



بسم الله الرحمن الرحيم  
يحيى اذلالها  
في المستودع

بسم الله الرحمن الرحيم



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**Research about**

**Assessment of knowledge And Attitude of Mothers**  
**About Routine Vaccination**  
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الاستهلال

قَالَ تَعَالَى:

﴿ أَقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ \* خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ \* أَقْرَأْ  
وَرَبُّكَ الْأَكْرَمُ \* الَّذِي عَلَّمَ بِالْقَلَمِ \* عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمْ ﴾

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سَلَّمَ اللَّهُ الْعَظِيمُ

## الإهداء

إِلَهُ من بلغ الرسالة و أدى الأمانة ونصح الأمة إلى نبي الرحمة ونور العالمين.

**سيدنا محمد صل الله عليه وسلم.**

إِلَهُ من احمل اسمه بكل افتخار ... الحاضر الغائب ... مثل الأبوة الأعلى ....

أطال الله في عمره ومتعته بالصحة والعافية ....

## أبي العزيز

إِلَهُ ملاكي في الحياة إلى معنى الحب وإلى معنى الحنان والتفاني إلى بسمه الحياة وسر الوجود .

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إِلَهُ كل الأهل والأصدقاء وكل من كان عوناً لي

## الشكر والتقدير

أشكر الله تعالى وأحمده، فهو المنعم والمتفضل قبل كل شيء، الشكر أجذله إلى الشمعة التي

ذابت في كبرياء لتتير كل خطوة في دربي وتثلل كل عائق أمامي:

الأستاذة/ هناء عبد العزيز بله

التي تفضلت بالإشراف على هذا البحث فلها مني جزيل الشكر والعرفان .

وأقدم بالشكر والتقدير إلى أسرة جامعة الشيخ البدري وأخص بالشكر كلية العلوم

الصحية لإتاحة لي هذه الفرصة .

## المستخلص

تهدف هذه الدراسة إلى تقييم معرفة الأمهات بشأن التطعيم الروتيني. والهدف الخاص من الدراسة تقييم معرفة الأم حول التطعيم الروتيني، تقييم موقف الأمهات بعد أخذ الطفل للتطعيم الروتيني، تقييم معرفة الأم حول الجدول الزمني للتطعيم.

وبعد إجراء الدراسة الميدانية وتوزيع الاستبانة على عينة الدراسة، توصلت الدراسة إلى نتائج عديدة منها:

ووجدنا أن أعلى فئة عمرية كانت أكبر من 30 سنة بنسبة 42.9% تليها الفئة العمرية (25-30)% 40 وأقل فئة عمرية كانت (20-25) 17.1%، وأن الذين مستواهم التعليمي أعلى الجامعي (34.3%)، تليها الثانوية (30%) والأدنى (7.1%)، وغالبية الأمهات يرون أنه يجب تواصل التطعيم بنسبة 4.3%، والبعض الآخر لا يواصل التحصين بنسبة 1.4%، ومعظمهم يرجعون إلى الجهات المختصة بنسبة 94.3%، بما في ذلك الحمى بنسبة 94.3% تليها التقيؤ والحساسية بنسبة 1.4% والبعض منهم لا يعرف 2.9% حيث أن الدراسة تبين موافقة الأمهات على فكرة نظام التذكير عن التطعيم من خلال الجهات المختصة ووافقت معظم الأمهات على وجود رسائل تذكير تعزى إلى أهمية التحصين لأطفالهن بنسبة 97.1% وقليل منهم لا يوافقون على وجود تذكير 2.9%.

## **Abstract**

This study aims to assess the knowledge of mothers and attitude of mothers about routine vaccination. Specific Objective: To assess the knowledge of mother about routine vaccination, To assess the attitude of mothers after child take routine vaccination, To assess mother knowledge about schedule of vaccination.

