

**FACTORS AFFECTING CHILDHOOD IMMUNISATION IN UGO COMMUNITY
INORHIONMWON LOCAL GOVERNMENT AREA, EDO STATE.**

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ABSTRACT

The study, which seek to ascertain factors affecting immunization in Aduwawa Community in Ikpoba-Okha, Edo State involved data collection from 100 Aduwawa Community women which formed the research sample size, 100 questionnaires were administered, which were fully retrieved, and responses were tabulated in the project work and analyzed using percentage distributions and the research questions and hypothesis tested using Chi-Square testing. The results showed: That there is significant relationship between the educational qualification of parents and the Immunisation of Children, that majority of them are aware of the importance of Immunisation, that proximity of the health centres is essential and 62% of them say cultural beliefs may hinder the decision to immunize a child. Conclusively, negligence of duty and irresponsibility on the part of some parents maybe among some of the many factors still affecting childhood immunisation in the Ugo Community of Orhionmwon Local Government Area of Edo State, since not all religious and cultural believes impedes immunisation of children; Health Centres proximity is not much of an issue as many Health Centres are located at close proximity to the community people; Majority are aware of the benefits of Immunization; and educational qualification of parents is also not much of an issue as all mothers who participated in the survey have one form of education or the other.

KEYWORDS: Immunisation, Community, Health, Children and Centre.

INTRODUCTION

According to the WHO, a child is considered fully vaccinated if he or she has received a BCG vaccination against tuberculosis; three doses of DPT vaccine to prevent diphtheria, pertussis, and Pentavalent; at least three doses of polio vaccine; and one dose of measles vaccine. These vaccinations should be received during the first year of life. (NDHS 2008).

In Nigeria, BCG vaccine should be given at birth, Pentavalent and polio vaccines should be given at approximately 8, 10, and 14 weeks of age, and there is also a dose of polio vaccine that should be given at birth (polio 0). Measles vaccine should be given at or soon after the child reaches nine months of age. It is also recommended that children receive the complete schedule of vaccinations before their first birthday and

that the vaccinations be recorded on a health card given to the parents or guardians.

The schedule is designed to include all children 0-1 years who shall receive one dose of BCG, one dose of Yellow Fever vaccine, 3 doses of DPT, 3 doses of Hib vaccines, 3 doses of Hep.B vaccines 4 doses of OPV and one dose of Measles vaccine before the age of one. There is also a separate schedule for women of childbearing age (WCBA).

The schedule also provides the immunization against CSM. However, this is usually available only to contain out-breaks in high-risk populations. The table below shows the approved immunization schedule for children less than one year.

Table 1.0: Immunization Schedule for Children Under One Year

Contact	Minimum Target Age Of Child	Type Of Vaccine	Dosage	Rout of administration	Site
1 st	At birth	BCG	0.05ml	intra dermal	RT. Upper Arm
		*OPV0	2 drops	Oral	Mouth

2 nd	6 weeks of age	Pentavalent1 (DPT, HBV and Hib)	0.5ml	intra muscular	Antero- lateral aspect of thigh
		OPV1	2 drops	Oral	Mouth
3 rd	10 weeks of age	Pentavalent2 (DPT, HBV and Hib)	0.5ml	intra muscular	Antero-lateral aspect of thigh
		OPV2	2 drops	Oral	Mouth
4 th	14 weeks of age	Pentavalent1 (DPT, HBV and Hib)	0.5ml	Intra- muscular	Antero-lateral aspect of thigh
		OPV3	2 drops	Oral	Mouth
5 th	9months	Measles	0.5ml	Subcutaneous	Left upper arm
		Yellow Fever	0.5ml	Subcutaneous	Left upper arm

*OPV0 must be given before the age of two weeks.
[Source: NDHS 2008, Preliminary Report, May 2009].

Traditional Routine Immunization Vaccines

1. Bacille-Calmette Guerin (BCG)
2. Oral Poliomyelitis Vaccine (OPV)
3. Diphtheria, Pertussis, Tetanus (DPT) Vaccine
4. Measles Vaccine
5. Tetanus Toxoid
6. Yellow Fever Vaccine
7. Hepatitis B Vaccine
8. Haemophilus Influenza type-B (HIB) Vaccine
9. *Cerebrospinal Meningitis (CSM) Vaccine
10. **Vitamin A

NOTE

* Please note that CSM is not one of the traditional vaccines, but included in the list because it is given through vaccination. It also has implications for the cold chain system

** Vitamin A is included in the list as a way of integrating it with vaccination schedule.

Children in urban areas are more than twice as likely as rural children to be fully vaccinated; 38 percent compared with 16 percent, respectively. There are substantial variations among states in vaccination coverage and mother's level of education plays a major role in whether children are immunised; 61 percent of children whose mothers have more than a secondary education are fully immunised, compared with 7 percent of children whose mothers have no education [Source: NDHS 2008, Preliminary Report, May 2009].

