

**INFLUENCE OF PARENTAL KNOWLEDGE AND ATTITUDE ON CHILDHOOD
IMMUNIZATION IN A SELECTED HOUSEHOLDS OF BUSHENYI DISTRICT**

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2018.


DECLARATION

I declare that this report is my original work and has never been presented to any university or for any other academic qualification (s) except, where references were made. This study has never been submitted before for either publication or award of any kind and also take note that this project is subject to changes and further researching with or without the consultation of the researcher.

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APPROVAL /CERTIFICATION

I, the undersigned, certify that I have read through this research work conducted by EZEFOR SCHOLASTICA .C with Registration Number BMS/0048/133/DF, and hereby recommend for the acceptance by Kampala International University Western Campus of the research entitled, “Influence of parental knowledge and attitude towards childhood immunization in selected households of Bushenyi District”.



Signature.....

Date: 18th November, 2018.

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RESEARCH SUPERVISOR

DEDICATION

This research is dedicated to my congregation “Holy Family Sisters of the Needy”, for their love, prayers and support during this period. To my biological father, Late Mr. Joseph Ezeofor, may God reward your earthly efforts with heaven and to my mother, “Mrs. Elizabeth Obiageri Ezeofor” (UGOBELL)..And also to my religious parents, Rev. Fr. Denis Mary Joseph Ononuju Obiaga, Mother Michael Okafor, Sr. Josemaria Anyanwu, Sr.Dr. Joaness Uzomma, Chief Dr.

Hycienth Akanwa, Rev.Fr. Onyeneke, Rev. Fr. Valentine Eze and Rev.Sr. Lucy Okoye. May God bless and reward you all.

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LIST OF ACRONYMS

BMS	Bachelors of Medicine and Surgery
CWC	Child Welfare Centre
DPT-HB Hi b:	Diphtheria, Tetanus, Pertussis, Hepatitis B, Haemophilus influenza type b
EPI	Expanded Programme on Immunization
e.t.c	ec-terra
HBIG	Hepatitis Immunoglobulin
HIV	Human Immunodeficiency Virus
i.e	that is
IEC	Information, Education and Communication
KAP	Knowledge, Attitude and Practice
KATCI	Knowledge and Attitude Towards Childhood Immunization
L.G.A	Local Government Area
NIP	National Immunization Program
P H C	Public Health Care
RIV	Rabies Vaccine
RIVM	Rijksinstituut voor volksgezondheid en milieu
SVPI	Special Viral Pathogens Journal
TIG	Tetanus Toxoid
UNEPI	Ugandan National Expanded Program on Immunization
WHO	World Health Organization

DEFINITION OF BASIC TERMS

ATTITUDE: This is a hypothetical construct that represents an individual's degree of like or dislike for something.

CHILDHOOD: It is the age span ranging from birth to adolescence.

HEALTH: Is the level of functional or metabolic efficiency of a living being.

IMMUNIZATION: Process by which an individual's immune system becomes fortified against an agent (known as the immunogen).

PARENTS: Parents are caretakers of the offspring in their own species.

VACCINATION: This is the administration of antigenic material (a vaccine) to stimulate the immune system of an individual to develop adaptive immunity to a disease.

ABSTRACT

Background: Vaccine preventable diseases are considered one of the main causes of sicknesses and deaths among children all over the world. Parents' knowledge and attitudes towards immunization are likely influencing vaccination uptake. Vaccination is one of the most cost effective public health tools to prevent infectious diseases.

Objective: This study aimed to assess knowledge, attitudes and practices of parents towards immunization in Bushenyi District. That is to determine the basic knowledge and attitude of mothers, fathers and caretakers living in Bushenyi District towards childhood immunization (KATCI) and to demonstrate how these KATCI correlate with the full, on-time vaccination status of the children of these parents.

Method: This study was a prospective, cross sectional study at Kampala International University Western Campus. Using simple random sampling, a sample size of 100 participants of mothers, fathers, and caretakers was selected and data collected with self-administered questionnaires. The data was analyzed using Chi square and frequency in the Statistical Package for Social Sciences [SPSS].

Result:

The study revealed that 91.5% of the children had been immunized belonging to 94 parents who participated in the study in Bushenyi District. Four point seven (4.7%) were not immunized while 3.8% were not fully immunized. Different factors were advanced by the parents for not immunizing or not fully immunizing their children. These are related to knowledge, attitudes and practice of the parents. The following factors affect parent's attitude towards childhood immunization: education of parents, misconception about immunization caused by the different sources of information, ignorance of parents on the importance of immunization, fear of side effects and safety concerns about the vaccines, religious beliefs, gender based disparities and distance to the health centres.

Conclusion: From the findings, it could be concluded that the low coverage of immunisation and completion of immunisation in Bushenyi District is due to parental knowledge and attitudes towards childhood immunization.

Factors such as poverty, age, sex, poverty, religious beliefs, misinformation, side effects of the vaccines, distance to the healthcare centres, and busy schedules of parents have contributed to the poor parental knowledge and attitude towards immunization.

Having improper dissemination of information and communication about immunization was found as one of the reasons for poor parental knowledge and attitude towards immunization of their children and/or completion of their children's immunization schedules.

CHAPTER ONE

INTRODUCTION

1.0 BACKGROUND

Immunization has greatly reduced the burden of infectious diseases. Immunization prevents illness, disability and death from vaccine-preventable diseases including diphtheria, measles, pertussis, pneumonia, polio, rotavirus diarrhea, rubella and tetanus

Parents' knowledge about immunization and their attitudes towards them are likely influencing the uptake. Previous studies revealed misconceptions on parents' knowledge and negative attitudes towards childhood immunization. Mothers' knowledge about vaccination was found to be quite low and their educational status was significantly associated with child's coverage. Negative attitude, for example mothers fear from vaccination, was found to be significantly affecting the immunization status of their children (Minas et al., 2013).

1.1 UGANDA NATIONAL EXPANDED PROGRAMME ON IMMUNIZATION (UNEPI)

Is a national program targeting mainly infants and women of child bearing age with the mission to contribute to the reduction of morbidity and mortality due to childhood diseases to the level where they are no longer of public health importance (Vonasek et al.,2013).

In African country -Uganda, vaccine coverage rate remains well below the WHO goal of 90%, with 82% of children receiving the measles vaccine and 78% completing the three dose series of pentavalent vaccine providing protection against diphtheria, , pertussis, tetanus, hepatitis B, and Haemophilus influenza type B (DPT-HB-Hib)(WHO,2013).

One recent study demonstrated that the western region of Uganda, where this study was conducted, has the lowest rate of complete childhood vaccination in the country. Immunizations are key strategies for reducing the prevalence of infectious diseases, and especially in underresourced areas, immunizations are a highly cost-effective foundation for developing health systems.

In 2008, the WHO Strategic Advisory Group of Experts on Immunization called for increased information about the factors leading to non-vaccination and under-vaccination of children in order to develop strategies to improve the uptake of childhood immunizations. Community-based

sampling, as opposed to, for example, surveying caregivers at a healthcare facility, is particularly important in this context because it ensures broad recruitment inclusive of those most at risk for under-vaccination. The extent Ugandan mothers exhibit their attitude toward immunization appears to have received research attention (Vonasek et al., 2013).

Although several research have been published on parents' knowledge, attitudes and practices regarding childhood vaccination in Uganda but no such studies have been reported in this area of my study. Therefore, this study was undertaken to assess parental knowledge, and attitudes on childhood immunization in Bushenyi District Western Uganda. The aim was to first determine the basic knowledge and attitude towards childhood immunization (KATCI) from mothers, fathers and caretakers living in Bushenyi District and to demonstrate how these KATCI correlate with the full, on-time vaccination status of the children of these parents.

1.2 Problem Statement

Lack of immunization and/or under- immunization is/are a great risk for childhood infectious diseases, child hood morbidity and mortality in the developing world. Therefore, on-immunized children are at high risk of contracting diseases like polio, diphtheria, tetanus, pertussis, rubella, measles, mumps, and diseases caused by Haemophilus influenza type b (Adel et al., 2016).

In Uganda, most studies analyzing factors influencing caregivers' demand for childhood immunizations in rural, resource-limited settings do not focus on caregivers' KATCI. The analyses shows that in rural settings of western Uganda, mothers with a basic understanding of the importance of childhood immunizations were more likely to have timely, full vaccination of their children. Prospective, larger scale analyses are needed to delineate the community-specific influence and caregivers' KATCI has on children's vaccination status. This would allow for the development of more effective interventions and policies to improve vaccination coverage in developing countries (Vonasek et al., 2014).

Series of research have been conducted on immunization in western Uganda, but only few focused on caretaker or parental attitude and knowledge towards childhood immunization. Unfortunately,

Bushenyi District has never benefited from such research irrespective of pervasive increase in infectious diseases in this District.

1.2 OBJECTIVES

1.2.1 Main Objective

To assess the influence of parental knowledge and attitude towards childhood immunization.

1.2.2 Specific objectives

1. To measure parental knowledge on childhood immunization in Bushenyi District.
2. To determine the different attitudes and beliefs of Bushenyi parents on childhood immunization.
3. To measure the influence of low immunization coverage on the upsurge of tropical infectious diseases among children in Bushenyi District.
4. To identify the level of response to childhood immunization programme in Bushenyi District.

1.3 RESEARCH QUESTIONS

1. What was the level of parental knowledge on childhood immunization in Bushenyi District?
2. What were the effects of attitudes and beliefs of parents on childhood immunization?
3. What proportion of Bushenyi children were ill of infectious diseases due to poor immunization?
4. What proportion of children in Bushenyi District was immunized?

1.4 HYPOTHESIS :

Poor parental knowledge and attitude towards immunization results to increase in the spread of infectious diseases.

1.5 JUSTIFICATION/SIGNIFICANCE OF THE STUDY

The information generated would address the gap in knowledge existing in Bushenyi District and add to the body of existing scientific knowledge in Uganda and Africa in general, i.e. the findings

from this study would be of great benefit to mothers, fathers, caregivers, health workers and the government. The use of data generated from this research would indirectly reduce significantly the prevalence of spread of infectious diseases in Bushenyi District.

Specifically, data generated would assist the mothers to know the number of times upon which a child was expected to receive vaccines by encouraging the mothers to take the child to receive vaccines at the appropriate periods. By implication, the younger mothers within the age bracket of (15-45 years) would find the result of the study more beneficial because these categories of mothers by their age would utilize the results of the study better than older mothers within the age bracket of 45 and above.

The data would help the public health care (PHC) providers determine the need and ways for positively enhancing the mothers' attitude toward immunization of their children against infectious diseases. The study would be beneficial to curriculum designers and when planning curriculum for certificate program offered in Schools of Health Technology.

1.6 STUDY SCOPE

1.6.1 SUBJECT SCOPE

The main aim of this study was to determine if the knowledge and attitude of mothers toward child's immunization correlate with complete childhood immunization. Although researches have been published on parents' knowledge, attitudes and practices regarding childhood vaccination, no such studies have been reported locally in Bushenyi District. Therefore, this study assessed parental knowledge and attitudes on childhood immunization in Bushenyi

District.

1.6.2 GEOGRAPHICAL SCOPE

Bushenyi District is a district in Western Uganda. It is bordered by Rubirizi District to the northwest, Buhweju District to the northeast, Sheema District to the east, Mitooma District to the south and Rukungiri District to the west. The largest town in the district, Ishaka, is located 75 kilometers, by road, northwest of Mbarara, the largest city in the sub-region. The population growth rate in the district was calculated at 2%. The only recent census estimated that the

population of the district in 2012 was approximately 251,400. Bushenyi District is fairly endowed with natural resources. The district has relatively low poverty levels among its residents. The majority of the people are involved in subsistence agriculture with some engaged in commercial production of crops including coffee, tea, sweet bananas, matooke, cow and cow products.

1.6.3 TIME SCOPE

This study lasted for 4 months, the first month was used to seek for permission from relevant authorities while the following month was used for the preparation and pre-testing of questionnaires, the remaining two months were used for the data collection, analysis, presentation and dissemination of results.

1.7 CONCEPTUAL FRAMEWORK

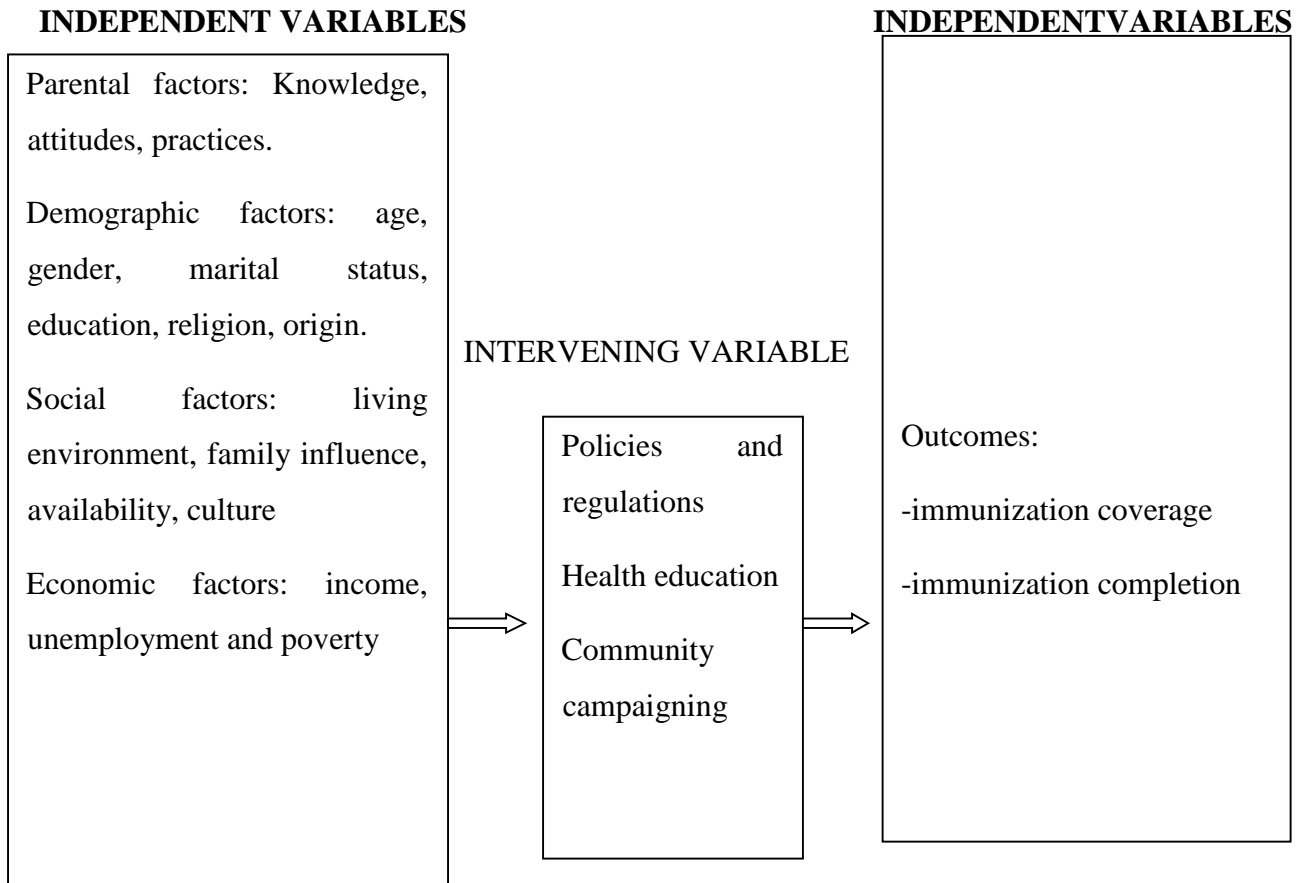


FIG 1:-Show the Conceptual Frame Work of Factors Influencing Immunization Coverage/Completion of Dose.

