

Original Research Article

## A Study on Vaccine Related Knowledge among Antenatal Women in Selected Setting to Prepare an Informational Pamphlet'

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### ABSTRACT

Vaccines are most powerful, safe and cost effective measures for prevention and control of communicable diseases. A child who is not immunized is automatically more susceptible to dangerous and sometimes deadly diseases. Fighting these diseases can take a great deal of time, mandatory isolation, money and pain. [1] Thus vaccines were developed to prevent communicable diseases. The objectives of the study were to assess the knowledge on vaccines among antenatal women and to find association between knowledge on vaccines among antenatal women and selected socio demographic variables. A descriptive survey design was used to identify the knowledge on vaccine among the antenatal women. The study was conducted with the sample size of 100 antenatal women. The sample were selected using a convenient sampling technique according to the inclusion and exclusion criteria. The data was collected by using structured knowledge questionnaire. The study findings revealed 58% of the antenatal women had average knowledge, 35% good knowledge and 7% very good knowledge regarding vaccines. There is significant association of knowledge with baseline variable gravida ( $p=0.041$ ) and there is no association between other selected baseline variable. The study concluded that the 58% antenatal woman had average knowledge regarding vaccines hence investigators prepared an informational pamphlet on vaccine and given all the antenatal mothers.

**Keywords:** Knowledge; Vaccines; Antenatal women.

### INTRODUCTION

The healthy normal neonates need daily routine care skincare, baby bath, care of the umbilical cord, care of the eyes, clothing of the baby, like warmth, breast feeding, general care, observation, weight recording, and immunization and follow up care. [2]

Among this the immunization plays a vital role in prevention of communicable diseases One of the major problems during the childhood period is the communicable diseases and Risk of communicable diseases

can be prevented and protected by administering Vaccines on time.

In India, an estimated 26 millions of children are born every year. However, fewer than 44% of these children receive the full schedule of immunizations. There are 81,275 annual deaths from measles in India in the year 2004-2005. [3] Pneumonia remains the leading killer of children in India; it accounted for 371,605 deaths in children under age five in 2008 and rotavirus-related deaths in India Annually range from 1, 22,000-1, and 53,000. [1]

Nine million routine immunization sessions are organized in India each year. Target 26 million children and 30 million pregnant women. The national average for full immunization is 61 percent, and for DPT-3 coverage 72 percent. The number of districts with less than 80 per cent DPT3 coverage. India has biggest number of children not immunized with DPT -3 ie 7.4million. [1]

According to U.S department of health & family services explain the five reasons to vaccinate your children Immunizations can save your child's life Immunization protects others you care about. Immunizations can save your family time and money, Immunization protects future generations. [4]

Mother plays a major role in taking care and promoting the health of the children of children in the Indian scenario. Since the mothers are the primary care giver and supervisor regarding the child care at Indian setting empowering the mother or women with knowledge will be the great help in prevention of communicable diseases, therefore mother should know regarding the vaccination. Hence the researcher thought about to assess the knowledge of the antenatal women regarding the vaccine

### Objectives

1. To assess the knowledge on vaccines among antenatal women.
2. To find association between knowledge on vaccines among antenatal women and selected baseline variables

## MATERIALS AND METHODS

**Research Design:** The descriptive survey design was used to conduct this study.

**Research setting:** the study was carried out in outpatients department of Obstetrics and gynecology, well baby clinic and maternity antenatal wards of Father Muller medical college hospital Mangalore. The hospital is 1250 bedded multispecialty hospital.

**Sampling technique and sample size:** convenient sampling technique was used to

select the subjects. The study sample consists of 100 antenatal women who visit out patients department of Obstetrics and gynecology, well baby clinic and maternity antenatal wards of Father Muller medical college hospital Mangalore.

### Instrument:

1. Baseline proforma
2. Structures knowledge questionnaire.

**Data collection procedure:** the data was collected after getting ethical clearance from institution ethics committee. Written informed consent is obtained from the participants. The data was collected from antenatal women who visit out patients department of Obstetrics and gynecology, well baby clinic and maternity antenatal wards of Father Muller medical college hospital Mangalore from 7<sup>th</sup> June 2016 to 11<sup>th</sup> June 2016. The investigators introduced themselves and the purpose of the study was explained to the subjects and the baseline information and structured knowledge questionnaire on vaccines were given to the subjects and allotted 20 minutes to complete the questions

### Statistical Analysis:

Data was analyzed using descriptive and inferential statistics

- Base line information was analyzed using frequency and percentage.
- Knowledge on vaccine was analyzed using frequency, percentage, mean, standard deviation and mean percentage.
- Association between knowledge and socio- demographic variables was analyzed using chi-square.

## RESULTS

The findings of the data were analyzed in the following headings

**Section 1:** Description of the socio-demographic characteristics

**Section 2:** Assessment of knowledge of antenatal women regarding vaccines

**Section3:** Association between knowledge on vaccine and selected baseline variables.

## Section 1: Description of the socio-demographic characteristics

Table: 1 Description of the socio- demographic characteristics N=100

Variables	Frequency	Percentage
<b>age in years</b>		
< 20 Years	02	02%
20-25	42	42%
26-30	43	43%
31-35	11	11%
36-40	01	01%
>40 Years	01	01%
<b>Religion</b>		
Hindu	26	26%
Muslim	63	63%
Christian	11	11%
<b>Type of Family</b>		
Nuclear	41	41%
Joint	55	55%
Extended	04	04%
<b>Area Of Residence</b>		
Urban	51	51%
Rural	49	49%
<b>Gravida</b>		
Primi	53	53%
Multi	47	47%
<b>Occupation</b>		
Home Maker	86	86%
Daily Wages	06	06%
Govt. Employee	03	03%
Private. Employee	03	03%
Self.Employee	02	02%
<b>Source Of Information</b>		
Mass media	19	19%
health personnel	63	63%
books	05	05%
friends	06	06%
don't know	07	07%

Table 1 reveals description of socio - demographic of the antenatal women, half of the antenatal women belonged to 26-30 years (43%), and belongs to joint family (55%) and primi gravida (53%). Majority were Muslims (63%) and home makers (86%).

