

## Original Article

### **Awareness and knowledge of mothers of under five children regarding immunization in Ahmedabad**

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#### **Abstract :**

Research question: What is the level of knowledge of mothers of Under Five Children, attending the Immunization centre of Postpartum Unit , VS General Hospital, Ahmedabad regarding immunization? Objective: To assess the awareness & knowledge of mothers of Under Five children regarding Immunization. Study Design: Cross sectional descriptive study. Study Area/ Setting: Immunization centre of Post Partum Unit, VS General Hospital, Ahmedabad. Participants & Sample size : 100 mothers of Under Five children were studied from March 2009 to May 2009. Results: Mean age of the respondents was 28.4 years. 72% of the respondents were housewives & 65% of them were Hindus. 83% of the literate mothers had some knowledge about VPDs. 85% of the respondents knew about poliomyelitis & only 15% knew about Hepatitis B. 80% of respondents had no knowledge about Vitamin A. Main sources of information of mothers about VPD's was Anganwadi Worker 47% & Television 35%.

**Key words:** Under Five children, Immunization, Vaccine Preventable Diseases.

#### **Introduction:**

Immunization is one of the most effective, safest & efficient Public Health Interventions .While the impact of Immunization on childhood morbidity & mortality has been great , it's full potential has yet to be reached. Thousands of children still die from Vaccine-Preventable diseases each year. <sup>1</sup> VPDs contribute significantly to Under five mortality. In India Under five mortality is 68.8/ 1000 <sup>2</sup> Routine immunization is one of the most cost effective public health interventions & was 1<sup>st</sup> introduced in India in 1978. Yet despite the concrete efforts of government & other health agencies, a large proportion of vulnerable infants & children in India remain unimmunized. India has the highest no. (approx. 10 million) of such children in the world. National Family Health Survey (2005-2006) reports that only 43.5% of children in India received all of their primary vaccines by 12 months of age<sup>1</sup>. Main reasons identified for poor coverage includes inadequacy of community participation in Routine Immunization & IEC activities<sup>3</sup> Therefore the study was carried out to assess the level of knowledge and attitude of mothers of Under Five children regarding VPDs & routine immunization & at the same time mothers can be motivated by updating their level of knowledge regarding the importance of immunization, as the mothers of Under Five children are very receptive to advice given by doctors & para-medical staff regarding the health of the child.

## Materials & Methods:

The study was conducted amongst 100 mothers of Under Five Children attending the Immunization Centre of Post Partum Unit, V.S General Hospital, Ahmedabad. The average attendance of the centre is 20 children per day. The timings of the centre is 9:00am to 1:00 pm everyday except holidays. The respondents were tested by exit interviews with a pretested pre-designed proforma from March 2009 to May 2009 by the Under Graduate students of Smt. NHL Municipal Medical College, Ahmedabad .

## Results:

A total of 100 mothers between age group of 21 to 50 years were assessed. Among these assessed, 73 % were in age group of 21-30 years. Mean age of the respondents was 28.4 years. 72% of the respondents were housewives and 65% of them were Hindus. (Table 1) Knowledge of mothers about Vaccine Preventable Diseases was assessed as per their educational status. Those mothers who could name at least one Vaccine Preventable Disease were considered as having knowledge & those who could not even name a single Vaccine Preventable Disease were taken as not having any knowledge in each educational status. The knowledge of women in all educational strata was compared with that of Illiterate women There was a highly significant difference with all educational stratas indicating that those who were educated had some knowledge about VPD's (Table 2)

**Table 1: Profile of Women**

Sr. No.	Socio-demographic variable (n=100)	Number	%
1	Age group (years )		
	21-30	73	73
	31-40	20	20
	41-50	7	7
2.	Religion		
	Hindu	65	65
	Muslim	30	30
	Others	5	5
3	Occupation		
	Housewives	72	72
	Labourers	20	20
	Service	8	8

**Table 2 : Association between Educational Status & Knowledge about VPD's**

Education	Knowledge about VPD		Total	Z value	P value
	Yes	No			
Illiterate	5	17	22	1	--
Primary	20	4	24	5.17	< 0.01
Secondary	25	4	29	5.78	<0.01
Higher Secondary	20	5	25	4.78	<0.01
Total	70	30	100		