The conceptual framework above described the ways in which the independent variables and intervening variables can interact singly or with one another to bring about the outcome variables.

Several research done revealed that the parental knowledge and attitude, demographic factors, social and economic factors interact singly or with each other and even with the intervening variables to determine the dependent variable (immunization coverage and completion).

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 THE KNOWLEDGE AND ATTITUDE OF PARENTS TOWARDS CHILDHOOD IMMUNIZATION

Parents' knowledge about immunization and their attitudes towards them likely influence uptake of immunization. Previous studies revealed misconceptions on parents' knowledge and negative attitudes towards childhood immunization. Mothers' knowledge about vaccination was According to **Yousif et al (2013)**, the result demonstrated that the overall, 731 parents were recruited, of them 465 (63.6%) were females. More than two third of the respondents ages were < 40 years {502(68.7%)} and 634 (86.7%) were residing in the town. University graduates were 410(56.1%).

The majority of parents 672 (91.9%) knew the role of routine vaccination in protecting children from some infectious diseases and its complications. A considerable number 635 (86.9%) parents knew the timing of the first dose in vaccination schedule. 568 parents knew that the incidence of most diseases against which children are vaccinated occur during the first years of life. Less than half of the interviewees 304 (41.6%) knew that administration of multiple doses of the same vaccine was important for child immunity.

found to be quite low and their educational status was significantly associated with child's coverage. Negative attitude, for example mothers' fear of vaccination, was found to be significantly affecting the immunization status of their children (Zagminaset al.,2013).

Study was made about parents' knowledge on immunization and noted that most of the respondents can be characterized as having a positive opinion about vaccination, although 2040% of respondents indicated insufficient knowledge on this issue. Greater concern about the safety of vaccines was expressed by older parents, residents of towns and highly educated individuals. On the other hand, researchers in developed world found parents' attitudes and beliefs had little effect on their children's immunization levels. Despite the fact that local and systemic reactions to vaccines are identified, but they were found to be one of the barriers to childhood immunization among other factors. An increasing number of parents are questioning the safety and necessity of routine childhood immunizations. The belief that vaccines cause autism was the most prevalent parental concern in a survey conducted in USA (Zagminas et al.,2013).

Forder (2002) conducted a study of knowledge, attitudes and practices(KAP) of communities and health workers at Kompond Chhnang, Cambodia. The study was conducted to identify barriers to immunization and According to **Yousif et al (2013)**, the result demonstrated that the overall, 731 parents were recruited, of them 465 (63.6%) were females. More than two third of the respondents ages were < 40 years {502(68.7%)} and 634 (86.7%) were residing in the town. University graduates were 410(56.1%).

The majority of parents 672 (91.9%) knew the role of routine vaccination in protecting children from some infectious diseases and its complications. A considerable number 635 (86.9%) parents knew the timing of the first dose in vaccination schedule. 568% parents knew that the incidence of most diseases against which children are vaccinated occur during the first years of life. Less than half of the interviewees 304 (41.6%) knew that administration of multiple doses of the same vaccine was important for child immunity.

Future information, communication and education (IEC) strategies. The aim of the research was to gain an appreciation of knowledge, attitudes and practices of the villagers and health workers toward immunizations. Quantitative and qualitative research was conducted to discover the KAP of communities and health workers towards immunization services and the introduction of hepatitis B vaccine. Three different geographical areas were identified in Kompongchhnang. The finding revealed that generally, the community participants were positive about immunization, but were not empowered to be proactive and had under lying fears about side effects, efficacy and injection techniques. Most children were immunized opportunistically, as opposed to their mothers actively seeking out immunization. Some mothers are aware of vaccine side effects, had to wait until they had enough funds to buy medicine to prevent the side effects for their child. Lack of notification of forthcoming outreach immunization sessions was a common complaint, as was the lack the of theory services available at these sessions.

2.2 TO KNOW WHY PARENT REJECT CHILDHOOD IMMUNIZATION

Ambe, Omotara and Baba (2001) conducted a study on perception, beliefs and practices of mothers in sub-urban and rural areas towards measles and measles practices in Nigeria. The study aimed to elucidate the contributing factors from attitudes, beliefs and practices of mothers towards

measles and its vaccination. Hence, a cross-sectional survey was conducted in Konduga LGA of Bornu State using a sample of 500 mothers.

They reported that; 1% of the 500 mothers interviewed believed that measles is prevented by immunization, 16% believe that it is contagious or due to an infectious agent, 26% believe that is caused by evil spirits, witchcraft and heat, and 25% had never heard of measles immunization. Twenty-seven percent said they did not believe immunization was effective and 4% were not allowed to go for immunization by their husbands.

According to research by **Bryan et al (2013)** on whether maternal knowledge and attitude towards childhood immunization in rural Uganda correlate with complete childhood immunization.

Women in this study were asked why parents in their community may not have their children vaccinated, and the two most common responses were “fearful of side effects” and “ignorance/disinterest/laziness.”

2.3 TO KNOW WHY MOTHERS START BUT DO NOT COMPLETE THE VACCINE DOSE

According to **Edward Bbaale (2013)** on factors influencing immunization; the findings also reveal interesting locational and regional differences; 58% of children in urban areas were fully immunized compared to 53% of children in rural areas.

There are also differences owing to religious affiliation where children from Muslim families had a reduction of probability of receiving the 3 doses of DPT by 3% ($p<0.05$) compared to the counterparts from Catholic families. Children belonging to ‘Other’ religions increased the probability of being vaccinated against polio by 7-9% ($p<0.05$) compared to the counterparts belonging to Catholic religion.

Having an immunization card is shown to be important for full immunization. Children having immunization cards that were seen by the interviewer increased the probability of being fully immunized, receiving BCG, DPT, polio vaccine, and measles vaccine by 67% ($p<0.01$), 72% ($p<0.01$), 8% ($p<0.01$), 76% ($p<0.01$), and 64% ($p<0.01$) respectively compared to the counterparts who had no card.

2.3.1 Reasons children are not vaccinated in low and middle income countries as revealed from Country Facts Sheets & Global Matrix October 1, 2009.),are hereby reported hereunder:

Results showed that the total population in Uganda was 32,369,558; Population < 5 years of age: 6,545,273, estimated routine coverage (2006 DPT3): 66% (95% CI 53% - 77%).

Summary of reasons for poor immunization coverage has been listed below:

Access to immunization services and missed opportunities due to low knowledge level of health workers and not having vaccination card, many misconceptions and limited understanding of vaccinations among caregivers have been linked to low vaccine uptake.(Institute of Health Metrics and Evaluation, DTP3 Coverage (Global),

(http://www.healthmetricsandevaluation.org/resources/datasets/dtp3/dtp3_data.php)

□ Immunization Systems:

- Gaps in service delivery
- Not having a vaccination card linked to low vaccine uptake
- Poor access and quality of services
- High staff turnover
- Multi-dose schedules difficult to complete compared to single dose
- Children were refused vaccinations by health worker due to illness (contraindication)
- Missing child health card linked to low vaccine uptake
- Being born at home linked to low vaccine uptake
- Lack of knowledge regarding immunizations among health care workers
- HIV status of mother (being infected linked to lower vaccine uptake)
- Access to immunizations (to location where vaccinations are given)
- Few or no antenatal visits linked to lower vaccine uptake among children.

□ Communication and Information:

- Parents have poor access to information regarding immunizations
- Caregivers are uncomfortable with health care workers

□ Family Characteristics:

-- Born later in a family of other siblings (having a large number of older brothers/sisters) --
Mother's education level.

Parental Attitude and Knowledge:

- Caregivers believe that vaccines are dangerous (laced with HIV)
 - Illness of caregiver linked to low vaccine uptake
 - Low motivation of caregiver, lack of concern for child
 - Unconvinced of need for immunizations due to traditional beliefs and practices
 - Lack of knowledge regarding immunizations among parents
 - Limited maternal knowledge about immunizations
 - Negative maternal beliefs about immunizations.
- Institute of Health Metrics and Evaluation,

DTP3 Coverage

(Global),(http://www.healthmetricsandevaluation.org/resources/datasets/dtp3/dtp3_data.php)

2.4 TO ACCESS THE EFFECT OF SOCIAL DETERMINANTS ON IMMUNIZATION PROGRAMME

Aharona, Freedman and Nicholas (2012), worked on effects of social determinants on immunization and revealed results below:

2.4.1 Low-Income Countries

Low-income countries carry a high burden of vaccine-preventable diseases.(Centers for Disease Control and Prevention (CDC). **(2011)**

2.4.2 Parental education

Parental education in general, and about vaccines in particular, was described in multiple studies to be associated with higher child immunization rates, suggesting that education of parents plays a significant role in this regard. In a cross-sectional survey conducted in Delhi, India, maternal education was found to play an important role in the use of health care services as well as full immunization of children (Kusuma et al., 2010)

2.4.3 Religious and minority groups

Religious and cultural factors have been shown to affect immunization rates among different populations in low-income countries. Differences in religious affiliation were found to be associated with differences in immunization rates in a study conducted in Nigeria, where immunization rate was 66% among Christians but only 32% among Muslims (Antai, 2009).

2.4.4 Gender-based inequity

In many low-income countries, women are dependent on men socially, economically and culturally, and are at disadvantage compared with women in high-income countries. This disadvantage may start at infancy and continue throughout life (**Fikree and Pasha, 2004**).

2.4.5 Traditional healers

Traditional healers often serve as primary health care providers in developing countries and mothers use their services for paediatric care to various degrees. Traditional medicine may include herbal, spiritual or religious practices. A study done in Haiti found that the use of traditional healers by mothers was negatively associated with the vaccination rates of their children (Muula et al., 2009). Furthermore, in a study done in Pakistan, the use of traditional healers was found to be a risk factor for under-5 mortality (D'souza and Bryant, 1999).

2.4.6 Urban vs. rural place of residence

The 2011 Millennium Developmental Goals Report describes a higher rate of mortality among children from rural households (United Nations, 2011). It is thus important to explore whether there are differences in routine childhood vaccination rates between urban and rural communities in low-income countries. Differences in routine immunization patterns were reported in several high and medium income countries. A study conducted in Ireland found that lack of primary vaccination was associated with living in the rural area of the country, among other risk factors (Jessop et al., 2010).

2.4.7 Financial factors

Morbidity and mortality from vaccine-preventable diseases occur primarily in poor countries. It has been estimated that out of the approximately 162 million Disability-Adjusted Life Years (DALYs) that have been lost around the world from vaccine-preventable diseases, over 90% occurred in low-income countries. Mothers, Lopez, and Murray, 2006).

2.4. 8 Information, Misinformation and the Internet

Information and misinformation transmitted through the media in general and the Internet in particular compounds the problem of parental concern. This is particularly due to vast quantities of unfiltered sources of information which are difficult for laypersons to discern and refute (Kata, 2010).

2.4.9 Religious, cultural and personal beliefs

Religion-based and cultural beliefs have been reported as barriers to vaccination programs in medium- and high- income countries. An example of one religious belief impacting universal immunization program consists of the notion that health is given to a person by God and God will determine health without the need for medication Marlow, Wardle and Waller (2009). In Israel, two measles outbreaks occurred in 2003 and 2004 within the Ultra-Orthodox Jewish Community in Jerusalem. These densely populated highly religious communities have been closed to outside influences which are perceived as threatening to their religion. Effective outreach to these populations which required involvement of their religious leadership emphasized the need for cultural sensitivity when immunization programmes are concerned (Stein-Zamir et al.,2008).

CHAPTER THREE

3.0 RESEARCH MATERIALS AND METHODS

3.1. Introduction

This chapter describes the research design, area of the study, population for the study and sample size determination and sampling techniques. It also presents the instrument for data collection, validation of the instrument, reliability of the instrument, method of data collection as well as method of data analysis.

3.2 Research Design

A prospective cross-sectional survey research design was used for this study of selected households of Bushenyi District. It is a quantitative study as the data collected was represented in numerical terms and percentages.

3.3 Study Area or Study Setting

This study took place in Bushenyi District in Western Uganda. It is bordered by Rubirizi District to the northwest, Buhweju District to the northeast, Sheema District to the east, Mitooma District to the south and Rukungiri District to the west. The largest town in the district, Ishaka, is located 75 kilometres, by road, northwest of Mbarara, the largest city in the sub-region.

3.4 Study population

The population growth rate in the district was calculated at 2% .The most recent population of the district in 2012 was approximately 251,400. Bushenyi District is fairly endowed with natural resources. The district has relatively low poverty levels among its residents. Mothers, fathers, caretakers of children in households were interviewed about their children's immunization status.

3.5 Sample Size

3.5.1 Sample Size Determination

To arrive at the sample size, Fishers et al (1990) formula was applied as follows:

$$N = \frac{Z^2 \cdot PQ}{D^2}$$

Where

N= Desired sample size

Z= Standard normal deviation usually set at 1.96 (or simply rounded off to 2.0) which corresponds to 95% confidence level

P= Proportion of target population, estimated to have similar characteristics (where 50% was used because there was no measurable estimate or 0.5),

D= Acceptable error e.g. 0.1,

Q= 1-P=0.5

$$N = Z^2 P \frac{Q}{D^2}$$

$$= (1.96)^2 * 0.5 * \frac{0.5}{(0.1)^2}$$

Sample size = 96.04 participants, this was then rounded off to 100 respondents.

