



KNOWLEDGE, ATTITUDE AND PRACTICES TOWARDS IMMUNIZATION FOR CHILDREN UNDER FIVE YEARS OF AGE - A CROSS SECTIONAL STUDY

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ABSTRACT

Introduction: Vaccines are sensitive biological products that help boost our immune system, and afford protection against various infectious diseases. Despite widespread immunization coverage being promoted, certain sections of the population either prefer not to get vaccinated, feeling it is unnecessary or fearing potential side effects, or are not aware of its benefits or can't afford them. This study assessed the Knowledge, Attitude and Practices towards Immunization for Children, among Mothers, who visited the Paediatrics OPD of SUT Academy of Medical Sciences. **Methodology :-** A cross sectional study was conducted on mothers of 100 children aged upto 5 years in the Paediatrics OPD of SUT Academy of Medical Sciences, Vattappara, Thiruvananthapuram. A semi structured questionnaire was prepared by the interviewers, and self administered by the mothers of the children attending OPD. Data entered in Microsoft Excel was analysed using SPSS software. **Results :-** 100% literacy rates were observed in the parents. Around 98% of the respondents felt that it is necessary to vaccinate their children, 94% of them agreed that vaccines helped prevent transmission of communicable diseases. 85% of the children were found to be fully immunized for their age, according to the National Immunization Schedule of the Government of India, while 15% of the children were partially immunized for their age. 66% of the respondents observed side effects post vaccination, such as fever, rashes, diarrhoea etc. **Conclusion:** Knowledge towards immunisation shows a very good progression as majority of the study participants believe that immunisation can help prevent the transmission of communicable diseases. Majority have a positive attitude towards vaccination, and felt that Immunisation helps to maintain good health. In recent times, electronic media and the efforts of health workers in raising awareness about the importance of immunisation has helped increase the immunisation rates.

KEYWORDS :

INTRODUCTION

Immunization, is the process by which an individual's immune system becomes fortified against an infectious agent. A vaccine is a biological preparation that improves immunity to a particular disease. A vaccine typically contains an agent that resembles a disease causing microorganism and is often made from weakened or killed forms of the microbe, its toxins or one of its surface proteins. The agent stimulates the body's immune system to recognize the agent as foreign, destroy it and remember it, so that the immune system can more easily recognize and destroy any of the microorganism that it later encounters.

Immunization is a timely step for prevention of mortality and morbidity due to communicable diseases in the 0 - 5 years of age group. The WHO rates immunization as one of the interventions with a large potential impact on health outcomes. However its impact is not even throughout countries. In the past few decades, immunization coverage rates have improved sufficiently in developed countries, thereby conferring herd immunity, whereas most of the developing countries are still struggling with faltering rates. The delivery systems of Immunization have many inherent problems to which an addition may be made by the people themselves, with their prejudices, conclusions and apathy.⁽¹⁾

Immunization is not only one of the best indicators to evaluate the health out comes and services distributed across social and economic groups but also one of the most cost-effective interventions to prevent a series of major illnesses, particularly in environments where children are undernourished and die from preventable diseases. Given the

extensive benefits of immunization, any inequities in Knowledge, Attitude and Practices are a cause of serious policy concern. There is evidence of inequities in immunization in India, despite the fact that childhood immunization has been an important part of maternal and child health services since 1940s. Even more dismal is the situation in rural areas as compared to urban areas. Reasons underlying poor coverage has been studied by researchers worldwide and besides other factors, parental knowledge and beliefs have been documented to influence immunization uptake.

Parental acceptance of routine childhood immunization is essential in protecting children's health. Parents who question the necessity or safety of vaccines, may ultimately choose to either decline or delay vaccination, which will leave their children vulnerable to disease. In addition an unvaccinated child in a community threatens the health protection afforded to those in the community who are too young to be vaccinated and those whom vaccination is contraindicated.

