Original Article

International Journal of Pediatric Nursing
Volume 2 Number 3, September - December 2016
DOI: http://dx.doi.org/10.21088/ijpen.2454.9126.2316.4

A Descriptive Study to Assess the Immunization Status and Factors for Partial or Non Immunization among Under Five Children in A Selected Community of New Delhi

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Abstract

The objectives of the study were to assess the immunization status among under five children and to assess factors for partial or non immunization among under five children in selected community of New Delhi. Sample comprised of 100 mothers having 142 under five children. A purposive sampling technique was employed to select the sample from the population. A descriptive survey design was adopted for the study. A structured interview schedule was designed to collect the data. Maximum 46% of the mothers were in the age group of 26-30 yrs, 26% mothers were illiterate and 78% were Hindu. Out of children, 55%were male and 45% were female. It was found that 81% of the children were partially immunized whereas only 9% were fully immunized and 10 % were not immunized at all. Fisher's exact test showed a significant association between religion as well as educational status of mother and immunization status and Chi square test showed significant association between sex of children and immunization status. There were many factors responsible for non/partial immunization. The maximum problem was due to parents going to home town, and busy with their work/no holidays, mothers found difficulty to go alone and had no body to accompany them. They also had a myth that child become sick after vaccination. The information for the next immunization was also lacking.

Keywords: Fully Immunized; Partially Immunized; Non Immunized; Under Five.

Background

Immunization is a process which raises resistance to combat serious illnesses. It is one of the components of health prevention and a very cost effective method to decrease morbidity and mortality leading to poverty alleviation and socio-economic progress of any country [1].

Universal immunization of children against the six vaccine-preventable diseases (namely, tuberculosis, diphtheria, whooping cough, tetanus, polio, and measles) is crucial to reduce infant and child mortality [2]. The current scenario depicts that immunization coverage has been steadily increasing but the average levels remain far less than desired. Still only 44% of infants in India are fully immunized (NFHS III), which is much less than the desired goal of achieving 85% coverage [2]. Immunization has been a major contributor in the decline of under-5 mortality rate from 233 to 63 (per 1000) in last five decades in India [3].

However, vaccine preventable diseases (VPDs) are still responsible for over 5 lakh deaths annually in India. This underlines the need for further improvement. India, along with many developing countries, is lagging behind in sufficient coverage of routine immunization (RI). According to World Health Organization (WHO)/UNICEF estimates, DTP3 coverage in the South-East Asia and African regions of WHO for 2010 remained relatively low at 77%. In India, the coverage was even lower at 61%. Thus, the SEA Regional Director declared 2012 as

the Year for intensifying RI in the Region [4]. This was endorsed by Government of India (GoI) and 2012 was declared as the Year of Intensification of RI in India also [5].

Children are considered fully immunized if they receive one dose of BCG, three doses of DPT and polio vaccine each, and one measles vaccine [2]. In spite of 20 years of efforts and millions of dollars poured into Universal Immunisation programme (UIP), our coverage rate has still not crossed the 50% mark. Immunization coverage showed improvement since National Family Health Survey-1 (NFHS-1), when only 36% of children were fully vaccinated and 30% had not been vaccinated at all. But there was very little change in immunization coverage between NFHS-2 (42%) and NFHS-3 (44%). Coverage of BCG, DPT, and polio (except "at birth" polio dose) is much higher than all other vaccines. BCG, DPT-1, and polio-1, -2, -3 dose has been received by at least 76% of children, while only 55% of children have received all three doses of DPT. Around 59% of children aged 12–23 months have been vaccinated against measles. The relatively low percentage of children vaccinated with the third dose of DPT and measles is mainly responsible for the low percentage of fully vaccinated children [2]. Even though the immunization services in India are being offered free of cost in public health facilities, about 45% of Indian children are deprived of the recommended vaccinations [5]. So it is important to know about immunization status and the factors for partial or non immunization among under five children, hence the study was undertaken to help in the better management of the program at the local level.

Aim

1. To assess the immunization status among under five children in selected community of New Delhi.
2. To assess factors for partial or non immunization among under five children in selected community of New Delhi.

Methods

The research approach in this study was quantitative with Non-experimental descriptive survey design to assess immunization status and the factors for partial or non immunization among under five children in selected community of New Delhi. Sample comprised of 100 mothers having 142 under five children were selected from Sangam Vihar, New Delhi through purposive sampling technique and the study was completed within one month duration. Structured interview schedule was used to collect the data. The interview schedule consisted of 48 items and it was divided into three sections: Section 1comprised of items pertaining to socio-demographic data of the subjects. Section 2 contained items related to the immunization coverage among under five children and section 3 contained items related to the factors for partial or non immunization among under five children. Informed verbal consent was taken from the interviewed subjects. The data obtained was subjected to analysis using descriptive and inferential statistics.

