Factors Influencing the Attitude of Fathers towards Child and Adolescent Immunization in Igando Community, Lagos State

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Abstract
This study was conducted to evaluate the factors that influence fathers' attitudes toward child and adolescent immunization in the Igando Community of Lagos State. The aims were to assess their knowledge and attitude regarding immunization and to identify the key factors shaping these attitudes. A simple random sampling method was used to select 123 fathers, out of which 120 valid responses were analysed. Data were gathered using a self-designed questionnaire and analysed using SPSS version 23 and Microsoft Excel 2010, with results presented in frequency/percentage tables and bar charts. The findings revealed that most fathers had limited knowledge and a generally negative attitude toward child and adolescent immunization. Key factors affecting their attitudes included fear of vaccine side effects (84.2%), cultural beliefs (70.0%), religious influences (47.5%), guidance from healthcare providers (29.2%), and their level of education (16.7%). A statistically significant relationship was observed between educational level and knowledge of immunization ($p < 0.05$), as well as between knowledge and attitude towards immunization ($p < 0.05$). The study concluded that enhancing fathers' knowledge and attitude towards immunization is crucial. This can be achieved by addressing the influencing factors through targeted interventions such as community outreach by midwives, collaboration with religious and community leaders, involvement of respected male advocates, extended clinic hours including weekends,father-friendlyhealth environments, and workplace immunization support.

Keywords: Influencing Factors, Attitudes, Fathers, Child and Adolescent Immunization

Chapter One
Introduction

1.1 Backgroundtothe Study Immunization is widely recognized as a vital global strategy in combating childhood diseases. It provides effective, safe, and economical protection against various illnesses. Vaccinations are estimated to save 2 to 3 million lives annually by preventing diseases such as diphtheria, tetanus, pertussis, and measles—ailments that heavily impact children, accounting for about 17% of deaths among those under five (Jose SE et al., 2020). In response to this global health challenge, the United Nations General Assembly set a bold goal: to achieve full immunization coverage, aiming for at least 90% nationally and 80% in every district by 2010 for infants under one year old. However, despite these targets, global immunization rates have stalled in recent

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years. In 2016, approximately 19.5 million infants missed out on Routine Immunization (RI) services worldwide, with 60% of them residing in just 10 countries—including Nigeria (Mansur Olayinka Raji et al., Ann Afr Med. 2020 Apr-Jun.). Research has highlighted that limited parental knowledge and poor attitudes toward RI are key contributors to this stagnation. While much focus has been placed on understanding mothers' views on immunization, there is still limited research into fathers' perspectives. Yet, studies emphasize that supportive and engaged fathers—whether biological, adoptive, or stepfathers, and regardless of whether they live with the child—play a significant role in a child's development. Their absence can lead to lasting negative effects (Behson & Robbins, 2020). In traditional Black African societies like Nigeria, cultural norms and traditions often place men in dominant roles over women. Men typically wield significant influence over their partners' reproductive health decisions and the overall well-being of their children. Given their role as heads of households and primary decision-makers in matters related to health and finances, fathers play a pivotal role in ensuring children are fully immunized (Segun Mathew et al., 2020). Fathers who are well-informed about immunization programs are more likely to encourage their spouses and children to access these vital health services. However, merely recognizing the importance of fathers in child health is not enough to ensure their active participation. Research has highlighted numerous challenges men face in parenting roles, as well as areas where they require support to become the nurturing, involved parents their children need (Behson & Robbins, 2020). This study seeks to explore the factors, challenges, and enablers that shape fathers' attitudes toward child and adolescent immunization among adult males in Igando, Lagos State, Nigeria.

1.2 Statement of the Problem

While undertaking my hospital-based clinical postings at the Child Welfare Clinic of Alimosho General Hospital, Igando, I repeatedly noticed the absence of fathers during child immunization appointments. This consistent trend points to a possible lack of engagement or interest by fathers in their children's healthcare, particularly in the area of immunization.

During these sessions, fathers were seldom seen, which may not only affect the overall success of the immunization process but also result in missed opportunities for fathers to receive important health education and awareness provided by healthcare professionals before and after immunization. The active involvement of fathers in conversations with healthcare professionals and in making joint health decisions with their partners significantly influences immunization choices (Harmsen et al., 2020). Men often hold considerable sway over their spouses' reproductive health decisions and play a key role in their children's overall health. As the heads of households, fathers are instrumental in facilitating effective child immunization by guiding critical health and financial decisions (Segun Mathew et al., 2020). When fathers advocate for immunization within their communities, it can lead to a stronger collective defense against vaccine-preventable childhood diseases (Brown et al., 2020). The noticeable lack of interest among fathers in child and adolescent immunization has sparked my curiosity to explore the root causes of this disengagement within the community. This study seeks to uncover practical strategies for enhancing fathers' participation in immunization programs and ultimately improving health outcomes for families.

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1.3 Objectives of the Study

GeneralObjective

The main aim of this research is to explore the factors, obstacles, and enablers that shape fathers' attitudes toward child and adolescent immunization in the Igando community of Lagos State.

Specific Objectives

1. To evaluate the level of knowledge fathers in Igando community have regarding child and adolescent immunization.
2. To examine the attitudes of fathers in Igando community towards the immunization of children and adolescents.
3. To determine the factors that shape or impact the attitudes of fathers toward child and adolescent immunization in the Igando community.

1.4 Research Questions

1. How knowledgeable are fathers in Igando Community about child and adolescent immunization?
2. What is the attitude of fathers in Igando Community toward child and adolescent immunization?
3. What factors affect the attitude of fathers in Igando Community regarding child and adolescent immunization?

1.5. ResearchHypotheses(Null Hypotheses)

$(H_0)_1$: There is no statistically significant association between the educational level of fathers and their knowledge of child and adolescent immunization in the Igando community.

$(H_0)_2$: There is no statistically significant relationship between the fathers' knowledge and their attitude toward child and adolescent immunization in the Igando community.

1.6. SignificanceoftheStudy

Exploring the factors that shape fathers' attitudes toward child and adolescent immunization in the Igando community holds significant value across several dimensions, including public health, family engagement, and policy development. Its importance can be outlined as follows:

1. **Health Impact**: Gaining insight into paternal attitudes can contribute to enhancing immunization coverage, thereby promoting better health outcomes for children and adolescents and minimizing the prevalence of vaccine-preventable illnesses.
2. **Gender Perspectives**: Examining fathers' attitudes offers valuable insight into the influence of men in family health decisions, supporting the development of gender-responsive healthcare strategies and policies.
3. **Localized Interventions**: Conducting this research within the Igando community enables the creation of targeted programs that reflect the community's specific cultural values, beliefs, and social norms, thereby fostering greater involvement in immunization efforts.
4. **Policy Development**: The outcomes of this study could inform the design and execution of health policies aimed at improving vaccine uptake among fathers, potentially enhancing the structure and outreach of immunization services.
5. **Comprehensive Care**: Understanding and addressing paternal attitudes toward immunization promotes a more inclusive healthcare approach, acknowledging the role of family influence in advancing children's overall health and development.
6. **Literature Contribution**: This research addresses a significant gap by focusing on paternal perspectives, offering new insights into an often-overlooked area of immunization behaviour.

1.7 Scopeof,theStudy

This study focused on fathers living in the Igando community of Lagos State who have children and adolescents eligible for immunizationA quantitative, cross-sectional

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research approach was adopted, utilizing self-designed questionnaires administered to a representative sample of fathers selected through random sampling to minimize bias. The research examined multiple variables, including demographic details (such as age, educational level, and occupation), awareness of immunization and vaccine-preventable illnesses, perceived advantages and concerns surrounding vaccination, socio-economic status, level of education, and access to healthcare-related information as well as the religious and cultural beliefs of fathers that impact their attitudes and participation in immunization efforts.

1.8 Operational Definition of Terms

Factors: These refer to the various elements or circumstances that can influence or determine how fathers in the Igando community perceive and respond to child and adolescent immunization. They include demographics, awareness of immunization, perceived advantages and risks, socio-economic level, educational attainment, accessibility to healthcare services and information, and cultural or religious views.

Influence: This signifies the ability of the identified factors to impact or shape fathers' behaviours and perspectives towards immunizing their children and adolescents in the Igando community.

Attitudes: This describes the inclinations or mental dispositions of fathers in the Igando area to react either favourably or unfavourably toward child and adolescent immunization.

Fathers: Refers to male caregivers or biological parents of children and adolescents eligible for immunization within the Igando community.

Child: A person between the ages of 0 and 11 who is qualified for routine vaccinations according to national health protocols and lives in the Igando community.

Adolescent: An individual aged 12 to 17 who is due for recommended immunizations or booster doses, as prescribed by health authorities, and resides in the Igando area.

Immunization: This refers to the method of making individuals—especially children and adolescents in the Igando community—immune or protected against infectious diseases through the use of vaccines.

Men: This term denotes adult males residing in the Igando community who are fathers and bear responsibility for the health and welfare of children and adolescents eligible for vaccination.