The Health Belief Model (HBM) helps to predict behaviour in health context; according to Becker (1988), Health belief model postulates that health seeking behaviour is influenced by the person's perception of a threat posed by a health problem, and the values associated with actions aimed at reducing the threat; and according to Correspondent Inference Theory, CIT (Jones & Davis, 1965), we use information about another person's behaviour and its effects to draw a correspondent inference, in which the behaviour is attributed to a disposition or personality characteristic.

These model and theory is the best frame work that would be used in the research study, 'factors affecting childhood immunisation' since it HBM a health model

that is originally developed to predict preventive health behaviours, in this case, as it relates to parents and their decision to immunize their children; and CIT is a theory that is originally developed to help draw a corresponding inference from one's behaviour, in this case, the researcher will be able to relate the sample population's behaviour and decision, as it relates to child immunization in order to ascertain possible factors that impedes childhood immunization in the community.

International comparative data show that Nigeria's immunisation coverage for children is among the lowest in the world. The country misses many opportunities to provide adequate immunisation to newborns. In 2003, only 13 percent of Nigerian children aged 12-23 months receive all of the standard vaccinations. There appears to have been no improvement over time: MICS 2007 data show that only 11 percent of infants are fully immunised by 12 months; approximately 38 percent of children aged 12-23 months have had no vaccinations at all.

Only 51 percent of Nigerian children receive the Bacille-Calmette Guerin (BCG) vaccination by 12 months of age. The BCG vaccine is meant to be given at birth, but due to the scarcity of the vaccine, babies are pooled and given appointments for group immunisation. At present, one BCG vial administers 20 doses. Similarly, among the babies who receive the first oral polio vaccine dose (OPV⁰), the FMOH Safe Motherhood Survey shows that only 33 percent receive it at birth. Immunisation coverage varies widely by zone.

Routine immunization against DPT, measles, polio and TB is proven to be one of the most cost-effective interventions for reducing childhood illness and mortality, especially with the addition of other vaccines such as CSM and yellow fever in endemic areas and TT injections for pregnant women. And yet national coverage in Nigeria for full immunization is less than 13%, one of the lowest rates in the world, even lower than many countries in conflict, such as Democratic Republic of Congo, DRC. Some states in northern Nigeria have coverage rates below 1% and the average for the whole North West Zone is just 4%. These coverage figures are much worse than in the neighbouring countries of Benin, Niger, Chad and

Cameroon. Both the Nigeria Demographic and Health Survey (NDHS 2003), conducted by the National Population Commission and the Nigeria Immunization Coverage Survey (NICS 2003), conducted by the National Programme on Immunization (NPI), provide the same irrefutable evidence. Nigeria's performance on routine immunization has continued to decline since the high point achieved around 1990.

[Sources: Nigeria Demographic and Health Survey 2003. Calverton, Maryland: National Population Commission and ORC/Macro; 2004. | Safe Motherhood in Nigeria: Patterns of Household Practices. In: Federal Ministry of Health; 2005.]The State of Routine Immunization Services in Nigeria and Reasons for Current Problems; FBA Health Systems Analysts, Revised Version, June 2005].

The researcher seeks to ascertain factors affecting Immunisation with specific issues identified and give at least a direction on how to proffer solutions.

Children in urban areas are more than twice as likely as rural children to be fully vaccinated. In Nigeria, one child in five dies before its fifth birthday. This represented about 872,000 childhood deaths in 2002. Vaccine-preventable diseases (VPDs) account for about 22% of deaths. Therefore over 200,000 children a year are dying needlessly of VPDs.[Sources: Department for International Development: Annual Report 2009 | NDHS 2008, Preliminary Report, May 2009 | National Strategic Framework on the Health and Development of Adolescents and Young People in Nigeria: Federal Ministry of Health, Nigeria and World Health Organization; 2007.]

It is therefore necessary for researches to be conducted with a view to understanding the factors militating against Immunisation of children and proffering solutions that will solve or reduce the societal ills these factors come with and suggest practicable ways to successfully design Immunisation programme schedules, implement them, and ensure compliance on the part of parents.

1.9 Basic Definitions

In order to make the research work as comprehensible as possible, some basic terms used in the course of this project are defined and arranged in alphabetical order below.

Affecting The feeling of an impact of a thing that occurs; disturbing.

Antitoxin An antibody produced in response to a specific toxin.