3.5.2 Selection Criteria

3.5.2.1 Inclusion Criteria: Selected parents in Bushenyi District.

3.5.2.2 Exclusion Criteria: All the youths without children and children.

All parents that are not from Bushenyi District.

3.6.0. Sampling Techniques

Within the purposively selected villages, 100 women were the target number for the crosssectional study. The sampling technique followed this pattern, the five sub-districts (Bunyaruguru county, Buhweju county, Igara county, Ruhinda county, and Sheema county) were purposively selected since the total population was small. In the second step, using balloting without replacement to select one ward from each of the 5 counties. The third stage involved the use of

systematic sampling technique to select 20 households from each of the 5 wards. A parent (mother or father or carers of children) from each of the 100 households constitute to the sample.

3.6.1. Study Variables

3.6.2. Dependent Variables

The dependent variable was the outcome variable. These variables were the positive and negative effects of the independent variables on childhood immunization in Bushenyi District.

3.6.3. Independent Variables

Independent variables included:

- Parent Factors: Attitudes, Practices, and Knowledge.
- Demographic: Factors: Age, Gender, Marital status, Education, Religion, and Origin.
- Social Factors: Living environment, Peer influence, Availability, and Culture. □ Economic Factors: Income, Unemployment, and Poverty.

3.6.4. Intervening Variables

These included community campaigns, policies and regulations.

3.7.0. Data Collection Procedure

In order to gain access and cooperation from the parents, a letter of introduction from the Head, Department of Clinical Medicine and Surgery was collected and given to District Health Officer of Bushenyi District. The letter explained the purpose of the study to them and their consents were obtained. Questionnaires were given to respondents (parents) aged 15 to 45 years. After signing the consent form indicating their willingness to participate in the study, the respondents completed the questionnaires. A total of ninety four (94) respondents responded and were collected out of the expected 100 administered questionnaires between the months of April and August 2018.

3.7.1. Data collection Tool

a) Questionnaires

- The principal investigator and research assistants administered self-administered questionnaires to the respondents to ensure privacy and freedom.
- Quantitative data were collected through interviewer administered structured questionnaires consisting of both close and open ended questions.

3.7.2. Quality Control

3.7.2.1. Reliability of the instrument

In order to establish the reliability of the instrument, the test called pre-test was done. Copies of the questionnaires were administered to 10 participants in the nearby sub-district (Bunyaruguru county, Buhweju county, Igara county, Ruhinda county, and Sheema county) analyzed. The instruments were re-administered to the same respondents with corrections already effected in them after two weeks. After which the correlation coefficient was determined for reliability, and necessary collection were made.

3.7.2.2. Validity

Validity refers to how well an observed value correlates with the true value. Therefore, validity issue will be addressed by evaluating the questionnaires after pre-testing through an expert to ascertain the validity of the data collection tools.

3.8.0. Method of Data Analysis

The primary data from the questionnaires were then coded for entry into computer system. The raw data were extracted from the questionnaires by entering the result in the excel sheet. The data were organized, coded and filtered using SPSS software. Both descriptive and inferential statistic techniques were employed to analyze the coded data. But note that it was first analyzed using descriptive statistics and cross tabulation. Chi square was used to test association between the variables and level of significance of the factors.

3.8.1. Qualitative Data: Qualitative data from the questionnaires were checked for completeness, transcribed, coded, cleaned, decoded, analyzed manually using the content analysis technique and presented in tables in form of text. Qualitative data were summarized into themes or categories which were used to offer further explanation and support to the findings from the quantitative data.

3.8.2. Quantitative Analysis: The researcher edited and coded the information obtained from the questionnaires. Data were entered into the computer system using EPIDATA and SPSS version 16.0 for data analysis. Data were analyzed at two levels: the Univariate, and bivariate.

3.8.3. Univariate Analysis: All the variables listed in the conceptual framework were used for example age, sex, religion, occupation, tribes, level of education etc. Frequencies and percentages in tables, graphs, pie charts and bar charts for easy comprehension and understanding were used to describe the population distribution; with measure of central tendency being measured as mean and median and prevalence of access to immunization.

3.8.4. Bivariate Analysis: Spearman rho correlation was used to determine the significance of the associations between the variables, the relationship, its strength and significance between each of the independent variables and the dependent (outcome) variables.

The existence of an association between outcome variables and the independent variables was tested. Also the statistical significance of these associations and its general population suitability was tested. Chi square test was used to test for statistical significance of the relationship of variables with at least one categorical variable. The statistical significance of continuous variables was tested with chi square and t-test. The p value of less than 0.05 was rated as a statistically significant relationship. The 95% confidence intervals were used to measure reliability of the estimate of the population parameter. The p-value was used to measure statistical significance and strength of the association between the independent variables and the outcome variables.

3.9.0 Dissemination of findings

Copies of the dissertation were presented to Kampala International University School of Clinical Medicine and Dentistry.

3.10. Ethical consideration

Permission to conduct the research was obtained from the Faculty of Clinical Medicine and Dentistry at KIU WC. Written consent was obtained from the District Health Officer of Bushenyi District and the Executive Director of different health centers before data collection. A guardian was required to provide assent and written informed consent on behalf of the individual of the minor age groups (15-17yrs).

3.11 . Possible limitation

This survey was conducted in small geographical area of Bushenyyi District in Western Uganda. Therefore the obtained results cannot be generalized to the entire country. Other limitations were language barrier since Uganda is not my country.

CHAPTER 4

ANALYSIS AND PRESENTATION OF DATA

4.1 Introduction

This chapter discusses the data analysis and findings from 94 questionnaires completed by selected respondents (parents) from Bunyaruguru County, Buhweju County, Igara County, Ruhinda County, and Sheema County in greater Bushenyyi District. The purpose of this study was to determine if the knowledge and attitude of mothers toward child's immunization correlate with complete childhood immunization.

The objectives of the study were to:

1. To measure parental knowledge on childhood immunization in Bushenyyi District.
2. To determine the different attitudes and beliefs of Bushenyyi parents on childhood immunization.
3. To measure the influence of low immunization coverage on the upsurge of tropical infectious diseases among children in Bushenyyi District.
4. To identify the level of response to childhood immunization programme in Bushenyyi District.

The data from the questionnaires were statistically analyzed by a statistician. The SPSS 20 Program was used for the data analysis. The findings are discussed according to the sections of the questionnaire and then with reference to the three components of KAP. The four sections of the questionnaire were:

- Section A: Personal (biographical) data.
- Section B: Knowledge about immunization.
- Section C: Attitudes towards childhood immunization.

KAP was used to contextualize the literature review (see chapter 2). The three main components of the KAP, namely individual knowledge, attitudes, and practice toward child's immunization were utilized and how these correlated with completing childhood immunization.

4.2 PERSONAL (BIOGRAPHIC) DATA

This section of the questionnaire covered the respondents' age, sex, religion, educational level, occupation and marital status. Though not central to the study, the personal data helped to contextualize the findings and the formulations of appropriate recommendations to enable more parents have their children fully immunized.

4.2.1 Respondents' ages

The respondents were asked how old they were at the time of filling the questionnaire. Figure 4.1 depicts the respondents' ages.

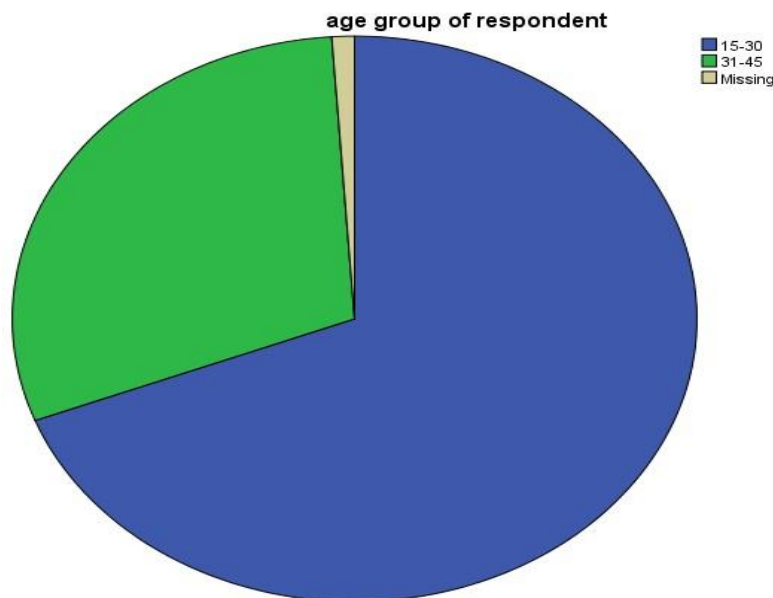


Figure1: Age of parents

The respondents' ages ranged from 15 to 45, with the majority being in the age group 15-30 as

65(69.1%) respondents. It should be borne in mind that parents aged 15 probably became pregnant while they were only 14 years old, indicating that childhood immunization education and knowledge need to be attained by the age of 13 or even earlier.

From the cross tabulation of age of respondents and children not immunized, 7 parents did not have their children immunized. Of these, 5 are between 15- 30 years who had at least 2 children not immunized, while 2 parents were between 31-45 years who had one child not immunized. The chi-square test revealed the χ^2 as 2.045 at distance of freedom 3 gives a $P > 0.05$ which is not statistically significant. Thus parent's age does not affect parent's knowledge and attitude towards childhood immunization. This is represented in the pie chart (Figure 1).

4.2.2 Sex

According to table 4.2a, of the 94 respondents, 82(87.2%) were females while 11 (11.7%) were males representing parents; this means that the research results may be generalized to parents of Bushenyi District. The big number of parents here also represents that the female parents are more responsible for children immunization than the male. Out of the 7 parents who did not have their children immunized, 6 were female while 1 was male (cross tabulation between sex of parents and children not immunized (Table 4.2b and Figure 2).

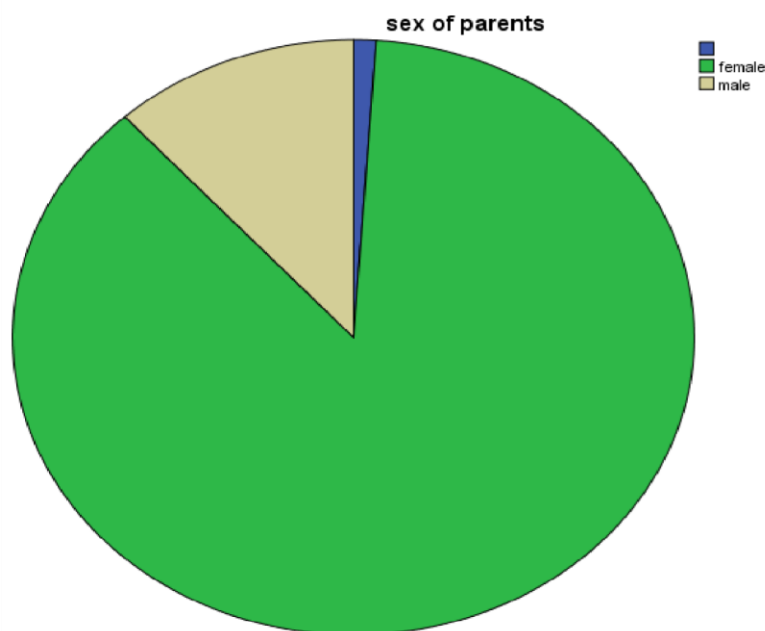
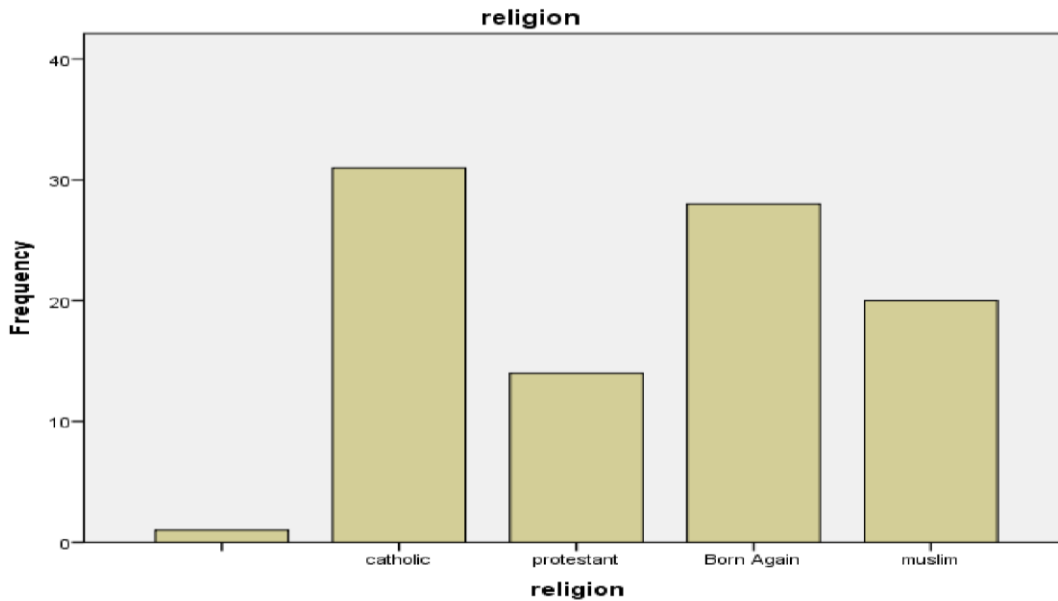


Figure 2: Sex of parents

From analysisTable2c, $p > .0.05$, which is not significant to the study in Bushenyi that sex of parents influences completion of the schedule of immunization. This implies that with more knowledge and sensitization to the parents, more children may be able to complete their immunization schedules.

4.2.3 Religion



Of the 94 respondents, 31(33%) were Catholics, 14 (14.9%) were Protestants, 28 (29.8%) were Pentecostals and 20 (21.3%) were Muslims. The sample represented all faith of the people in

Bushenyi, which means that the research results may be generalizable to the population in Bushenyi. The implication of this finding is that immunization knowledge and information should be conveyed through religious leaders in places of worship to reach the majority of parents because of trust the faithful repose in their religious leaders..

From table 3c, $p > 0.05$ and therefore it not statistically significant that religion is closely related to knowledge and attitudes towards child hood immunization.

4.2.4 Educational level

Figure 4 represents the highest level of school education that the respondents had obtained. Of the respondents, 69 (73.4%) had formal education, 9 (9.6%) had informal education, 14 (14.9%) had not been educated while 3(3.2%) did not answer the question. This implies that with more knowledge and education, childhood immunization can be achieved fully.