Igando Community: This represents the specific area where the study was carried out, centering on the local male population (fathers) and their perspectives on child and adolescent immunization.

Chapter Two
Literature Review

2.1.Conceptual,Review

Immunization, commonly referred to as vaccination, is a vital public health strategy designed to prevent infectious diseases through the administration of vaccines. It has played a significant role in lowering the incidence of these diseases. Vaccines work by stimulating the body's immune system to recognize and combat specific pathogens, thereby offering protection against illness (Jose SE et al., 2020). In addition to safeguarding vaccinated individuals, immunization also promotes herd immunity, which helps protect vulnerable populations who are unable to receive vaccines due to age or medical reasons (World Health Organization [WHO], 2020). Furthermore, immunization programs are highly cost-effective, as they reduce healthcare spending on treating preventable diseases and minimize productivity loss caused by illness (Ozawa et al., 2020).

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Significance of Immunization

Immunization plays a crucial role in combating infectious diseases by saving lives, preventing epidemics, being cost-effective, and aiding in the fight against antimicrobial resistance. Achieving high immunization coverage is essential to uphold public health and safeguard future generations.

- **Disease Prevention:** One of the key advantages of immunization is its ability to prevent the spread of infectious diseases. Vaccines protect against illnesses like measles, influenza, polio, mumps, rubella, and even COVID-19. Immunization efforts have led to the eradication of smallpox and brought polio to the verge of elimination (Centers for Disease Control and Prevention [CDC], 2021). Through population-wide vaccination, disease transmission is significantly reduced, contributing to elimination and eradication goals (World Health Organization [WHO], 2022).
- **Decreased Morbidity and Mortality:** Vaccination programs have substantially reduced the occurrence and severity of numerous diseases, preventing millions of deaths and disabilities globally (WHO, 2020). Immunization lowers disease rates, minimizes complications, and reduces hospital admissions and fatalities linked to preventable infections (Andre et al., 2020).
- **Support for Herd Immunity:** When a large portion of a community is immunized, the spread of disease is curtailed, indirectly protecting those who cannot receive vaccines due to age restrictions, medical conditions, or allergies (WHO, 2020).
- **Economic Impact:** Vaccines are a cost-effective public health measure. They reduce treatment costs by preventing illness and lessen the financial strain on both healthcare systems and individuals. Additionally,immunization,reduces productivity losses due to illness-related work absences (CDC, 2021).
- **Combating Antimicrobial Resistance:** By preventing infections before they occur, vaccines limit the need for antibiotics, thus helping to curb the development of drug-resistant bacteria (WHO, 2020).

Categories of Vaccines

Vaccines are classified based on how they are formulated and the techniques used in their development:

1. **Live Attenuated Vaccines:**

These vaccines are made from viruses or bacteria that have been weakened so they can still replicate in the body without causing serious illness. They generally offer long-term protection with a single dose. **Examples:** Measles, Mumps, and Rubella (MMR) vaccine, Oral Polio Vaccine (Orenstein et al., 2020).

2. **Inactivated Vaccines:**

Produced from pathogens that have been killed or inactivated, these vaccines cannot replicate and typically require multiple doses or boosters to maintain immunity. **Examples:** Hepatitis A vaccine, Influenza vaccine (Dentinger et al., 2020).

3. **Subunit,Recombinant, and Conjugate Vaccines:**

These vaccines include only specific parts of a virus or bacterium—such as proteins or sugars—that can trigger an immune response without causing the disease. They are considered very safe, though they may need adjuvants or several doses to be effective**Examples:** Recombinant Hepatitis B vaccine, Human Papillomavirus (HPV) vaccine, Pneumococcal Conjugate Vaccine (PCV) (Markowitz et al., 2021).

4. **ViralVector, DNA, and Mrna Vaccines:**

This use engineered viruses or genetic material (like DNA or mRNA) to deliver instructions to the body's cells, teaching the immune system to recognize and fight off

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the pathogen. They are known for strong immune responses and often require only one or two doses. **Examples:** COVID-19 vaccines such as Pfizer-BioNTech, Moderna, AstraZeneca, and Johnson & Johnson (Logunov et al., 2021).

5. Toxoid Vaccines:

These vaccines are made using toxins that have been neutralized but are originally produced by certain bacteria. They help the immune system recognize and build protection against the harmful effects of these toxins. **Example:** Vaccines for diphtheria and tetanus (Centers for Disease Control and Prevention [CDC], 2020).

ImmunizationandResearch

Immunization plays a vital role in public health, offering protection against infectious diseases primarily through vaccination. Research in this field serves multiple key functions:

- **Effectivenessand Safety:** Clinical research is essential for determining how well vaccines prevent targeted diseases and for identifying any potential side effects. For example, recent studies on COVID-19 vaccines have demonstrated their ability to reduce the severity and mortality of the disease.
- **Immune Response Mechanisms:** Scientific investigations explore how vaccines activate the immune system, including the roles of antibodies and T-cells. This insight is critical in developing vaccines that offer strong and lasting protection.
- **Global Health Contributions:** Findings from immunization research guide public health decisions, shape vaccination programs, and support global efforts to control and eliminate diseases.

Ongoing innovations and global health challenges continue to drive progress in immunization research, including the development of vaccines for emerging infections like COVID-19 and improvements to current immunization strategies.

- For example, mRNA-based vaccines such as Pfizer-BioNTech and Moderna, along with viral vector vaccines like AstraZeneca and Johnson & Johnson, have undergone extensive research and have shown high effectiveness in preventing COVID-19. These studies emphasize their ability to generate strong immune responses (Smith et al., 2021).
- Ongoing research on Human Papillomavirus (HPV) vaccines continues to demonstrate a substantial global reduction in cervical cancer incidence. Vaccines such as Gardasil and Cervarix have proven effective in preventing HPV infections and associated health conditions (CDC, 2020).
- Developments in influenza vaccine research aim to improve protection against rapidly changing virus strains. Current studies are investigating new vaccine compositions and alternative delivery techniques to boost effectiveness (WHO, 2021).

Child and Adolescent Immunization

Immunization programs targeting children and adolescents play a vital role in safeguarding their health by preventing the spread of infectious diseases. These vaccination schedules are carefully structured to provide protection from infancy through the teenage years. Childhood and adolescent immunization offer several important advantages:

- **Disease Prevention:** Vaccinations shield young individuals from potentially life-threatening illnesses such as measles, polio, diphtheria, and pertussis (whooping cough), among others.
- **Protection of the Community:** When a significant portion of the population is

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immunized, herd immunity is established, reducing the risk of disease transmission and protecting those who are medically unable to receive vaccines.

- **PromotingHealthEquity:** Immunization initiatives are designed to ensure equal access to preventive healthcare, aiming to eliminate disparities and guarantee that all children receive protection against vaccine-preventable diseases (CDC, 2022).

Types of Vaccines for Children

Several vaccines are routinely administered during childhood to protect against various infectious diseases:

- **RoutineImmunizations:**these include standard vaccines such as DTaP (for diphtheria, tetanus, and pertussis), MMR (measles, mumps, and rubella), polio, varicella (chickenpox), and hepatitis B.
- **RotavirusandPneumococcal Vaccines:** These vaccines provide protection against rotavirus infections and pneumococcal diseases, which can lead to serious health issues in young children.
- **Hib Vaccine:** This vaccine helps prevent illnesses caused by Haemophilus influenzae type b, such as meningitis and pneumonia.

Ongoing research into improved vaccine formulations and combination vaccines aims to streamline immunization schedules and enhance overall vaccine uptake. Studies continue to demonstrate how immunization reduces childhood illness and death worldwide, highlighting its critical role in advancing progress toward the Sustainable Development Goals (SDGs) (CDC, 2022; WHO, 2023).

Table 1: Current Routine Vaccines for Children in Nigeria and Major Diseases They Prevent.

