

KNOWLEDGE AND ATTITUDE OF MOTHERS REGARDING INFANT VACCINATION, ATTENDING DHQ HOSPITAL KOTLI, AZAD KASHMIR

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ABSTRACT

BACKGROUND: Immunization is the most successful component of preventive medicine. Prevention of diseases is the need of the day. Previous studies show that there are several reasons for inadequate immunization coverage in Pakistan. Factors such as knowledge, attitude and practices of parents are also known to contribute to success or failure of immunization program. Worldwide many studies have reported on mother's knowledge, attitudes and practice regarding children immunization. These studies showed that successful immunization depends on parent's positive attitude and knowledge. This study was conducted to assess knowledge and practice towards immunization among mothers of one year old children attending the EPI vaccination centre at DHQ Hospital Kotli, Azad Kashmir.

METHODS: A cross sectional study was conducted among mothers having one year old children at EPI vaccination centre at DHQ Hospital Kotli, Azad Kashmir from 1st November 2010 to 1st January 2011. A sample size of 202 was obtained through systematic random sampling technique. All mothers having less than one year old child were interviewed through a semi structured questionnaire regarding immunization knowledge, attitude and practices. Data was collected through a questionnaire entered and analyzed by using SPSS program version 17.0.

RESULTS: 157 (77.7%) of all mothers were house wives. 130(64.35%) of study participants were unaware about any disease of childhood immunization. Television and health facility were the main source of information.

CONCLUSION: The knowledge of mothers about vaccination was found inadequate with strong positive attitude.

KEYWORDS: Azad Kashmir, EPI, Mothers Knowledge, Attitude.

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Received: Oct 3, 2017, Revised: Dec 17, 2017, Accepted: Dec 30, 2017

INTRODUCTION

Immunization is the most successful component of preventive medicine. Prevention of diseases is the need of the day. The morbidity and mortality caused by diseases and rising costs of treating these require us to focus more on its prevention. In developed countries, where accurate recording of immunization and reporting of diseases is in place,

most vaccine-preventable diseases are at or near record lows¹. Today immunizations save more than three million lives a year. In spite of this, millions of children still do not have access to basic immunization and die from diseases that can be prevented by available vaccines. Parents especially mother's knowledge, attitude and practices play a major role in achieving complete immunization before first birthday of the child.

The objective of expanded program of immunization (EPI) is to achieve 90% routine immunization converge of all EPI antigens with at least 80% coverage in every district by 2010 so that mortality and morbidity can be reduced from the eight EPI target diseases by immunizing children of the age 0-11 months. It is estimated that 2.1 million people around the world died in 2002 of diseases preventable by widely used vaccines. This toll included 1.4 million children under the age of five². The Expanded Program on Immunization (EPI) was launched in 1976 by WHO and UNICEF with the aim of controlling six childhood diseases: Pertusis (whooping cough), tuberculosis, tetanus, polio and measles. Immunization is the most cost effective health intervention and takes about US \$15 to fully immunize a child. It offers opportunities for poverty reduction, social and economic development of the country³. In Pakistan Expanded Programme on Immunization (EPI) was launched in 1978. This program aims at protecting children by immunizing them against Childhood Tuberculosis, Poliomyelitis, Diphtheria, Pertusis, Measles, Tetanus and also their mothers against Tetanus. This Programme has significantly progressed during the period of time in terms of immunization coverage and disease reduction and has developed its own surveillance system, cold chain system, field supervisory mechanism, regular monitoring system, evaluation strategy and sufficient trained manpower at all levels throughout the country. Expanded Programme on Immunization (EPI) in Nigeria was first initiated in 1979. In first five years, there continued to be low national immunization coverage and consequent minimal impact on target diseases. The Government of Nigeria through the Federal Ministry of Health continues to place high priority on immunization. The Federal Government established the National Programme on Immunization (NPI) to demonstrate national consciousness and ownership for immunization charged with the mandate to effectively control vaccine preventable diseases through immunization and the provision of vaccines.