After conducting the field study and distributing the questionnaire on the study sample, the study reached many results, including:

We find that the highest age group was greater than 30 years 42.9% followed by the age (25-30) 40% and the lowest age group was in proportion (20-25) 17.1%, That they had a higher educational level (34.3%), followed by secondary (30%) and the lowest (7.1%), The majority of mothers see that they continue to be vaccinated by 4.3%, and some do not continue to immunize by 1.4% and most of them return to the competent authority by 94.3%, including fever and was 94.3% followed by vomiting and sensitivity by 1.4% and a few of them did not know by 2.9%, which shows the consent of mother on the idea of reminder system by vaccination through the competent authorities most mothers agreed to the presence of reminders attributed to the importance of immunization for their children by 97.1% and few of them do not agree with the presence of reminder 2.9%.

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## **Chapter One**

### **Introduction**

#### **1.1 Introduction:**

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 (Afghanistan & Pakistan). Immunization prevents an estimated two to three million deaths each year from Diphtheria, Tetanus, Pertussis (whooping cough), and Measles. According to the Unicef, (2014). In Egypt, the estimated coverage rates of BCG (Bacilli Calmette-Guerin), DPT3 (three doses of Diphtheria, Pertussis (whooping cough) and Tetanus, HepB<sub>3</sub> (three doses of Hepatitis B vaccine), Measles vaccines, Pol<sub>3</sub> (three doses of the Polio vaccine), Rubella, TT<sub>2</sub> (two dose or more of Tetanus Toxoid vaccine) was ranged from 96- 98% for children aged 18-29 months. Immunity can be divided into active and passive immunity. 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.

Immunization remains one of the most important public health intervention and a cost effective strategy to reduce both the morbidity associated with infectious disease .

All mothers wish good health of their children . health workers derive all children Immunized against racier presentable disuse . decried awareness, patient compliance and cost effective play a major role in limiting the success of vaccine.

Epidemiological study has shown that 2.5 million deaths occurred every year as a result of vaccine ]preventable diseases, mainly in Africa and Asia among children less than 5 years old (GIVS, 2005). Immunization is the process of conferring increased resistance to an infectious disease by a means other than experiencing the natural infection. Typically, this involves exposure to an agent (antigen or immunogen) designed to fortify the person's immune system against that agent or similar infectious agents (active immunization).

Immunization also can include providing the subject with protective antibodies developed by someone else or another organism (passive immunization). When the human immune system is exposed to a disease once, it can develop the ability to quickly respond to a sub sequent infection. Therefore, by exposing an individual to an immunogenic in a controlled way, the person's body will then be able to protect itself from infection later on in life (Blakemore & Jennett 2001).

Medical researchers have developed diverse immunization processes for a vast number of diseases, beginning on a large scale about a century ago. Immunization remains one of the most important public health interventions and a cost effective strategy to reduce both the morbidity and mortality associated with infectious diseases. In line with the aforementioned, the report of World Health Organization and the earlier study of Breslow (2002) have shown that over two million deaths are delayed through immunization each year worldwide.

Childhood immunization is an act of inducing immunity to a child by applying a vaccine that almost guarantees protection from many major diseases. Childhood vaccination is widely considered to be 'overwhelmingly good' by the scientific community (GIVS, 2005; Wright, 1995). 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 (EPI, 1998).

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 uptake of vaccination services is dependent not only on provision of these services but also on other factors including knowledge and attitude of mothers (Matsumura et al., 2005; Torun & Bakirci, 2006), density of health workers (Anand & Barnighausen, 2007), accessibility to vaccination clinics, availability of safe needles and syringes and the opportunity costs (such as lost earnings or time) incurred by parents (mothers). A good attempt to address these factors may go a long way to improve vaccine utilization and subsequent protection of the children against childhood infectious diseases.

Therefore, this present study was carried out to assess the knowledge and attitude of mothers attending antenatal clinic in Lagos University Teaching Hospital, Nigeria, towards childhood immunization as the findings obtained may serve as the basis for effective intervention.

## **1.2 Justification**

Vaccination belong to importance and effective away of infectious disease prevention it reduce the morbidity and mortality associated with infectious disease. Vaccine are safe simple and improve the lives of children.

### **1.3 Study Objective:**

#### **General Objective:**

Study to assess the knowledge of mothers and attitude of mothers about routine vaccination.