S/N	NAME OF VACCINES	MAJOR DISEASES THE VACCINES PREVENTS
1.	Bacillus Calmette Guerin (BCG)	Tuberculosis
2.	Hepatitis B Vaccine	Hepatitis
3.	Oral Polio Vaccine (OPV0, OPV1, OPV2, OPV3)	Poliomyelitis
4.	Pentavalent Vaccine (Penta 1, Penta 2, Penta 3)	Diphtheria, Pertussis (Whooping Cough), Tetanus, Hepatitis, Meningitis, Pneumonia
5.	Inactivated Polio Vaccine (IPV1, IPV2)	Poliomyelitis
6.	Pneumococcal Conjugate Vaccine (PCV1, PCV2, PCV3)	Pneumonia
7.	Rotavirus Vaccine (Rota1, Rota2, Rota3)	Diarrhoea
8.	Measles Vaccine (1st and 2nd Doses)	Measles
9.	Yellow Fever Vaccine	Yellow Fever
10.	Meningitis A Vaccine	Meningitis
11.	HPV (Human papillomavirus) Vaccine	Human papillomavirus infection
12.	Vitamin A (1st and 2nd Doses)	

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ROUTINE IMMUNIZATION SCHEDULE

Minimum Target Age of Child	Type of Vaccine	Dosage	Route of administration	Site
	*BCG	0.05ml	Intra dermal	Left Upper Arm
	**OPV0	2 drops	Oral	Mouth
At birth	***Hep B0 birth	0.5ml	Intramuscular	Anterolateral aspect of Right thigh
	Pentavalent (DPT, Hep B and Hib) 1	0.5ml	Intramuscular	Anterolateral aspect of left thigh
	Pnemococcal Conjugate Vaccine 1	0.5ml	Intramuscular	Anterolateral aspect of Right thigh
	OPV1	2 drops	Oral	Mouth
	IPV1	0.5ml	Intramuscular	Anterolateral aspect of Right thigh (2.5cm apart from PCV)
6 weeks	**Rotavirus vaccine 1**	**5 drops**	**Oral**	**Mouth**
	Pentavalent (DPT, Hep B and Hib) 2	0.5ml	Intramuscular	Anterolateral aspect of left thigh
	Pnemococcal Conjugate Vaccine 2	0.5ml	Intramuscular	Anterolateral aspect of Right thigh
	OPV2	2 drops	Oral	Mouth
10 weeks	**Rotavirus vaccine 2**	**5 drops**	**Oral**	**Mouth**
	Pentavalent 3 (DPT, Hep B and Hib)	0.5ml	Intramuscular	Anterolateral aspect of the left thigh
	Pnemococcal Conjugate Vaccine 3	0.5ml	intra muscular	Anterolateral aspect of Right thigh
	OPV3	2 drops	Oral	Mouth
	Rotavirus vaccine 3	**5 drops**	**Oral**	**Mouth**
14 weeks	IPV2	0.5ml	Intramuscular	Anterolateral aspect of Right thigh (2.5cm apart from PCV)
6 months	Vitamin A 1st dose	100,000 IU	Oral	Mouth
	Measles 1st dose (MCV1)	0.5ml	Subcutaneous	Left upper arm
9months	Yellow Fever	0.5ml	Subcutaneous	Right upper arm
	Meningitis Vaccine	0.5ml	Intramuscular	Anterolateral aspect of Left thigh
12 months	Vitamin A 2nd dose	200,000 IU	Oral	Mouth
15 months	Measles 2 dose (MCV2)	0.5ml	Subcutaneous	Left upper arm
9 years	****HPV	0.5ml	Intramuscular	Deltoid muscle (Left upper arm)

*BCG should be given at birth and can be given up until 11 months.

**OPV0 must be given before the age of two weeks

***Hep B0, should be given at birth, or within 24 hours

**** HPV to be introduced soon

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FIGURE 1: ROUTINE IMMUNIZATION SCHEDULE IN NIGERIA

Knowledge of Immunization among Fathers and Their Involvement in Child Immunization

Fathers'KnowledgeofImmunization

Fathers' understanding of immunization encompasses their awareness of diseases that vaccines can prevent, the advantages of vaccination, and any potential side effects. A lack of adequate knowledge may negatively affect their attitudes and choices concerning their children's immunization (Brown et al., 2020). Men typically gain vaccine-related information through healthcare professionals, public awareness campaigns, and digital platforms. Having access to trustworthy and accurate information is essential in influencing their views and vaccination decisions (Harmsen et al., 2020). Fathers' perceptions regarding vaccine safety, effectiveness, and the role of herd immunity significantly affect their willingness to immunize their children. Additionally, cultural norms and personal experiences heavily influence these decisions (Dubé et al., 2020). When fathers are well-informed about childhood immunization programs, they are more likely to encourage mothers and children to utilize immunization services.

Fathers'InvolvementinChild Immunization

Fathers play a vital role in the healthy growth and overall development of their children. Whether they are biological, adoptive, or stepfathers, and regardless of whether they reside with their children or not, their presence and engagement significantly influence every phase of a child's development, while their absence can have long-lasting negative effects (Behson & Robbins, 2020). In traditional Black African societies like Nigeria, cultural norms often position men as dominant figures over women, granting them considerable authority in matters concerning their partners' reproductive health and their children's overall well-being. As heads of the household, fathers are central to health-related decisions, including those regarding finances and child immunization (Segun Mathew et al., 2020). The degree of paternal involvement in health matters, such as immunization, varies. Active engagement in conversations with healthcare providers and making health decisions alongside their partners significantly influences vaccination uptake (Harmsen et al., 2020). Positive attitudes toward immunization and encouragement from fathers increase the likelihood of children being vaccinated. When fathers advocate for vaccination within their families and communities, they help strengthen herd immunity (Brown et al., 2020). However, practical challenges—such as demanding work schedules, limited access to healthcare services, and poor communication with health professionals—can hinder fathers' involvement in child immunization. Overcoming these barriers is key to fostering greater paternal participation (Opel et al., 2020).

Research and Strategies to Enhance Fathers' Knowledge and Participation in Child Immunization

Studies exploring fathers' awareness and engagement in child immunization contribute to developing effective strategies aimed at increasing vaccination coverage and reducing vaccine hesitancy:

- **EducationalPrograms:**Delivering targeted vaccine-related information to fathers through healthcare providers and community-based initiatives can

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significantly improve their understanding and trust in immunization (Opel et al., 2020).

- **Encouraging Joint Decision-Making:** Promoting collaborative health decisions between fathers, mothers, and medical professionals helps ensure informed choices and fosters stronger support for routine childhood vaccination (Harmen et al., 2020).

Understandingfathers'awarenessof immunization and their role in the vaccination process is essential for developing impactful public health interventions. Providing fathers with reliable information and encouraging their active engagement can lead to increased immunization coverage and better overall health outcomes in the community.

Determinants of Fathers' Attitudes Toward Child and Adolescent Immunization

Recognizing the factors that shape fathers' perspectives on child immunization—such as socio-economic status, educational attainment, access to healthcare information, and cultural or religious beliefs—is vital for designing effective and targeted public health initiatives. Additionally, common myths and misinformation surrounding vaccines can significantly sway paternal attitudes and result in reluctance or refusal to vaccinate children.

1. Socio-Economic Status (SES): A father's socio-economic position strongly affects his outlook on immunization. Those with higher SES often have greater access to healthcare services and are more informed about the benefits of vaccination. Fathers with stable income and employment are more likely to prioritize preventive care for their children. On the other hand, those in lower SES brackets may face obstacles like limited financial resources, inflexible job schedules, and lack of transportation, which can contribute to reduced access to vaccines and increased hesitancy (Smith et al., 2020; Hill et al., 2020).

2. EducationalLevel:

Education significantly influences a father's understanding and acceptance of vaccines. Fathers with higher education levels generally possess better health literacy, seek information from trustworthy sources, and understand the scientific rationale behind immunization. They are thus more likely to vaccinate their children. In contrast, limited education may increase vulnerability to misinformation and fear-based beliefs, fostering vaccine hesitan
cy (Dubé et al., 2020; Opel et al., 2020).

3.AvailabilityofHealthcare Information:

Having access to reliable and up-to-date healthcare information enables fathers to make well-informed choices regarding their children's immunization. It helps them address concerns related to vaccine safety and efficacy while reinforcing the importance of protecting children from preventable diseases (Opel et al., 2020).

4. Cultural and Religious Beliefs: Fathers' religious or cultural perspectives can greatly influence their stance on vaccination. Certain faith-based views may conflict with immunization practices, such as concerns over ingredients used in vaccines or beliefs in divine healing. Likewise, traditional cultural views about illness and healing may affect vaccine acceptance. Addressing these beliefs through respectful, culturally sensitive communication is essential in building trust and acceptance within communities (Dubé et al., 2020; Brown et al., 2020).

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5. **Prevalent Immunization Myths:**

- **Myth 1: Vaccines cause autism or physicaldisabilities**
  Truth: Scientific research, including numerous large-scale studies, has refuted the claim that vaccines, particularly the MMR vaccine, cause autism or disability. The study that initially proposed this link was discredited and retracted. Vaccines are rigorously tested for safety (Taylor et al., 2020).
- **Myth 2: Natural immunity is superior to vaccine-induced immunity**
  Truth: While recovering from a disease may provide immunity, it comes with serious risks, including severe illness and complications. Vaccines offer safe and controlled exposure that leads to effective immune protection without the dangers of the actual disease (Dubé et al., 2020).
- **Myth 3: Vaccines overload the immune system**
  Truth: The immune system routinely manages exposure to many antigens daily. Vaccines only introduce a small portion of antigens and help the body build specific immunity. They do not overwhelm or weaken the immune system; rather, they strengthen it (Offit et al., 2020).
- **Myth 4: Delaying or using alternative vaccine schedules is safer**
  Truth: Following unapproved vaccine schedules increases vulnerability to preventable diseases during critical stages of development. The standard immunization timetable is carefully designed to provide timely protection when children are most at risk (Offit et al., 2020).
- **Myth 5: Vaccines Contain Harmful Substances Like Mercury or Toxins**
  Truth: Vaccines are thoroughly tested to ensure both safety and efficacy. Some vaccines may include ingredients like thimerosal—a preservative that contains a form of mercury—but it is used in minimal quantities and has not been shown to cause harm at those levels (CDC, 2020). All vaccine components are strictly regulated and monitored by health authorities to ensure they are safe for use.