Many countries like Nigeria in the

African region are making efforts to strengthen its health system in general and routine immunization services in particular to reduce disease burden from vaccine preventable diseases (VPDs)⁴. 47% of Pakistani children age 12-23 months had received all recommended vaccines. More than 80% of children received BCG and three polio vaccines, while fewer received the subsequent doses of DPT, Hepatitis B and Measles. Six percent of the children had not received any of the recommended vaccine. Vaccine coverage is higher in urban areas than rural areas (54 verses 44)⁵. There is a marked variation in vaccination coverage by province, ranging from 35% vaccinated in Baluchistan to 53% in Punjab. In Azad Jammu & Kashmir 5 out of 8 districts are close to achieve the 80% targets of immunization⁶. However, in Pakistan including Azad Kashmir, the immunization coverage needs improvement^{7,8}. The dynamics of vaccination uptake remain unclear; the critical questions that remain to be answered therefore include to what extent is vaccination accepted by the public in response to recommendations and pressure from health workers and community leaders? To what extent does an informed public actively demand it? What is the level of awareness of its benefits and importance? Previous studies have shown that the reasons for inadequate immunization coverage in Pakistan are several. The issues of vaccine procurement is its storage, transport and administration are already known to contribute to inefficiency of the immunization program⁹. Factors such as knowledge, attitude and practices of parents and patients are also known to contribute to success or failure of immunization program^{10,11}. In Pakistan there is lack of information about knowledge, attitude and practices about immunization. Worldwide many studies have reported on mother's knowledge, attitudes and practice (KAP) regarding children immunization. These studies showed that successful immunization depends on parent's positive attitude and knowledge¹². In Pakistan literature reports few studies on this topic and these studies also identified that mother's knowledge

and positive attitude towards immunization is required to achieve 90% immunization among one year old children¹³. In Azad Kashmir none of the study was undertaken regarding mothers knowledge, attitude and practice about childhood immunization This study was conducted to assess mother's knowledge, attitudes, and practices at a vaccination centre of District hospital Kotli Azad Kashmir so that identified gaps should be fulfilled in order to achieve the immunization targets and findings may serve as the basis for intervention. This was conducted with the objective to assess knowledge, attitude and practice towards one year old child immunization among mothers attending the EPI vaccination centre at DHQ Hospital Kotli, Azad Kashmir.

MATERIAL & METHODS

This cross sectional study was conducted at DHQ Hospital Kotli, Azad Kashmir from 1st November 2010 to 1st January 2011. Mothers attending vaccination centre of District Hospital Kotli with accompanying child/children aged less than one year were included in the study. Mothers who were reluctant or whose children were seriously ill, were excluded from the study. Systematic random sampling

technique with sampling interval as 4 was used in order to study 20 individuals per day from an average of 80 mothers per day. Sample size using 41% knowledge, 95% confidence level and 6.79% margin of error in WHO software was estimated as 202. 41% knowledge was taken from a KAP study conducted in Karachi among mothers regarding childhood immunization¹⁴. Interviewer administered structured questionnaire was developed in English, and then translated into Urdu. Permission was obtained from Medical Superintendent of District Hospital Kotli .SPSS version 17.0 was used for analysis. Data was presented in frequency distribution tables with percentages and descriptive statistics.

RESULTS

Mean age ± S.D of mothers in years was 25.9 ± 4.372, ranged from 19-38 years. 8 (3.96%) of the participants were post graduate 17(8.4%) were graduates, 22(10.89%) were intermediate, 39(19.3%) were matriculate, 37(18.3%) were middle while 31(15.3%) were primary passed. 48 (23.76%) were uneducated. 157(77.7%) of study participants were housewives, while 30(14.85%) mothers were on private job and 15(7.4%) were doing government job.

FIG 1: MOTHER'S KNOWLEDGE ABOUT VACCINATION (n=202)

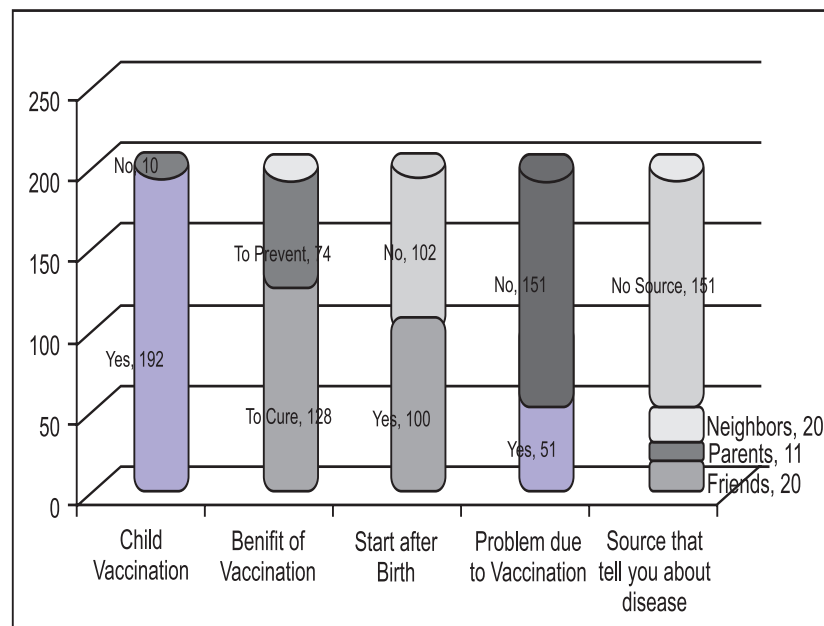


FIG 2: EDUCATION VERSUS ATTITUDE ABOUT COMPLETION OF VACCINATION (n=202)