#### **Specific Objective:**

- To assess the knowledge of mothers about routine vaccination.
- To assess the attitude of mothers after child taken routine vaccination.
- To assess knowledge of mothers about schedule of vaccination.

## **Chapter Two**

### **Literature Review**

#### **2.1 World Health Organization (Who) Defined Immunization:**

A process when by parson is made immune or resistant to an infectious disease, typically by administration vaccine.[1]

#### **2.2 Objective of immunization:**

- To protect individual against disease or infection .
- To decrease prevalence of disease of infection in community .
- To decrease the probability of contact between susceptible and infected .
- To decrease the proportion of lateen or carrier infection.
- To prevent out break by decretory the number of susceptible : i.e to decrease the supply of susceptible in all definable sub- groups in a heterogeneous hard .
- To increase hard immunity .
- To eradicate wild type of virus .

#### **2.3 Type of immunization :**

Active or passive immunization may provide protection from disease.

Active immunization consists of inducing the body to develop defense against diseases, this is achieved by Administration of vaccine or toxic that stimulate the immune system to products antibodies and cellular immune response. These responses protects against the infectious agent. the principle approaches to active immunization are of live, usually attenuated infectious agent oral polio vaccine, measles vaccine and use of inactivated or detoxified agent (DPT vaccine) or specific product of recombination (Hepatitis B).

**(i) Live attenuated vaccines:** induced an immunologic response more like that elicited by natural infection. the major advantages of live vaccines is that a single does is sufficient for immunization whereas like vaccines require

multiple doses, including periodic boosters for prolonged protection against disease.

The oral polio – virus vaccine is an exception to this general principle because oral infection does not consistently result in infection (take) with the vaccine virus . therefore multiple doses are necessary . fluctuation in temperature of storage and transportation reduce the potency of live vaccine more rapidly than that of killed and toxic vaccine . BCG , OPV and measles are important live vaccine .

**(ii) Inactivated or killed vaccine:** consist of inactivated whole cell vaccine (pertussis vaccine), detoxified exotoxins (tetanus toxoid), endotoxin linked to carrier protein, soluble capsular material (pneumococcal vaccine or conjugated vaccine), extract of some component (Hepatitis B) or component of organism (sub – unit influenza vaccine) inactivated vaccine usually don't require refrigeration , and they can be easily stored and transported in freeze – dried form, which makes them accessible to people in developing countries.

**(iii) Subunit vaccines :**

Instead of the entire microbe, subunit vaccines include only the antigens that best stimulate the immune system .in some cases, these vaccines use epitopes- the very specific parts of the Antigen that antibodies or T cells recognize and bind to.

Subunit vaccines can contain anywhere from 1 to 20 more Antigens . they can make subunit vaccines in one of two ways:

- They can grow the microbe in the laboratory and then use chemicals to break it apart and gather the important Antigens.
- They can manufacture the Antigen molecules from the microbe using recombinant DNA technology. Vaccines produced this way are called recombinant subunit vaccines.

A recombinant subunit vaccine has been made for the hepatitis B virus

#### **(iv) Toxoid vaccines:**

For bacteria that secrete toxins, or harmful chemicals, a toxic vaccine might be the answer. these vaccines are used when bacterial toxin is the main cause of illness. Scientists have found that they can inactivate toxins by treating them with formalin, solution of formaldehyde and sterilized water. Such " detoxified " toxins called toxoids are safe for use in vaccines . when the immune system receives a vaccine containing a harmless toxin , it learns how to fight off the natural toxin. the immune system produces Antibodies that lock onto and block the toxin. vaccine against diphtheria and tetanus are example of toxic vaccines .

#### **(v) Conjugate vaccines:**

If a bacterium possesses an outer coating of sugar molecules called polysaccharides, as many harmful bacteria do, polysaccharide coatings disguise bacterial Antigens so that the immature immune of infants and younger children can't recognize or respond to them. conjugate vaccines, a special type of subunit vaccine, get around this problem.

#### **(vi) Recombinant vector vaccine:**

Are experimental vaccine similar to DNA vaccines, but they use an attenuated vaccine or bacterium to introduce microbial DNA to cells of the body. " vector" refers to the virus or bacterium used as the carriers in nature , viruses latch on to cells and inject their genetic material into them . in the lab , scientists have taken advantages of this process.