  Effectively addressing such concerns and misconceptions through the dissemination of accurate information, culturally appropriate education, transparent communication with healthcare providers, and improved access to health services can help shift fathers' attitudes. These strategies encourage informed decisions, reduce hesitancy, and enhance acceptance and participation in child immunization programs.

2.2.TheoreticalReview

Theories in Nursing and Midwifery are fundamental in aiding child and adolescent immunization by offering structured approaches for comprehending, advocating for, and executing immunization practices. Nurses use these theories in diverse ways to enhance immunization efforts, which in turn boosts immunization rates and improves public health outcomes for children and adolescents.

Theories Supporting Child and Adolescent Immunization

- **Health Promotion Model (HPM) by Nola Pender:** This theory emphasizes the importance of health promotion and disease prevention through

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individual and family behaviors. Nurses and Midwives utilizing this model aim to boost parents' motivation for immunization by highlighting the benefits of vaccination and addressing any obstacles to immunization (Pender, 2011).

- **Social Cognitive Theory (SCT) by Albert Bandura:** This theory underscores the role of social influences and cognitive processes in changing behavior. Nurses and Midwives can apply SCT to child immunization by addressing parents' beliefs, attitudes, and social norms regarding vaccines. Encouraging positive role modeling, offering reliable information, and building self-confidence can enhance vaccine acceptance (Bandura, 1986).
- **Theory of Planned Behavior (TPB) by Icek Ajzen:** This theory examines the factors that influence behavioral intentions and decisions. Nurses and Midwives applying TPB to immunization work to foster positive attitudes toward vaccines, address social norms (e.g., societal expectations), and improve perceived behavioral control (e.g., access to immunization services). This theory aids in understanding and influencing parents' decision-making processes regarding childhood immunization (Ajzen, 1991).
- **Trans theoretical Model (TTM) by James Prochaska and Carlo DiClemente:** This theory outlines stages of behavior change (e.g., pre-contemplation, contemplation, preparation, action, maintenance). Nurses and Midwives use TTM to evaluate parents' readiness to vaccinate their children, customize interventions based on their stage of readiness, and assist them in progressing toward vaccine acceptance and adherence (Prochaska & DiClemente, 1983).
- **Ecological System Theory (EST) by Urie Bronfenbrenner:** This theory focuses on the interactions between individuals and their environments.

Nurses and Midwives applying EST to childhood immunization consider various levels of influence (e.g., family, community, healthcare system) on vaccination decisions. Interventions are designed to address barriers at each level, providing comprehensive support for immunization programs (Bronfenbrenner, 1979).

Application of Theories in Nursing and Midwifery Practice

- **Assessment:** Identifying parents' perceptions, knowledge deficits, and apprehensions related to vaccination.
- **Intervention:** Delivering customized health education, correcting misinformation, and fostering supportive attitudes towards immunization.
- **Evaluation:** Tracking vaccination coverage, evaluating shifts in parental perspectives, and recognizing any continuing needs for guidance.

Nursing and midwifery theories serve as essential tools that enable healthcare professionals to effectively support and enhance immunization efforts among children and adolescents. Through a clear understanding of the factors that impact vaccine acceptance and the application of theory-based strategies, nurses are instrumental in increasing vaccination rates and advancing public health outcomes.

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2.3.EmpiricalReview

Childhood immunization is vital to public health, serving as a key measure to control the spread of infectious diseases. Fathers' perspectives and attitudes significantly influence the immunization decisions made for their children. This empirical review synthesizes recent research findings on the factors shaping fathers' attitudes toward child and adolescent vaccination, offering valuable insights for developing effective public health strategies. A cross-sectional study titled *"Knowledge, Attitude, and Practice of* Fathers About Childhood Immunization: A Tertiary Care Hospital-Based Study" conducted by Swetha E. Jose, Navya C. Joseph, Soorya Sheela, and Vidhu M. Joshy, explored this topic in detail. The research involved fathers of children aged two years or younger who were visiting the paediatric outpatient department at Amala Institute of Medical Sciences in Thrissur. Data collection was carried out using a structured,interviewer-administered questionnaire. A total of 110 fathers with children between 9 months and 2 years who gave their consent participated in the study. Findings revealed that 42.7% of participants had only completed secondary education, and 65.5% were employed as skilled workers. While 99.1% exhibited a positive attitude towards their children's immunization, only 10.9% demonstrated adequate knowledge, and just 32.7% practiced good immunization behaviours. Among those with sufficient knowledge, the majority (41.6%) had received professional or postgraduate education, whereas those with limited knowledge (46.9%) mostly had secondary education only. The study concluded that fathers' knowledge and practices related to childhood immunization are closely linked to their educational level, occupation, and socio-economic status.

It recommended implementing targeted educational initiatives, such as health education or peer-led programs, to enhance male parental involvement in immunization efforts. Younger fathers and those whose jobs require them to spend significant time away from home should be a primary focus for targeted educational and intervention strategies (Jose et al., 2020). A descriptive cross-sectional study titled "Knowledge, Attitude, and Perceptions of Adult Males Towards Childhood Immunizations in Southwest Nigeria" was carried out by Segun Mathew Agboola and colleagues, including Olusegun Adesola Busari, Beatrice Titilola Segun-Agboola, Toye Jude Olajide, Olabode Muftau Shabi, and Olayide Toyin Elegbede. The research was conducted in the Ido-Osi Local Government Area of Ekiti State, Nigeria. Using a multistage sampling method, 320 adult males were selected for participation, and data was gathered through a pre-tested semi-structured questionnaire. Statistical analysis was then performed on the responses. The average age of participants was 48.4 years (±12.6), ranging from 20 to 95 years. Around 50.6% of the respondents were between 40 and 59 years of age. The majority were Christians (67.7%), with only 0.6% indicating no religious affiliation. Most participants (79%) were married, and of these, 245 were in monogamous relationships. Nearly all respondents (91.5%) had heard of childhood immunization, while 67.5% correctly identified the appropriate age for starting immunizations. However, 21.6% lacked this knowledge, and 10.9% were unsure. Out of the 320 participants, 254 (81.9%) expressed support for child immunization. There was a statistically significant relationship between religious

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affiliation and support for immunization, as well as between educational attainment and willingness to support immunization. The study found that traditional mass media was the most commonly reported source of information on childhood immunization, whereas social media played the least role. This highlights the ongoing importance of traditional media in promoting health and social services in low-resource settings. While limited use of social media for health communication may reflect the communities' lower socioeconomic status, the findings also point to the vast untapped potential of digital platforms to advance immunization advocacy and outreach across Africa and other developing regions experiencing a digital divide (Segun M.A. et al., 2020). A descriptive cross-sectional study titled "Fathers' Involvement in the Healthcare of Their Children in Southwest Nigeria" was conducted by Olubunmi Temitope Bodunde, Oluwafolahan Oluwagbemiga Sholeye, Olubukunonla Ayodele Jeminusi, Haroun Adetunji Ajibode, Taibat Olusola Otulana, and Emmanuel Olusegun Adebayo. The research was carried out in Sagamu township within the Sagamu Local Government Area. The participants were fathers aged 18 years and above, who had children, were permanent residents of Sagamu, and voluntarily agreed to participate. Using Fisher's formula, the sample size was determined to be 412. Participants were selected through a multistage sampling technique. Data collection was done with a pretested, self-administered questionnaire, which had two sections: Section A gathered socio-demographic data, while Section B explored fathers' attitudes toward accompanying their children to the hospital. The study was voluntary, and written informed consent was obtained before participation. A total of 416 fathers took part in the study, with a mean age of 42.0±12.7 years. About 44.5% had completed secondary education, and 36.6% were in unskilled occupations.

