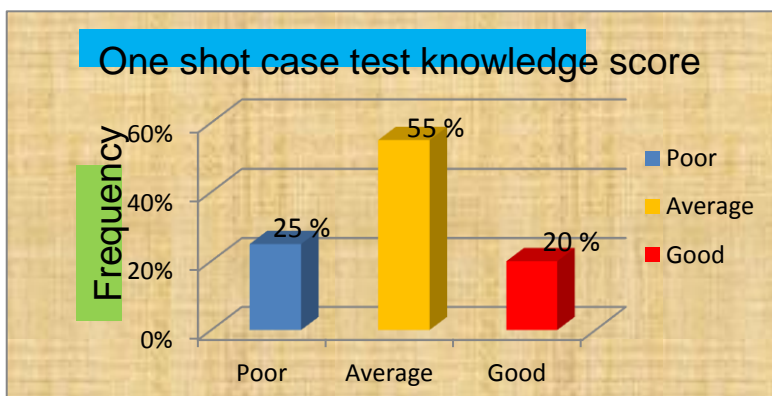
22 (55%) of the post natal mothers are belongs from the family having monthly income between Rs. 10,000-15,000 and 5 (12.5%) are from Rs. >25,000. Out of the 40 samples 25 (62.5%) were have knowledge from TV and 2 (5%) from radio, 5 (12.5%) from newspaper, 5 (12.5%) are from magazines and 3 (7.5%) from other sources.

25 (62.5%) post natal mothers are having 1-2 children, 10 (25%) post natal mothers are having 3-5 children's while 5 (12.5%) post natal mothers are having children more than 5. 25 (62.5%) post natal mothers are belong from Hindu, 5 (12.5%) are belong to Muslims and 10(25%) are belong to Sikh and 00 are belong to Christian religion.

**SECTION II: ASSESSMENT OF ONE SHOT CASE TEST KNOWLEDGE REGARDING IMMUNIZATION AMONG POST NATAL MOTHERS**

Knowledge Score	Grade	Post test			
		Frequency	Percentage	Mean score	S.D.
0-5	Poor	10	25 %	9.25	3.42
6-13	Average	22	55 %		
14-20	Good	8	20 %		

**Table 02: Frequency and Percentage distribution of one shot case test knowledge score of post natal mothers regarding immunization**



**Figure 02: bar diagram showing one shot case test knowledge score of post natal mother regarding immunization**

In the table 02 and figure 02 is revealed that knowledge score poor (0-5) is 10 (25%), average (6-13) is 22 (55 %) and good (14-20) is 8 (20 %).

There are mean score after the post test is 9.25 and standard deviation is 3.42

**SECTION III: ASSOCIATION BETWEEN ONE SHOT CASE TEST KNOWLEDGE SCORE WITH SELECTED DEMOGRAPHIC VARIABLES**

The present study shows that there is no statistically association between one shot case test knowledge score and selected socio-demographical variables so the research hypothesis H<sub>1</sub> was rejected.

**CONCLUSION**

The main aim of the study was to evaluate the knowledge of post natal mothers regarding immunization. Forty mothers were selected by convenient sampling techniques. Structured knowledge questionnaire was made which included all information about immunization. This helped the post natal mothers to gain more knowledge about knowledge.

After the detailed analysis, this study revealed the following conclusion. One shot case test mean score of post natal mothers was 9.25. There was no statically significant association found between the one shot case test knowledge score and selected demographic variables.

**RECOMMENDATION**

On the basis of the findings of the study following recommendation have been made for further study-

- ✚ A similar study can be conducted by using pre-experimental study.
- ✚ A similar study can be conducted on post natal mothers regarding immunization.
- ✚ A similar study can be done on a large sample.
- ✚ A study can be conducted on studying style to assess knowledge of post natal mothers.

**IMPLICATION OF THE STUDY**

The findings of the study have several implications in the field of nursing practice, nursing education, nursing administration and nursing research.

**NURSING EDUCATION**

As a health professional, the nurse who are in community setting have major responsibility in providing adequate information to students in school setting. In the nursing curriculum, school health programmes should be organized frequently at least on a monthly base, so as to facilitate the nurse to teach post natal mothers in effective management of immunization programmes.

The post natal mothers should get enough exposure in village setting, so they can get the additional knowledge about it.

**NURSING ADMINISTRATION**

They should provide necessary facilitate and infrastructure for health programme. The main focus of nursing administration is to make the mothers aware about immunization. The gram panchayat should arrange camp in community to teach the mothers about health and immunization. The gram panchayat should pay more attention to develop a health education cell where self learning material, leaflets, pamphlets and health education material for villagers.

**NURSING RESEARCH**

Nursing personnel and post natal mothers should be encouraged to conduct study on immunization. The unknown factors for immunization could be quantified and be cares appropriately. Thus in the future immunization rate could be increase, so scholarships and financial support should be given for such research work. In Indian setting very few researchers have been conducted in this area.

**LIMITATION OF THE STUDY**

1. Study was conducted over a short span of time.
2. Sample size was even too small.
3. Study was limited only to post natal mothers.
4. Study was lack of control group to compare to allow testing for an improvement in knowledge.

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