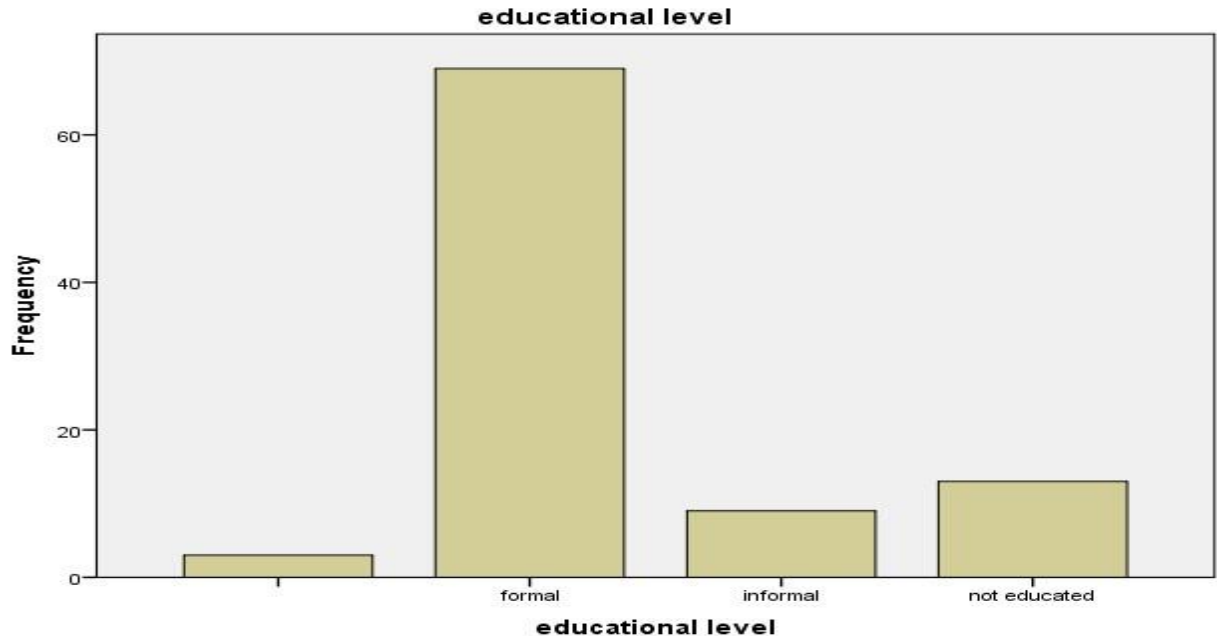


Figure 4: Level of education

In a study of the 11 out of the 13 who did not have an education were females while the 3 who did not answer the question were female too, this portrays the importance of education of the mother in relation to immunization . However, the cross tabulation between level of education and children not immunized (table 4b) revealed that the educated parents had more children not immunized compared to those not educated. Another significant factor in relation to education is religion, 57% of the parents who are not educated are Pentecostals while 28.5% are Muslims while only 14.6% are Catholics and Protestants. This emphasizes the importance of religion in relation to education and how they affect knowledge, attitudes and practice towards early childhood immunization.

Table 4c $P < 0.05$ which emphasizes that level of education was statistically significant to knowledge, attitudes and practice towards childhood immunization.

4.2.5 Occupation.

The study revealed that most parents were involved in some kind of occupation to earn a living.

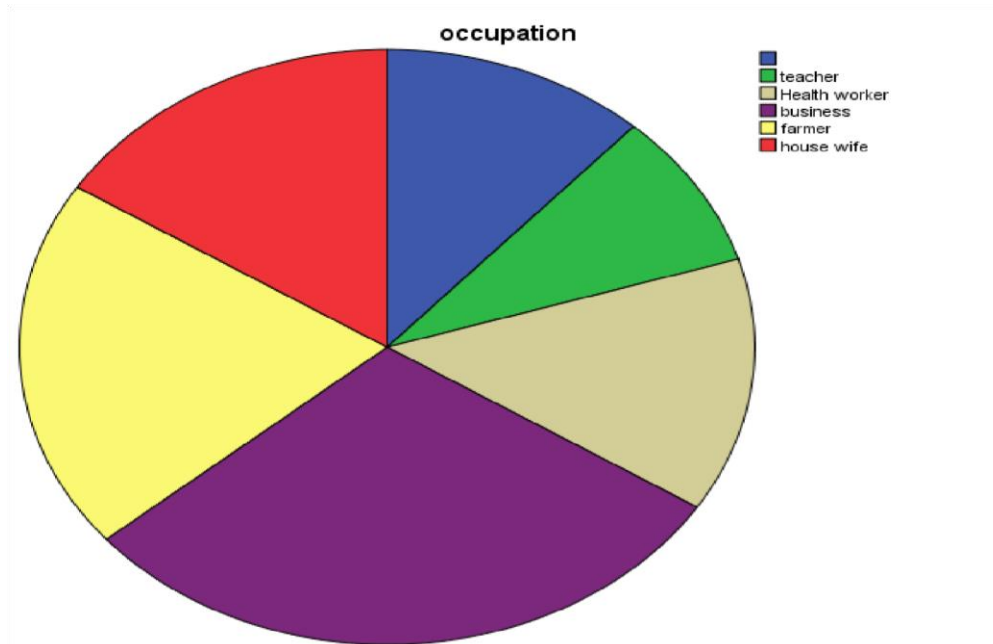


Figure 5: Occupation of parents

The biggest percentage was business people represented by 29.8%, followed by farmers 20.2%, health workers 13.8%, while teachers were 8.5%. However, 16% were housewives while 11.7% represented others, which did not specify which occupation they belonged.

From the (table 5b) cross tabulation above, at least every level of occupation had parents who did not have the children immunized; therefore this means that attitudes and practice of parents towards the subject cuts across occupation. Table 5c $p > 0.05$ represents non significant relationship between parents occupation and childhood immunization completion and coverage.

4.2.6 Marital status

An analysis of the frequencies from the figure 6 revealed that the largest number of parents were single and female representing 39 out of 94 (41.5%), 33 were married (35.1%), 9 were separated (9.6%), 7 were widowed (7.4) while 6 (6.4%) did not answer the question and therefore were not specific which bracket they belonged.



A cross tabulation was carried out to identify which group had their children not immunized or complete the schedule, 7 single and separated parents had between 1 to 3 children not immunized. The no correlation between marital status and childhood immunization has been further proved by a none statistically significant test in table 6c where $p > 0.05$. This means that encouraging childhood immunization should be handled hand in hand with stable families to eliminate the gender disparity.

4.2.7 Summary of personal data

Section A revealed the respondents' age distribution, religious background, level of school qualification, occupation and marital status are relevant to understanding parents knowledge, attitudes and practice towards coverage and completion of childhood immunization schedule.

4.3 KNOWLEDGE ABOUT IMMUNIZATION

This section consists of eleven questions about knowledge of immunization received by the participating parents, in relation to potentially significant events in lives of the children, such as their age at which the first dose is given as well as the site for administering of the vaccines and sources of information about immunization.

4.3.1 The term immunization

This question was asked to identify whether or not the respondents had a clear understanding of the term immunization.

Definition	Frequency	Percentage
It's a poison	18	19 %
It prevents child- hood infectious diseases	65	69 %
It makes children get sick.	11	12 %
Total	94	100

Table 7: Definition of immunization

Knowing parents' understanding of the term 'immunization' should indicate why they take or do not take children for immunization or why some do not complete the immunization schedule as expected. This is important because it helps sensitize parent on the side effects that are associated with immunization and why these should not stop them from completing the schedule.

From the table 7, it is evident that 65 out of 94 parents (69%) have the right definition of immunization being the "prevention of childhood infection diseases", 18 (19%) felt immunization was a poison .This depends on the interpretation of vaccines by people locally. However, 12% of the participants defined immunization as "it makes children get sick", this is a misconception and relating immunization to the side effects of some of the vaccines that make the children feel sick.

4.3.2 How did you know about immunization

The question sought to ascertain where the parents had got knowledge about immunization and if yes, was the knowledge from the right sources? Most of attitudes are influenced by the kind of knowledge people have and the source of this information.

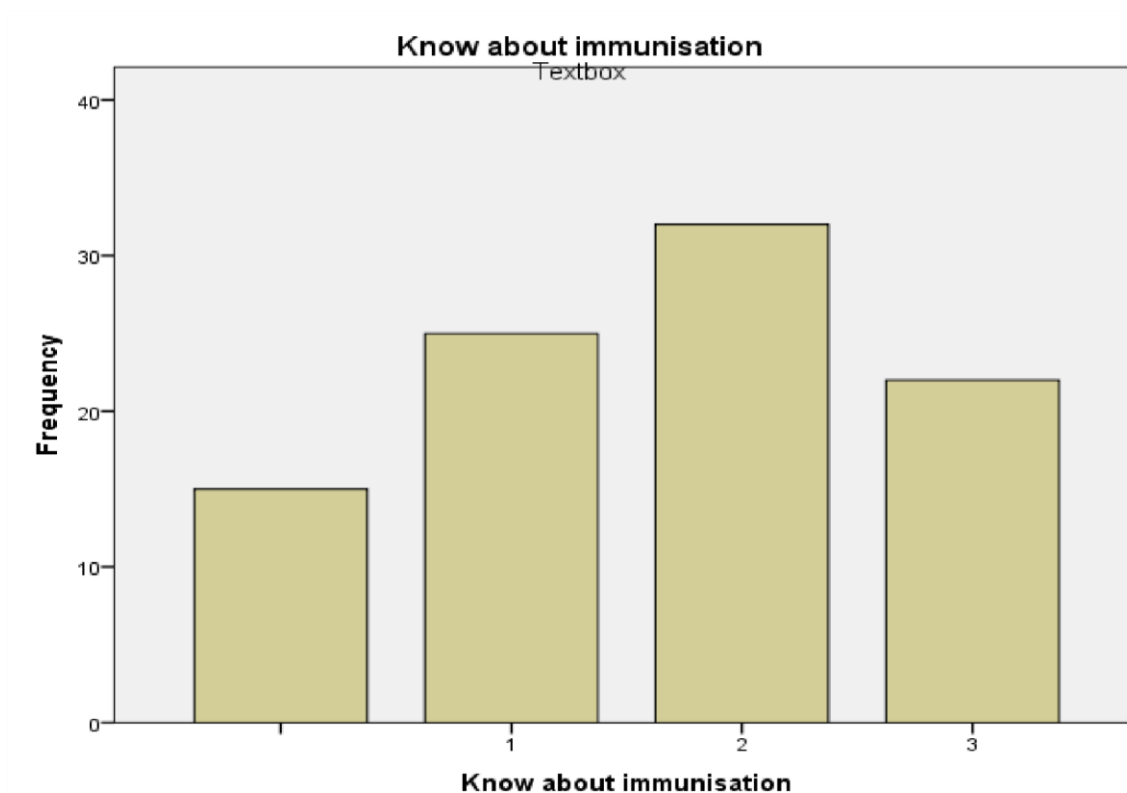


Figure 7: Knowledge about immunization

Key: 0 = Antenatal, 1= Friend, 2 = Health worker, 3= Community health education

From the frequency analysis in figure 7 above, 25 parents (26.6%) got information from friends, 32 (34%) got the information from health workers while 22 (23.4%) got the information from community health education and 16% learnt immunization from antenatal clinics.

The table 8b analyses the source of information in relation to those whose children got the side effects of the vaccines. It is evident that the big number of parents whose children got the side effects got the knowledge from friends, while the big number of those who did not get the effects got the knowledge from the health workers. Therefore, this emphasizes the fact that those who got side effects and coupled with the knowledge source would have their attitude and practice affected by the knowledge they got.

There is a no statistical evidence that sources of information about immunization and interpretation of side effects experienced during childhood immunization as represented by $p > 0.05$ in table 8c.

4.3.3 Type of vaccine you know?

The parents knew about the types of vaccines, the question gave them options such as Measles vaccine, Polio vaccine, tetanus vaccine, BCG vaccine, Yellow fever, DPT, Hepatitis. Of the 94 parents, 68 could identify at least five common vaccines which are related with childhood immunization schedule, 16 parents identified four vaccines while 10 identified two from the list provided. It is true that they have known about the names of the vaccines.

4.3.4 What is the importance of immunization?

The question sought to assess parent's attitude towards immunization. Nineteen (20.2) did not answer the question, 65 (69.1%) confirmed it is a protection against diseases, while 10 (10.6%) thought immunization causes diseases. This is illustrated in the figure below

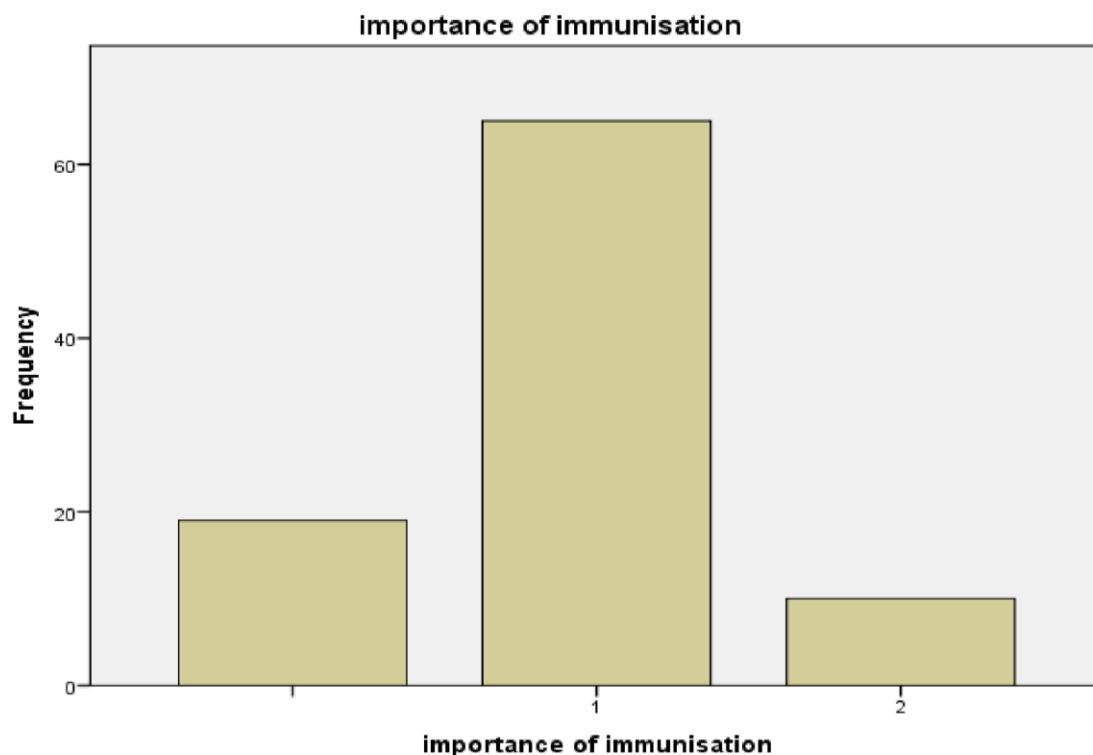


Figure 8: Importance of immunization

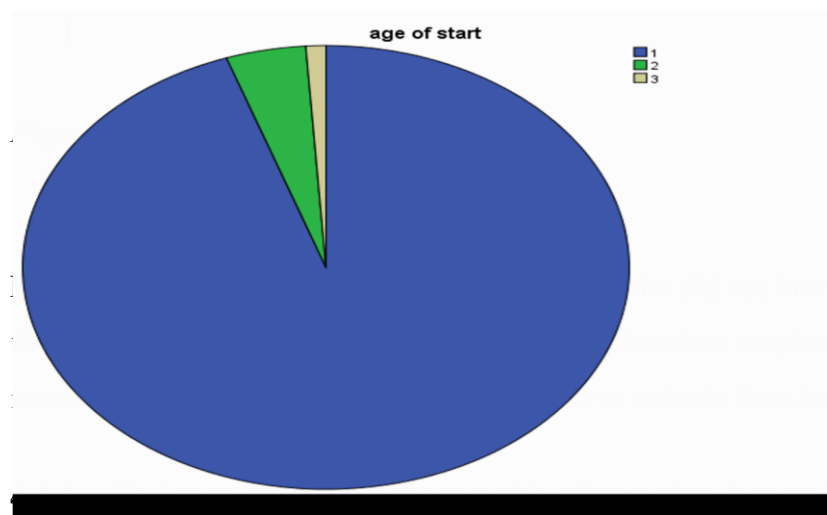
Key: 1= protection against disease

2= Disease causing

From the analysis, the misconception of immunization as a disease causing agent may affect parent's utilization of the service, thus contributing to their poor practice toward childhood immunization.