Notably, 42.3% believed that taking children to the hospital was the mother's responsibility, and nearly half felt it was too time-consuming. Two-thirds reported that long waiting times at hospitals discouraged them, while 53.6% said they would prefer to work and earn money rather than accompany their child to the hospital. Furthermore, 39.9% felt that paternity leave would help increase their involvement. The study identified key individual factors influencing paternal involvement in children's healthcare, including job type, marital status, work hours, and negative interactions with health workers. Although many participants did not believe paternity leave was essential, the findings suggest that health education and improved time management by healthcare providers could enhance male participation. These efforts are important steps toward achieving Sustainable Development Goal 3—ensuring healthy lives and promoting well-being for all (Bodunde et al., 2023). In another study titled *"*A Comparative Study on Knowledge and Attitude of Fathers towards Childhood Vaccination in Ogun State, Nigeria" by K. J. Sodeinde, O. E. Olorunfemi, A. O. Adekoya, O. O. Abolurin, B. G. Imhonopi, J. O. Bamidele, and O. A. Abiodun, data was gathered from 440 fathers in both rural and urban settings. An interviewer-administered questionnaire was used, and analysis was conducted using IBM SPSS version 20. T-tests compared the mean ages of urban and rural participants, while chi-square tests assessed associations between categorical variables, with significance set at $p < 0.05$. There was no significant difference in mean age between urban and rural

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respondents (t = –1.82, p = 0.07). A slightly higher percentage of rural participants (51.4%) demonstrated good knowledge of childhood vaccination compared to 45.2% of urban respondents, though the difference was not statistically significant (p = 0.069). However, 58% of urban fathers had a more positive attitude toward male participation in childhood vaccination than 54.1% of rural fathers, but again the difference was not significant (p = 0.204). The findings suggest that while rural fathers had marginally better knowledge of vaccination, urban fathers were more supportive of participating in immunization efforts. The study emphasizes the need for targeted educational campaigns, especially in rural areas, to improve male attitudes toward childhood vaccinations. These campaigns should involve government agencies, healthcare professionals, and other stakeholders using various communication tools and educational methods to enhance outreach and impact (West African Journal of Medicine, 2022; 39(7): 747–75

Chapter Three
Research Methodology
3.1.ResearchDesign
This chapter outlines the methodology and procedures utilized in conducting the study. It details the research design, study location, target population, sample size, sampling method, data collection instruments, and the processes for ensuring validity and reliability. It also covers the techniques used for data gathering, data analysis, and ethical considerations. To meet the study objectives, a descriptive cross-sectional design was adopted to examine the factors influencing fathers' attitudes toward child and adolescent immunization in the Igando community of Lagos State, Nigeria.

3.2.Studysetting
The research was conducted in Igando Community, situated within the Alimosho Local Government Area—recognized as the most populous local government in Lagos State, Nigeria, with an estimated population of 1,817,200 people according to the 2016 national census (National Population Commission, 2016). The area has since been segmented into various Local Council Development Areas (LCDAs), with Ikotun forming part of the Igando/Ikotun LCDA.

Igando is known for its vibrant commercial activity, driven by well-known local markets and its strategic road network that connects to Iyana-Iba, Isheri-Egbeda Road, and Ikotun. Notable landmarks along the Igando-Ikotun route include Igando Community High School, Alimosho General Hospital, and the Lagos State College of Nursing, all located along Igando Road leading toward Isheri-Egbeda. Additionally, the Lagos Bus Rapid Transit (BRT) terminal is positioned at the Igando bus stop, contributing to the area's busy nature.

The Igando Community is a culturally rich and diverse area, comprising both indigenous inhabitants and migrants from various ethnic backgrounds across Nigeria. It is predominantly made up of working-class families and individuals engaged in different occupations and trades. The community reflects a fusion of traditional values and modern lifestyles, indicative of its evolving socio-economic environment.

3.3 Target Population
- The focus population for this research includes adult males aged 18 years and above who are permanent residents of

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the Igando community in Lagos State, Nigeria.

- Individuals excluded from the study are men under the age of 18, those not living within the Igando area, men without children or not involved in caregiving responsibilities, and those who either decline to participate or are unable to take part in the study.

3.4 SamplingandSampleSize Determination

The Cochrane formula was employed to calculate the required sample size. For a population exceeding 10,000, the formula used is:

$$n_0 = Z^2 \times P \times (1 - P) / d^2$$

Where:

- n_0 = initial sample size for an infinite population
- **Z** = standard value for 95% confidence level, which is 1.96
- **P** = estimated population proportion (0.5 is used when the actual proportion is unknown, to allow for maximum variability)
- **d** = margin of error, set at 0.05.

Applying the formula:

$n_0 = (1.96)^2 \times 0.5 \times (1 - 0.5) / (0.05)^2$

$n_0 = 0.9604 / 0.0025 = 384.16$, which rounds to approximately 384

Since the study population is fewer than 10,000 individuals, the sample size was adjusted using the finite population correction formula:

$n_1 = n_0 / (1 + n_0 / N)$

Where:

- n_1 = adjusted sample size for a finite population
- n_0 = initial calculated sample size (384)
- N = estimated finite population size (150)

$n_1 = 384 / (1 + 384 / 150) = 384 / (1 + 2.56) = 384 / 3.56 = 107.865$, which rounds to 108

To account for a potential 10% non-response rate, an additional 10% of the total sample size was added:

10%of150=15

Final sample size = 108 + 15 = 123

3.5 SamplingTechnique

A simple random sampling method was employed to select 123 fathers for the study. From a pool of 150 eligible participants within the target group, each individual was assigned a unique number for identification purposes, ensuring equal selection probability for all. Random numbers were then generated within the range of 1 to 150 to randomly select participants.

3.6 InstrumentforDataCollection

Data was gathered using a self-designed, self-administered questionnaire that included both open-ended and close-ended questions aimed at collecting relevant information from participating fathers. The questionnaire was structured into the following sections:

- **Section A:** Socio-demographic characteristics of the respondents
- **Section B:** Fathers' knowledge of child and adolescent immunization programs
- **Section C:** Fathers' level of involvement in child and adolescent immunization
- **Section D:** Factors affecting fathers' attitudes towards child and adolescent immunization

Responses were measured using a 4-point Likert scale: **Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD).**

3.7 ValidityOfInstrument

The validity of the instrument refers to whether it measures what it is intended to measure. To ensure this, the researcher assessed the face and content validity of

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the structured questionnaire by aligning its items with the research objectives, questions, literature review, and hypotheses. The questionnaire was submitted to the research expert for intellectual review, critique, and suggestions, allowing for improvements to ensure its content validity before it was administered to the respondents.

3.8. ReliabilityofInstrument

Reliability refers to the ability of the instrument to consistently measure what it is intended to measure. To test this, the research instrument was first administered to a non-representative sample in a different setting. One week later, the same group of participants was given the questionnaire again to assess reliability. The responses were then collated, and the reliability coefficient was calculated using Cronbach's Alpha statistical method.

3.9. MethodofDataCollection

A self-developed, self-administered questionnaire consisting of 34 items was distributed to 123 fathers within the community. Data collection was completed over a two-week period, during which necessary explanations and guidance were provided. The questionnaires were retrieved immediately after distribution to ensure a high return rate. A total of 123 questionnaires were distributed, and a valid return rate of 97.6% (120 responses) was achieved, which was analysed for the study.

InclusionCriteria

Men aged 18 years and above, who reside in Igando Community, have children or childcare responsibilities, and are able and willing to participate in the study.

ExclusionCriteria

Men under 18 years old, who do not reside in Igando Community, do not have children or are not involved in childcare, or who are unable or unwilling to participate in the study

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3.10. MethodofDataAnalysis

The collected data were analysed using Statistical Product for the Service Solution (SPSS) version 23 and Microsoft Office Excel 2010. Descriptive statistics, including frequencies, percentages, and tables, were used to analyse the factors influencing fathers' attitudes toward child and adolescent immunization in Igando Community. Pearson's correlation coefficient was used to test the hypotheses at a 0.5 significance level.

3.11. Ethicalconsiderations

Ethical guidelines were strictly followed in this study. A letter of introduction was obtained from the Head of the Midwifery Department and presented to the Chairman of Alimosho Local Government Area, Lagos State, to seek permission for data collection, as the target population (Igando Community) falls under the Alimosho Local Government. Informed consent was obtained from all participants, who were made aware of their right to refuse participation or withdraw from the study at any point. The researcher ensured that all information gathered through the questionnaires was handled with the highest level of confidentiality.

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Chapter Four
Results of Findings
4.1 Presentation and Analysis Of Data
Table 4.1.1: Respondents' Socio-demographic Characteristics

Table 4.1.1a

Variables	Frequency (N=120)	Percentage (%)
Age		
18-25 years	2	1.7
26-35 years	50	41.7
36-45 years	54	45.0
46-55 years	10	8.3
56 years and above	4	3.3
Marital Status		
Married	117	97.5
Divorced	2	1.7
Widowed	1	0.8
Level of Education		
No formal Education	16	13,3
Primary	26	21.7
Secondary	48	40.0
Tertiary	30	25.0

Table 4.1.1b

Variables	Frequency (N=120)	Percentage (%)
Occupation		
Trader/Business man	32	26.7
Artisan	36	30.0
Civil servant	24	20.0
Private sector worker	28	23.3
Religion		
Christianity	76	63.3
Islam	39	32.5
Traditional	5	4.2
Ethnic group		
Yoruba	65	54.2
Igbo	34	28.3
Hausa	3	2.5
Others (Itsekiri, Ijaw, Urhobo, & Egun)	18	15
Number of children		
1	10	8.5
2	38	31.7
3	45	37.5
4 or more	27	22.5