Awareness Having knowledge of something from having observed it or been told about it.

Child A young human being between birth and puberty.

Childhood The state of being a child, or the period of somebody's life when he or she is a child; for this research, it is the period between 0 – 5years of age.

Child mortality: The probability of dying between the first and fifth birthday.

Disease a condition in humans, plants, or animals that results in pathological symptoms and is not the direct result of physical injury; **ora** disorder in humans, animals, or plants with recognizable signs and often having a known cause.

Health Centre A place that houses a medical practice and offers healthcare services.

Immunity A body's ability to resist a disease. Immunity may exist naturally or as a result of inoculation or previous infection.

Immunisation To make somebody resistant to a disease, especially by vaccination; It is the process by which an individual's immune system becomes fortified against diseases causing agents.

Immune System System that recognizes and opposes disease: the interacting combination of all the body's ways of recognizing cells, tissues, objects, and organisms that are not part of itself, and initiating the immune response to fight them.

Infant mortality: The probability of dying before the first birthday.

Neonatal mortality: The probability of dying within the first month of life.

Post-neonatal mortality: The difference between infant and neonatal mortality.

Routine The usual sequence for a set of activities.

Under-five mortality: The probability of dying between birth and the fifth birthday.

Vaccine A preparation containing weakened or dead microbes of the kind that cause a disease, administered to stimulate the immune system to produce antibodies against that disease.

Vaccination Immunize somebody: to inoculate a person or animal with a vaccine to produce immunity to a disease.

The study attempt to examine the factors affecting Immunisation in Ugo Community of Orhionmwon L.G.A. of Edo State.

MATERIALS AND METHODS

The study is a descriptive survey designed to examine the factors affecting Childhood Immunisation in Ugo Community in Orhionmwon Local Government Area in Edo State.

It is pertinent to note that the researcher intends to use the survey designs with quantitative analysis of data collated from questionnaires administered to a sample size of the target population.

The target populations of the study are mothers (pre and post-natal) living in Ugo Community in Orhionmwon Local Government Area, Edo State. The random sampling method was used to select 100 women from the Community for this research. It is believed that with the target population in focus the researcher would be able to determine or access the experience of the respondents by way of putting their thoughts/awareness/knowledge about the research topic on paper, which would be useful for collation and comparative analysis.

Sampling Size/Sampling Technique

In order to select the target population to be used for this research, the random sampling technique, which is a form of probability sampling, was used.

100 women, certified mothers, were selected randomly from health centres, homes, market places, and offices location in Ugo Community in order to have a good representation of the target population. The 100 people gotten constitute the research subject for this Study.

Type of Data/Data Collection Instrument

The instrument used for this study consists of actual interview guides, which was designed by the researcher, aimed at collecting information. Questions were asked, which were typed with options to form a questionnaire.

These were presented in form of an aptitude test and respondents had different options to pick from. The responses were collated and analyzed quantitatively.

The questionnaire consist of four sections: Section A consists of questions on Personal Data; and Section B, which consists of questions on Immunization Awareness Level, Compliance and possible hindrances to Child Immunization Compliance.

Method of Data Presentation/Analysis

Collated data in the course of this Study were arrayed in frequency distribution tables for easy computation. These tables were used to analyze, compute percentages and chi-square analysis of respondents' responses about the research topic. The analyses were geared towards revealing the factors affecting Childhood Immunisation in Ugo Community in Orhionmwon Local Government Area, Edo State.

RESULTS

However, it is pertinent to note that the data for this study have their limitations as earlier mentioned in Chapter One under Limitation of the Study; this is due to the reason that despite the fact that all one hundred, 100, administered questionnaires were retrieved, it was found out that not all questions asked were adequately answered by the respondents. This phenomenon accounted for the variations in the number of responses ranging from 92, which is the lowest number of responses to 100, which is the highest number of responses.

Questionnaire Administration

This section shows the distribution of questionnaires to in the selected female respondents in Ugo Community in Orhionmwon Local Government Area, Edo State.

Table 4.1.1: Frequency Distribution by Questionnaires Administration

S/N	Respondents	Expected Frequency	Valid Frequency	Rate of Return	Percentage
1.	Mothers living in Ugo Community	100	100	100%	100%
	Total	100	100	100%	100%

Source: Field Survey

In tables 4.1.1 above, a total of one hundred, 100, questionnaires were administered to 100 Mothers living in Ugo Community in Orhionmwon Local Government Area, Edo State. All administered and completed questionnaires were retrieved, implying 100% rate of return.

Personal Data Presentation and Analysis

This section shows the distribution of questionnaires to respondents by age group and educational level in Ugo Community in Orhionmwon Local Government Area, Edo State.

