

Original Article

Study of immunization knowledge, attitude and practice among mothers of Children from 0-5 years in keraniganj upazilla health complex, Dhaka

*Kaur G¹, Anushuya Baniya², Punam Rai³, Tarafadra MA⁴

Abstract

Materials and methods: This was a KAP study conducted among mothers of children from 0 to 5 years on expanded program on immunization (EPI) using a semi-structured questionnaire employing purposive sampling technique with a sample size of 180 in Upazilla Health Complex, Keraniganj, Dhaka by face to face interview.

Result: Most of the respondents (45%) were of the age group (20-25) years and majority (80%) were Muslim and 88.33% were married; 64.4% was educated up to primary level with 65.5% having monthly income between 5000-10000 taka. Majority 73.33% had institution delivery with 46.66% having birth order 1. Respondents having knowledge on TT vaccine, antenatal vaccine, pentavalent vaccine, BCG vaccine, MR vaccine and Hib vaccine were 75%, 85%, 93.3%, 84.4%, 81.7% and 15% respectively. 100% of them had knowledge on OPV while only 32.77% knew about IPV. Respondents having knowledge on adverse reaction during vaccination 90.55%, on vaccination during minor illness 45%, on correct data of vaccination 82.77%, on Awareness on vaccination given by EPI 95%, on special vaccination administration 34.4% and on willingness to give special vaccination 58.34%. 97.8% knew the importance of vaccination, 76.66% had knowledge on danger of non-vaccination while only 51.66% of them had immunized their previous child. The study revealed that the reasons for drop out from vaccination schedule and shows that 28.20% were unaware about the seriousness of the diseases, 23.10% lack of time, mother's sickness, 20.50% forgetfulness, 15.38% laziness of the mother and only 12.82% due to mother's illness were the reasons for drop out from vaccination.

Conclusion: This study recommends effective strategies which focus on improving the mother's knowledge, attitude and practice on immunization for better health outcomes of their growing children.

Keywords: Immunization, Knowledge, Vaccine

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Introduction

Immunization is the most effective public health tools for disease control worldwide which is accessible to the most hard-to-reach and vulnerable population. Immunization programme anywhere in the world is rewarded with the reduction in childhood morbidity and mortality. The impact is potentially more significant in developing countries because of higher population of under 5 children, high infectious disease burden and poor health infrastructure.¹ In developing countries one of the most common causes of high childhood morbidity and mortality is vaccine preventable diseases.² Every year nearly 2 million children are dying before they reach 5th birthday in low and middle-income group.³

Even though it's a tremendous past success (preventing 200,000 deaths each year)¹ and promising future, immunization still remains an unfinished agenda.⁴ The coverage of vaccine preventable diseases varies from area to area. Differences which are responsible for these variations are geographical, regional, rural-urban, poor-

rich and gender related. Due to gender inequality and gender discrimination, girls receive fewer immunizations than boys and also lower vaccination coverage was seen among higher birth order infants.⁵ Knowledge, attitude and practices (KAP) of parents are important determinants for the success of immunization program.⁶ Different factors that affect KAP towards immunization are the education, age, economic condition, household size and ethnicity etc.⁷ The emerging issue that threatens the immunization coverage is 'concerns about vaccine safety'. It is evident that autism significantly decreased by the MEASLES-MUMPS-RUBELLA (MMR) immunization.⁸

Despite all efforts put in by the government and non-governmental institutes for 100% immunization coverage there are still clusters of low coverage.⁹ Parents practices like unawareness of adverse effects and contraindication of vaccination negative perception about vaccination in mild illness, negative attitude for example mother's fear of vaccination was considered as one of the major barrier to childhood vaccination.¹⁰ There is necessity of the

Authors affiliation:

1. *Gursharan Kour, Oberoi Nursing Home and Surgical Center, Pathancot, Punjab, India.
2. Anushuya Baniya, Kirtipur Hospital, Kirtipu, Nepal.
3. Punam Rai, Patan Academy of Health Sciences, Lagankhel, Lalitpur, Nepal
4. Monowar Ahmad Tarafdar, Professor, Department of Community Medicine, Z H Sikder Women's Medical College, Dhaka, Bangladesh.

***Address of correspondence:** *Gursharan Kaur, Oberoi Nursing Home and Surgical Center, Pathancot, Punjab, India. Email: gursharan_guds@yahoo.com.co.in

parents to develop unequivocal knowledge and practices which will help in developing positive attitude towards vaccination and thus prevent the diseases controlled by vaccination.¹¹ The present study was conducted to assess the maternal knowledge, attitude and practices (KAP) regarding immunization among the mothers having under 5 children.

