

Knowledge, Attitude, and Practices on Vaccination among Mothers of under-5 Children, Attending Immunization Out Patients Department at Gwalior, Madhya Pradesh

Priyesh Marskole¹, Ritesh Rawat², Priyanka Chouhan³, Priyanka Sahu³, Rahul Choudhary³

¹Assistant Professor, Department of Community Medicine, Gajara Raja Medical College, Gwalior, Madhya Pradesh, India, ²Medical Officer, Civil Hospital, Biragarh, Bhopal, Madhya Pradesh, India, ³Under Graduate Student, Gajara Raja Medical College, Gwalior, Madhya Pradesh, India

Abstract

Introduction: Immunization is one of the most cost-effective interventions to prevent the suffering that comes from avoidable sickness, disability, and death. India still accounts for the largest number of children who are not immunized, approximately 7.4 million. This underlines the need for further improvement.

Purpose: This study aimed to assess the vaccination status of children and also the knowledge and attitude of mothers, in relation to vaccination.

Methodology: It was a cross-sectional observational study. The study was conducted on 150 mothers of reproductive age group attending immunization Out Patients Department of JAH group of hospitals, over a period of 90 days.

Results: Out of 150 mothers, 123 (82%) mothers knew about the benefits of immunization, whereas 27 (18%) mothers did not know about benefits of the same. Moreover, out of 150 respondents, 86% (129) had completed their child's immunization on time, whereas 14% (21) had delayed immunization or incomplete immunization.

Conclusion: The present study findings concluded that 86% immunization coverage is prevalent with 82% awareness level of participants in the study.

Key words: Attitude, Cost-effective, Cross-sectional, Immunization, Knowledge, Observational

INTRODUCTION

Immunization is one of the most cost-effective interventions to prevent the suffering that comes from avoidable sickness, disability, and death. The benefits of immunization are not restricted to improvements in health and life expectancy but also have a social and economic impact at both community and national levels.

Universal immunization program (UIP), launched by the government of India in 1985¹, with a mission to achieve immunization coverage of all infants and pregnant women, targets to reduce the burden of vaccine-preventable diseases (VPDs). It became a part of child survival and safe motherhood program in 1992 and remained one of the key areas under national rural health mission since 2005.

A VPD is an infectious disease for which an effective preventive vaccine exists. If a person acquires a VPD and dies from it, the death is considered a vaccine-preventable death.

The program consists of vaccination for seven diseases²: Tuberculosis, diphtheria, pertussis (whooping cough), tetanus, poliomyelitis, measles, and hepatitis B. Hepatitis B

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Corresponding Author: Priyesh Marskole, Department of Community Medicine, Gajara Raja Medical College, Gwalior - 474 009, Madhya Pradesh, India. Phone: +91-9752325600. E-mail: priyesh.marskole@gmail.com

was added to the UIP in 2007. Thus, UIP had 7 VPDs in the program.

On 2014, it was announced that four vaccines will be added to the program, namely rotavirus, rubella, and Japanese encephalitis, as well as the injectable polio vaccine.

India has the largest number of births in the world - more than 26 million a year - and also accounts for more than 20% of child mortality worldwide. Nine million immunization sessions are organized each year to target these infants and 30 million pregnant women for routine immunization.

It is among the most financially effective public health interventions since it provides direct and effective protection against preventable morbidity and mortality. It has been a major contributor in the decline of under-5 mortality rate in last five decades in India. Despite the improvement, the country still accounts for the largest number of children who are not immunized, approx 7.4 million. This underlines the need for further improvement.

An effective, evenly targeted immunization program and its ability to reduce the burden of VPDs will greatly contribute to achieving the Millennium Development Goal 4 that aimed for a two-third reduction in child mortality by 2015, which has not been achieved yet. Therefore, this study aimed to assess the vaccination status of children and also the knowledge and attitude of mothers, in relation to vaccination.