Table 4.2.1 Frequency Distribution by Age Group

S/n	Age Group	Frequency	Percentage
1.	16 – 25	40	40%
2.	26 – 35	33	33%
3.	36 – 45	18	18%
4.	Above 45	2	2%

5.	No Response	7	7%
	Total	100	100%

Source: Field Survey

Frequency Distribution by Age Group

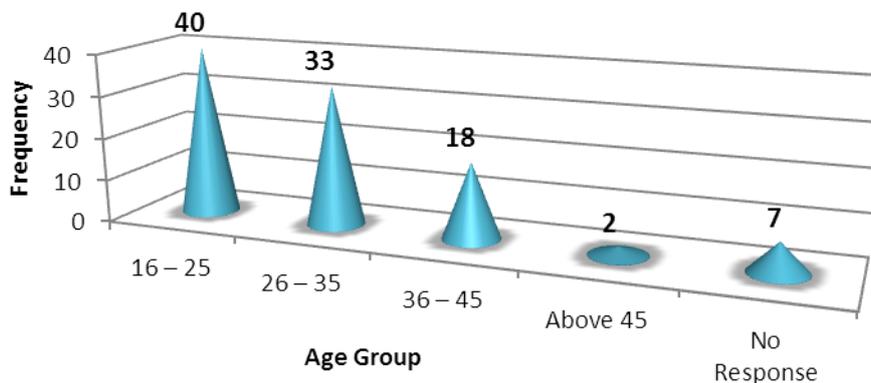


Figure 4.2.1: Age Group Distribution

Table 4.2.1/Figure 4.2.1 shows that majority of the respondents, 40 (40%) are within the age bracket 16 – 25 years; followed closely by 33 (33%) representing the age group 26 – 35 years; 18 (18%) represents 36 – 45 years

age group; and 2 (2%) represents the above 45 years age group; while 7 (representing 7% of the respondents) gave no response.

Table 4.2.2 Frequency Distribution by Educational Qualification

S/n	Level	Frequency	Percentage
1.	Primary	27	27%
2.	Secondary	22	22%
3.	Vocational	20	20%
4.	Tertiary	23	23%
5.	Others	0	0%
6.	No Response	8	8%
	Total	100	100%

Source: Field Survey

Frequency Distribution by Educational Level

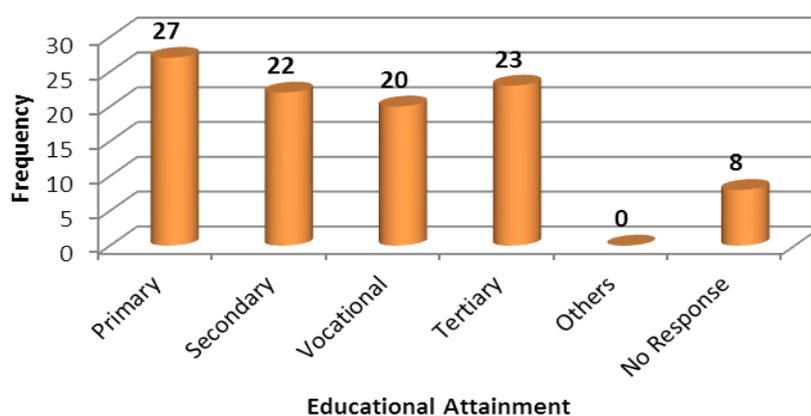


Figure 4.2.2: Educational Level Attained

Table 4.2.2/Figure 4.2.2 shows the educational level attained by the selected respondents. 27 of the respondents representing 27% of the sample size possess a Primary education; 22 (22%) and 20 (20%) have Secondary and Vocational education respectively; and 23 (representing 23% of the respondents) possesses Tertiary education, while 8 (8%), as collated, gave no response.

diseases, Immunisation, hindrances to Immunisation and other related information that would help the researcher deduce possible factors that affects childhood immunisation in Ugo Community in Orhionmwon Local Government Area.