Materials and methods

This was a cross-sectional descriptive study conducted to assess the knowledge, attitude and practice regarding immunization against diseases included in expanded program on immunization (EPI) schedule both for women of reproductive age group (15-49 years) using a semi-structured questionnaire employing purposive sampling technique with a sample size of 180 in Upazilla Health Complex, Keraniganj, Dhaka by face to face interview after informed consent. Data was analyzed by software SPSS version 21.

Result

Table No. 1: Sociodemographic characteristics of the respondents (n=180)

Age Group (Years)	Frequency	Percentage %
15-20	51	28.3
20-25	81	45
25-30	30	16.7
30-35	18	10
Marital Status		
Married	159	88.33
Unmarried	21	11.67
Education		
Illiterate	53	29.4
Primary	116	64.4
Secondary	9	5
Graduate & Above	2	1.1
Religion		
Muslim	144	80
Hindu	36	20
Monthly Income		
>50000	49	27.22
5000-10000	118	65.55
10000-15000	13	7.22

Table No. 1 shows that 45% of respondents were within age of 20-25 years followed by 28.3% within 15-20 years, 16.7% within 25-30years and 10% respondents within 30-35 years of age. Majority of the respondents 88.3% were married followed by 11.7% unmarried. About 64.4% respondents had complete primary

education, 29.4% were illiterate, 5% secondary level whereas graduate and above were 1.1%. Majority of the respondents 80% were Muslim and major segment 65.55% had poor monthly income i.e. between 5000-10000 Taka.

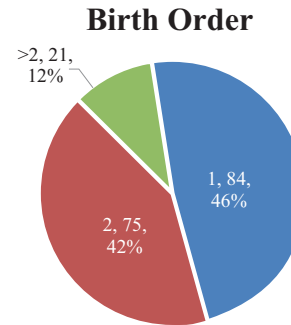


Figure No. 1: Distribution of the respondents according to Birth Order (n=180)

Figure No. 1. describes the distribution of the respondents according to birth order, majority 46.66% were mothers of single child followed by 41.67% had 2 children and 11.67% had more than 2 children.

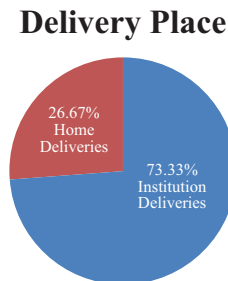


Fig No. 2: Distribution of respondents by place of delivery.

Figure No. 2. shows distribution of respondents according to place of delivery, majority 73.33% respondents had institution delivery followed by 26.67% home deliveries.

Table No. 2: Distribution of the respondents according to Knowledge on antenatal vaccines. (n=180)

Knowledge on doses of TT	Frequency	Percentage
Yes	135	75
No	45	25
Knowledge on antenatal Vaccine		
Yes	153	85
No	27	15

Table No. 3: Distribution of the respondents according to Awareness on EPI vaccines. (n=180)

Awareness on EPI Vaccination	Frequency	Percentage
Yes	171	95
No	9	5
pentavalent Vaccine		
Yes	168	93.33
No	12	6.67
BCG vaccine		
Yes	152	84.4
No	28	15.6
MR Vaccine		
Yes	147	81.7
No	33	18.3
Hib Vaccine		
Yes	27	15
No	153	85
OPV		
Yes	180	100
No	0	0
IPV		
Yes	59	32.8
No	121	67.2
Adverse reaction after Vaccination		
Yes	163	90.6
No	17	9.4

Table No. 4: Distribution of the respondents according to Knowledge on vaccines for women of reproductive age (15-49 years). (n=180)

Knowledge on vaccination of women of reproductive age (15-49 years)	Frequency	Percentage
Yes	52	34.4
No	118	65.6
Willingness to receive TT and MR vaccines		
Yes	105	58.34
No	75	41.66
Importance of vaccination		
Yes	176	97.8
No	4	2.2
Effect of non-vaccination		
Yes	138	76.66
No	42	23.34

Table No. 5: Distribution of the respondents according to vaccination of the last child. (n=180)

Status of immunization of last child	Frequency	Percentage
Yes	93	51.6
No	48	26.7
Don't Know	9	5
Not specified (had only 1 st child)	30	16.7

Table No. 6: Distribution of the respondents according to status of vaccination against all 10 EPI diseases of the last child. (n=180)

Status of immunization of last child	Frequency	Percentage
BCG	169	94
Pentavalent	137	76
OPV	137	76
IPV	140	78
PCV	158	88
MR	157	87

The Table No. 2 shows 75% of the respondents had knowledge on doses of TT vaccine and 25% did not, 85% had knowledge on antenatal vaccine and 15% did not. Table No. 3 revealed that 93.33% know about pentavalent vaccine and 6.67% did not. 84.4% had knowledge about BCG vaccine while 15.6% had no knowledge. 81.7% of the respondents knew about the MR vaccine 18.3% had no knowledge. 15% had knowledge about Hib vaccine while majority 85% had no knowledge, all the respondents 100% knew about the OPV while only 32.77% knew about the IPV. 90.55% of respondents had knowledge on adverse reaction during vaccination while 9.44% had no knowledge.