4.3.5 At what age does your child start off first immunization dose?

Eighty nine out of 94 parents (94.7%) answered this question right citing the fact that the first immunization vaccine is given at birth. However, 4 (5.4%) thought the first vaccine is given after one year and at five years.



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zation?

Fifty five point three percent of the parents reported their children to have experienced side effects of the vaccines after immunization while 44.7% answered no. The most vaccine that gave the side effect was the DPT vaccine which needed more than two doses to develop an adequate and persistent antibody response, however due to the side effects some parents may think that only the first shot of the vaccine is sufficient to protect the child (Bryan et al., 2013).

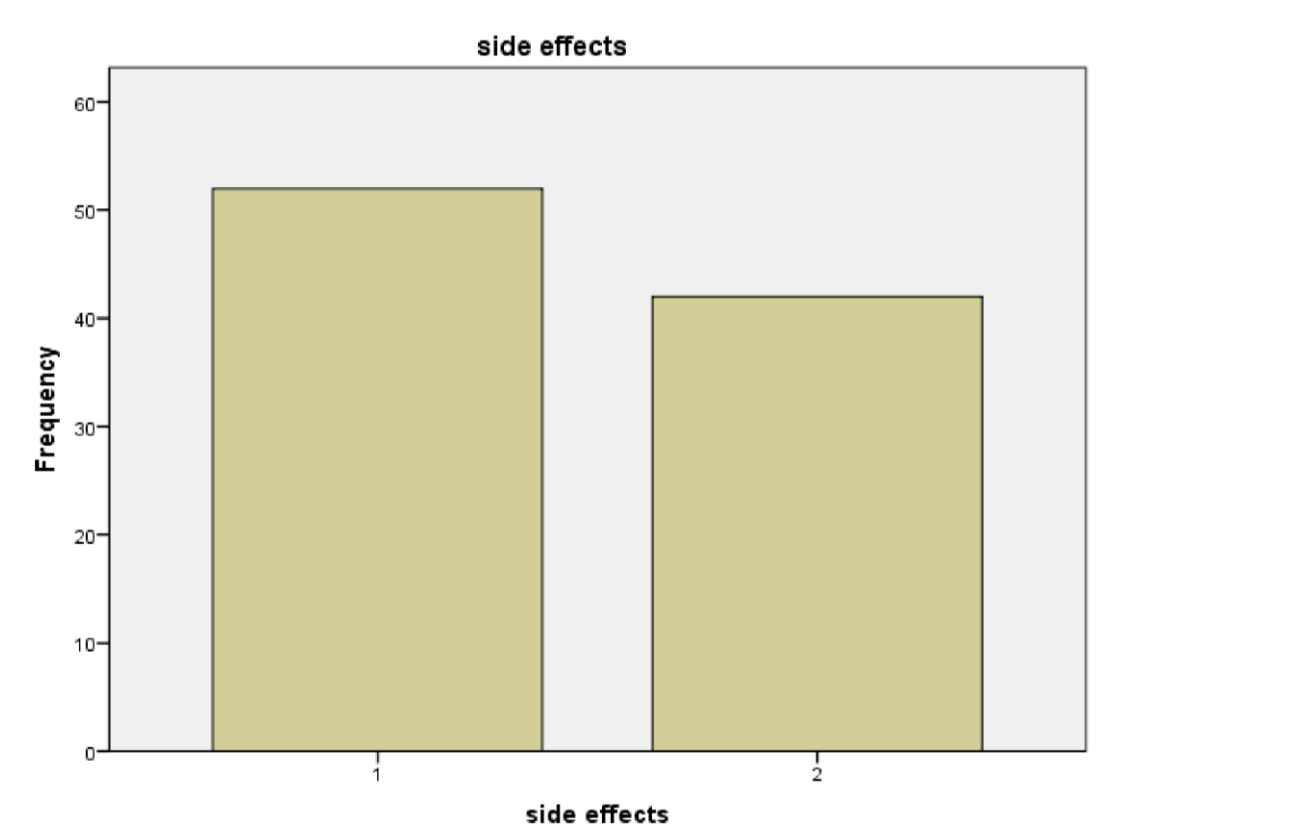


Figure 10: Side effects

There is no statistical relationship between side effects of the vaccines and parents completion of the immunization schedule as represented by $p > 0.05$ from the table 11b. The parents who answered yes to side effects of the vaccines identified the following multiple issues to be the common effects experienced after administration of the vaccines.

- Fever
- Constant crying and irritation
- Pain at the injection site
- Lack of sleep

However, parents need to be sensitized on the home remedies to deal with this to avoid relapse during childhood immunization to circumvent the discouragement that was reported by 21 (22.3%) parents arising from the side effects as in table 12a below.

4.3.7 Discouragement by side effects

	Frequency	Percent	Valid Percent	Cumulative Percent
yes	6	6.4	6.4	6.4
Valid no	21	22.3	22.3	28.7
no	67	71.3	71.3	100.0
Total	94	100.0	100.0	

Table 12a: Side effects of vaccines discouraging parents to continue with immunization

4.3.8 What are the routes of administration of vaccine that you know

The question further tested the parent's knowledge on immunization by identifying the major routes of administration of the vaccines that were common to them. From the analysis, 58 parents (61.7%) identified two routes. as oral and IM, 8 parents (8.5%) identified only oral, 11 parents (11.7%) identified oral, IM, subcutaneous, while 17 parents (18.1%) did not answer the question. This implies therefore that the parents in Bushenyi have had the knowledge about the different routes of immunization either by practically seeing the children being immunized or have learnt from somewhere, however, not completing the schedule or not immunizing the children is based on their attitude towards childhood immunization.

4.3.9 Is one dose of vaccine enough to protect your child against infectious diseases?

According to Bryan et al (2013), the research discussion pointed that, most vaccines in the childhood immunization schedule require two or more doses for development of an adequate and persisting antibody response. In the study in Bushenyi District, 57 parents (60.6%) knew that one dose was not enough to build immunity against infectious diseases; however, 33 parents (35.1%) felt one dose could be enough as presented in figure 11 below.

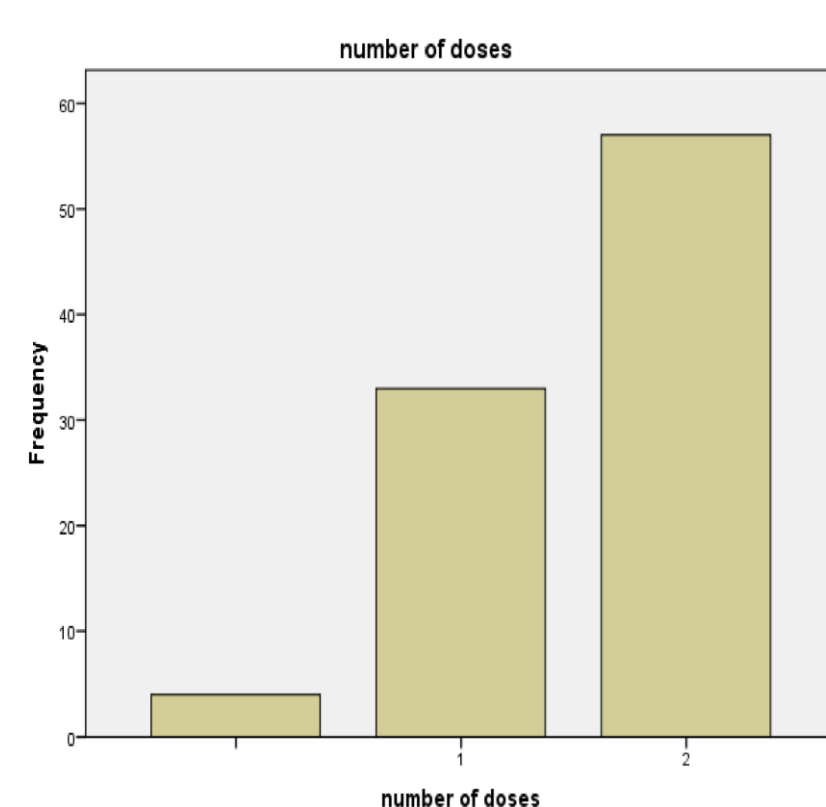


Figure 11: Number of doses

Key: 1 Yes, 2= No.

The cross tabulation between number of doses and children not fully immunized revealed that out of the 33 parents who felt one vaccine was enough, 6 of these (3 parents had one child each, 2 parents had 2 children each while 1 parent had all the three children) not fully immunized as compared to one parent who answered no and had the child not fully immunized. More evidence of this is presented by $p > 0.05$, implying a no statistical evidence that there is a relationship between number of doses and children not being fully immunized in Bushenyi District as shown in table 11c

4.3.10 Tick the parts of the body your child/children received vaccine injection

The study sought to ascertain parent's knowledge on the parts of the body where the vaccines are administered; all the 94 parents gave multiple answers to this question as presented below:

- 64 parents answered mouth

- 82 parents answered upper arm
- 12 parents answered upper thigh
- 3 parents answered vein
- 1 parent answered head.

The parents in Bushenyi District generally know about the sites of immunization, however, compared to 4.3.7 above, many parents have an inherent fear for the vaccine administered on the upper thigh which is DPT vaccine, only 12 parents identified this as a site for immunization compared to 82 who identified the upper arm. The major reason is the side effect that comes with the DPT vaccines and the fact that it is given in more than one dose. This affects the parent's attitude towards completion of immunization of their children.

4.3.11 Have you attended any health programme on immunization?

As a means to sensitize parents on the importance of immunization and why they should have all their children fully immunized, health programmes on immunization have been held in Bushenyi District. The 94 parents who took part in the study, 44 (46.8%) confirmed they had participated in the health immunization programmes while 48 (51.1%) had not been part of such programmes. This further informs the study of the negative attitude parents have in relation to childhood immunization (Figure 12 below).

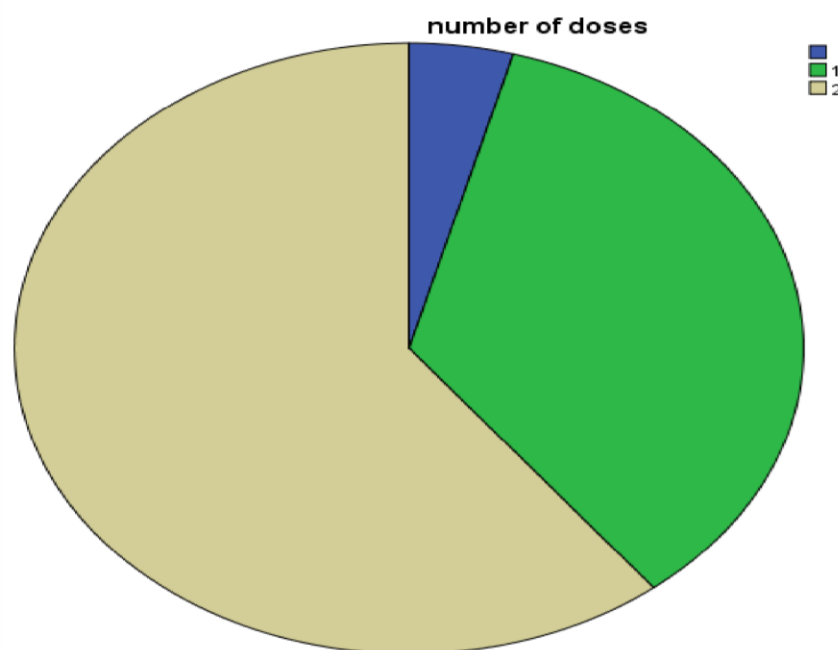


Figure12: Health Immunization Programmes

4.4 SECTION C: Assessing parental attitudes towards childhood immunization

According to research by **Bryan et al (2013)** on whether maternal knowledge and attitude towards childhood immunization in rural Uganda correlate with complete childhood immunization. This section sought to assess the attitude of parent in Bushenyi District towards child hood immunization and completion of the immunization schedule.

4.4.1 How many of your children were fully immunized?

Two hundred and eighteen children belonging to 94 parents were fully immunized according to the results in the frequency (table 13a below); while 11 children were not immunized (see table 13 b) and 9 were not fully immunized at the time of the study (presented in table 13c).

Number of children

Immunized

Number of children	Frequency	Percent	Valid Percent	Cumulative Percent
one	30	31.9	31.9	31.9
two	32	34.0	34.0 ^a	66.0
three	16	17.0	17.0	83.0
Valid four	7	7.4	7.4	90.4
five	6	6.4	6.4	96.8
six	3	3.2	3.2	100.0
Total	94	100.0	100.0	

Table 13a: number of children immunized

Table13b: Numbers not immunized.