Awareness/Hindrancel Level Data Presentation and Analysis

This section shows the distribution of the responses to questions relating to their awareness level on preventable

Table 4.3.1 Frequency Distribution by Awareness Level

Q.3: Have you heard about Immunization?			
S/n	Responses	Frequency	Percentage
1.	Yes	88	88%
2.	No	12	12%
	Total	100	100%

Source: Field Survey

Frequency Distribution by Awareness Level

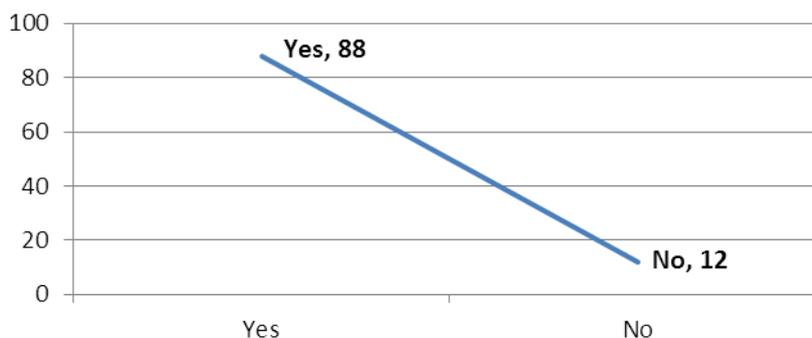


Figure 4.3.1: Immunisation Awareness Level

Table 4.3.1/Figure 4.3.1 shows that 88 (88%) of the respondents claimed that they know about Immunisation; but 12, representing 12% of the respondents claimed that they do not know about Immunisation, though further

interaction with some of these group of respondents revealed that many of them have heard about Immunisation but do not clearly understand what it is all about.

Table 4.3.2 Frequency Distribution by Disease Prevention, Immunisation Need and Completion Awareness Compliance Level

S/n	Responses	Q.4:		Q.5:		Q.6:	
		<i>Immunization prevents diseases...</i>		<i>All children need to be immunized.</i>		<i>Parents complete their children' Immunization.</i>	
		Freq	%	Freq	%	Freq	%
1.	Strongly Disagree	0	0%	0	0%	0	0%
2.	Disagree	14	14%	13	13%	22	22%
3.	Undecided	27	12%	20	20%	35	35%
4.	Agree	44	44%	35	35%	20	20%
5.	Strongly Agree	15	15%	32	32%	23	23%
	Total	100	100%	100	100%	100	100%

Source: Field Survey

Table 4.3.2, Frequency Distribution by Disease Prevention, Immunisation Need and Completion Awareness Level, shows collated responses to question 4, "Immunization prevents diseases...", question 5, "All children need to be immunized.", and question 6, "Parents complete their children Immunization." 14 (representing 14% of the respondents) disagrees that Immunisation prevents diseases; 27 (27%) were undecided; 44 (44%) agrees that Immunisation prevents diseases; and 15 (representing 15% of the respondents) strongly agrees. 13 (representing 13% of the respondents) do not believe all children need to be immunized; 20 (20%) were undecided, claiming that

they are not sure if all children need to be immunized; 35 (35%) agrees that all children need to be immunized; and 32 (representing 32% of the respondents) strongly agrees that all children need to be immunized. On whether parents complete their children's immunisation schedule, 22 (22% of the respondents) disagrees, claiming that most parents do not complete their children's immunisation schedule; 35 (35%) were undecided on the issue; 20 (20%) agrees that parents do complete their children's immunisation schedule; and 23 (representing 23% of the respondents) strongly agrees that parents complete their children's immunisation.

Table 4.3.3: Frequency Distribution by Health Centre Proximity, Religious and Cultural Beliefs

S/n	Responses	Q.7: <i>Health Center(s) are at close proximity to community or rural dwellers.</i>		Q.8: <i>All religion allows the Immunization of children.</i>		Q.9: <i>All cultures prevent the Immunization of children.</i>	
		Freq	%	Freq	%	Freq	%
1.	Strongly Disagree	8	8%	30	30%	28	28%
2.	Disagree	11	11%	26	26%	34	34%
3.	Undecided	14	14%	19	19%	13	13%
4.	Agree	43	43%	15	15%	18	18%
5.	Strongly Agree	24	24%	10	10%	7	7%
	Total	100	100%	100	100%	100	100%

Source: Field Survey

Table 4.3.3, Frequency Distribution by Health Centre Proximity, Religious and Cultural Beliefs, shows responses to questions 7, 8&9, "Hospitals, Clinics or Maternities are always at close proximity to Community or rural dwellers.", "All religion allows the Immunization of children.", and "All cultures prevent the Immunization of children." respectively. 8 (representing 8% of the respondent) strongly disagrees with the statement that 'Health Center(s) are often very close to community people'; 11 (11%) disagrees with the statement too; 14 (14%) were undecided; 43 (43%) agrees with the statement that Hospitals, Clinics or Maternities are always at close proximity to Community or rural dwellers; and 24 (representing 24% of the respondent) strongly agrees with the statement of close

proximity of health centres. On whether all religions allows the immunisation of children, 30 (representing 30% of the respondents) strongly disagrees; 26 (26%) simply disagrees; 19 (19%) were undecided; 15 (15% of respondents) agrees that most religious believes discourages immunisation of children; and 10 (representing 10% of the respondents) strongly agrees. Responding to question 9 on whether cultures prevent immunisation of children, 28 (representing 28% of the respondents) strongly disagrees; 34 (34%) simply disagrees; 13 (13%) were undecided on the matter; 18 (18%) agrees that some cultural believes prevents the immunisation of children; and 7 (representing 7%) of the respondents strongly agree to the statement that all cultures prevents the immunisation of children.

