

## ORIGINAL ARTICLE

# Assessment of Perception about Immunization Among the Mothers of Under-Five Children at Urban Slum Area of Vijayapura City

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## ABSTRACT

**Introduction:** Immunization is one of the most cost-effective health investments worldwide. The World Health Organization (WHO) launched the expanded programme on immunization (EPI) in 1974 with the aim of immunizing children throughout the world.

**Objective:** Assessment of perception about immunization among the mothers of under-five children at urban slum area of Vijayapura city.

**Methods:** Cross-sectional study was conducted in Urban Field practice area of Community Medicine department among the mothers of under-five children residing permanently in the area and were interviewed regarding the perception about immunization to their children by using pre-structured proforma.

**Results:** level of knowledge & perception was found average (around 50%). Nearly 40 to 60% of the participants agreed to the statements which signifies the immunization is very important to the child's growth and development and should not be avoided.

**Conclusions:** Providing mothers of under-five children with information about vaccination effectively increases the immunization coverage and was highly cost-effective also.

**Keywords:** Immunization, Under-Five, Knowledge, Attitude, Practice

## INTRODUCTION:

Immunization is one of the most cost-effective health investments worldwide. The World Health Organization (WHO) launched the expanded programme on immunization (EPI) in 1974 with the aim of immunizing children throughout the world. The programme uses proven strategies, like outreach services, to ensure delivery of vaccines even to the hardest to reach and vulnerable populations. The worldwide implementation of this programme has resulted in more than 100 million infants being immunized each year, saving 2–3 million lives annually.<sup>1,2</sup>

Delivering immunization also offers an opportunity to deliver other preventive services, for example vitamin A supplements, de-worming medications and insecticide-treated mosquito nets. Despite these successes, immunization is an unfinished agenda.<sup>2</sup> Due to some barriers, the parents are not willing to vaccinate their children and as a result, over 3.2 million Indian children aren't vaccinated.<sup>3</sup>

Studies revealed that mothers of under-five children were having below average level of knowledge on child immunization. Child illness and low importance of vaccination were most occurring perceived barriers among mothers. There were other barriers like lack of accompany to go to center for immunization, and confusion about what age immunization has to be given, economic constraints, long distance to health care facility, and lack of effective communication with health pers etc.<sup>3,4,5</sup>

The ministry of health and family welfare was responsible for the programme, with significant support from the international community. The programme has achieved some advances in the coverage of immunization in India but has faced important management challenges and has fallen short of the “for all children” coverage it had intended.<sup>6</sup>

Therefore, study was planned to assess the perception about immunization among the mothers of under-five children at slum area of Urban field practice area.

## METHOD:

An observational Cross-sectional study was conducted in Urban Field practice area of Community Medicine department among the mothers of under-five children residing permanently in the area, which is a part of Vijayapura city located in North Karnataka. Considering the positive perception about Immunization among mothers 50%, a total of 100 mothers of under-five children minimum were enrolled in to the study.

The mothers were interviewed by using pre-designed & pre-tested questionnaires regarding immunization status of the child and perception about giving vaccination to their child. The questionnaires included the basic information of immunization like names of the vaccine, correct age to start immunization and some questions related to perception about immunizing the children.

The mothers who were willing to participate were enrolled in to the study after taking informed verbal consent and the information collected were analyzed for frequency distribution and applied tests of significance like Chi-square test to find association between variables. Institutional Ethics Committee permission was obtained before the start of study.

**RESULTS**

Total 104 mothers of under-five children were enrolled in to the study and the analysis of the information collected from them gave the following observations,

**Table 1 - Sociodemographic and background characteristics of mothers of children below 5 years**

Variables	Frequency (%)
<b>Age group (years)</b>	
19 to 20	11 (10.6)
21 to 30	70 (67.3)
31 to 40	23 (22.1)
<b>Mother education level</b>	
Illiterate	08 (7.7)
Primary	20 (19.2)
Secondary	44 (42.3)
PUC	22 (21.2)
College & above	10 (9.6)
<b>Socio-economic status</b>	
Class V	47 (45.2)
Class IV	26 (25.0)
Class III	31 (29.8)
<b>Occupation</b>	
Unemployed	15 (14.4)
Unskilled	48 (46.2)
Skilled work	22 (21.2)
Business	10 (9.6)
Professional	09 (8.7)
<b>Type of Family</b>	
Nuclear	81 (77.9)
Joint	23 (22.1)
<b>Religion</b>	
Hindu	85 (81.7)
Muslim	19 (18.3)

