A study on immunization & vaccinations towards infants for mother’s

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Abstract
Immunization has been shown to be the most successful and cost-effective public health intervention for the 20th century. In the developing world, it does not only prevent about child deaths annually, but also has the potential to prevent additional deaths if coverage improves. However, immunization coverage has remained low, although vaccines are provided relatively free by the government. Efforts have focused on the health worker, health system and logistics with little attention being paid to maternal factors like knowledge, perception, beliefs and practice.

Keywords: Mothers, infants, vaccinations & immunizations

Introduction
Vaccination coverage has now reached a plateau in many developing countries, and even where good coverage has been attained; reaching children not yet vaccinated has proved difficult. Thus, there is an urgent need to find ways to increase vaccination coverage and particularly to encourage parents to have their children vaccinated. Immunization which has greatly reduced the burden of infectious diseases prevents illness, disability and death from vaccine preventable diseases including, Measles, Pertussis, Diphtheria, Polio, Rubella and Tetanus. Immunizing a child significantly reduces costs of treating diseases, thus providing a healthy childhood and reducing poverty and suffering.

World Health Organization (WHO, 2016) reported that 115 million infants worldwide received Diphtheria-Tetanus and Pertussis vaccine, there is about 85% of the world’s children received one dose of measles vaccine, and received polio vaccine, however, remain the polio-endemic in two countries, i.e., measles vaccine and received polio vaccine, however, remain the polio-endemic in two countries. Naturally acquired active immunity occurs when the person is exposed to a live pathogen, develops the disease; artificially acquired active immunity can be induced by a vaccine, a substance that contains the antigen, artificially acquired passive immunity is a short-term immunization by the injection of antibodies, such as gamma globulin, that are not produced by the recipient's cells. Naturally, acquired passive immunity occurs during pregnancy; in which certain antibodies are passed from the maternal into the fetal.

The attitude of most mothers towards immunization services is positive and relies on the efficacy of the vaccine to protect against disease; there was a poor attitude towards polio immunization among respondents who believe that it contains anti-fertility agents. Decision-making on immunization of a child lies predominantly on the father; and, if vaccination was rejected because of rumours and the priority accorded to parent's preference to more severe diseases.

Mothers’ knowledge, attitude and practice play an important role in achieving complete immunization before first birthday of the child, the previous parent factors are also contributing to success or failure of immunization program, knowledge attitude, and practice studies provide information about the people awareness of certain topics, their feelings and their practices.

Cultural receptivity to perceived modernity and education, as well as trust in health workers, was considered to be the most important factors influencing attitudes. In short, knowing little about vaccination does not necessarily translate into negative attitudes towards it; 5–7 factors such as trust (e.g. in health-care providers) and culture may be more influential.
The impact of high levels of knowledge on subsequent attitudes towards vaccination is unknown.

**Objectives of the Study**
Since the fundamental question arises here is about whether or not resources should be invested in improving parents’ knowledge of and attitudes towards vaccination. The main objectives of the study, is being connoted in following points, which includes:

- This study aimed to assess knowledge, attitude and practice of mothers toward children's obligatory vaccination.
- To determine maternal characteristics and other determinants of full immunization status.

**Research Methodology**
This research paper is based on the secondary data. The required secondary data has been collected from various old research papers, journals, internet, etc. The data has also been taken from various documents such as books, newsletters, reports, magazines, journals, newspaper & internet.

**Vaccination Schedules**
Vaccinations are not all given right after a baby is born. Each is given on a different timeline. They’re mostly spaced throughout the first 24 months of a child’s life, and many are given in several stages or doses. Don’t worry, though — you don’t have to remember the vaccination schedule all by yourself. Your child’s doctor will guide you through the process.

An outline of the recommended vaccination timeline is shown here. For a description of each vaccine, see the following section.

<table>
<thead>
<tr>
<th>Vaccines</th>
<th>Shots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B</td>
<td>3 Shots</td>
</tr>
<tr>
<td>DTaP</td>
<td>6 Shots</td>
</tr>
<tr>
<td>Hib</td>
<td>3 - 4 Shots (depending on the Brand)</td>
</tr>
<tr>
<td>Polio (IPV)</td>
<td>4 Shots</td>
</tr>
<tr>
<td>Pneumococcal (PCV13)</td>
<td>4 Shots</td>
</tr>
<tr>
<td>Rotavirus</td>
<td>2 - 3 Doses (depending on the Brand)</td>
</tr>
<tr>
<td>Influenza (flu)</td>
<td>1 Shot, yearly</td>
</tr>
<tr>
<td>Measles, mumps, rubella (MMR)</td>
<td>2 Shots</td>
</tr>
<tr>
<td>Varicella (chicken pox)</td>
<td>2 Shots</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>2 Shots</td>
</tr>
<tr>
<td>Meningococcal</td>
<td>2 Shots</td>
</tr>
<tr>
<td>HPV</td>
<td>2 - 3 Shots</td>
</tr>
</tbody>
</table>

Here are the essentials to know about each of these vaccines:

- **HepB** protects against hepatitis B (infection of the liver). HepB is given in three shots. The first shot is given at the time of birth. Most states require HepB vaccination for a child to enter school.
- **RV** protects against rotavirus, a major cause of diarrhea. RV is given in two or three doses, depending on the vaccine used.
- **DTaP** protects against diphtheria, tetanus, and pertussis (whooping cough). It requires five doses during infancy and childhood. DTaP boosters are then given during adolescence and adulthood.
- **Hib** protects against *Haemophilus influenzae* type b. This infection used to be a leading cause of bacterial meningitis. Hib vaccination is given in four doses.
- **PCV** protects against pneumococcal disease. PCV is given in a series of four doses.
- **IPV** protects against polio and is given in four doses.
- **Influenza** (flu) protects against the flu. This is a seasonal vaccine that is given yearly. Flu shots can be given to your child each year, starting at age 6 months. Flu season can run from September through May.
- **MMR** protects against measles, mumps, and rubella (German measles). MMR is given in two doses. The first dose is recommended for infants between 12 and 15 months. The second dose is usually given between ages 4 and 6 years. However, it can be given as soon as 28 days after the first dose.
- **Varicella** protects against chickenpox. Varicella is recommended for all healthy children. It’s given in two doses.
- **HepA** protects against hepatitis A.
Awareness & Attitudes
Vaccination has done more to save lives and improve quality of life that any other medical intervention. According to WHO, immunisation saves between 2 and 3 million lives each year. Through effective vaccine use smallpox was eradicated in the late 1970s and WHO declared Europe polio free in 2002. In addition, vaccine innovations developed over recent years offer individuals and communities the possibility of protection against an increasing number of diseases. For instance, new vaccines against human papillomavirus, rotavirus and pneumococcal infection can not only save additional lives every year but also improve welfare and quality of life, by reducing hospitalisations and the disabilities caused by infection. Immunisation represents one of the most cost-effective health interventions available. While immunisation programmes require support and adequate funding, the associated prevention of mortality, morbidity and avoidance of indirect economic and societal costs provides long-term savings. Moreover, WHO recognises a number of broader advantages that accrue from immunisation, including economic growth. At a time of reduced healthcare budgets, comprehensive vaccination programmes and supportive policies are crucial to fully realise this potential, and substantially improve the health and welfare of entire populations. Health systems around the world must continue to drive vaccination forward. As part of this drive, Vaccines Europe members aim to increase the awareness on the benefits of vaccination while understanding the current concerns in relation to attitudes towards vaccination.

Access to Vaccinations
Immunisation is one the major public health achievements of the 20th century. Indeed, vaccination campaigns around the world have been responsible for the eradication of smallpox and have significantly reduced the burden of other diseases. Population access to vaccines is essential to decrease the number of cases of common, dangerous, handicapping and potentially fatal vaccine preventable diseases. For this reason, Vaccines in India is committed to ensuring fast and wider access of Indian populations to vaccines and aims to enable better protection of health throughout life of individuals and the wider community both with existing vaccines and those on development.

Immunisation throughout Life
Reduced childhood mortality, increased longevity and changing birth rates are dramatically changing demography in India and around the world. With these changes, comes the need to extend the vision of vaccination from early life and childhood alone to the whole life span (e.g. adolescents, adults, and the elderly) and from treatment to prevention. The evidence concerning the essential role played by vaccines in reducing morbidity and mortality caused by vaccine-preventable diseases and associated economic and societal costs across different age groups is mounting, and, at a time of increasingly tighter public budgets, there is broad recognition of the need to shift resource allocation from treatment to prevention. Nonetheless, the support for vaccination throughout life remains low. The reasons for this might be several and due to multiple hard-to-address direct and/or indirect factors impacting decisions at national and healthcare delivery point level as well as the general public’s perception.

Recent Converge of Immunization for the year 2016
Immunization averts an estimated 2 to 3 million deaths every year from diphtheria, tetanus, pertussis (whooping cough), and measles; however, an additional 1.5 million deaths could be avoided if global vaccination coverage improves. Global vaccination coverage – the proportion of the world’s children who receive recommended vaccines – has stalled over the past few years. During 2016, about 86% of infant’s worldwide (116.5 million infants) received 3 doses of diphtheria-tetanus-pertussis (DTP3) vaccine, protecting them against infectious diseases that can cause serious illness and disability or be fatal. By 2016, 130 countries had reached at least 90% coverage of DTP3 vaccine.

World Immunization Coverage 2016

Research & Innovation for Vaccinations in India
One year after its independence in 1947, India became a member country of the WHO and eagerly aligned itself to the policies of the WHO and UNICEF. Many new Indian institutions were established with partial support from international organisations during the period 1950–1970. However, after independence, it took three decades for India to articulate its first official policy for childhood vaccination, a policy that was in alignment with the WHO’s policy of “Health for All by 2000” (famously announced in 1978 at Alma Atta, Kazakhstan). The WHO’s policy recommended universal immunisation of all children to reduce child mortality under its Expanded Programme of Immunization (EPI). In line with Health for All by 2000, in 1978 India introduced six childhood vaccines (Bacillus Calmette-Guerin, TT, DPT, DT, polio, and typhoid) in its EPI. Measles vaccine was added much later, in 1985, when the Indian government launched the Universal Immunization Programme (UIP) and a mission to achieve immunisation coverage of all children and pregnant women by 1990s.

Conclusions
From this point of view, it is possible to conclude that mothers’ immunization practice was not really based on their knowledge and attitude regarding immunization of infants. Maternal education and birth order were
significantly associated with good knowledge. Similarly, Mothers’ education, infants’ aged from 2-3 months was significantly associated with favourable attitude towards immunization of infants. Good infant immunization practice was significantly associated with mothers who have ever heard information about vaccination, who know correctly the time when infants should begin immunization, who know correctly the number of sessions needed, who know the time when infants should complete immunization and place of delivery.

The target should be the entire population, and educational programmes promoting paediatric immunization and parental motivation, accessibility, and follow-up should be instituted.

References