Table 4.3.4 Frequency Distribution by Urban Community People Mindset, Parents' Educational Level, & Health Workers' Attitude

S/n	Responses	Q.10: <i>Immunization is for literate people and not illiterate.</i>		Q.11: <i>Level of education of parents can influence their decision to immunize their children.</i>		Q.12: <i>The attitude of the health workers scares people.</i>	
		Freq	%	Freq	%	Freq	%
1.	Strongly Disagree	27	27%	0	0%	0	0%
2.	Disagree	42	37%	26	26%	37	37%
3.	Undecided	19	19%	23	23%	12	12%
4.	Agree	7	12%	41	41%	38	38%
5.	Strongly Agree	5	5%	10	10%	13	13%
	Total	100	100%	100	100%	100	100%

Source: Field Survey

Table 4.3.4, Frequency Distribution by Urban Community People Mindset, Parents' Educational Level, & Health Workers' Attitude, shows responses to questions 10, 11, & 12, "Immunization is for literate people and not illiterate.", "Level of education of parents can influence their decision to immunize their children.", and "The attitudes of the health workers scare people." respectively. To question 10, 27 (representing 27% of the respondents) strongly disagrees with the statement that Immunisation is for literate people and not illiterate; 42 (42%) simply disagrees; 19 (19%) were undecided; 7 (7% of respondents) agrees that immunisation are for people in the cities; and 5 (representing 5%) of the respondents strongly agrees with the statement. On whether the level of education of parents can influence

their decision to immunize their children, 26 (representing 26%) of the respondents disagrees with the statement that the educational level of the parents can influence their decision to immunize their children; 23 (23%) were undecided; 41 (41% of the respondents) agrees; and 10 (representing 10%) of the respondents strongly agrees. Responding to question 12 as regards the attitude of Health Workers, 37 (representing 37%) of the respondents disagrees with the statement that the attitude health workers discourages mothers from immunizing their children; 12 (12%) were undecided on the issue; 38 (38%) agrees with the statement that the attitude of health workers discourages mothers from immunizing their children; and 13 (representing 13%) of the respondents strongly agrees with the statement.

Table 4.3.5 Frequency Distribution by Vaccination Misconceptions

S/n	Responses	Q.13:		Q.14:	
		<i>The vaccine injections paralyze children.</i>		<i>Immunization helps prevent diseases in your children.</i>	
		Freq	%	Freq	%
1.	Strongly Disagree	36	36%	0	0%
2.	Disagree	25	25%	16	16%
3.	Undecided	23	23%	17	17%
4.	Agree	16	16%	34	34%
5.	Strongly Agree	0	0%	33	33%
	Total	100	100%	100	100%

Source: Field Survey

Table 4.3.5, Frequency Distribution by Vaccination Misconceptions, shows responses to questions 13, "The vaccine injections paralyze children." and 14, "Immunization helps prevent diseases in your children." 36 (representing 36%) of the respondents strongly disagrees with the statement that vaccine injections paralyzes children; 25 (25%) simply disagrees; 23 (23%) were undecided; 16 (16%) of the respondents agrees with the statement that vaccine injections paralyzes children. On the issue whether immunization prevents diseases in children, 16 (16%) of the respondents disagrees with the statement that Immunisation helps prevent diseases in children; 17 (17%) were undecided on the issue; 34 (34%) of the respondents agrees with the statement; and 33 (representing 33%) of the respondents strongly agrees with the statement that immunisation prevent diseases in children.

Hypothesis Testing I

Hypothesis I: There is no significant relationship between the awareness level of parents and child Immunisation.

Question 4: Immunization prevents diseases such as Poliomyelitis, Tetanus, Tuberculosis, Measles, Yellow Fever and Meningitis.

Question 3: Have you heard about Immunization?

Responses	Observed Frequency (f_o)		Total
	Yes	No	
Strongly Disagree	0	0	0
Disagree	11	3	14
Undecided	18	9	27

4.4 Research Hypothesis Testing

In Chapter One, three hypotheses were formulated, which includes:

Research Hypotheses

1. There is no significant relationship between the awareness level of parents and child Immunisation; and
2. There is no significant relationship between the cultural belief of parents and the Immunisation of their children.
3. There is no significant relationship between the Immunisation of children and the proximity of the Health Centres.

