Original Article

Knowledge of Mother's about Children Immunization Status in the Urban Areas of Islamabad.

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ABSTRACT

Objective: To assess mother's Knowledge regarding immunization status of their children.

Methods: In this cross-sectional survey, two urban squatter settlements of Islamabad were studied.

Results: Full immunization status was found in only 58% of population studied. Awareness with the name and schedule of vaccination (p value=0.02) was significantly associated with immunization status.

Conclusions: Just over half of the studied population has full immunization. There is a dire need to increase the disseminating the benefits of immunization and this should be a Community commitment. (Rawal Med J 2009;34:33-35).

Key words: Immunization, EPI.

INTRODUCTION

According to the US Centers for Disease Control and Prevention (CDC), vaccinations are some of the most important tools available for preventing disease. Diseases such as smallpox have been eradicated by using immunization programs and polio has nearly disappeared because of immunization.[1] In 1998 Annual Report about expanded programme on immunization (EPI), a mission was set to eradicate, eliminate or reduce diseases to the lowest levels possible through sustained immunization of all susceptible as an essential component of Primary Health Care.[2] However, studies have concluded that these objectives have not been achieved despite the efforts of more than 20 years by EPI.[3] Factors affecting immunization is confounded by a number of factors including literacy levels, level of awareness regarding the importance of immunization, socioeconomic conditions and parental knowledge of immunization is essential to assist public health initiatives to increase the uptake rates. Urban squatter settlements areas in Islamabad are being provided by primary health care facilities through government and St.Thomas's Community Health Network in collaboration with Shifa College of Medicine and Shifa Foundation, Islamabad. Thus, objective of this study was to assess mother's Knowledge regarding immunization status of their children in these two areas.

SUBJECTS AND METHODS

This cross-sectional community based house-hold survey was conducted at two urban squatter settlements of Islamabad in G-7/1 and G-8/1 sectors of Islamabad from October 2003 to April 2004. There are about 500 households in each of these settlements and 100 households from each of the two areas were studied to make a total sample size of 200

households for the study, using Epi-Info 6.0. All mothers at home were interviewed. St.Thomas Community Health Network is running a Primary Health Care (PHC) program in these areas and assistance is provided by Shifa College of Medicine and Shifa Foundation in providing preventive, curative and referral facilities to the residents. PHC is providing vaccination services to the residents.

A pre-designed, structured questionnaire was used in the survey. The survey was carried out by medical students who were properly trained in the interviewing technique and trained to ask questions in the local language (Urdu/Punjabi). Socio-demographic characteristics and immunization status was noted. SPSS version 10.0 was used for data analysis and chi-square statistics were applied. A P value of <0.05 was considered significant.

RESULTS

Table 1 shows the socio-demographic characteristics of house holds. The mean age of women was 27.9±6.4 years who were interviewed.

Table 1. Socio-demographic characteristics of households (n=200).

Variable	**Mean ± S.D**	**Range**
Age of women (Years)	27.9± 6.4	17-50
Number of children	3.2±1.8	1-11
Total Family size	6.9±2.9	2-18
Number of rooms in the house	1.91±0.71	1-4
Total family income (Pak Rupees)	2338±593	0-5000
	Frequency (#)	**Percentage (%)**
Education of women		
-Illiterate	110	55.0
-Literate	90	45.0
Occupation of women		
-House wives	174	87.0
-Working women (Cleaners, workers)	26	13.0
Education of husbands		
-Illiterate	83	41.5
-Literate	117	58.5
Quality of House		
-Kaccha (mud house)	25	12.5
-Pakka (stone house)	175	87.5
Electricity		
-Yes	198	99
-No	2	1

Table 2 shows the pattern of immunization. Only 11% parents could name six common diseases of childhood and 14% were completely aware of name of vaccine and schedule.

Table 2. Pattern of immunization (n=200).

Variable	Frequency (#)	Percentage (%)
BCG Scar		
-Yes	170	85
-No	30	15
Do you regularly immunize your children?		
-Yes	182	91
-No	9	4.5
-Partially	9	4.5
Immunization status		
-No vaccination	24	12
-partially vaccination	60	30
-Full vaccination	116	58
Child suffer disease due to lack of immunization		
-Partially immunized	8	4
-Not immunized	12	6
Type of disease		
-Measles	15	7.5
-TB	3	1.5
-Polio	1	0.5
-Hepatitis	1	0.5
-None	180	90
Name six common diseases of childhood		
-None	128	64
-Two	25	12.5
-Three	25	12.5
-Four	16	8
-Six	6	3
Name of vaccine and schedule		
-Not aware	60	30
-Partially aware	112	56
-Completely aware	28	14

Table 3 shows association between Immunization status and family income, wife's and husband's education, name and schedule of vaccine. Immunization status was good in children whose parents were well aware with the name and schedule of vaccine (p value=0.02).