Number of children	Frequency	Percent	Valid Percent	Cumulative Percent
none	87	92.6	92.6	92.6
1	4	4.3	4.3	96.8
Valid 2	2	2.1	2.1	98.9
3	1	1.1	1.1	100.0
Total	94	100.0	100.0	

Not fully immunized

Table13c: Not fully immunized

Number of children	Frequency	Percent	Valid Percent	Cumulative Percent
none	87	92.6	92.6	92.6
1	4	4.3	4.3	96.8
Valid 2	2	2.1	2.1	98.9
4	1	1.1	1.1	100.0
Total	94	100.0	100.0	

The parents further indicated reasons why some of the children were not fully immunized or not immunized at all, the following were the findings:

- Long distance to the health facility,
- Fear of side effects of the vaccines.

4.4.2 Do you spend to get your child immunized?

Aharona, Freedman and Nicholas (2012) who worked on effects of social determinants on immunization revealed low-income earnings in country places high burden of vaccinepreventable diseases, (CDC, 2011). In the study in Bushenyi District, 30.9% of the parents spent money on immunization, (*Figure 13 and table 14* respectively). This is because of the long distance between them and the health centre. This affects their attitude and practice towards childhood immunization.

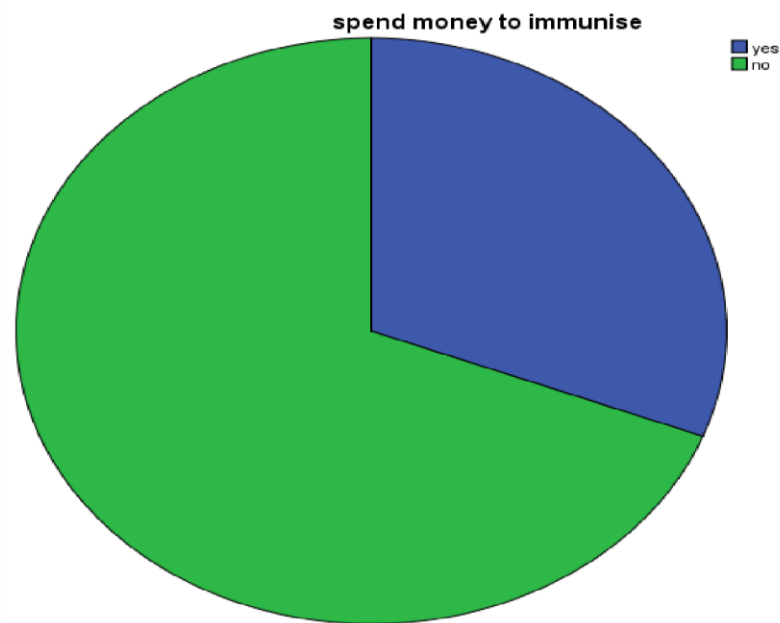


Figure 13: Spend money on immunisation

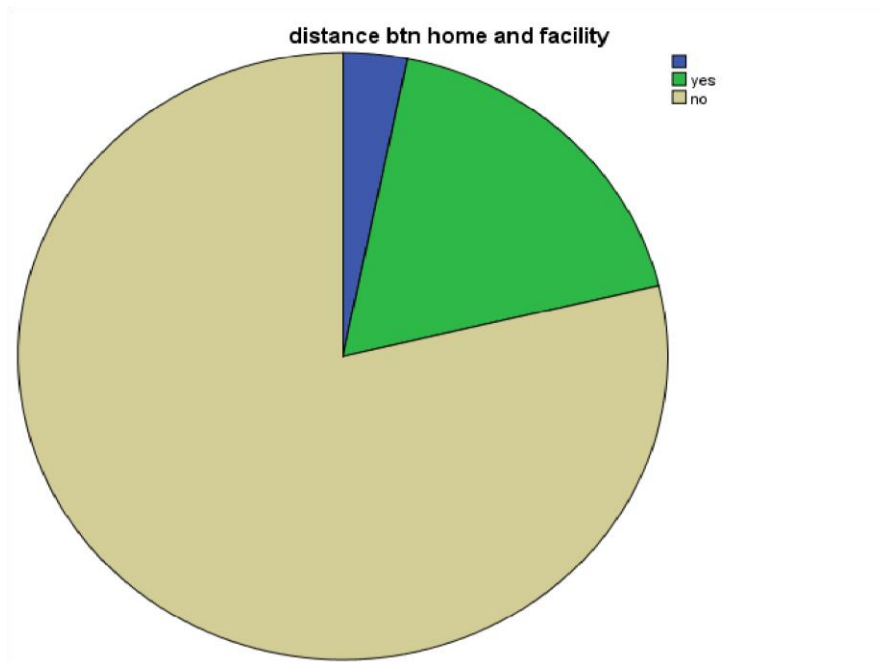


Figure 14: Distance between home and facility spend money to immunise

Further examination of the variables revealed that out of the 7 parents who did not immunize their children, 5 gave the reason of expenditure attached to distance as one factor that affected them. While the two did not have any expenditure attached but still did not have their children immunized.

A chi square test on how distance influenced parents attitude to childhood immunization revealed a no relationship between the variables as presented by $p > 0.05$ as in the table 14d in the appendix.

4.4.3 What are the common beliefs of your community about immunization?

Information and misinformation transmitted through the media in general and the Internet in particular compounds the problem of parental concern. This is particularly due to vast quantities of unfiltered sources of information which are difficult for lay persons to discern and refute. In Bushenyi, the parents outlined the following misconceptions advanced by the community about immunization It contains a germ.

- It paralyses children.
- It is a means of reducing population of Africans.

- It causes cancer.

4.4.4 Do your friends believe in childhood immunization?

Friends are one of the major sources of information about immunization, friend's belief in or not in immunization are likely to influence the parent's attitudes towards childhood immunization. Seventy five percent (75.5%) of the parents who participated in the study confirmed that their friends believed in immunization while 19.1% answered no meaning that their friends did not believe in childhood immunization (See table 15a).

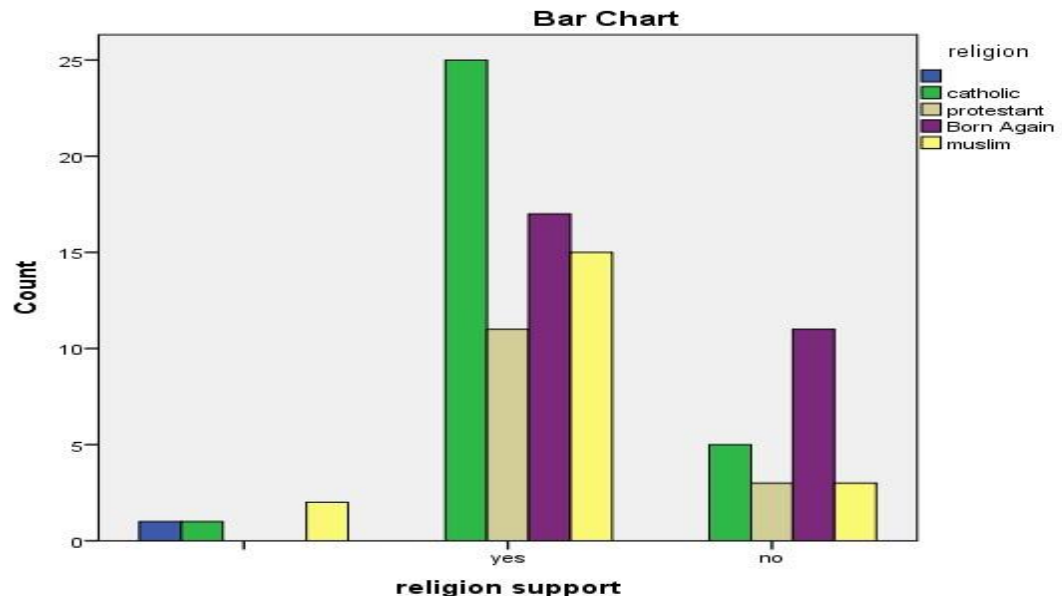
Table 15b $p > 0.05$ represents a no significant relationship between friends belief about immunization and parents immunization of their children.

4.4.5 Does your religion support childhood immunization?

Religion-based and cultural beliefs have been reported as barriers to vaccination programmes in medium- and high-income countries. An example of one religious belief impacting universal immunization programmes consists of the notion that health is given to a person by God and God will determine health without the need for medication. From the study in Bushenyi, found out that 68 parents (72.3%) confirmed that their religion supported childhood immunization while 22 parents (23.4%) answered no to the question confirming that their religion did not support immunization (Table 16a).

From the cross tabulation (table 16b), the Pentecostals had high representation of those who did not support childhood immunization with 11 parents as in the table above. Table 16c $P > 0.05$ represents a none significant relationship between religious support and not immunizing children. This is further represented in the bar graph below.

Figure 15: A bar graph representing religions and their support for immunization.



4.4.6 Had any of your immunized children ever contacted infectious diseases?

Eighty nine (89) parents had not experienced their children being affected with infectious diseases while 5 had their children infected with diseases. Four (4) out of 5 had had measles of which 2 had not been immunized against the disease while the other two had been immunized.

One parent confessed that the children had suffered from pneumonia.

4.4.7 . Is your husband or wife against childhood immunization?

In many low-income countries women are dependent on men socially, economically and culturally, and are at disadvantage compared with women in high-income countries. This disadvantage may start at infancy and continue throughout life. This is not different in Bushenyi District where 26 parents confirmed partners' influence in the decision to immunize their children (Table 17a and Figure 16 below).

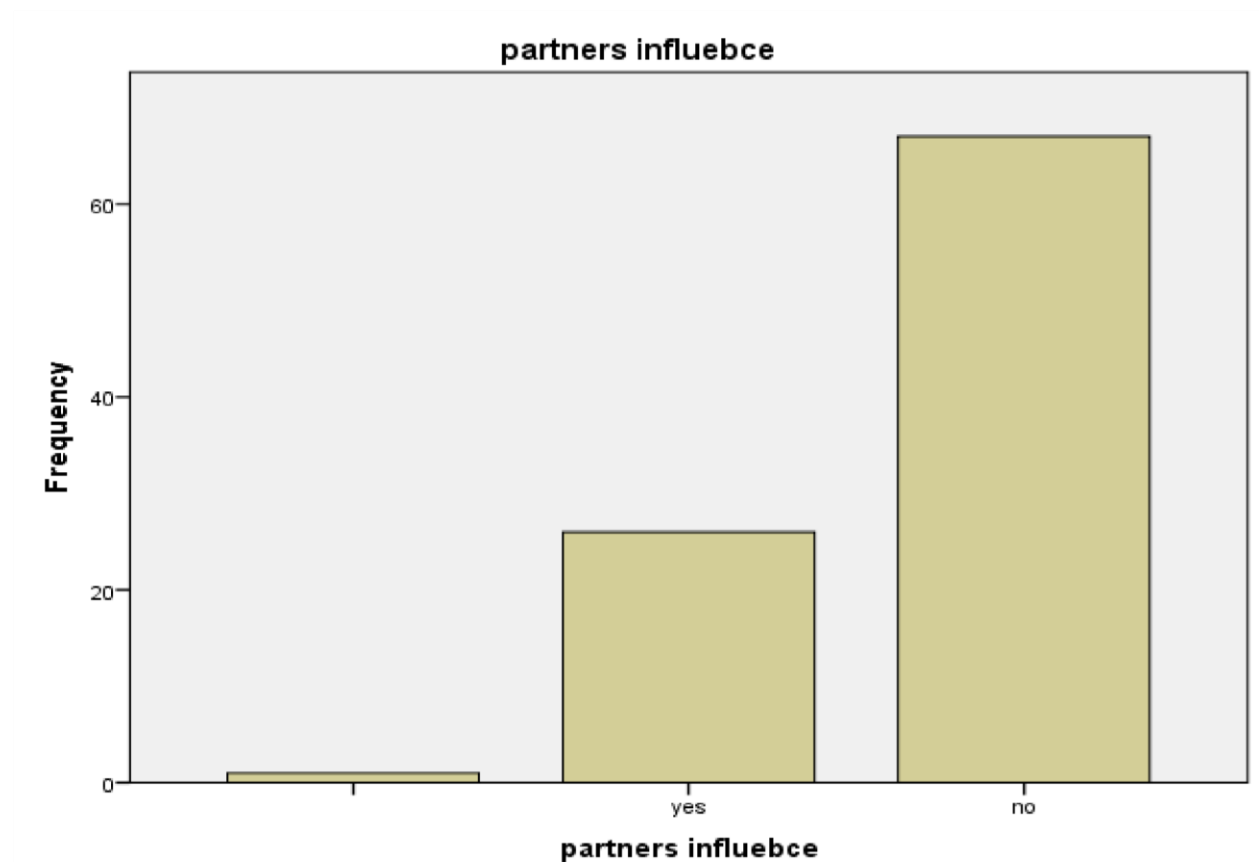


Figure 16 Partner's influence

Gender disparities in health seeking behavior affect women more than men. In table 17b, the cross tabulation between sex and partners' influence towards immunization of children showed 22 females confessing to the fact that their partners have a great influence on children's immunization as compared to 4 men. This will definitely affect the females' attitude towards immunization of children. This therefore means that for immunization to be successful, the husbands should be part of the positive campaign.

The chi-square test conducted on partner's influence and children not immunized gave $p > 0.05$ which represents a lack of significant relationship of the variables in the table 17c.

4.4.8 The parents identified the following factors that discourage them from completing and taking their children for immunization.

- Ignorance
- Religious and family belief
- Lack of money for transport

- Long distance to hospital
- Prolonged delay at the health centre
- The numerous side effects
- Inadequate information on immunization
- Its time wasting, I have other businesses to do
- I wouldn't want any scars on my child
- Negligence
- Fear of infection
- Ignorance about the benefits of immunization
- Health workers are rude
- Fake vaccination of Hepatitis B
- Pain at immunization site □ Poor injection technique

CHAPTER FIVE

5.0 DISCUSSION AND CONCLUSION

5.1 DISCUSSION

The study revealed that 91.5% of the children had been immunized belonging to 94 parents who participated in the study in Bushenyi District. Four point seven (4.7%) were not immunized while 3.8% were not fully immunized. Different factors were advanced by the parents for not immunizing or not fully immunizing their children. These are related to knowledge, attitudes and practice of the parents. Similar findings were found in Kompond Change Cambodia in a study by Forder (2002). Majority of the respondents 69% have the right definition of immunization being the “prevention of childhood infectious diseases”. Nineteen (19%) felt immunization was a poison; this depends on the interpretation of vaccines by people locally. However, 12% of the participants defined immunization as “it makes children get sick”, this is a misconception relating immunization to the side effects of some of the vaccines that make the children feel sick. The following factors influence parents knowledge and attitude towards childhood immunization in Bushenyi District.