Attenuated bacteria also can be used as vectors . in this case the inserted genetic material causes the bacteria to display the Antigen of the other microbes on its surface. in effect the harmless bacterium mimics harmful microbe, provoking an immune response. Researchers are working on both bacterial and viral based recombinant vector vaccines for HIV, rabies and measles. [2]

## **2.4 Expanded programme on immunization :**

The world health organization (who) initiated the expanded program on immunization (EPI). in May 1974 with the objective to vaccinate children throughout the world. ten years later in 1984 the who give established standardized vaccination schedule for the original EPI vaccines = Bacillus Chalmette Guerin (BCG), Diphtheria – tetanus – peruses (DPT) oral polio and measles. incrusted knowledge of the immunologic factors disease led to new raciness being developed and addle to the EPI'S list of recommended varies = Hepatitis B yellow fever in countries endemic for the disuse, and it a Hemophilic influenza meningitis (Him) conjugate vaccine in countries with high burden of disease.

1994, the global Alliance for receive and immunization (GAVI) was gated whit the sole purpose of improving child health in the poorest countries by extending the rich of the EPI . the creation of the GAVI has helped to renew interest and maintain the importance of immunization in bathing the worlds large border of infectious diffuse .

### **The current goals of EPI are :**

To ensure full immunization of children under one year of age in every district .

- To globally eradicate poliomyelitis.
- To reduce material and neonatal to an incidence rate of less than one case Perl,000 birth by 2005 .
- To cut in half the number of measles . related to death that occurred in 1999.
- To extend all new vaccine and procreative health interruption to children in all district in the world .the general objective of the expired program immunization.

Immunize children under one years against Immunizable disease to reduce in chilies and death rate and immunize women of child bring age against tetanus disease.

**The special objective:**

1. Polio eradication initiative .
2. Measles elimination imitative .
3. Sensitive surveillance program .

**Targeted vaccination program acetones :**

- Children under one years .
- Women of child bearing age (15-41 years).

**Provide EPI services strategies :**

1. Fixed strategy .
2. Outreach.
3. Mobile team .

**Fire basic message were gives during sessions to the caregivers :**

1. The date and time following vacation .
2. Place next vaccination .
3. The number of reaming visit unit the mild complete the vaccination and the number of remaining does to complete vaccination .
4. Side effect that can occur.
5. Treatment side effect. [3]

**2.5 Vaccine used in program:****BCG: Vaccine:**

- given at birth.
- comes in the form of dissolved powder must be mixed with the solution .
- save the vaccine at temperature of (2-8')c .
- the number of doses of vaccine and one dose of 0.05 ml give it to be at the top of the left forum in the outer layer of the skin .
- the vaccine is given to children from birth to year .
- this vaccine is not to freeze damage.

**Polio vaccine :**

- live attenuated vaccine comes in homogenous media does not need to from large before use .
- store in (0-8) c° Celsius in the central star age saves in 20 degrees below zero .
- it follows the multi-use vial policy does not damage by freeze .
- the amount of the dose of oral tow point .
- give zero dose at birth to be the first dose at between of age .
- the second dose given at ago to week , the third give at the age of 14 weeks .

**measles vaccine:**

- live attenuated vaccine comes in the form of dissolved powder must mixed with solution .
- store in (2-8)c° not to freeze damage .
- the first dose are giving it at the age of 18 month .
- the amount of the dose is 0.05 ml give in the right arm under the skin .

**Rota virus vaccine:**

- the vaccine is available in two forms :
  1. dried rotavirus vaccine consists of special solution mixes with private attached to each dose of powder .
  2. liquid rotaviruses vaccine: vaccine used in Sudan liquid and does not need to be prepared.
- saves the vaccine refrigerator in (2-8) c° .
- the number of doses two doses separated between the first dose and the second for four week at least .
- the vaccine is given by month .

**Tetanus Vaccine:**

- inactive vaccine comes in the from liquid heterogeneous should be shack before use, saves in the refrigerator degree Harrah 2-8 c° .