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According to Table 4.1.1 above, less than half of the respondents, 54 (45.0%), fall within the 36–45 age group, while 50 (41.7%) are aged 26–35. A smaller proportion, 10 (8.3%), are between 46–55 years; 4 (3.3%) are aged 56 and above; and just 2 (1.7%) falls within the 18–25 age bracket. The average age of the participants is 37.5 years with a standard deviation of ±2.9. The majority, 117 (97.5%), are married, while 2 (1.7%) are divorced, and only 1 (0.8%) is widowed. In terms of education, 48 (40.0%) respondents attained secondary education, 30 (25.0%) reached tertiary level, 26 (21.7%) completed primary education, and 16 (13.3%) had no formal education. Regarding occupation, 36 (30.0%) work as artisans, 32 (26.7%) are traders or business owners, 28 (23.3%) are employed in the private sector, and 24 (20.0%) are civil servants. Christianity is the predominant religion, practiced by 76 (63.3%) of the participants, followed by Islam with 39 (32.5%), and traditional religion with 5 (4.2%). The ethnic composition includes 65 (54.2%) Yorubas, 34 (28.3%) Igbos, 18 (15.0%) from minority ethnic groups such as Itsekiris, Ijaws, Urhobos, and Eguns, and 3 (2.5%) Hausas. When it comes to number of children, 45 (37.5%) of the participants have three children, 38 (31.7%) have two, 27 (22.5%) have four or more, and 10 (8.3%) have one child

Table 4.1.2: Respondents' Knowledge on Immunization

Variables	Parameters	Frequency	Percentage
Are you aware of immunization programs for children and adolescents?	Yes	112	93.3
	Not sure	8	6.7
	Total	**120**	**100.0**
How did you hear about immunization?	Friends/family, mass media, and healthcare providers.	40	33.3
	Friends/family and mass media.	36	30.0
	Friends/family and healthcare providers.	21	17.5
	Friends/family, mass media, and social media.	23	19.2
	Total	**120**	**100.0**
What is the purpose of immunization?	To prevent diseases.	35	29.2
	To cure diseases.	54	45.0
	I don't know	31	25.8
	Total	**120**	**100.0**
At what age should children begin their immunization?	At birth.	26	21.7
	6 months.	49	40.8
	1 year	7	5.8

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	I don't know	38	31.7
	Total	**120**	**100.0**
Do you know which vaccines your child/adolescent should receive?	No	114	95.0
	Not sure	6	5.0
	Total	**120**	**100.0**

As shown in Table 4.1.2 above, a large majority of the respondents, 112 (93.3%), reported being aware of immunization programs for children and adolescents, while 8 (6.7%) were uncertain.
Regarding sources of information, 40 (33.3%) mentioned hearing about immunization from friends or family, mass media, and healthcare providers; 36 (30.0%) cited friends/family and mass media; 23 (19.2%) noted friends/family, mass media, and social media; and 21 (17.5%) indicated friends/family and healthcare providers. Less than half, 54 (45.0%), believed that the purpose of immunization is to cure diseases, while 35 (29.2%) correctly recognized that it serves to prevent diseases. However, 31 (25.8%) admitted they were unsure of its purpose. When asked about the appropriate age to begin immunization, 49 (40.8%) stated 6 months, 38 (31.7%) did not know, 26 (21.7%) said it should start at birth, and 7 (5.8%) chose 1 year. A significant portion of the respondents, 114 (95.0%), admitted they did not know which vaccines their children or adolescents should receive, with 6 (5.0%) remaining uncertain. Overall, these findings indicate that the participants have a low level of knowledge regarding child and adolescent immunization.

Table 4.1.3: Respondents' Attitude towards Child/Adolescent Immunization

Table 4.1.3a

Variables	Parameters	Frequency (120)	Percentage (%)
I believe that immunization is important for the health of my child/adolescent.	Strongly agree	11	9.2
	Agree	24	20.0
	Disagree	57	47.5
	Strongly disagree	28	23.3
I feel that all children and	Strongly agree	34	28.3

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adolescents should receive their immunization as recommended by health authorities.	Agree	50	41.7
	Disagree	36	30.0
	Strongly disagree	0	0.0
Immunization is a safe and effective way to protect children from diseases.	Strongly agree	13	10.8
	Agree	22	18.3
	Disagree	53	44.2
	Strongly disagree	32	26.7
I am confident in the safety of the vaccines given to my child/adolescent.	Strongly agree	0	0.0
	Agree	35	29.2
	Disagree	51	42.5
	Strongly disagree	34	28.5
I believe immunization should be mandatory for all children and adolescents.	Strongly agree	0	0.0
	Agree	0	0.0
	Disagree	57	47.5
	Strongly disagree	63	52.5

Table 4.1.3b

Variables	Parameters	Frequency (120)	Percentage (%)
I ensure that my child receives all necessary immunizations on time.	Strongly agree	0	0.0
	Agree	4	3.3
	Disagree	60	50.0
	Strongly disagree	56	46.7
I believe that fathers have no business with child/adolescent immunization.	Strongly agree	37	30.8
	Agree	48	40.0
	Disagree	35	29.0
	Strongly disagree	0	0
I am concerned about the side effects of the vaccines.	Strongly agree	109	90.8
	Agree	11	9.2
	Disagree	0	0
	Strongly disagree	0	0
I feel immunization is only necessary for infants, and not	Strongly agree	112	93.3
	Agree	8	6.8

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for adolescents.	Disagree	0	0
	Strongly disagree	0	0
I feel immunization is not necessary if the child is healthy.	Strongly agree	64	53.3
	Agree	41	34.2
	Disagree	15	12.5
	Strongly disagree	0	0
I believe that healthcare facilities in my community provide adequate immunization services.	Strongly agree	58	48.3
	Agree	32	26.7
	Disagree	30	25.0
	Strongly disagree	0	0.0

According to Table 4.1.3 above, a significant majority of the respondents, 112 (93.3%), strongly believed that immunization is only necessary for infants and not for adolescents, with an additional 8 (6.7%) agreeing.

A total of 109 (90.8%) expressed strong concerns about vaccine side effects, while 11 (9.2%) shared similar concerns. More than half, 64 (53.3%), strongly felt that immunization is unnecessary if a child appears healthy, and 41 (34.2%) agreed, whereas 15 (12.5%) disagreed. A total of 63 (52.5%) strongly opposed making immunization mandatory for all children and adolescents, with 57 (47.5%) also disagreeing. Half of the participants, 60 (50.0%), disagreed with the statement that they ensure their child receives all recommended immunizations on time, while 56 (46.7%) strongly disagreed, and only 4 (3.3%) agreed. Regarding the adequacy of immunization services in the community, 58 (48.3%) strongly believed the services were sufficient, 32 (26.7%) agreed, and 30 (25.0%) disagreed. Meanwhile, 57 (47.5%) disagreed that immunization is important for their child's or adolescent's health, 28 (23.3%) strongly disagreed, 24 (20.0%) agreed, and 11 (9.2%) strongly agreed. Additionally, 53 (44.2%) disagreed that immunization is a safe and effective method of disease prevention, 32 (26.7%) strongly disagreed, 22 (18.3%) agreed, and 13 (10.8%) strongly agreed. When asked about confidence in vaccine safety, 51 (42.5%) disagreed, 35 (29.2%) agreed, and 34 (28.3%) strongly disagreed. On whether all children and adolescents should receive immunizations as recommended by health authorities, 50 (41.7%) agreed, 36 (30.0%) disagreed, and 34 (28.3%) strongly agreed. Regarding the role of fathers, 48 (40.0%) believed fathers should not be involved in child or adolescent immunization, 37 (30.8%) strongly agreed with that notion, while 35 (29.2%) disagreed. In summary, the findings indicate that the respondents generally exhibited a poor attitude toward child and adolescent immunization.

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Table 4.1.4: Factors Influencing Respondents' Attitude towards Child/Adolescent Immunization
Table 4.1.4a

Variables	Parameters	Frequency (120)	Percentage (%)
I trust healthcare professionals' advice regarding immunization.	Strongly agree	0	0
	Agree	35	29.2
	Disagree	63	52.5
	Strongly disagree	22	18.3
I have enough information from the healthcare professionals about immunization schedule for my child/adolescent.	Strongly agree	0	0
	Agree	0	0
	Disagree	50	41.7
	Strongly disagree	70	58.3
The distance to healthcare facilities makes it difficult to immunize my child/adolescent.	Strongly agree	0	0
	Agree	0	0
	Disagree	18	15.0
	Strongly disagree	102	85.0
My level of education has a positive influence on my decision to immunize my child/adolescent.	Strongly agree	20	16.7
	Agree	15	12.5
	Disagree	25	20.8
	Strongly disagree	60	50.0
My religious beliefs support and influence my decision to immunize my child/adolescent.	Strongly agree	46	38.3
	Agree	57	47.5
	Disagree	17	14.2
	Strongly disagree	0	0