Education of parents in the study was presented as one factor that majorly related to why the children were fully or not fully immunized. Mothers’ knowledge about vaccination was found to be quite low and their educational status was significantly associated with child’s coverage . Negative attitude, for example mothers fear from vaccination, (Minas et al.,2013). In the study, there was a significant relationship between education and childhood immunization, the more education the parents attained the more the children were likely to be immunized.

Misconception about immunization caused by the sources of information and knowledge about immunization contribute greatly to the parents’ attitudes towards childhood immunization because different sources as discussed in the study will relay the information differently thereby causing misconception among the parents. From the analysis, the misconception of immunization as a disease causing agent affected parent’s utilization of the service, thus contributing to their poor practice toward childhood immunization. The different sources discussed here included friends, health workers, community health education and antenatal clinics.

Ignorance of parents about immunization and its importance to childhood development and growth causes parents not to have their children immunized or fully immunized. The parents identified this as one reason why some parents did not have their children immunized. According to Brayan et al (2013), most vaccines in the childhood immunization schedule require two or more doses for the development of adequate and persistent antibody response. Similarly ignorance of mothers concerning the right doses that the children require to get especially of DPT and polio, the parents may receive one or two instead of the full course and assume it is sufficient and enough without knowing the effect of this on the children's immunity.

Similar to the above is related to fear on the side effects of some vaccines, belief of friends; this has resulted in parental concerns about the safety of vaccines and the impact of side effects on their children. These have been cited as a factor affecting immunization with one or more vaccines. It is important to note that inactive vaccine DPT given in three consecutive doses. However due to the side effects some parents may think that only the first shot of the vaccine is sufficient to protect the child (Bryan et al., 2013). The identified side effects include irritating crying of the child, pain at the site of injection, fever and high temperature. Parents concerns about safety of the vaccines and the impact of the side effects on their children pushed them away from completion of the immunization schedule.

Religious beliefs and religious support for immunization played a lot of influence on the knowledge, attitudes and practice of the parents towards childhood immunization. Religion based and cultural beliefs have been significant barriers to vaccination programs in Bushenyi District. The notion that in prayer, God gives health, and He is the author of life, even at death caused by an infectious immunizable disease, parents and communities will see it as God's timing for the child to die. In the study, there was low coverage of immunization among the Pentecostal churches.

Marital status to a small extent also contributed to poor attitudes towards attendance of parents to children's immunization. Good coverage of immunization was seen in majority of the parents who were either married or cohabiting. Majority of those who were either single or widowed/widowers had either children not immunized or others not fully immunized. According to (Fikree and Pasha, 2004) this is related to gender based inequality especially in low income countries where women depend on men even in health seeking behavior.

Economically the parents identified distance from the health centres also contributed to poor attitudes among the parents. Relative coverage was seen in majority of the respondents who lived near the health centres and did not have to spend on transport. Majority of those who lived far from the health centres had the children not immunized or not fully immunized because of the cost attached. In the discussion of the other factors that discouraged parents of Bushenyi from completing immunization schedule, they identified distance and transport cost involved to take children to the health centres.

5.2 CONCLUSION

From the findings, it could be concluded that the low coverage of immunization and completion of immunization in Bushenyi District is due to parental knowledge and attitudes towards childhood immunization.

Factors such as poverty, age, sex, poverty, religious beliefs, misinformation, side effects of the vaccines, distance to the healthcare centres, and busy schedules of parents have contributed to the poor parental knowledge and attitude towards immunization.

Having improper dissemination of information and communication about immunization was found as one of the reasons for poor parental knowledge and attitude towards immunization of their children and/or completion of their children's immunization schedules.

5.3RECOMMENDATIONS

Based on the findings of this study, there is a need for launching a comprehensive integrated strategy involving health care providers, parents, local leaders, religious leaders and places of worship with the aim of educating and sensitizing the masses on the importance of immunization and the need to have the children fully immunized as per the schedule set by the *Ministry of Health*. There should be more of outreach immunization services at designated village centres organized by the local leaders and the health centres to reduce on the distance covered by parents while taking children for immunization. Massive campaign on the importance of immunization and how to deal with the side effects can help considerably in the improvement of parental knowledge and attitude towards immunization thereby reducing the spread of infectious diseases.

6.0 REFERENCES

Andre, F.E., Booy, R., Bock, H.L., Clemens, J. & Data, S.K, et al., (2008). Vaccination greatly reduces disease, disability, death and inequity worldwide. *Bull World*. Issue or volume number of Journal and pages?

Health Organ 86: 140-146.4. Abbas, B. Ismat, B. &Mystique, C. (1995). *Acceptance of DTP, measles and BCG vaccination in Bangladesh*. <http://heapol.oxford.journals>. 114-121.

Ademuwagun Z.A., Ajala, J.A., Oke, E.A., Moronkola, O.A. & Jegede, S.A. (2002). *Health education and health promotion*. Ibadan: Royal People (Nig.) Limited.

Abha, M. & Gupta, K. (2010). Comparison of the level of awareness of mothers towards family planning vaccination practices in selected slum area of district Varanasi and

Ghazipur. www.nfid.org/pdf/19_publications/hcwmonograph.pdf-similaer. Accessed 30/10/2010

Bernsen, R.M. Al-Zahmi, F.R., Al-Ali, N.A., Hamoudi, R.O., & Ali, N.A. et al. (2011). Knowledge, attitude and practice towards immunizations among mothers in a traditional city in the United Arab Emirates. *Journal of Medical Sciences*. 4:

Centre for Disease Control and Prevention (2011) General Recommendations on Immunization.

Federal Ministry of Health (1995). National immunization policy and standard of practice. Abuja, Federal Ministry of Health, Nigeria, p.16. World Health Organization. WHO vaccine preventable diseases monitoring system. (2005) global summary. *Immunization profile, Nigeria*. Geneva: World Health Organization, 2005, p.333org/10/3/304.abstract. Accessed 30/10/2010 Hilton, S., Petticrew, M., & Hunt, K., (2006) 'Combined vaccines are like a sudden

<http://www.moh.gov.sa/HealthAwareness/EducationalContent/vaccination/Pages/Questions.aspx>

Jheeta, M., & Newell, J., (2008) Childhood vaccination in Africa and Asia: the effects of parents' knowledge and attitudes. *Bull World Health Organ* 86: 419.

Kimmel .S.R., Burns. I.T., Wolfe.R.M., Zimmerman.R.K., (2007) Addressing immunization barriers, benefits, and risks. *J Fam Pract* 56: S61-69.

Kimmel. S.R., (2002) Vaccine adverse events: separating myth from reality. *AmFam Physician* 66: 2113-2120.

Mapatano.M.A., Kayembe. K., Piripiri. L.,& Nyandwe. K.(2008) Immunization-related knowledge, attitudes and practices of mothers in Kinshasa, Democratic Republic of the Congo. *SA Fam Pract.* 50: 61-61e.

Rogalska. J., Augustynowicz. E., Gzyl. A.,& Stefan off. P., (2010) [Parental attitudes towards childhood immunizations in Poland]. *Pregl Epidemiol* 64: 91-97.

Siddiqi. N., Siddiqi. A.E., Nisar .N.,& Khan .A. (2010) Mothers' knowledge about EPI and its relation with age-appropriate vaccination of infants in peri-urbanKarachi. *J Pak Med Assoc* 60: 940-944.

Smith. M.J., Woods. C.R., &Marshall .G.S., (2009) Parental vaccine concerns in *Kentucky*. *J Ky Med Assoc* 107: 342-349.

Strobino .D., Keane. V., Holt. E., Hughart. N.,& Guyer .B. (1996) Parental attitudes do not explain under immunization. *Pediatrics* 98: 1076-1083.

Thomas .M, Kohli V, & King.D. (2004) Barriers to childhood immunization: findings from a needs assessment study. *Home Health Care Serv Q* 23: 19-39.

World Health organization media centre (2013) *Immunization coverage Factsheet* N°378 April 2013.Zagminas. K., Surkiene. G., Urbanovic.N.,& Stukas. R. (2007) [Parental attitudes towards children's vaccination]. *Medicine (Kaunas)* 43: 161-169.

APPENDICES

Appendix 1: TABLES OF ANALYSIS FOR CHAPTER 4

1. a) Tables on age **age group of respondent**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	15-30	65	69.1	69.9	69.9
	31-45	28	29.8	30.1	100.0
	Total	93	98.9	100.0	
Missing	System	1	1.1		
Total		94	100.0		

1 b) age group of respondent * not immunized Cross tabulation Count

	not immunized				Total
	immunized	1	2	3	
age group of 15-30 respondent	60	2	2	1	65
31-45	26	2	0	0	28
Total	86	4	2	1	93

1c) Chi-Square Tests $p = .01 < .05$

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.045 ^a	3	.563
Likelihood Ratio	2.839	3	.417
Linear-by-Linear Association	.411	1	.522
N of Valid Cases	93		

Appendix 2:

2 a) sex of parents

	Frequency	Percent	Valid Percent	Cumulative Percent
female	1	1.1	1.1	1.1
Valid male	82	87.2	87.2	88.3
Total	11	11.7	11.7	100.0
	94	100.0	100.0	

2 b) sex of parents * not immunized Cross tabulation

	not immunized				Total
	immunized	1	2	3	
sex of female	1	0	0	0	1
parents female	76	4	2	0	82
Male	10	0	0	1	11
Total	87	4	2	1	94

2c) Chi-Square Tests $p = >0.01 < 0.05$

	Value	df	Asymp. Sig. (2- sided)
Pearson Chi-Square	8.433 ^a	6	.208
Likelihood Ratio	5.939	6	.430
N of Valid Cases	94		

Appendix 3

5. Religion

a) Religion

	Frequency	Percent	Valid Percent	Cumulative Percent
	1	1.1	1.1	1.1
catholic	31	33.0	33.0	34.0
protestant	14	14.9	14.9	48.9
Born	28	29.8	29.8	78.7
Valid Again	20	21.3	21.3	100.0
muslim	20	21.3	21.3	100.0
Total	94	100.0	100.0	

3c) *Chi-Square Tests* $p = 0.10 > 0.05$

	Value	Df	Asymp. Sig. (2- sided)
Pearson Chi-Square	10.314 ^a	12	.588
Likelihood Ratio	12.062	12	.441
N of Valid Cases	94		

Appendix 4

4. Level of education a) Educational level

	Frequency	Percent	Valid Percent	Cumulative Percent
	3	3.2	3.2	3.2
	69 ^a	73.4	73.4	76.6
Valid formal	9	9.6	9.6	86.2
informal				
not educated	13	13.8	13.8	100.0
Total	94	100.0	100.0	

4 b) Educational level * not immunized Cross tabulation

Count

		not immunized				Total
		immunized	1	2	3	
educational level	Formal	3	0	0	0	3
		66	2	0	1	69
	informal	7	2	0	0	9
	not educated	11	0	2	0	13
Total		87	4	2	1	94

4c) Chi-Square Tests $p = >0.025 < 0.01$

	Value	Df	Asymp. Sig. (2- sided)
Pearson Chi-Square	21.021 ^a	9	.013
Likelihood Ratio	14.012	9	.122
N of Valid Cases	94		

Appendix 5.Occupations of parents

5 a) Occupation

	Frequency	Percent	Valid Percent	Cumulative Percent
	11	11.7	11.7	11.7
	8	8.5	8.5	20.2
teacher	13	13.8 ^a	13.8	34.0
Health worker	28	29.8	29.8	63.8
Valid business	19	20.2	20.2	84.0
Farmer	15	16.0	16.0	100.0
house wife	94	100.0	100.0	
Total				

5b) Occupation * not immunized Cross tabulation

Count

	not immunized				Total
	immunised	1	2	3	
	11	0	0	0	11
Teacher	7	1	0	0	8
Health worker	12	0	0	1	13
Business	27	1	0	0	28
Farmer	18	1	0	0	19
house wife	12	1	2	0	15
Total	87	4	2	1	94

5c) Chi-Square Tests $p > 0.90 < 0.10$

	Value	Df	Asymp. Sig. (2- sided)
Pearson Chi-Square	19.743 ^a	15	.182
Likelihood Ratio	14.834	15	.463
N of Valid Cases	94		

Appendix 6. Marital status

a) Marital status

	Frequency	Percent	Valid Percent	Cumulative Percent
	6	6.4	6.4	6.4
married	33	35.1	35.1 ^a	41.5
single	39	41.5	41.5	83.0
Widow	7	7.4	7.4	90.4
Separated	9	9.6	9.6	100.0
Total	94	100.0	100.0	

6 b) marital status * not immunized Cross tabulation

Count

	not immunized				Total
	immunized	1	2	3	
	6	0	0	0	6
Married	33	0	0	0	33
single	34	2	2	1	39
Widow	7	0	0	0	7
Separated	7	2	0	0	9
Total	87	4	2	1	94

6c) Chi-Square Tests $p > 0.90 < 0.10$

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.695 ^a	12	.321
Likelihood Ratio	13.254	12	.351
N of Valid Cases	94		

Appendix 7: 7a) Know about immunization

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Antenatal	15	16.0	16.0	16.0
Friend	25	26.6	26.6	42.6
Health worker	32	34.0	34.0	76.6
CH E	22	23.4	23.4	100.0
Total	94	100.0	100.0	

Table 8a: Sources of knowledge

Key: CHE: Community Health Education

7 b) Know about immunization * side effects Cross tabulation

Count

		side effects		Total
		Yes	No	
Know about immunization	antenatal	10	5	15
	Friend	15	10	25
	H/worker	14	18	32
	CHE	13	9	22
	Total	52	42	94

7c) Chi-Square Tests $p = >0.09 < 0.10$

	Value	df	Asymp. Sig. (2- sided)
Pearson Chi-Square	2.863 ^a	3	.413
Likelihood Ratio	2.873	3	.412
N of Valid Cases	94		

Appendix 8: 8a) importance of immunization

Frequency	Percent	Valid Percent	Cumulative Percent
19	20.2	20.2	20.2
65	69.1	69.1	89.4
10	10.6	10.6	100.0
94	100.0	100.0	

Appendix 9:

9 a) Age of start

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1. At birth	89	94.7	94.7	94.7
2. After 1 year	4	4.3	4.3	98.9
3. After 5yrs	1	1.1	1.1	100.0
Total	94	100.0	100.0	