As far as the knowledge of mothers about all VPD's is concerned, knowledge about Poliomyelitis was highest as 85 (85%) of women could tell that it is a VPD. Knowledge of women regarding Hepatitis B & Pertusis was lowest, 15 (15%) & 10 (10%) respectively. When the knowledge of women about Poliomyelitis was compared with knowledge about all other VPD's separately, it was observed that there is a highly significant difference indicating that knowledge about Poliomyelitis is statistically significantly higher in the group. (Table 3) Most (80%) of the respondents had no knowledge about Vitamin A. (Table4)

**Table 3 : Knowledge of Mothers of Under Five children regarding VPD's**

Sr. No.	Diseases	Knowledge		Z value	P value
		Yes	No		
1	TB	35 (35%)	65 (65%)	8.39	<0.01
2	Diphtheria	20 (20%)	80 (80%)	12.12	<0.01
3	Pertusis	10 (10%)	90 (90%)	16.08	<0.01
4	Tetanus	45 (45%)	55 (55%)	6.53	<0.01
5	Measles	40 (40%)	60 (60%)	7.42	<0.01
6	Poliomyelitis	85 (85%)	15 (15%)	1	--
7	Hepatitis B	15 (15%)	85 (85%)	13.86	<0.01
	Total	100(100%)	100(100%)		

\* Figures in the parenthesis indicate Percentages.

**Table 4 : Knowledge of Mothers of Under Five Children regarding Vitamin A**

Sr. No.	Response	No. of Mothers	%
1	Yes	20	20
2	No	80	80
	Total	100	100

**Table 5 : Information regarding the Source of Knowledge of Mothers of Under Five Children regarding VPD's**

Sr. No.	Source of Knowledge	Number	%	Z value	P value
1	Health Worker	33	33	2.04	< 0.05
2	TV	35	35	1.74	> 0.05
3	Radio	5	5	7.71	< 0.01
4	Anganwadi Worker	47	47	1	--
5	Neighbours	15	15	5.21	< 0.01
6	Hospital	30	30	2.51	< 0.05
7	Others	10	10	6.36	< 0.01

Regarding the source of knowledge of respondents about VPD's , Anganwadi Worker was the main source of information 47 (47%). When Anganwadi Worker as source of knowledge of women was compared with all other sources of knowledge separately, it was observed that there is highly significant difference from other sources of information i.e Radio, Neighbours & Other sources; significant difference from sources such as Health Workers & Hospitals but there was no significant difference between Anganwadi Worker & TV as source of information (Table 5)

### **Discussion :**

In the present study , mean age of mothers was 28.4 years while it was 27.3 years in study conducted by D. Adeyinka et al<sup>4</sup>

Majority of mothers (65%) were Hindus in our study which was in contrast with the study conducted by D. Adeyinka et al.<sup>4</sup> where majority of respondents (61.8 % ) were Muslims. In our study, 72 % of respondents were housewives as against 5.6% in study conducted by D. Adeyinka et al.<sup>4</sup>

In our study, maximum number of respondents (85 %) knew about Poliomyelitis while measles & Tuberculosis was known to 40% & 35 % of respondents, while in the study conducted by Rahul Sharma & Sanjiv Bhasin<sup>5</sup> maximum number of respondents (61 %) knew about measles followed by tuberculosis (52.5%). Knowledge about Hepatitis B was very less & at par in both studies. In our study, source of knowledge about Vaccine Preventable Diseases was Anganwadi Workers in 47 % of respondents & T.V. in 35 % of respondents while in the study conducted by D. Adeyinka et al.<sup>4</sup> 65.7 % of the respondents got information about Vaccine Preventable Diseases from Antenatal clinics & role of media was only 4.8%

### **Conclusions & Recommendations:**

Many mothers don't come regularly for vaccination of their children. As a result they miss the due date of vaccination. Low literacy level of mothers is a matter of worry. Some of them don't know about the diseases for which their child is being immunized .Although many

mothers don't know the timings of vaccination but some of them follow the Immunization card & come accordingly. So there is a dire need to arrange for health education program sessions for mothers of Under five children with main emphasis on importance of vaccination & Vaccine Preventable Diseases (VPDs). Anganwadi workers and Television were the two most important sources which can be used for spreading health education messages.

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