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Table 4.1.4b

Variables	Parameters	Frequency (120)	Percentage (%)
My religious leader does not support child/adolescent immunization.	Strongly agree	0	0.0
	Agree	0	0.0
	Disagree	30	25.0
	Strongly disagree	90	75.0
Cultural practices in my family discourage immunization.	Strongly agree	84	70.0
	Agree	36	30.0
	Disagree	0	0.0
	Strongly disagree	0	0.0
My financial situation affects my ability to afford immunization for my child/adolescent.	Strongly agree	0	0.0
	Agree	0	0.0
	Disagree	3	2.5
	Strongly disagree	117	97.5
I am concerned about the side effects of vaccines.	Strongly agree	101	84.2
	Agree	19	15.8
	Disagree	0	0.0
	Strongly disagree	0	0.0
The attitude of healthcare providers in the healthcare facility towards fathers present for their child/adolescent immunization is not encouraging.	Strongly agree	0	0.0
	Agree	0	0.0
	Disagree	56	46.7
	Strongly disagree	64	53.3
The attitude of other women (mothers) at the healthcare facility towards fathers present for their child/adolescent immunization is not encouraging.	Strongly agree	0	0.0
	Agree	0	0.0
	Disagree	59	49.2
	Strongly disagree	61	50.8

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As shown in Table 4.1.4 above, the vast majority of respondents, 117 (97.5%), strongly disagreed that their financial status limits their ability to immunize their child or adolescent, with only 3 (2.5%) disagreeing. Similarly, 102 (85.0%) strongly disagreed that the distance to healthcare facilities hinders their ability to get their child immunized, while 18 (15.0%) disagreed. A large portion, 101 (84.2%), strongly expressed concern about vaccine side effects, and 19 (15.8%) agreed. Regarding religious influences, 90 (75.0%) strongly disagreed that their religious leader disapproves of child or adolescent immunization, while 30 (25.0%) disagreed. In terms of cultural influences, 84 (70.0%) strongly agreed that cultural practices in their families discourage immunization, with 36 (30.0%) agreeing. More than half, 70 (58.3%), strongly disagreed that they receive sufficient information from healthcare professionals about their child's immunization schedule, while 50 (41.7%) disagreed. Additionally, 64 (53.3%) strongly disagreed that the behaviour of healthcare workers toward fathers at immunization clinics is discouraging, and 56 (46.7%) disagreed. When it comes to social attitudes, 61 (50.8%) strongly disagreed that other women (mothers) at healthcare facilities act in a discouraging manner toward fathers attending immunization visits, with 59 (49.2%) also disagreeing. In contrast, 57 (47.5%) agreed that their religious beliefs support and influence their decision to immunize their children, 46 (38.3%) strongly agreed, and 17 (14.2%) disagreed. On trusting healthcare advice, only 35 (29.2%) said they trust the guidance of health professionals regarding immunization, while the majority—63 (52.5%)—disagreed and 22 (18.3%) strongly disagreed. Regarding educational influence, 20 (16.7%) strongly believed that their educational level positively impacts their immunization decisions, 15 (12.5%) agreed, 25 (20.8%) disagreed, and 60 (50.0%) strongly disagreed. In summary, the primary factors influencing participants' attitudes toward child and adolescent immunization include concerns over vaccine side effects (101, 84.2%), cultural traditions (84, 70.0%), religious beliefs (57, 47.5%), trust in healthcare professionals (35, 29.2%), and educational background (20, 16.7%).

4.2 Hypothesis Testing

H01: There is no statistically significant association between fathers' level of education and their knowledge of child and adolescent immunization in Igando Community.

H02: There is no statistically significant relationship between fathers' knowledge and their attitude towards child and adolescent immunization in Igando Community.

Analysis Approach: The level of significance (α) is set at 0.05.

Decision Criterion: If the p-value obtained from the correlation analysis is less than 0.05, it indicates a significant relationship exists between the variables. Conversely, if the p-value exceeds 0.05, the relationship is considered not significant.

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Table 4.2.1: Testing of Research Hypothesis 1

		Level of Education	Knowledge on Child/Adolescent Immunization
Level of Education	**Pearson's Correlation**	**1**	**.500**
	Sig. (2-tailed)		**.000**
	N	**120**	**120**
Knowledge on Child/Adolescent Immunization	**Pearson's Correlation**	**.500**	**1**
	Sig. (2-tailed)	**.000**	
	N	**120**	**120**

r=0.5; p-value is <0.00001. The result is significant at $p < 0.05$

Conclusion: There is a significant relationship between level of education and knowledge on child and adolescent immunization among fathers in Igando Community ($p < 0.05$).

Table 4.2.2: Testing of Research Hypothesis 2

		Knowledge on Child/Adolescent Immunization	Attitude towards Child/Adolescent Immunization
Knowledge on Child/Adolescent Immunization	**Pearson's Correlation**	**1**	**.353**
	Sig. (2-tailed)		**.000**
	N	**120**	**120**
Attitude towards Child/Adolescent Immunization	**Pearson's Correlation**	**.353**	**1**
	Sig. (2-tailed)	**.000**	
	N	**120**	**120**

r=0.353; p-value is 0.000077. The result is significant at $p < 0.05$

Conclusion: There is a significant relationship between knowledge and attitude towards child and adolescent immunization among fathers in Igando Community ($p < 0.05$).

4.3 Responses to Research Questions

Research Question 1: What is the level of knowledge of fathers in Igando Community regarding child and adolescent immunization?

Based on the data in Table 4.1.2 above, the majority—112 (93.3%)—of respondents indicated awareness of immunization programs for children and adolescents. About 40 (33.3%) stated they received information from friends/family, mass media, and healthcare professionals. Furthermore, 54 (45.0%) believed the primary purpose of immunization is to cure

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diseases, 49 (40.8%) assumed that immunization should begin at six months, and 114 (95.0%) admitted they do not know the specific vaccines their children or adolescentsshouldreceive.

These results suggest that fathers in Igando Community have a generally low level of knowledge about child and adolescent immunization.

Research Question 2: What is the attitude of fathers in Igando Community towards child and adolescent immunization?

From Table 4.1.3 above, most respondents—112 (93.3%)—strongly believed that immunization is only necessary for infants, not adolescents. A significant proportion, 109 (90.8%), expressed strong concern about vaccine side effects, while 64 (53.3%) strongly believed immunization is unnecessary for healthy children. Additionally, 63 (52.5%) strongly disagreed that immunization should be compulsory for all children and adolescents. Half—60 (50.0%)—disagreed with ensuring timely immunizations, and 57 (47.5%) did not view immunization as crucial to their child's health. Many also disagreed on the safety and efficacy of vaccines (53 or 44.2%) and expressed a lack of confidence in vaccines (51 or 42.5%). Furthermore, 48 (40.0%) believed that immunization is not the responsibility of fathers. These findings point to a generally negative attitude among fathers in the community towards child and adolescent immunization.

Research Question 3: What factors influence fathers' attitudes towards child and adolescent immunization in Igando Community?

As reflected in Table 4.1.4 above, the majority—117 (97.5%)—strongly disagreed that financial constraints limit their ability to immunize their children, and 102 (85.0%) strongly disagreed that distance to healthcare facilities is a barrier. However, 101 (84.2%) strongly expressed concerns about vaccine side effects.

Additionally, 90 (75.0%) strongly disagreed that their religious leaders oppose immunization, while 84 (70.0%) strongly acknowledged that cultural practices within their families discourage immunization. More than half—70 (58.3%)—strongly disagreed that healthcare professionals provide sufficient information about immunization schedules. A similar number (64 or 53.3%) strongly disagreed that healthcare providers' attitudes are supportive, and 61 (50.8%) strongly disagreed that other mothers' attitudes at clinics are welcoming to fathers. Meanwhile, 57 (47.5%) agreed that their religious beliefs positively influence their immunization decisions, 35 (29.2%) reported trust in healthcare professionals' advice, and only 20 (16.7%) strongly agreed that their educational background positively impacts their decision to immunize their children. Overall, key influencing factors include concerns about side effects, cultural norms, religious beliefs, limited trust in health professionals, and level of education. The factors shaping fathers' attitudes toward child and adolescent immunization in Igando Community include concerns about potential vaccine side effects (101 or 84.2%), cultural practices within the family (84 or 70.0%), religious beliefs (57 or 47.5%), guidance from healthcare professionals (35 or 29.2%), and their educational background (20 or 16.7%).

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Chapter Five
Discussion,Conclusionand Recommendations

5.1DiscussionofFindings

Fathers' active engagement in conversations with healthcare providers and collaborative decision-making with their partners significantly impacts immunization choices. In many households, men hold considerable authority over matters concerning their wives' reproductive health and their children's overall well-being. As family leaders, fathers play a vital role in supporting timely and effective immunization by making important health and financial decisions. When fathers promote immunization within their communities, it can significantly strengthen community-wide protection against vaccine-preventable diseases. This study has therefore explored the key factors shaping fathers' attitudes towards child and adolescent immunization among men in Igando Community, Lagos State.