The challenge for immunization service providers therefore, is to offer parents balanced and comprehensive information about the risks as well as benefits of Immunization. This study assessed the Knowledge, Attitude and Practices towards Immunization for Children, among Mothers, who visited the Paediatrics OPD of SUT Academy of Medical Sciences.

METHODOLOGY

This Cross sectional study was conducted in the Pediatrics Outpatient Department of SUT Academy of Medical Sciences, Thiruvanan-

thapuram for a period of 6 months from august 2022 to February 2023. The study population consists of mothers of children from 0-5 years brought to Pediatrics OPD and those who gave the consent for the study. Children between 0-5 years who are having serious comorbidities were excluded. Sample size was calculated using the formula, $N=3.84pq/d^2$ Where $p=50\%$, $q=50\%$ and $d=20\%$ of P and was estimated to be $100^{(2)}$. Convenient sampling method was used. Data was collected using self administered pre -tested semi-structured questionnaire. Data was coded and entered in MS Excel. The quantitative variables are expressed by mean and standard deviation. Qualitative variables are expressed in proportions. Legal permission was obtained from institutional ethics committee and an informed consent was obtained from all participants.

RESULT

Out of the total study population, 53% of them were male and 47% were female. Considering the educational status of parents, 22% of mothers were educated till high school, 67% of them were graduates, while 11% of them were postgraduates. Among father, 47% studied upto High School, 49% of them are graduates and 4% are post graduates. None of the parents were illiterate. Out of the 100 familiar interviewed, 50% had an annual income less than Rs 50,000. While the remaining 50% had an annual income 1,00,000 and above.

Table 1 :socio Demographic Details Study Population

Characteristic	Frequency	Percentage
Gender of Child		
Male	53	53
Female	47	47
Education of Mother		
Illiterate	0	0
High School	22	22
Graduate	67	67
Postgraduate	11	11
Education of Father		
Illiterate	0	0
High School	47	47
Graduate	49	49
Post Graduate	4	4
Annual Income of Family		
<50,000	50	50
50,000-1,00,000	23	23
1,00,00-3,00,000	14	14
3,00,000 – 5,00,000	10	10
>5,00,000	3	3

Table 2 : Effectiveness Of Vaccines Against Communicable Diseases

Vaccines are effective	Frequency	Percentage
Yes	94	94%
No	6	6%
Total	100	100%

Out of the 100 families majority of them , 94% agreed that Vaccination helps to prevent Communicable Diseases, while 6% of them felt that Communicable Diseases can occur even after being vaccinated against it.

Table3 : Relationship Between Vaccine And Side Effects

Occurrence of side effects	Frequency	percentage
Yes	66	66
No	34	34
Total	100	100

Two third of families (66%) felt that side effects can occur following vaccination.

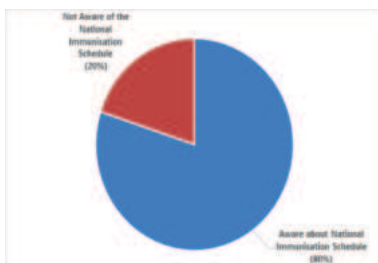


Figure 1. Awareness About The National Immunisation Schedule Of Government Of India

80% of study population are aware about National Immunisation Schedule of the Government of India, while the remaining 20% are not aware of it.

Table 5:attitude Regarding Vaccination Is Necessary For Children.

Necessary to vaccinate children	Frequency	Percentage
Yes	98	98
No	2	2
Total	100	100

98% of parents felt it was necessary is vaccinate their children, while the remaining 2% felt it was not necessary to take vaccination.

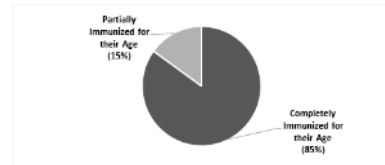


Figure No 2 : Current Status Of Immunisation

Of the 100 families majority of the children (85%) are completely vaccinated for their age, while the remaining 15% of the children have been partially vaccinated for their age. There is no child who has not been vaccinated at all.