Age of first vaccine

9 b) age of start * not immunized Cross tabulation

Count

	not immunized				Total
	immunized	1	2	3	
At birth	82	4	2	1	89
age of start 1 year	4	0	0	0	4
5 years	1	0	0	0	1
Total	87	4	2	1	94

Appendix 10:

10 a) side effects

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	52	55.3	55.3	55.3
Valid No	42	44.7	44.7	100.0
Total	94	100.0	100.0	

10b) Chi-Square Tests $p \geq 0.90 < 0.10$

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.539 ^a	3	.316
Likelihood Ratio	4.703	3	.195
N of Valid Cases	94		

Appendix 11:

11 a) Number of doses

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	4.3	4.3	4.3
Yes	33	35.1	35.1	39.4
No	57	60.6	60.6	100.0
Total	94	100.0	100.0	

11 b) number of doses * not fully Cross tabulation

Count

	not fully				Total
	immunized	1	2	3	
number of	4	0	0	0	4
Yes	27	3	2	1	33
No	56	1	0	0	57
Total	87	4	2	1	94

11c) Chi-Square Tests $p \geq 0.90 < 0.10$

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.001 ^a	6	.174
Likelihood Ratio	9.710	6	.137
N of Valid Cases	94		

Appendix 12:

12 a) Health immunization programs

	Frequency	Percent	Valid Percent	Cumulative Percent
	2	2.1	2.1	2.1
Valid Yes	44	46.8	46.8	48.9
No	48	51.1	51.1	100.0
Total	94	100.0	100.0	

Appendix 13:

13a) Parents who spend money on immunisation

	Frequency	Percent	Valid Percent	Cumulative Percent
yes	29	30.9	30.9	30.9
Valid no	65	69.1	69.1	100.0
Total	94	100.0	100.0	

13 b) Distance between home and facility

	Frequency	Percent	Valid Percent	Cumulative Percent
	3	3.2	3.2	3.2
yes	17	18.1	18.1	21.3
Valid no	74	78.7	78.7	100.0
Total	94	100.0	100.0	

13 c) Not immunized * spend money to immunize Cross tabulation

Count

	spend money to immunize		Total
	yes	no	
immunized	24	63	87
not immunized 1	3	1	4
2	1	1	2
3	1	0	1
Total	29	65	94

13d) Chi-Square Tests $p \geq 0.05 < 0.90$

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.967 ^a	6	.923
Likelihood Ratio	2.017	6	.918
N of Valid Cases	94		

Appendix 14:

14 a) Friends belief

	Frequency	Percent	Valid Percent	Cumulative Percent
yes	5	5.3	5.3	5.3
Valid no	71	75.5	75.5	80.9
no	18	19.1	19.1	100.0
Total	94	100.0	100.0	

14b) Chi-Square Tests $p > 0.90 < 0.10$

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.211 ^a	6	.400
Likelihood Ratio	6.717	6	.348
N of Valid Cases	94		

Appendix 15:

15 a) Religion support

	Frequency	Percent	Valid Percent	Cumulative Percent
yes	4	4.3	4.3	4.3
Valid no	68	72.3	72.3	76.6
no	22	23.4	23.4	100.0
Total	94	100.0	100.0	

15 b) Religion support * religion Cross tabulation Count

	religion					Total
		Catholic	Protestant	Born Again	Muslim	
religion yes	1	1	0	0	2	4
support	0	25	11	17	15	68
no	0	5	3	11	3	22
Total	1	31	14	28	20	94

15c) Chi-Square Tests: $p > 0.90 < 0.10$

	Value	df	Asymp. Sig. (2- sided)
Pearson Chi-Square	2.833 ^a	6	.830
Likelihood Ratio	3.532	6	.740
N of Valid Cases	94		

Appendix 16:

16 a) Partner's influence

	Frequency	Percent	Valid Percent	Cumulative Percent
yes	1	1.1	1.1	1.1
Valid no	26	27.7	27.7	28.7
	67	71.3	71.3	100.0
Total	94	100.0	100.0	

Table 33: Partners influence in immunization

16 b) Sex of parents * partners influence Cross

tabulation Count

	partners influence			Total
		yes	no	
sex of female	0	0	1	1
parents female	1	22	59	82
male	0	4	7	11
Total	1	26	67	94

16c) Chi-Square Tests $p>0.90<0.10$

	Value	df	Asymp. Sig. (2- sided)
Pearson Chi-Square	6.211 ^a	6	.400
Likelihood Ratio	6.717	6	.348
N of Valid Cases	94		

Appendix 17:

BUDGET ESTIMATE

S/N	ITEM S	DESCRIPTION	UNIT COST	SUB TOTAL	TOTAL (UgSh)
1.	Personnel	Allowances for: 1. Research assistants - 1 (15hrs per week and 60hrs per month); 2. Researcher Allowance (60hrs per month).	4,000/= per hour	240,000/=	540,000/=
			5,000/= per hour	300,000/=	
2.	Services	1. Internet service (60hrs per month x 12 months);	1,500/= per hour	1 ,080,000/ =	1 ,372,000/ =
		2. Printing (800 pages of proposal and dissertation); 3. Binding (4 copies of spiral bound proposal + 4 copies of hard bound dissertation)	300/= per page	240,000/=	
			Proposal: 3,000/= per binding	12 ,000/ =	
			Dissertation: 10,000/= per binding	40 ,000/ =	
3.	Transport and communication	1.Airtime (communication of people relevant to the research); and 2.Hiring a motorcycle rider to the institutions.	2,000/= per day x 180 days	360,000/=	720,000/=
			6,000/= per trip for two people x 30 days	360,000/=	
4.	Non re-usable items	1.Rims of paper - 2 ; 2.Pens - 6; 3.Pencils - 6; 4.Sharpeners - 3; 5.Cleaners – 2; 6.Rulers – 2; 7.Files – 3 and 8.Stapling machine and pins.	12,000/=	24 ,000/ =	44 ,000/ =
			500/=	3 ,000/ =	
			500/=	3 ,000/ =	
			500/=	1 ,500/ =	
			500/=	1 ,000/ =	
			1,000/=	2 ,000/ =	
			1,500/=	4 ,500/ =	
			5,000/=	5 ,000/ =	
5.	Re-usable items	1.Tape recorder – 1 and	120,000/=	120,000/=	120.000/=
	Others	Analysis	200,000/=		200,000/=
Total				2,996,000 / =	
10% contingency		299600/=			
Grand total		UgSh 3,295,600/=			

Appendix 18:

TIME FRAME

				August 2017 to Sept 2018	Oct 2017 to Dec 2017	Jan 2018 to Mar 2018	April 2018 to Jun2018	July 2018 to Agus 2018	
1	Concept development	Topic selection, literature search, concept compilation and presentation of the concept	Researcher		–	–	–		Concept approval
2	Research proposal development	Detail of the concept paper, literature review and proposal presentation	Researcher	–			–		Research proposal approval by IREC
3	Pre testing questionnaires	Field visit and filling questionnaire	Researcher	–	–		–		Acceptable and feasible questionnaires
4	Recruiting and training of research assistants	Appointment of assistants, orientation, discussion of the topic, questionnaires and interview guide	Researcher and research assistants	–	–		–		Assistants recruited, trained, on knowledge topic and research tools
5	Data collection	Field visit, filling questionnaires, interviewing and focus group discussion	Researcher and research assistants	–	–	–			Data obtained
6	Data entry and analysis and interpretation	Analysis and interpretation of data	Researcher	–	–	–			Data analyzed and interpreted
7	Dissertation completion and presentation	Report printing, binding	Researcher	–	–	–			Dissertation approved

APPENDIX 19:

CONSENT FORM

KAMPALA INTERNATIONAL UNIVERSITY WESTERN CAMPUS UGANDA

STUDY TITLE:

INFLUENCE OF PARENTAL KNOWLEDGE AND ATTITUDE TOWARDS CHILDHOOD IMMUNIZATION.

RESEARCHER:

EZEFOR SCHOLASTICA .C. BMS/0048/133/DF (KIU)

Good morning /Good Afternoon Sir /Madam. Your consent is being sought to participate in this study. Please, read the following information carefully before you decide whether or not to consent to participate. This consent form is composed of the following two parts:

PART I: INFORMATION SHEET

Purpose of the research: This research work is on the influence of parental knowledge and attitude towards childhood immunization”.

Participant selection: We are selecting a total of **100** participants from parents of selected households in Bushenyi District.

Procedure to be followed: Taking part in this study is voluntary. If you agree to participate, you will answer some questions about yourself on the questionnaires. Please, give us your true opinion / knowledge about the questions that will be asked. If you do not understand what has been asked, you can ask us to clarify the question. Your selection to participate in this study is by chance alone. Thank you for accepting to participate in this study.

Discomforts/Risks: The risks in this study are minimal and can be in form of the information given by the participants. There is no probability of participants losing their prestige.. You can choose not to participate or withdraw from the interview at any point.

Incentives/Benefits for participation: There is no direct benefit to you for choosing to participate in this interview. However, you will be helping Bushenyi District and Uganda to generate means of reducing the rate of spread of infectious disease

Time duration of participation: Your participation in the study will not exceed 30 minutes.

Confidentiality: Records will be kept confidential and will be available only to professional researchers and staff. If the results of this study are published, the data will be presented in group form and individual participants will not be identified.

Voluntary participation: Your participation in this research is entirely voluntary. It is your choice whether to participate or not. Whether you choose to participate or not, there is no penalty in doing so. You may change your mind later and stop participating even if you agreed earlier.

Termination of participation: You do not have to take part in this research if you do not wish to do so and refusing to participate will not affect you in any way. You will still have all the benefits from the research findings. You may stop participating in the research at any time you may wish.

Who to contact: If you have any question(s), you may ask them now or later, even after the study has started.

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask question(s) about it and any question(s) that I have asked have been answered to my satisfaction.

I consent voluntarily to participate as a participant in this research and understand that I have the right to withdraw from the research at any time knowing it will not affect me in any way.

Name of the Participant: _____

Signature of the Participant: _____

Date _____/_____/_____

Day/Month/Year

NOTE: A copy of this Informed Consent Form will be provided to the participant (signed by the researcher/assistant).

Signature of interviewer.....

Date.....

Appendix 20:
QUESTIONNAIRES

SECTION A;

The following questions are for your socioeconomic and demographic status.

PLEASE THICK THE CORRECT ANSWERS

Age (15-30) and (31-45)

Sex: male..... Female.....

Ward: 1.....,2.....,3.....,4.....,5.....

Religion: Catholic.....,Protestant.....Pentecost(Born Again).....Muslim.....others(mention).....

Educational Level: Formal education..... Informal education.....Not educated

Occupation: Teacher.....Healthworker.....Business.....Farmer...,House wife.....others.....

Marital Status: Married.....Single.....Widowed.....Separated.....Co-habiting.....

SECTION B:

The following questions are for your knowledge about immunization.(You can thick more than one answer)

1. What do you understand by the term immunization? (a) It is a poison (b) It prevents child- hood infectious diseases (c) It makes children get sick.

2.How did know about immunization (a) from friends (b) from health worker (c) from community health education (d) from ante-natal programme (e) others.....

3. Tick the type of vaccine you know (a) Measles vaccine (b) Polio vaccine (c) tetanus vaccine (d) BCG vaccine (e) Yellow fever (f) DPT (g) Hepatitis. OTHERS.....
4. What is the importance of immunization? (a) Protection against infectious diseases (b) It causes diseases (c) others.....
5. At what age does your child start off first immunization dose (a) At birth (b) At one year (c) After 5yrs (d) Others.....
6. Had your child ever got any side effects after immunization (a) Yes (b) No?
7. If yes, which type (a) Fever (b) Constant crying and irritation (c) Pain on the injection site (d) Others.....
8. What are the routes of administration of vaccine that you know (a) oral (b) subcutaneous (c) IV (d) IM others.....
9. Is one dose of vaccine enough to protect your child against infectious disease (a) Yes (b) no
10. Tick the parts of the body your child/children received vaccine injection (a) Mouth (b) Upper arm (c) Upper thighs (d) Vein (e) Head
11. Have you attended any health programme on immunization. (a) Yes (b) No

SECTION C: Assessing your attitudes towards childhood immunization:

1. How many of your children were fully immunized (a) 1 (b) 2 (c) 3 (d) others....
2. How many were not immunizedand why?.....
3. How many were not fully immunized why (a) Long distance (b) No money for transportation (c) Fear of side effect (d) sterilization of your child.....(e)
Others.....
4. Do you spend to get your child immunized? (a) No (b) Yes. If yes, for what purpose.....
5. Had your child ever experienced vaccine side effects after immunization? (a) Yes (b) No
6. If your answer is yes, did it discourage you from going for another dose? (a) Yes (b) No
7. What are the common beliefs of your community about immunization? (a) It contains a germ (b) It paralyses children (c) It is a means of reducing population of Africans. Others.....

8. Do your friend believe in childhood immunization? (a) Yes (b) No .If no, what are their reason?.....,

9. Do your religion support childhood immunization? (a) No (b) Yes

10.Had any of your immunized child ever contacted infectious diseases, please tick (a) Measles (b) Pneumonia (c) TB (d) Others.....

11. Does your distance from home to hospital discourage you from going for immunization (a) Yes (b) No?

12. Does your husband or wife against childhood immunization (a) Yes (b) No

If yes, give the reason.....

Please feel free to tell us any other thing(s) that discourage(s) you or your friends from taking children for immunization in the space provided below.....

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Appendix 21: approval letter



KAMPALA-INTERNATIONAL
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www.kiu.ac.ug

OFFICE OF THE DEAN
FACULTY OF CLINICAL MEDICINE AND DENTISTRY

19/10/2018

TO WHOM IT MAY CONCERN

Dear sir/Madam,

RE: EZEFOR SCHOLASTICA.C (BMS/0048/133/DF

The above named person is a fifth year student at Kampala International University pursuing a Bachelor of Medicine, Bachelor of Surgery (MBChB) Programme.

She wishes to conduct her student research in your community.

Topic: Influence of parental knowledge and attitude on childhood immunization in selected households of Bushenyi District.

Supervisor: Mr. Ezeonwueri O.C. Joseph (M.PHARM)

Yours Sincerely,

S.O. Akib

Dr. Akib Surat O.

Deputy Executive Director/Assoc. Dean (FCM&D)



"Exploring the Heights"

Assoc. Prof. Seburky Robinson, Executive Director /Dean 0772307248 email: dsburky@kiu.ac.ug
Dr. Akib Surat Deputy Executive Director/Associate Dean 0752574869 email: dsburky@kiu.ac.ug

A MAP OF BUSHIENYI DISTRICTS



MAP OF UGANDA