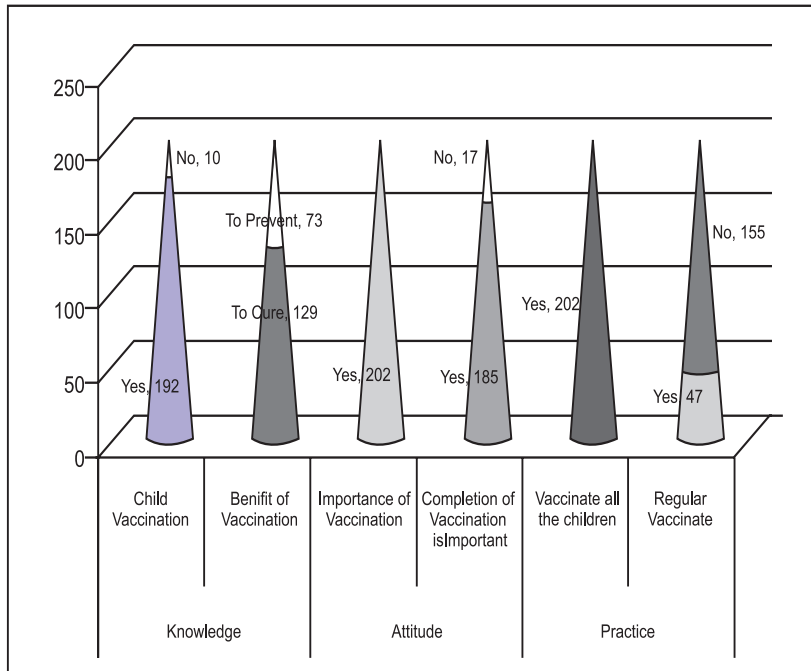


TABLE 1: EDUCATION VERSUS ATTITUDE ABOUT COMPLETION OF VACCINATION

Education	Completion of vaccination is important?		Total
	Yes	No	
Illiterate	38	10	48
	79.2%	20.8%	
Primary	30	1	31
	96.8%	3.2%	
Middle	31	6	37
	83.8%	16.2%	
Metric	39	0	39
	100.0%	.0%	
F.A/FSC	22	0	22
	100.0%	.0%	
Graduation	17	0	17
	100.0%	.0%	
Post graduation	8	0	8
	100.0%	.0%	
Total	185	17	202
	91.6%	8.4%	

TABLE 2: EDUCATION VERSUS BENEFITS OF VACCINATION(n=202)

Education	Benefit of Vaccination		Total
	To Cure	To Prevent	
Illiterate	45	3	48
	93.8%	6.3%	100.0%
Primary	28	3	31
	90.3%	9.7%	100.0%
Middle	28	9	37
	75.7%	24.3%	100.0%
Metric	19	20	39
	48.7%	51.3%	100.0%
F.A/FSC	8	14	22
	36.4%	63.6%	100.0%
Graduation	1	16	17
	5.9%	94.1%	100.0%
Post graduation	0	8	8
	.0%	100.0%	100.0%
Total	129	73	202
	63.9%	36.1%	100.0%

DISCUSSION

Worldwide different studies reported that successful immunization of children depends highly on mothers existing knowledge and positive attitude¹⁵. A study about knowledge, attitude and practice conducted among mothers having one year old child at Mawatch Goth, Kemari town, Karachi in February 2007¹⁴. Study sample size was 209 mothers, among them 64% of mothers were illiterate, 24% had primary education, 10% had higher secondary education and 2% were graduates. The reasons for missing vaccination schedule were lack of understanding of next appointment, non availability of health staff, mild flu and others reasons like household work. The source of information from where mothers heard about immunization program .These were health workers 62.2%, media 19%. In this study 202 mothers were interviewed. Among them 24% were illiterate, 15% had primary education 11% had higher secondary education and 8% were graduates. Reasons of irregular vaccination of children were majority 95(47%) of the mothers were engage in house hold work followed by child illness and unavailability of vaccina-

tion staff in centre. Mothers heard about immunization from health facility and media source. These results confirmed that media and health facility were providing a significant role to educate the mothers about child immunization. The media is noted to be a very strong source for providing awareness among the respondents about immunization. There again exists a need for further improvement in this area. Television can be a good source to promote immunization and results of study point out a need to further utilize this source for this purpose. The important role that media can play in promotion of immunization has been highlighted by earlier reports¹⁶. Another finding in above study that was conducted in Karachi regarding mothers knowledge about age at which immunization should be started 98.6% reported at birth .In my study, When mothers were asked about start of vaccination out of 202 mothers 100(49.50%) replied that child immunization should start after birth. A knowledge, attitude and practice study on vaccination was undertaken among Iranian mothers in pediatric clinic of a university medical center in Tehran¹⁷, between March and August 2005, and 668 mothers