DISCUSSION

Vaccination has played a pivotal role in the elimination and control of several communicable diseases over the nation bringing down the mortality rates across paediatric age groups.

Our study observed a high rate of literacy among the mothers with no illiterates, 22% with high school education , 78% graduates and above.

In a study done on "Vaccine hesitancy among caregivers of under 5 children in a tertiary centre in Eastern India " by sahuo et al. it was observed that 3% of the caregivers were illiterate, 15.9% of them studied till middle school , 20.9% till high school , 32.1% till higher secondary and 28.1% were graduates and above.⁽³⁾

In a cross sectional study conducted by Joy et al in the urban Kochi metropolitan area, it was observed that none of the mothers were illiterate, 1.2% received primary education, 3.9% middle school, 12.3 % high school, 18.7 % higher secondary and 63.9 % were graduates and above.⁽⁴⁾

Comparing the income of the households of our study 50% earned less than Rs50,000 , 23% made below 1 lakh and 27% earned above 1 lakh. In the study conducted in Eastern India by sahuo et al 59.2% made less than 50,000 ; 20.4% earned upto 1 lakh and 20.4% earned more than 1 lakh.

In our study it was found that 94% of the study subjects believed that vaccines could prevent communicable diseases and promote good health in their children, while the study conducted by Sahoo et al only 75.5% of the study subjects believed that vaccination was important for good health of their children.

In our study it was found out that 66% of the population believed that vaccination was associated with some kind of side effects, while study conducted by sahuo et al³ founded that only 48.5% of the population suspected to have any adverse reaction associated with vaccination.

98% of the study subjects believed that it was necessary to vaccinate that children, while in a study conducted by Sahoo et al, found out that 25.5 % of the study population believed that it was not necessary to vaccinate the children against diseases that are not common now.

In our study, 85% of the children were completely vaccinated for their age and only 15% had a partial immunisation study among to National Immunisation schedule. There is no child who has not been vaccinated at all, while in the study conducted by sahuo et al found that 10% of the study population has not received any kind of vaccination. A study conducted by verma et al in slums of Uttar Pradesh, found out that only one fourth of the children (24.1%) were fully immunized, where are majority were found to be partially immunized (32.4%) unimmunized (43.4%)⁽⁵⁾

CONCLUSION

Contrary to many other studies, the participants of our study were found to have high literacy rates and high degree of employment which made them aware about the importance of, as well as afford the cost of immunisation. No gender disparities were noted in the study.

Knowledge towards immunisation shows a very good progression as around 94% of the study participants believe that immunisation can help prevent the transmission of communicable diseases. Majority have a positive attitude towards vaccination, as 97% of the study participants felt that Immunisation helps to maintain good health, however around 66% of the study subjects observed side effects, following vaccination, such as fever, rashes, diarrhea etc. In recent times, electronic media and the efforts of health workers in raising awareness about the importance of immunisation has helped increase the immunisation rates irrespective of knowledge and area of residence.

Limitations

Firstly, we assessed a sample of relatively small size gathered through convenience sampling. Hence our vaccination rates and acceptance may therefore not represent the whole population of Kerala.

Secondly, our study included a very selected population (i.e. subjects attending the Paediatric OPD of SUTAMS), presumptively encompassing subjects having more awareness towards vaccination; a significant selection bias cannot therefore be ruled, ultimately suggesting that our survey overestimated actual vaccine acceptance of the parent occupational group.

Thirdly, majority of our participants were highly educated and well occupied. Hence we were unable to know the knowledge and practices among low socioeconomic population.

Recommendations

15% of our study population are partially vaccinated and 60% are due to receive their next vaccination at the age of 5. Therefore advice regarding next schedule was given to them for the completion of their immunisation schedule.

The importance of Immunisation, its principles and benefits were explained to them.

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