## Section 2A: Overall Knowledge of antenatal women regarding vaccines

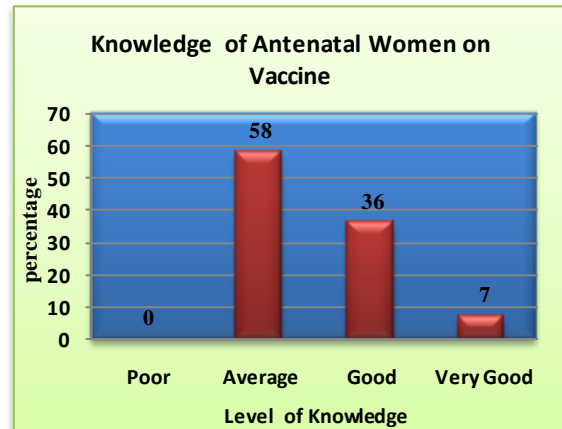


Figure 1 shows that among the antenatal women, 58% had average knowledge, 35% good knowledge and 7% very good knowledge on Vaccine.

## Section2B: Area-wise assessment of knowledge of antenatal women regarding vaccines

Table2; area-wise assessment of knowledge of antenatal women regarding vaccines N=100

Area	Maximum Score	Mean $\pm$ SD	Mean%
Meaning	01	0.2+0.40	20
BCG	04	3.05+0.91	76.25
Polio	04	2.07+1.04	51.75
DPT	03	1.13+0.83	37.66
MMR	02	0.8+0.73	40
Hepatitis B	02	1.11+0.69	55.5
Vitamin A	02	0.76+0.63	38
Hib Vaccine	01	0.18+0.45	18
Pneumococcal	02	1.08+0.7	54
Rota Vaccine	02	0.67+0.7	33.5
TT	02	1.18+0.68	59
General	02	1.28+0.56	64

Table 2: the data in the table 2 shows area wise knowledge of the antenatal women on vaccine. Most of the antenatal women's (76.25%) had good knowledge on BCG vaccine and other areas they had average knowledge on vaccine.

## Section 3: Association between knowledge on vaccines and baseline variables

Table 3: Association between knowledge on vaccines and baseline variables N=100

Sl No.	Variable	$\chi^2$	p value
1	Age	3.401	0.638
2	Religion	1.093	0.579
3	Type of family	1.757	0.415
4	Area of residence	0.151	0.697
5	Education	2.201	0.532
6	Occupation	3.840	0.428
7	Monthly income	5.847	0.119
8	Gravida	4.175	0.041*
9	No of children	7.364	0.118
10	Source of information	4.023	0.403
		$\chi^2=5.99$ P> 0.05	* significant

The data in the table 3 shows that p value was computed between knowledge on vaccine and selected baseline variables. There is significant association of knowledge with baseline variable gravida ( $p=0.041$ ) and there is no association between other selected baseline variable. Hence null hypothesis is rejected and research hypothesis is accepted.

## DISCUSSION

The study revealed that majority of the antenatal women (43%) belongs to the age group of 26-30 years, 63% were Muslims, 55% belongs to the joint family, 51% from rural area, 86% were homemakers and 44% of antenatal women's monthly income were <5000. The findings were supported by research study conducted at Justice K.S. Hegde charitable hospital at Mangaluru to assess the knowledge and attitude regarding vaccines among mothers of under-five children. Majority i.e., 50.3% of under five mothers belongs to 26-30 years of age group, 54% were Muslims, 52.7% belongs to > 4000 monthly income, 72.3% belongs to nuclear family, 49.3% were homemakers and 74.3% from urban area. [5]

The study revealed that 58% of the antenatal women had average knowledge, 35% had good knowledge and 7% had very good knowledge. These findings were similar to the study which was conducted at Yenepoya Hospital Mangalore to assess the knowledge of mothers of under-five children on immunization. It shows that 30% of mothers had poor knowledge, 43.4% average knowledge, 23.4% good knowledge and 3.33% excellent knowledge. [6]

The study revealed that area wise knowledge of the antenatal women on vaccine. Most of the antenatal women's (76.25%) had good knowledge on BCG vaccine, poor knowledge (18%) on Hib vaccine had average knowledge Hepatitis B vaccine (55.5%) and other vaccines. The findings were supported by the study conducted at Mugalivakam, Chennai regarding knowledge, attitude and practice

regarding routine immunization among mothers of under five children shows that, 32.7% of the mothers had no knowledge about any of the vaccines. The knowledge regarding Hepatitis B vaccine was high (46%) when compared with other vaccines. [7]

The study revealed that 38% of the antenatal women knew about vitamin A. The findings were supported by study conducted at VS General Hospital, Ahmedabad to assess the knowledge of mothers of under-five children regarding Immunization. Were 80% of respondents had no knowledge about vitamin A. [8]

## CONCLUSION

Prevention of communicable diseases is one of the most important aspects which help to reduce child mortality rate. It is possible for the health professional by providing vaccine. In order to seek the immunization primary care giver should be knowledgeable. The present study reveals Antenatal women's are having average knowledge on vaccines. If the primary care giver know the importance of vaccine it is easy to reduce the communicable diseases among under five children. And reduce the mortality and morbidity rate

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