responded to a questionnaire-based interview. The results showed a favorable attitude towards children immunization in 95.5% of respondents. Nearly half of mothers knew the name of the diseases against which their children were being vaccinated. More than half (67%) of respondents gave disproportionate importance to mild intercurrent illness as a reason to defer immunization. In this study majority of mothers were unaware about any disease and were not able to tell a single name of any major disease. TB was the most common name told by (11%) mothers. Measles, polio and tetanus were the next disease known to the mothers. Their knowledge about the vaccine preventable diseases was not good and 12% of mothers gave the importance of child illness as a reason to defer immunization. It may be due to lack of health education to the community. Education of the surveyed mothers again came into limelight as important factor as far as the knowledge about the basic purpose of child vaccination is concerned. Incorrect responses (to cure) were very high 45 (93.8%) in the illiterate class, the corresponding percentages sharply decline with increasing level of education. A KAP study

of knowledge and attitude towards childhood immunization among mothers attending antenatal clinic in Lagos University Teaching Hospital, Nigeria was conducted¹⁸. The results showed that a high proportion of the respondents had tertiary education and thus had good knowledge and awareness of immunization. The majority of the respondents had good knowledge of immunization and immunization could prevent childhood diseases which showed the relationship between mother's education and knowledge about vaccine preventable diseases. Education of mothers also played a significant role in child immunization. A cross sectional community based study was carried out in Jimma town South west Ethiopia to determine reason for defaulting from expanded program of immunization (EPI) using structured questionnaire in March 1997¹⁹. The results showed that child vaccination knowledge about vaccine, benefit of immunization and attitude towards immunization were all found to have significance association with educational status of the mothers (P value >0.00). A questionnaire based survey was conducted in Karachi regarding immunization among family practice patients¹⁴. Factors reported for promotion of immunization coverage by respondents include improving awareness and educating the masses and mothers. To assess the knowledge of the respondents (mothers), question regarding the purpose of vaccination was asked. Correct purpose was identified mostly in the initially age groups 19-23, 24-28) 38.4% and 39.75% respectively. Though, the stated pattern is evident, however, these variation are not sufficiently large to be termed statistically significant. (p.value= 0.513). A KAP study was conducted in Republic of Congo, results showed that child vaccination were not influenced by mothers age whether she was young or old²⁰. In this study, a direct observation was made in vaccination centre in District Hospital Kotli and was observed that majority mothers were not educated by vaccinator. Similarly respondents were not advised to revisit for next episode of vaccination by vaccinator. Although majority

of child vaccine cards were filled by vaccinator. This finding revealed that health education was not being given to the community. Again the source of information used by the mothers to vaccinate her child showed marked difference with the level of education. Illiterate Mothers or those with low level of education mostly used Health facility as major source of information, while mother of higher level of education used television as major source of information about child vaccination. These results were also found in the study conducted in Republic of Congo about childhood immunization²⁰. Those mothers who were educated replied 100% that vaccination should be completed against childhood diseases.

In my study joint assessment of knowledge, attitude and practice was calculated. Total of 202 mothers, 192 replied that they know about the vaccination. Among them 73 (36.1%) gave correct answers that vaccines prevent diseases. Attitude was positive and almost mothers 185 (91.5%) replied that completion of vaccination is important. All the mothers were vaccinating their children but only 47 (23.2%) vaccinating regularly. These findings also resulted by another KAP study among mothers in Kemari town, Karachi in February 2007¹⁴. Mothers had inadequate knowledge and attitude was positive but limited practices towards child immunization. It was also revealed in present study that those mothers who replied that they know child vaccination were 192 (95%), their attitude was good but 44 (22.9%) were regularly vaccinated their children. 133 (69.3%) were not regularly vaccinated their children. Those mothers who replied that they did not know about vaccination were 10 and their attitude was good and only 3 mothers were regularly vaccinating their children.

CONCLUSION

The study concluded that majority of the mothers had inadequate knowledge towards childhood immunization and majority replied that vaccination cure the diseases. Attitude of mothers towards one year old child immunization was positive. Irregular

practices were found to vaccinate the one year old child immunization. Knowledge of mothers about vaccination was found inadequate with strong positive attitude.

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CONFLICT OF INTEREST

None declared.

GRANT SUPPORT AND FINANCIAL DISCLOSURE

NIL

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.