DISCUSSION

Full immunization was reported in 91% by parents in Adelaide[4] and 89.7% in china,[5] which are quite high as compared to our study rate of 58%. Low vaccination coverage in presence of many EPI centers indicates need for education and motivation for both parents and primary health care staff.[6] Mothers knowledge regarding the age when first vaccine is administered to the child ranged from 50-60% and immunization status was 46.5%.[6] We found complete immunization status of 58% and it was better because of the presence of PHC in urban slums, which provided vaccination services.[7]

Table 3. Association of Immunization status with name and schedule of vaccine, family income and wife's and husband's education.

	Immunization Received (n=116)	**Immunization partially received (n=60)**	**Immunization not received (n=24)**	**P-value**
Name of vaccine and schedule				
-Not aware	25	25	10	0.01
-Partially aware	71	27	14	
-Completely aware	20	8	0	
Family income				
<3000	71	32	11	0.30
>3000	45	28	13	
Wife's education				

Illiterate	63	30	17	0.20
Literate	53	30	7	
Husband's education				
Illiterate	43	27	13	0.24
Literate	73	33	11	

The quality of immunization services is compromised at the recipient level mainly due to lack of motivation and prevailing doubts about the importance of immunization. The service providers thought that the problem of incomplete vaccination in rural or remote areas is because of improper vehicles, unavailability of local vaccinators particularly for females and misplacement of cards.[8] Hence, solving the problems of the providers at all levels combined with media campaigns to give awareness and modify rigid behavior of recipients can significantly improve the immunization coverage in Pakistan.[8] Vaccine coverage can be enhanced by community-based health education, providing immunization, and follow-up of families, resulting in decrease in disease burden.[9] There is need for more clear and appropriate health education messages regarding vaccination of children as well as adequate and quality outreach services of vaccination to counter the cause of laziness.[10] New Zealand has low immunization coverage for infants and children compared to many other westernized countries and barriers to improve uptake are multifactorial, with health professional knowledge and attitudes identified as important modifiable factors.[11] Although in Pakistan awareness and coverage of vaccination is better than New Zealand, still there is lack of parents knowledge about immunization. Thus, the need to increase the immunization coverage has been emphasized.[12] Disseminating the benefits of immunization should be a Community commitment; they can be promoted through leaflets, newspapers, local radio or word of mouth.

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REFERENCES

1. Health-immunization schedule, children. Why Vaccinations Are Important. Retrieved on November 10th 2005. http://www.eMedicineHealth.com.
2. 1998 Annual Report Expanded Programme on Immunization. Retrieved on November 10th 2005.http://spinelli.1hebergeur.com
3. Ahmad N, Akhtar T, Roghani M, Ilyas H, Ahmad M. Immunization coverage in three districts of North West Frontier Province (NWFP) J Pak Med Assoc 1999;49:301-5.
4. Deady J, Thornton L. Parents' knowledge of and attitude towards the primary childhood immunizations**.** Ir Med J 2005;98:7-8.
5. Guo WS, Zhang YY, Kang K, Diao LQ, Feng DX, Zhao S. Study on the authenticity of parents' memory on their children's immunization status. Zhonghua Liu Xing Bing Xue Za Zhi. 2004;25:229-31
6. Shaikh S. Immunization status and reasons for vaccination in children, attending O.P.D. at Liaquat University Hospital. Pak Ped J 2003;27:81-6.

7. Anjum Q, Omair A, Bazmi Inam SN, Ahmed Y, Usman Y, Shaikh S. Improving vaccination status of children under five through health education. J Pak Med Assoc 2004;54:610-3.
8. Mansuri FA, Baig LA. Assessment of immunization service in perspective of both the recipients and the providers: A reflection from focus group discussions. J Ayub Med Coll Abottabad 2003;15:14-8.
9. Tarin E, Khalil M, Mustafa T, Alvi ZM, Sy FS, Thompson SJ, et al. Impact of Community-Based Intervention on Immunization Coverage Against Vaccine-Preventable diseases in Pakistan. Pak J Health 1999;36:53-6.
10. Sultana A, Jahan S, Ahmad I. Knowledge, Attitude and Practice of Immunization in an Urban Population. Pak Armed Forces Med J 2001;51:177-81.
11. Petousis-Harris H, Goodyear-Smith F, Turner N, Soe B. Family practice nurse views on barriers to immunizing children. Vaccine 2005;23:2725-30.
12. Tariq P. Assessment of coverage levels of single dose Measles vaccine. J Coll Physicians Surg Pak 2003;13:507-10.