Each of the hypotheses would be tested and analyzed using the Chi-Square distribution analyses.

Agree	44	0	44
Strongly Agree	15	0	15
Total	88	12	100

(Source: Field data and Extract from Tables 4.3.1 and 4.3.2)

In the course of entering the data in the table above, questionnaires with 'Yes' response to the question 3, 'Have you heard about Immunization?' were separated from those with 'No' responses. Then

responses to question 4, 'Immunization prevents diseases such as Poliomyelitis, Tetanus, Tuberculosis, Measles, Yellow Fever and Meningitis.' for each group ('Yes' and 'No' responses groups) were computed.

Responses	Expected Frequency (f_e)		Total
	Yes	No	
Strongly Disagree	0	0	0
Disagree	12.32	1.68	14.00
Undecided	23.76	3.24	27.00
Agree	38.72	5.28	44.00
Strongly Agree	13.20	1.80	15.00
Total	88.00	12.00	100.00

Note that the strongly disagree option's data was not used in the computation below due to the zero number of responses recorded against the option.

$$\text{Chi Square, } \chi^2 = \sum_{\text{all cells}} \frac{(f_o - f_e)^2}{f_e} = 20.860 \text{ \{computed value\}}$$

$$\text{Degree of freedom, } df = (R - 1)(C - 1) = (4 - 1)(2 - 1) = (3)(1) = 3$$

$$\text{Significance value, } \rho = 0.05$$

$$\chi^2 = 7.815 \text{ \{table value\}}$$

With a degree of freedom of 3 and significance value of 0.05, the Chi Square table value is 7.815, which is less than the computed value of 20.860; therefore the research assumption that 'There is no significant relationship between the awareness level of parents and child Immunisation' is rejected.

Hypothesis Testing II

Hypothesis II: *There is no significant relationship between the cultural belief of parents and the Immunisation of their children.*

<i>All cultures prevent the Immunization of children.</i>	Observed (O)	Expected (E)	(O - E)	(O - E) ²	$\frac{(O - E)^2}{E}$
Strongly Disagree	28	20	8	64	3.20
Disagree	34	20	14	196	9.80
Undecided	13	20	-7	49	2.45
Agree	18	20	-2	4	0.20
Strongly Agree	7	20	-13	169	8.45
Total	100	100	0	482	24.10

(Source: Extract from Table 4.3.3)

Note that an assumption that all cultures are the same with an equal number of expected frequencies was made for the computation below.

$$\text{Chi Square, } \chi^2 = \sum_{\text{all cells}} \frac{(f_o - f_e)^2}{f_e} = 24.10 \text{ \{computed value\}}$$

$$\text{Degree of freedom, } df = (R - 1) = (5 - 1) = 4$$

$$\text{Significance value, } \rho = 0.05$$

$$\chi^2 = 9.488 \text{ \{table value\}}$$

With a degree of freedom of 4 and significance value of 0.05, the Chi Square table value is 9.488, which is less than the computed value of 24.10; therefore the research assumption that 'There is no significant relationship between the cultural belief of parents and the Immunisation of their children' is rejected.

Hypothesis Testing III

Hypothesis III: There is no significant relationship between the Immunisation of children and the proximity of the Health Centres.

Question 7: Hospitals, Clinics or Maternities are always at close proximity to Community or rural dwellers.

Responses	Observed (O)	Expected (E)	(O - E)	(O - E) ²	$\frac{(O - E)^2}{E}$
Strongly Disagree	8	20	-12	144	7.20
Disagree	11	20	-9	81	4.05
Undecided	14	20	-6	36	1.80
Agree	43	20	23	529	26.45
Strongly Agree	24	20	4	16	0.80
Total	100	100	0	806	40.30

(Source: Extract from Table 4.3.3)

$$\text{Chi Square, } \chi^2 = \sum_{\text{all cells}} \frac{(f_o - f_e)^2}{f_e} = 40.30 \text{ \{computed value\}}$$

Degree of freedom, df = (R - 1) = (5 - 1) = 4

Significance value, $\rho = 0.05$

$\chi^2 = 9.488$ {table value}

With a degree of freedom of 4 and significance value of 0.05, the Chi Square table value is 9.488, which is less than the computed value of 40.30; therefore the research assumption that 'There is no significant relationship between the Immunisation of children and the proximity of the Health Centres' is rejected.

