ORIGINAL RESEARCH PAPER

Volume-7 | Issue-3 | March-2018 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

KNOWLEDGE, ATTITUDE AND PRACTICE OF ADDITIONAL VACCINES BY THE PARENTS -A HOSPITAL BASED STUDY.

Pediatrics

Dr Samiul Ahsan Hussain* Consultant Paediatrician, Department of Paediatrics, Guwahati Neurological Research Centre and Hospital, Guwahati *Corresponding Author

ABSTRACT

Objectives: To know the current status of knowledge, attitude and practice of additional vaccines / non UIP vaccines by the parents attending Guwahati Neurological Research Centre and Hospital.

Methods: A total number of 500 parents are selected randomly in this cross sectional study. All the selected parents were interviewed personally and the information about their knowledge, attitude and practice of additional vaccines and other non- UIP vaccines were noted on a pretested Performa consisting 31 items with subheading with closed ended questions written in English.

Results: In this study 97.6%,76.2%, 31.2%, 36.6%, 21%, 11.2%, 4.2%, 15.6%, 1%, 6.6%,9.6%,2.4% parents have heard about OPV , BCG, DPT, Measles ,Hepatitis B , rota virus , PCV , Hib, varicella ,hepatitis A , typhoid , MMR vaccine respectively. The most important source of information of these additional vaccine were doctor (90.08%) followed by another mother, relatives, Health workers and media. Reason for not practicing additional vaccine was lack of knowledge (62.2%) followed by a combination of lack of knowledge and unaffordibility due to high cost. The practice of additional vaccine is very poor in comparison to UIP vaccines.

Conclusion: The present study shows that the parental knowledge of additional vaccine is poor. Most important reason for not practicing this vaccine is lack of knowledge. Most of parents practicing this vaccine are well educated.

KEYWORDS

knowledge, attitude, practice, additional vaccine.

Introduction: An effective national immunization strategy can help decrease childhood mortality and morbidity, especially in developing countries like ours. It includes immunisation with vaccines of routine immunisation against six killer diseases of childhood and these additional vaccines. In developed countries practices of additional vaccines have almost become routine along with 6 vaccines of routine immunisation. In India on one hand, coverage of routine immunisation varies from 72-85% (Ministry of Health And Family Welfare) but on other side the practice of these additional vaccines is very less. Except for few regions of country where MMR, Hep B, Typhoid have been sponsored by government in the immunisation program in Delhi and armed forces, the practise of additional vaccines in other part of the country by parents is very low.

Under these circumstances, the practise of these vaccines depends on the parental knowledge, attitude and affordability of these vaccines. In the light of the above facts and viewing the importance of the additional / non-UIP vaccines, the present study is undertaken to assess the knowledge, attitude and practice of these additional vaccines.

Materials and Methods: A total number of 500 parents with children up to 5 years were selected randomly attending Guwahati Neurological Research Centre and Hospital. All the selected parents were interviewed personally and the information about their knowledge, attitude and practice of additional vaccines and other non- UIP vaccines were noted on a pretested Performa consisting 31 items with subheading with closed ended questions written in English. The questions were asked in local language and duly explained in case of any difficulty in understanding or misinterpretation. The responses were recorded by putting a tick mark against the options in the questionnaire sheet.

A pretested Performa having two broad parts was prepared to record the findings of the interview. The first part comprises of ten sub headings illustrating the socio-demographic profile of the parents. The second part of the Performa with twenty one sub headings revealing the knowledge, attitude and practices of the parents towards additional vaccines written in English.

During the interview, the parents were asked if they have immunized the child with additional vaccine and other non- UIP vaccines and it was confirmed by looking at the immunization card.

Result and Observations: A child was considered completely immunized when he got the vaccines among all seven non-UIP vaccines as per their respective age in proper dose. Partially immunized means the child has been lacking either one or more of the non- UIP vaccines or doses are not complete for respective age. Out of 500 children, 45 (9%) were completely immunized for respective age, 127 (25.4%) were partially immunized and 328(65.6%) has not been immunized with any of the non-UIP vaccines.