Results

Demographic Profile of Subjects

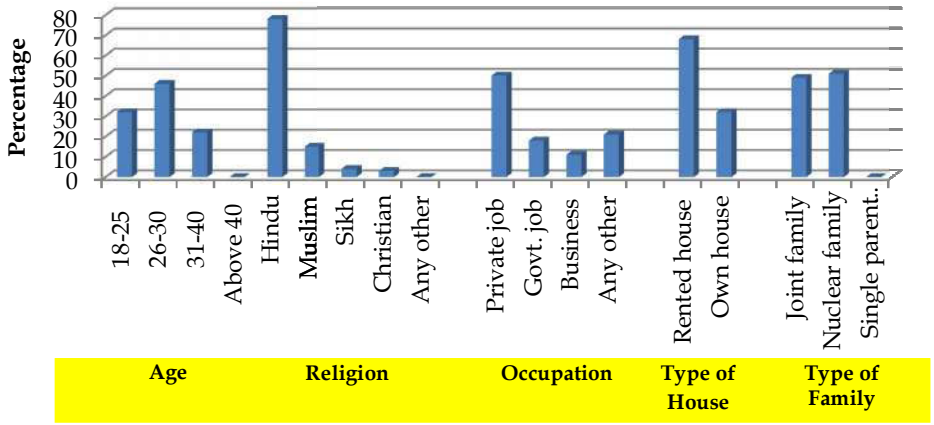

Fig. 1: Bar diagram showing socio-demographic characteristics of mothers by their age, religion, type of house, type of family

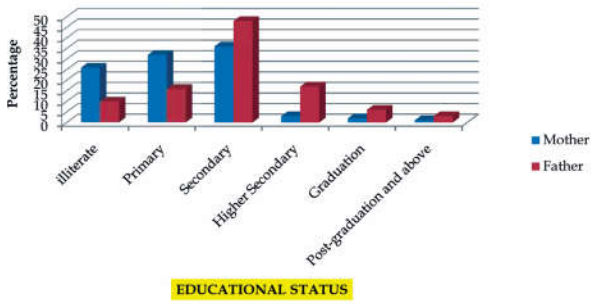

Fig. 2: Bar diagram showing Socio-demographic characteristics of mother and father by their educational status.

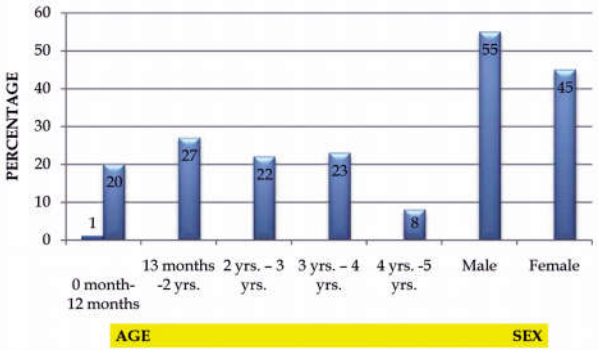

Fig. 3: Bar diagram showing Socio-demographic characteristics of under children by their age and sex

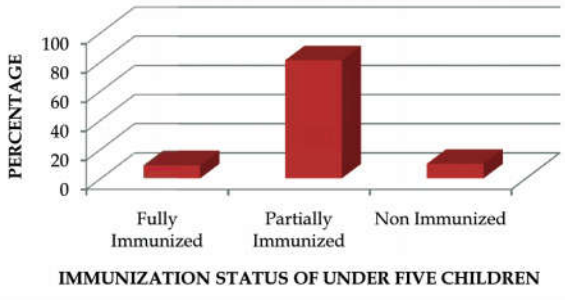

Fig. 4: Bar diagram showing Immunization Status of Under Five Children

Table 1: Frequency and Percentage distribution of under five Children by their Immunization Status n 2**= 142

Immunization Status	Frequency	Percentage
Fully Immunized	12	9
Partially Immunized	116	81
Non Immunized	14	10

Table 2: Association between the immunization status and Socio demographic Characteristics n 1*= 100