Chapter Five**DISCUSSION, SUMMARY AND CONCLUSION AND RECOMMENDATION****Discussion**

Findings from data collected and research hypotheses tested, using the Chi Square distribution statistical testing, revealed the following:

- **Hypothesis I Testing Discussion**

That there is significant relationship between the awareness level of parents and Child immunisation as shown in section 4.4.1, hypothesis testing I, this is in agreement with Olise P. (2007) who stated that 'most parents have wrong understanding about Immunisation. Some of the misconceptions are that Immunisation causes illness and deformity in a child or that too many Immunisations is detrimental to a child's health'; this also collaborates the opinion of Topuzuglu et al (2006) who stated that 'mothers should be informed on their responsibilities in maintaining good family health by taking advantage of the Immunisation services available; and the importance of keeping the child's immunisation record'.

- **Hypothesis II Testing Discussion**

That there is no significant relationship between the cultural believes of parents and the immunisation of their children as shown in section 4.4.2, hypothesis testing II, this is in agreement with Olise P. (2007) who stated that "Most people believe that these deadly diseases are as a result of their offences to their ancestors and thus, should be redressed in their traditional manner";

- **Hypothesis III Testing Discussion**

That there is significant relationship between the Immunisation of Children and the proximity of the Health Centres as shown in section 4.4.3, research hypothesis testing III, this is in agreement with Olise P. (2007) who stated that "Proximity to health facilities is another barrier to immunisation process. Most people cannot afford to walk long distances or afford the transport fare to have their babies immunized, where the health facilities are far away from their Communities".

- **Other Discussion**

Tables 4.2.2 and 4.3.4 also shows that majority, 92% of the respondents have one form of education or the other, from primary to tertiary and 51% of the respondents agreed that the educational qualification of parents influences their decision to immunize their children; this is in agreement with Olise P. (2007) who stated that "Illiteracy and/or lack of knowledge about Immunisation are part of the major problems in Immunisation processes. It is often difficult for illiterate parents to accept immunisation or to understand the importance of benefits of immunizing their children";

- Tables 4.3.3 shows that majority, 56% of the respondents disagreed with the statement that 'All religion allows the Immunization of children'; this is in agreement with Olise P. (2007) who stated that "Some religions do not accept taken of drugs, saying it is an offense against God. They believe that God who gave them children will take care of them and heal them when they are ill"; and

• Though not often taken serious, the negative and rather obstinate attitude of some health workers can also be seen as a hindrance to childhood immunisation. Table 4.3.4 shows that majority, 51% of the respondents claimed that the attitude of health workers scares people; this is in agreement with Olise P. (2007) who stated that “The nonchalant attitudes of some health workers towards mothers often discourage mothers from wanting to subject themselves to such ill-treatment just to have their babies immunized.”

SUMMARY AND CONCLUSION

The Study which seek to ascertain the factors affecting childhood immunisation in Ugo Community in Orhionmwon L.G.A., Edo State’ was carried out by random sampling of 100 mothers (pre and post natal) from Ugo Community. Data collected were presented in tables for ease of comprehension and analysis.

Conclusively, from the research findings, negligence of duty and irresponsibility on the part of some parents maybe among some of the many factors still affecting childhood immunisation in the Ugo Community of Orhionmwon Local Government Area of Edo State, since not all religious and cultural beliefs impede immunisation of children; Health Centres proximity is not much of an issue as many Health Centres are located at close proximity to the community people; Majority are aware of the benefits of Immunization; and educational qualification of parents is also not much of an issue as all mothers who participated in the survey have one form of education or the other.

Recommendation

Though there are still a few misconceptions about Immunisation among some of the parents living in Ugo Community of Orhionmwon Local Government Area of Edo state, major efforts should be channeled to correcting the attitudinal problems of parents toward immunisation of their children as it relates to irresponsibility and share negligence on the part of the parent.

The researcher therefore recommends that the following corrective measures be taken:

- Government (State and Local) should:
 - ✓ Through relevant agencies run regular Immunisation Media campaigns in local dialects to ensure increased awareness and full immunisation message comprehension stressing on the seriousness of the issue;
 - ✓ Correct wrong notions surrounding the use of vaccines via media campaign on Immunisation;
 - ✓ Attach incentives, such as mosquito treated nets, to completion of immunisation doses in order to attract increased compliance, especially of the very low income earners and the very ordinary rural parent living in Communities like Ugo Community;

- ✓ Enact policies that will make it an offence not to immunise or complete the immunisation of any child;
- ✓ Ensures, in collaboration with relevant agencies, bodies and Health Centres, that every parent possesses immunisation cards for each child by making the card one of the essential documents:
 - for child registration into schools, especially for the Day-Care and Kindergarten class levels;
 - required by Health Centres; and
- ✓ Task relevant agencies, bodies and Health Centres with routine checks of the Immunisation card in order to ensure complete compliance.

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