Out of 235 male children, 20 (8.5%) were completely immunized with Additional/ non-UIP vaccine, 47(20%) were partially and 168 (71.5%) were not immunized with any non-UIP vaccine. Out of the 265 females, 25 (9.4%) were completely immunized, 80 (30.2%) were partially immunized and 160(60.4%) were not immunized with any non-UIP vaccine. The p value being >0.05 states that this sex wise difference in the non-UIP immunization status is not statistically significant. Out of 47 illiterate parents no one has practiced Additional / non –UIP vaccines. 26 out of 36 parents in this study who have completed their Post Graduation has completely immunized their children with additional vaccine (68.4%), partial immunization being 23.7%. No parents with primary and middle school education have immunized their children with Additional vaccine.

In this present study, immunization status varies with the level of education of the mother. Higher the educational level of parent, higher is the immunisation status. It is statistically significant (p value <0.05) Out of the 321 Hindu children 33 were completely immunized, 104 were partially immunized and 184 are having no immunization with additional vaccine. Out of 167 Muslim children 10 were completely immunized, 19 were partially immunized and 138 were having no immunization with additional vaccine. Among Christian children 2 were completely immunized, 4 were partially immunized and 4 are having no immunization with additional vaccine. Both the two Sikh children are not immunized. The p value being <0.05 denotes that this religion wise variation in non – UIP immunization status is statistically significant.

Out of the 320 1st order children 31 were completely immunized, 70 were partially immunized and 219 are having no immunization with additional vaccine. Out of 131 2nd order children 11 were completely immunized, 52 were partially immunized and 68 are having no immunization with additional vaccine. Among 3rd order children 3 were completely immunized, 2 were partially immunized and 29 are having no immunization with additional vaccine. Among 4th order children no one is completely immunized, 3 were partially immunized and 12 were not immunized. The p value being <0.05 denotes that this birth order wise variation in non – UIP immunization status is statistically significant.

Out of the 174 parents who have vaccinated their children with any of the non-UIP vaccines, 33(18.9%) parents got information from another mother, 158(90.8%) from a doctor, 20(11.5%) from relatives, 28(16.1%) from health worker and 10(5.6%) from media. Doctor was

the most common source of information.

488 (97.6%) parents have heard about OPV vaccine, 381(76.2%) about BCG vaccine, 156(31.2%) about DPT vaccine, 183(36.6%) about Measles vaccine, 105(21%) about Hepatitis B vaccine, 56(11.2%) about rota virus vaccine, 21(4.2%) about PCV vaccine, 78(15.6%) about Hib vaccine, 5(1%) about varicella vaccine, 33(6.6%) about hepatitis A vaccine, 48(9.6%) about typhoid vaccine and 12(2.4%) have heard about MMR vaccine.

Out of 500 parents 112 had practiced rotavirus vaccine (22.4%), 45 has taken PCV vaccine (9%), 102 (20.4%) Hib vaccine and 5 parents have practiced Varicella, Hepatitis A and Typhoid each (1%).

In this study it was found that typhoid vaccine is considered as the most important vaccine by the parents (16%). Probably because it is very much prevalent in this place. The most important individual reason told by parents for not practising Non –UIP vaccines is lack of knowledge followed by unaffordability.

DISCUSSION: Mother's age had a great impact on immunization of child. This is because ages at having children are directly related to education and occupation of mother. Our study revealed 7.5% of children of mother with <20 yrs, 10.2% of children of mother with 20-30 yrs and 3.8% of children of mothers with >30 yrs are completely immunized with Non-UIP vaccine. If we combine both complete and partial immunization then its maximum in the 20-30 years group (38.7%) then <20 years (32.5%) or >30 (14.2%).