Aims and Objectives

1. To assess knowledge regarding immunization status and its sources
2. To assess immunization status and practices among mothers.
3. To assess the vaccination status among children of participant mothers.

METHODOLOGY

It is a cross-sectional observational study. The study was conducted on 150 mothers of reproductive age group attending immunization Out Patients Department (OPD) of JAH group of hospitals.

The collection and analysis of data were done with the help of a questionnaire assessing the immunization status of children and awareness about immunization among mothers. The study was conducted over a period of 90 days during the OPD hours of JAH group of hospitals (Table 1).

Out of 150 mothers, 123 (82%) mothers knew about the benefits of immunization, whereas 27 (18%) mothers did not know about benefits of the same.

Out of 150 mothers, 87.3% (131) mothers knew that vaccine is available for polio; 75.3% (113) mothers knew that for measles, the vaccine is available, whereas 60.6% (91) mothers knew that vaccine is present for the whooping cough. 52% (70) had knowledge about booster doses, whereas 48% (80) knew nothing about booster doses of vaccination (Table 2).

Out of 150 mothers, 86% (129) of participants had completed their child's immunization on time, whereas 14% (21) had delayed immunization or incomplete immunization. Out of 21 participants with delayed or incomplete immunization, 53% (11) were ignorant about immunization; 33% (7) were unaware about immunization, whereas 14% (3) participants had incomplete immunization due to lack of medical facilities (Table 3). Out of 150 mothers, 94% (141) mothers had their children vaccinated for polio at the time of birth; 77.3% (116) for hepatitis B, whereas 65.3% (98) had Bacillus Calmette - Guerin vaccines at birth (Table 4).

Table 1: Knowledge about benefits of immunization, vaccine-preventable diseases and about booster doses

Diseases	Yes (%)	No (%)
Benefits of immunization	123 (82)	27 (18)
Polio	131 (87.3)	19 (12.7)
Measles	113 (75.3)	37 (24.7)
Whooping cough	91 (60.6)	59 (39.4)
Rabies	50 (33.3)	100 (66.7)
Booster doses	70 (52)	80 (48)

Table 2: Status of full immunization of children

Full immunization (%)	Delayed/incomplete immunization (%)
129 (86)	21 (14)

Table 3: Vaccine administered at the time of birth

Disease	n (%)
Polio	141 (94)
Hepatitis B	116 (77.3)
BCG	98 (65.3)

BCG: Bacillus Calmette - Guerin

Table 4: Vitamin A along with measles

Vitamin A given	91 (60.6%)
Vitamin A not given	59 (40.4%)

Out of 150 mothers, children of 60.6% (91) mothers were given Vitamin A along with measles, whereas 40.4% (59) were not given.

DISCUSSION

In the present study, the immunization coverage found by this study (86%) was a little higher as compared to a hospital based study of S.R.T.R. Medical College, Ambejogai conducted by Chaudhary *et al.*,^{5,6} where the percentage of fully immunized children was found to be 61.9%.

About 82% participants knew about benefits of immunization, of which the major source of information was doctors and nurses (45%). This contradicts with the findings of Angadi *et al.*^{4,5} according to whom relatives and friends serve as major source of information (42.48%) followed by health care workers such as auxiliary nurse midwives, and doctors.

At the time of birth; maximum coverage is of polio vaccine (94%). The main reason for delayed or incomplete immunization among remaining families (14%) was ignorance. Only 61% children received Vitamin A supplements along with measles. A similar study was conducted by Kadri *et al.*^{3,4} in urban slums of Ahmedabad where only 47.8% children had received Vitamin A supplement at the time of measles vaccination.

The study also shows that 64% participants have suffered from some sort of adverse effect after vaccination and most of them developed fever. Some of them also experienced diarrhea and rashes. The similar study was also conducted by Das⁶.

CONCLUSION

The present study findings concluded that 86% immunization coverage is prevalent with 90% awareness level of participants in the study. This needs to be increased to reach maximum coverage of vaccination.

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