Key Findings

Objective 1: To evaluate the knowledge of fathers in Igando Community on child and adolescent immunization

The findings indicated that the respondents generally had a low level of knowledge regarding immunization. A large number were unaware of the specific vaccines their children or adolescents should receive. Additionally, fewer than half believed immunization's main purpose was to cure diseases, and many incorrectly assumed that the appropriate starting age for immunization is 6 months.

Objective 2: To examine the attitude of fathers in Igando Community towards child and adolescent immunization

The results showed an overall negative attitude. A majority of respondents believed immunization was only necessary for infants, not adolescents. Over half also believed that healthy children do not need vaccines and strongly disagreed with the idea that immunization should be compulsory. Fewer than half expressed confidence in the safety of vaccines or saw a role for fathers in the i
mmunization process.

Objective 3: To determine the factors influencing fathers' attitudes towards child and adolescent immunization in Igando Community

The study identified several key factors affecting their attitudes. The most commonly cited concerns were potential side effects of vaccines (84.2%), cultural practices within families (70.0%), religious beliefs (47.5%), advice from healthcare professionals (29.2%), and educational background (16.7%).

5.2.ImplicationsofFindingsWith Literature Support

The results of this study reveal significant deficiencies in both knowledge and attitudes regarding child and adolescent immunization, posing major concerns for public health.

The generally low level of knowledge among participants underscores the urgent need for enhanced health education initiatives and stronger community outreach to raise awareness about the importance of immunization. This finding supports the view of Swetha et al. (2020), who emphasized that inadequate understanding of immunization can fuel vaccine hesitancy and contribute to low vaccination rates. Moreover, the study's indication of negative attitudes toward immunization highlights the necessity of addressing the underlying behavioural and cultural obstacles that hinder vaccine acceptance. Socio-cultural

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influences—including religious beliefs, family customs, and fears of vaccine side effects—were shown to significantly impact perceptions of immunization. This aligns with findings by Segun et al., (2020), who noted that religious views and educational attainment play important roles in shaping parental attitudes toward child vaccination. Swetha et al., (2020) also observed that higher levels of education correlate with more positive attitudes toward immunization, implying that addressing educational gaps may lead to better acceptance of vaccines. Interestingly, the differences between this study and those by Sodeinde et al., (2022) and Segun et al. (2020) suggest that perspectives on immunization are often shaped by local factors such as geographic setting (urban versus rural), economic background, and access to healthcare services. As such, public health strategies must be adapted to the specific needs and characteristics of individual communities in order to effectively overcome local barriers and improve immunization uptake.

5.3.Comparisonof Findings With Previous Studies Cited

The outcomes of this study contrast with those of Sodeinde et al., (2022) and Segun et al., (2020), where participants displayed a higher level of understanding regarding childhood immunization. Conversely, the current study revealed generally poor knowledge, suggesting either a decline in awareness or differences in the demographics and contexts of the study populations. This highlights the ongoing need for robust public health education campaigns, especially in communities where awareness remains insufficient. In terms of attitudes towards immunization, the findings are consistent with those of Bodunde et al., (2023), who also observed negative perceptions among participants—citing factors such as prolonged waiting times, financial limitations, and the belief that immunization is solely a maternal responsibility. However, the results differ from Sodeinde et al., (2022), who found that both urban and some rural participants held favourable attitudes towards vaccination. This variation suggests that factors like location, access to healthcare services, and prevailing social norms can significantly influence parental attitudes. With regard to the factors shaping immunization attitudes, this study's findings are in agreement with Segun et al., (2020) and Swetha et al., (2020), who identified education level and religious beliefs as major contributors to immunization acceptance. On the other hand, they differ from the findings of Bodunde et al., (2023), who emphasized the importance of employment type, marital status, work schedules, and the attitudes of healthcare workers. This inconsistency indicates that various communities may prioritize different factors in their immunization decisions, reinforcing the need for context-specific strategies in promoting vaccination.

In conclusion, while this study shares some similarities with previous research, key differences underline the complex nature of immunization knowledge, perceptions, and influencing factors. Customized public health interventions are therefore essential to address these variations and improve vaccination rates across different communities.

5.4 Implications for Midwifery Practice

This study has identified key factors influencing fathers' attitudes toward child and adolescent immunization. To enhance their knowledge and foster a more positive attitude, it is essential to address and mitigate these influencing factors effectively. One approach is to implement community outreach initiatives aimed at

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educating fathers on the importance, safety, and benefits of immunization, while also dispelling prevalent myths and misconceptions. Midwives can collaborate with religious and community leaders to promote immunization as a collective responsibility and challenge cultural misconceptions. Partnering with faith-based organizations provides an opportunity to incorporate immunization messages into religious gatherings or teachings. Additionally, midwives can involve influential male figures or fathers within the community to serve as advocates and role models for immunization support. Healthcare institutions should consider deploying outreach teams to remote or underserved communities to increase access. Midwives can take the lead in organizing dedicated workshops and seminars for fathers, focusing on their critical role in their children's health. To accommodate fathers with demanding work schedules, health facilities should consider offering immunization services during evenings and weekends. Creating a father-friendly atmosphere in healthcare settings is also crucial. This includes having male healthcare workers available who can better relate to fathers' perspectives. Midwives should also promote open family discussions around immunization and encourage joint decision-making between parents. Furthermore, advocating for supportive policies that mandate immunization while taking into account the needs of working fathers will be essential in improving immunization uptake and ensuring child health.

5.5 Study Limitations

This study was limited to Igando Community and could not be expanded to other communities within Lagos State for comparative analysis of the factors affecting fathers' attitudes toward child and adolescent immunization. This limitation was primarily due to time constraints and insufficient financial resources.

5.6 SUMMARY

This descriptive cross-sectional study explored the factors influencing fathers' attitudes toward child and adolescent immunization in Igando Community, Lagos State. The study aimed to evaluate their level of knowledge and attitude, as well as identify the key factors shaping these attitudes. A simple random sampling method was used to select 123 fathers, of which 120 responses were valid and included in the final analysis.

Data collection was done using a self-designed questionnaire, and the responses were analysed using frequency and percentage tables, SPSS version 23, and Microsoft Excel 2010. The results indicated that fathers in Igando Community generally demonstrated poor knowledge and attitudes towards immunization. Key factors influencing their attitudes included concerns about vaccine side effects (84.2%), cultural practices (70.0%), religious beliefs (47.5%), guidance from healthcare professionals (29.2%), and educational level (16.7%). The study also revealed statistically significant relationships between fathers' education levels and their knowledge of immunization ($p < 0.05$), as well as between their knowledge and overall attitude towards immunization ($p < 0.05$).

5.7 Conclusion

This study has highlighted the key factors influencing fathers' attitudes toward child and adolescent immunization. To enhance their knowledge and positively shift their attitudes, it is essential to identify and address the underlying factors contributing to negative perceptions of immunization. This can be accomplished through targeted outreach programs that educate fathers on the importance, safety, and benefits of

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vaccines; collaboration with religious and community leaders to support immunization efforts; hosting workshops and seminars tailored for fathers; promoting family dialogue around immunization; and advocating for supportive policies that both mandate immunization and accommodate the schedules of working fathers. Failure to promptly improve fathers' knowledge and attitudes—through effective evaluation and mitigation of these influencing factors—could result in rising child and adolescent morbidity and mortality from vaccine-preventable diseases.

5.8 Recommendations

Based on the findings of this study, the following recommendations are proposed to help improve the factors influencing fathers' attitudes towards child and adolescent immunization in Igando Community, Lagos State:

i. Community midwives should organize educational outreach initiatives aimed at enlightening fathers on the significance, safety, and benefits of immunization, while addressing prevalent myths and misinformation.

ii. Midwives should collaborate with religious and community leaders to promote immunization as a collective responsibility and help dispel cultural misconceptions.

iii. They can also partner with faith-based organizations to incorporate immunization awareness into religious teachings or community events.

iv. Influential male figures and fathers in the community should be engaged to serve as advocates for immunization.

v. Healthcare institutions should consider deploying outreach teams to remote or underserved areas to ensure wider immunization coverage.

vi. Midwives should host dedicated workshops and seminars for fathers to emphasize their role in safeguarding their children'shealth.

vii. Immunization services should be made more flexible by extending clinic hours to evenings and weekends, accommodating fathers with strict work schedules.

viii. A more father-friendly atmosphere should be created in healthcare facilities, including the involvement of male healthcare workers who can better relate to maleconcerns.

ix. Midwives should encourage open family communication about immunization and promote the joint involvement of both parents in health decisions.

x. Advocacy for supportive policies that make immunization compulsory—while considering the realities of working fathers—should be intensified.

xi. Lastly, relevant health authorities, in partnership with the government, should encourage employers to support immunization by granting fathers time off to accompany their children to the clinic.

5.9 Suggestions For Further Studies

This study was limited in scope due to constraints in time and financial resources. Hence, it is recommended that future research be conducted in other communities across Lagos State to provide a broader perspective and yield more reliable results that can be generalized more effectively. Additionally, subsequent studies could explore the role of male involvement in child welfare services to expand the understanding of their contribution to child health and development.

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