Variables		Immunization status of under five children				
		Fully immunized	Partially immunized	Non immunized	Test applied and value	P value
Sex of the child	Male	7	64	5	**Chi square value**	
	Female	5	52	9	**2.02**	**0.3642***
Religion	Hindu	9	63	6		**0.009***
	Muslim	5	7	3	**Fisher exact**	
	Sikh	0	3	1	**test**	
	Christian	0	1	2		
	Any other	0	0	0		
Education of the mother	Illiterate	3	17	6		**0.001***
	Primary	2	25	5	**Fisher exact**	
	Secondary	18	21	9	**test**	
	Higher Secondary	3	0	0		
	Graduation	2	0	0		
	Post-graduation and above	1	0	0		
Education of the father	Illiterate	3	3	4		**0.648**
	Primary	4	9	3	**Fisher exact**	
	Secondary	19	17	12	**test**	
	Higher Secondary	9	5	3		
	Graduation	3	3	0		
	Post-graduation and above	2	1	0		

Table 3: Frequency and Percentage distribution of factors for partial Immunization and Non Immunization among Under five Children (Item wise) *n1=mothers

S. No	Factors	Frequency	Percentage
1	Long distance of centre from home	4	4
2	**Out of station (Home town)**	**17**	**17**
3	**Lack of facilities in the home town**	**10**	**10**
4	Busy in the festival at home	9	9
5	**Busy in work schedule/ No holidays**	**21**	**21**
6	**Ignorance about the date of next immunization**	**11**	**11**
7	Not explained for the next immunization	1	1
8	Unavailability of the vaccine at centre	6	6
9	Unavailability of the health staff at the centre	0	0
10	Ignorance regarding the immunization day.	4	4
11	Unusual incidents in the area like strike/flood/ any other calamity	2	2
12	Sickness of the child, admitted in the hospital	4	4
13	Child was sick but at home	4	4
14	Refusal of the father/ grandparents to vaccinate the child	9	9
15	**Child gets sick after vaccination**	**12**	**12**
16	Vaccines are of useless	8	8
17	Vaccine causes impotence to child	2	2
18	Lack of money to spend on transportation to centre	3	3
19	**No one to accompany mother to go to centre**	**14**	**14**
20	Not reminded by ASHA worker	7	7
21	Examination of the child	3	3
22	Healthy child so no need of vaccine	7	7
23	Non cooperativeness by the father	7	7
24	Father was in bad mood.	4	4
25	Girl child does not get sick, so no need	0	0

As per the data presented in the Table 2 Fisher exact test showed a significant association between religion as well as educational status of mother and immunization status and Chi square test showed significant association between sex of children and immunization status.

Data presented in Table 3, indicates that the most common factors for partial or non immunization among under five children were, busy in work schedule/ No holidays 21% followed by Out of station (Home town) 17%, no one to accompany mother to go to centre 14%, child gets sick after vaccination 12%, ignorance about the date of next immunization 11%, lack of facilities in the home town 10%.

Discussion

In the present study it was found that 81% of children were partially immunized whereas 10% non immunized and only 9% were fully immunized. The findings of present study are contrary to the findings of the study done by Singh [6] et al where fully immunized children were 24.5% and partially immunized children were 71.7%. In the present study the fully immunized children were very low. Immunization status was statistically significant in regard to sex of the child, religion and education of the mother.

Findings of the study conducted by Abdulrahim[7] et al that the reasons for missed opportunities or partial immunization were parent's objection, disagreement or concern about immunization safety (38.8%), long distance walking (17.5%) and long waiting time at the health facility (15.2 %) and also the findings of the Imran, Ramzan and Masoodi[1] that the reasons of non and partial immunization were inaccessibility, non availability of vaccine, fear of side effects, inadequate awareness and inconvenience for the parents. These findings are in conformity with the findings of the present study that refusal of the father/ grandparents to vaccinate the child (9%), child get sick after vaccination (12%), lack of facilities at the home town (10%), busy in work schedule (21%), no one to accompany mother to go to centre (14%), out of station (17%).

Conclusion

The complete immunization status at urban population in Delhi was very poor. Although, the partial immunization was there. Mothers had expressed the problems of non availability of vaccine, improper information and non cooperation from their family members. So it is important to strengthen the facility at health centre and programs for whole

family participation are required.

Acknowledgement

We take this opportunity to express our gratitude to Prof.(Dr.) Manju Chhugani, Principal Rufaida College of Nursing, Jamia Hamdard, New Delhi, for providing all facilities and support to conduct this study. A word of appreciation goes to Ms. Shweta, Ms. Menira, Ms. Nhidi, Ms. Pema Yengchen, Ms. Pema Dolma, Ms. Arshiya, students of DGNM, Jamia Hamdard, without whose costant hardwork this study could not have been a success.

Conflict of Interest

None

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