A study conducted by Luman ET et al showed, 3% of children of mother <19 yrs,71.9% of children of mother 19-30 yrs and 76.5% of children of mothers >30 yrs are fully immunised.[1] Study by Soma Chowdury Biswas found that mothers of age group 20–29 were more likely to get their children completely immunised (59.1 percent) and the partial attainment was found in a comparatively higher proportion among teenage mothers (17.1 percent).[2]

It was observed in the present study that there is a significant correlation between education and place of delivery with immunisation status. None of the 47 illiterate parents opt for Additional/Non-UIP vaccine in comparison to 62% among literate parents. Educated mothers and those who delivered in the hospital have better knowledge, attitude and practice towards immunisation.

Mirza Inamul Haq et al found that 70% unvaccinated children belonged to mothers who were uneducated.[3]

The results of a multiple logistic regression analysis showed that this knowledge was significantly greater among mothers with a higher education level and among those who were older at the time of the child's birth in a study conducted by I.F. Angelillo et al.[4]

A significant association was found between children's vaccination status and parent's education in a study conducted by Nazish Siddiqi et al.[5]

Puri Sonia, Bhatia Vikas, Singh Amarjit, Swami HM, Kaur Amrit, 2005 shows that uptake of all-newer vaccines was significantely more in children of literate mothers (52%) as compared to illiterate(37%) . Similar trend was observed in case of families with educated father.[6]

Bhuwan Sharma, Hemant Mahajan, and G. D. Velhal in a study in August 2012 found that low education status of mother, high birth order, and place of delivery were found to be positively associated with low vaccination coverage. Regular IEC activities (group talks, role plays, posters, pamphlets, and competitions) should be conducted in the community to ensure that immunization will become a "felt need" of the mothers in the community.[7] In the present study doctors were the most common and important source of information about Non-UIP vaccine (90.8%), followed by other mothers (18.9%). 11.5 % from relatives and 16.1% from health workers and media in 5.7% cases was the information provider of these vaccines. Most of the parents practice non-UIP vaccines after the recommendation of a doctor mostly a paediatrician.

Barbare Berdenheir, Idalia M. Gonzlez, M, M Michel L. Washington et al in 2000, shown in their study that recommendation of a private doctor or one in the public health department was the most common source of knowledge about Hepatitis A vaccine (more than half of the cases).[8]

Puri Sonia, Bhatia Vikas, Singh Amarjit, Swami HM, Kaur Amrit, 2005 in their study found that the most important source of information was doctors in the institute where delivery has occurred. Secondly, they also found that the campaigns for Hep B awareness and immunization in Chandigarh and same for Hib vaccine have provided for parental knowledge about these newer vaccines.[6]

Freeman in his study over parental knowledge, attitude and demand regarding a vaccine to prevent varicella 2005, Sweden found that the most important source of information was the lay media and most cited factor influencing the parents to practice these vaccine was a recommendation made by a doctor.[9]

Rachna K et al, 2010 did a cross sectional study to assess the awareness & knowledge of mothers of Under Five children regarding Immunization. The main sources of information on immunization was obtained from Anganwadi Worker (47%) & Television (35%).[10]

Shamila Hamid et al in 2011 did a study in north Kashmir and found that health workers were the main source of information (88%).[11]

REASON FOR NOT PRACTICING ADDITIONAL AND OTHER NON-UIP VACCINES:

- The most important individual reason for not practicing theses vaccines in this study is lack of knowledge (57.8%)
- 2nd most important reason was a combined lack of knowledge and high cost of vaccine. (29%)
- Cost of the vaccine is inhibitory factor in 8.7% cases
- 4.4 % parents did not think theses vaccines to be important.

Puri Sonia, Bhatia Vikas, Singh Amarjit, Swami HM, Kaur Amrit, 2005 found in their study that lack of awareness of the vaccines and their schedule followed by cost of the vaccines were the reason behind not practicing or poor practicing of these vaccine.[6]

CONCLUSION: The present study shows that the parental knowledge of additional vaccine is poor. Most important reason for not practicing this vaccine is lack of knowledge. Most of parents practicing this vaccine are well educated. Most of them practice the vaccine on the advice of a pediatrician. This study also document that this additional vaccines are available at market and are utilised by the parents at large.

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