

Table of Contents

CHAPTER ONE	3
BACKGROUND	3
1.0 INTRODUCTION	3
1.1 STATEMENT OF THE PROBLEM	6
1.2 RESEARCH OBJECTIVES	8
1.2.1 General Objectives	8
1.2.2 Specific objectives	8
1.2.3 RESEARCH QUESTIONS.....	8
1.3 RATIONAL /SIGNIFICANCE	9
CHAPTER TWO	11
LITERATURE REVIEW	11
2.1 CONCEPTUAL/THEORETICAL FRAMEWORK.....	16
CHAPTER THREE.....	18
RESEARCH METHODOLOGY.....	18
3.0 Study Design	18
3.1 Study Population.....	18
3.2 Sampling Procedure	18
3.3 Instruments for data collection.....	19
3.4 Sampling of Survey Sites.....	19
3.5 Data Analysis	19
3.6 Ethical Issues.....	19
3.7 Study Limitations.....	19
CHAPTER FOUR.....	20
FINDINGS	20

4.0 Demographic and socio-economic characteristics of respondents.....	20
4.1 Awareness Levels on Infant and Child Circumcision	22
4.2 Knowledge on Male Circumcision as an HIV Prevention Method.....	24
4.3 Major Benefits of Infant and Child Circumcision.....	26
4.4. Source of Information on Male, Child and Infant Circumcision	28
4.5 Practices towards Infant and Child Circumcision	32
4.6 Reasons for Circumcision	34
4.7 Reasons WHY Parents have NOT circumcised the children;	35
4.8 Attitudes towards Infant and Child Circumcision.....	37
CHAPTER FIVE.....	40
5.0 DISCUSSION, CONCLUSION AND RECOMMENDATIONS	40
CONCLUSION	44
RECOMMENDATIONS	45
REFERENCES.....	46
APPENDIX-QUESTIONNAIRE	48

CHAPTER ONE

BACKGROUND

1.0 INTRODUCTION

The long history of the HIV/AIDS epidemic has seen significant strides made in the way the virus is tested, prevented and treated. However, the epidemic has grown rapidly and continues its rampant spread, hitting areas such as Sub-Saharan Africa with particular force. With death tolls in many areas reaching astonishing numbers and new infections every day, the scale of the human immunodeficiency virus (HIV) / AIDS epidemic has exceeded all expectations since its identification 30 years ago. Globally, an estimated 36 million people are currently living with HIV, and some 20 million people have already died, with the worst of the epidemic centered on Sub-Saharan Africa. The numbers of people living with HIV worldwide continue to grow with an estimated 2.7 million new HIV infections occurred in 2008. The latest epidemiological data indicates that globally the spread of HIV appears to have peaked in 1996, when 3.5 million new HIV infections occurred. In 2008, the estimated number of new HIV infections was approximately 30% lower than at the epidemic's peak 12 years earlier, (World Health Organization, United Nations Children's Fund, UNAIDS 2009).

The International Labor Organization (ILO) reports that while tens of millions have already died, millions more are dropping out of the labor force. ILO estimates that in 2005, 3 million workers globally were unable to work-up from 500,000 in 1995 and that by 2015, the number may reach 4 million people who are unable to work due to HIV/AIDS (World of Work Magazine 2004 Vol 14). The report stated that the direct and indirect impact of HIV /AIDS on the labor force is measureable in macroeconomic terms, and in countries where the impact was measurable between 1992 and 2002, the rate of growth GDP was lower by 0.2 per cent year (equivalent to US\$25 5billion per annum) and the rate of growth of GDP per capita was lower by 0.1 per cent per year (equivalent to US\$5 per capita per annum).

The report further estimates that in the absence of increased access to treatment, the number of workers lost to the labor market due to HIV/AIDS globally will increase

to 74 million by 2015, making HIV/AIDS one of the biggest causes of mortality in the world of work. An estimated 36.5 million people of working age have HIV, and by next year the global labor force will have lost as many as 28 million workers due to AIDS since the start of the epidemic according to the global report by the International Labor office (ILO) that paints a grim picture of the impact of HIV/AIDS on the world of work.