Table No. 4 describes Knowledge on vaccines for women of reproductive age (15-49 years) of the respondents (TT and MR), 34.4% had the proper knowledge while 65.6% had no knowledge; 58.34% of them were willing to have the vaccines but more than two-fourth (41.66%) of them were not willing. Almost every of them opined that these vaccines are important, 76.66% the respondents expressed that they knew the effect of being non-vaccinated.

Table No. 5 describes that the vaccination of the last child of the respondents. More than half (51.6%) of the children were fully vaccinated, 26.7% were not. Among the respondents, 5% are not aware whether their children received the vaccines or not. Those who had only one child, their vaccination schedule yet to be completed.

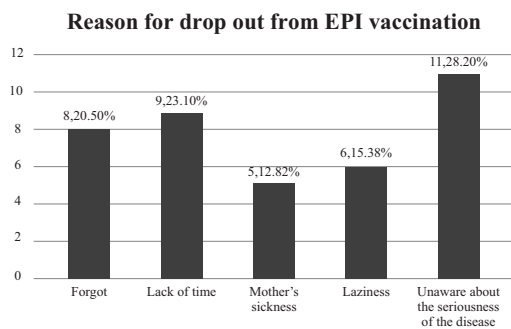


Fig. No. 3: Distribution of the respondents according to drop out of children from vaccination schedule

Fig. No.3 describes the reasons for drop out from vaccination schedule and shows that 28.20% were unaware about the seriousness of the diseases, 23.10% lack of time, mother's sickness, 20.50% forgetfulness, 15.38% laziness of the mother and only 12.82% due to mother's illness were the reasons for drop out from vaccination.

Discussion

This study was aimed to explore the state of Immunization knowledge, attitude and Practice among mothers of children age 0-5 years. The majority 45% of the respondents were from the age group 20-25 years, most (80%) were Muslim and almost 88.33% of them were married similar results were seen in a cross sectional household survey conducted in Nigeria where majority 50% of the respondent were from age group 20-29, most of them 61.8% were Muslim, and almost 96.6% were married.¹² Most 64.4% of the respondents in this study were educated up to primary level, the results were similar with the study conducted in India, tribal area, Parol where most 64.4% of the respondents were also educated up to primary level. Majority 65.55% of the respondents in our study had monthly income between (5000-10000) Taka. So the educational status was quite satisfactory considering the low socio economic status. Overall the majority 46.66% had birth order 1. A study conducted in India, tribal area, Parol showed dissimilar results where 69.4% had birth order more than 2.¹³ Our study shows most 73.33% of the respondents had institution deliveries indicating health seeking behavior and health care awareness is gradually improving. Majority of the respondents 84.44% had good knowledge on BCG, 75% of them had knowledge on TT vaccine, 85% were aware of antenatal vaccine, and 93.33% of them had good knowledge on pentavalent vaccine. 81.7% of respondents had knowledge about MR vaccine while 85% had no knowledge on Hib vaccine. A study done in Nigeria shows almost 94.2% of the respondents had knowledge on MR vaccine. The knowledge on OPV is highest 100%, a study done in Nepal also showed the similar results that knowledge on OPV was maximum (100%)¹⁴ while the knowledge on IPV, 67.22% had no knowledge. Maximum 90.6%

of the respondents had awareness on vaccination given by EPI, similar study done in Bangladesh also shows maximum 95% has awareness on vaccination given by EPI.¹⁵ Majority 97.8% of the respondents had knowledge on importance of vaccination and most 76.66% had knowledge on danger of non-vaccination. 51.66% respondents had immunized previous child while 26.66% had not immunized their previous child. Therefore, in order to identify factors which may lead to a drop in vaccination rates it is important to periodically evaluate parental knowledge and attitudes.¹⁶

Conclusion

Despite the gradual improvement of health seeking behavior, there are many misunderstandings prevailing regarding vaccines, emphasis should be given on not only the importance and benefits of taking the vaccines but to clarify the myths and misconceptions about the vaccines in a manner which is acceptable and easy to understand by the most disadvantaged group of the society. Girls should be educated from early age so that they know the health benefits of them to the children.

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