**Table 2 - Knowledge of mothers of under-5 children about the vaccination**

Variables	Correctly	Not correctly
<b>Immunization at right age helps in proper growth &amp; development</b>		
Yes, it helps	59 (56%)	41 (44%)
<b>Names of the vaccines</b>		
BCG	53 (51%)	51 (49%)
Oral Polio	76 (73%)	28 (27%)
DPT	46 (44%)	58 (56%)
Measles	40 (38%)	64 (62%)
All of the above	51 (49%)	53 (51%)
<b>Correct age to start Immunization</b>		
At birth	54 (52%)	50 (48%)
6 months	67 (64%)	37 (36%)
1 years	33 (32%)	71 (68%)
After completing 1 year	10 (10%)	94 (90%)

According to Table 2, knowledge about immunization was average among mothers of under-five children. Only 52% mothers told the correct age to start immunization, around 49% told all the names of the vaccines to be given within one year correctly whereas told the immunization helps in growth & development of the child by preventing the diseases.

According to the Table 1, majority of the respondents were in the age group of 21 to 30 years of age group, belonging to class-V according to modified B.G.Prasad classification, having secondary education, unskilled workers of Hindu religion residing in joint family.

Table 3 shows the perception of mothers of under-five children about Immunization according to which, level of perception was also found average (around 50%). Nearly 40 to 60% of the participants agreed to the statements which signifies the immunization is very important to the child's growth and development and should not be avoided.

**DISCUSSION**

As per the present study the overall knowledge of mothers of under-five age group about immunization was low and the perception about routine immunization was fairly good. Nearly similar findings were found in other studies as follows,

Singh et al<sup>7</sup> studied knowledge & attitude among mother and found more than half of the studied mothers had good knowledge scores on vaccination, more than two-thirds of the studied mothers had good attitude scores on vaccination. However, the religious misconception and fear of autism was the main cause of vaccine resistance in Malaysia.

Verulava T et al<sup>8</sup> studied mother knowledge and attitudes towards child immunization and found he reasons for incomplete vaccination are: a lack of knowledge about a routine vaccination schedule (25.5%), limited information about the necessity of the second or the third dose of vaccination (18.6%), fear of post-vaccination side effects (16%) and fear of a child illness (9.6%). A significant association was found between mothers' education, practice and attitude regarding immunization. Health institutions (49.5%) and internet sources (21.3%) were the most popular sources of information about immunization.

Kaur H et al<sup>3</sup> studied perceived barriers of child immunization among mothers and found the perceived barriers of immunization among mothers into physical (68.5%), personal (50%), psychological (33%), transportation (13%) and cultural (0.5%). It also shows the overall rank order of all the perceived barriers namely: child illness, low importance of vaccination, confusion about what age immunization has to be given, lack of accompany person to go to center for immunization, unpleasant experience, loss of immunization card by the mothers, high cost of vaccination, long queues at centers, long distance from house to health center, irresponsible behavior of health workers and working parents, lack of transportation, fear of multiple pricks, reminder cards not sent by health workers and being seasonal migrants.

**Table 3 - Perception on importance of Immunization among the study participants.**

Variables	Agree	Neutral	Not agree
Giving vaccine protects child against deadliest diseases	54%	13%	33%
Starting immunization Immediately after birth is important	57%	21%	22%
Child with mild fever can be given vaccines	40%	24%	36%
Vaccines have side effects, but still safe to be given	58%	16%	26%
Vaccination schedule should be followed correctly	60%	18%	22%
Avoiding some vaccines does not harm the child	45%	15%	40%

Kaur G et al<sup>9</sup> studied Knowledge and Practices regarding Immunization among mothers of Infants and found the overall findings depict that there was poor knowledge regarding immunization among the mothers of infants attending pediatrics OPD at Bebe Nanaki Mother and Child Care Center, Guru Nanak Hospital, Amritsar. But the scores for practice regarding immunization was quite contrary to the knowledge scores as the majority shows good practices for immunization among the same study subjects.

Kaur R et al<sup>10</sup> studied KAP The attitude of mothers regarding vaccination in the present study revealed that most of the mothers (95.6%) had a positive attitude regarding immunization. This is the reason for 100% immunization coverage.

### CONCLUSION:

Mothers of under-five children should be provided with information about vaccination that effectively increases the immunization coverage, which was highly cost-effective also. This can be achieved by organizing health education campaigns in community. Parents and families need to be sensitized regarding importance of immunization to overcome the perceived barriers.

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