Sub-Saharan Africa remains the region most heavily affected by HIV. In 2008, sub-Saharan Africa accounted for 67% of HIV infections worldwide, 68% of new HIV infections among adults and 91% of new HIV infections among children. The region also accounted for 72% of world's AIDS related deaths in 2008. The epidemic continues to have an enormous impact on households, communities, businesses, public services and national economies in the region. In Swaziland, the average life expectancy fell by half between 1990 and 2007 to 37 years (United Nations Development Programme, 2008; Whiteside et, al, 2006). In 2008, more than 14.1 million children in sub-Saharan Africa were estimated to have lost one or both parents to AIDS.

In Zambia the HIV prevalence among the adult population(15-49 years) currently estimated at 14.3% decreased by about 2% between 2001/2002 and 2007 (ZDHS 2007) and in the same period, the HIV prevalence among pregnant women dropped by 2.3% from 19.5% in 2004 to 16.7% in 2006 (Sentinel Surveillance Survey,2006). However, an HIV prevalence of 14.3% is still very high, suggesting that the HIV prevalence is stabilizing at a high level and that the number of new infections still outstrip the AIDS related deaths (NAC 2004 and 2007). This is in line with the projected number of 74,263 new infections in 2008 alone. Over 90% of these new infections are mainly from stable and discordant partnerships (NAC 2008). Wide variations by age, sex and geographic location do exist. HIV prevalence is lowest (4.7%) in the 15-19 year age group (window of opportunity and hope) and highest (23.6%) in the 35-39 year age group (most productive). HIV prevalence is disproportionately higher in females (16.6%) than in their male counterparts (12.3%) and is twice as high (20%) in the urban areas than the rural areas (10%).

HIV/AIDS is not only a human crisis; it is a threat to sustainable global, social and economic development. The loss of life and the debilitating effects of the illness will lead not only to a reduced capacity to sustain production and employment, reduce poverty and promote development, but will be a burden borne by all societies. Furthermore by causing the illness and death of workers, the HIV/ AIDS epidemic reduces the stock of skills and experience of the labour force. This loss in human capital is a direct threat to the Millennium Development Goals of reducing poverty and promoting sustainable development.

In the late 2000s, the Zambian government, media and medical community began to focus attention on adult circumcision as an HIV prevention strategy. Adult circumcision has since gained public attention and has seen a number of hospitals and NGOs offering it. However, research shows that very few male Zambians are circumcised. According to the 2007 Zambia Demographic and Health Survey, only 13% of men aged 15-49 were circumcised by 2007. The UNAIDS 2009 Country Implementation Update showed that by January 2010, there were 20,779 Zambian men who had been circumcised mostly through public health facilities (10,467), NGOs (9,566) and private health facilities (June 2010). Reasons for circumcision vary from religious rituals and personal preferences to preventive health measures. Recently, scientific evidence that has come to light delineates the relationship between circumcision status, STDs and AIDS.

Ritual Circumcision of young males is a practice seen in many cultures across the world including sub-Saharan and North Africa, the Muslim Middle East, the Jewish Community and many other places for religious and traditional reasons, often within the first two weeks after birth or at the beginning of adolescence as a rite of passage into adulthood. In Zambia, the Luvale tribe are the majority of people who live in North Western Province are one of the few groups in Zambia that practice the ritual of circumcision as part of the rite admitting boys to manhood. As a medical procedure, it is performed to treat problems involving the foreskin and as a means to help prevent some diseases. Recently, three randomized controlled trials have

convincingly demonstrated that male circumcision reduces female to male heterosexual transmission of HIV.

Although most of these studies have focused on adult circumcision, the benefit highlighted applies to infant and child circumcision. If infant male circumcision is being performed for reasons other than the treatment of specific medical problem, the health benefits are primarily preventive and may only be realized long after the procedure has been carried out. Circumcision may reduce the risk of acquiring some infections and related complications but does not guarantee complete protection. Some of these conditions are not as common as others, and the degree of risk may depend on the behaviors of the individual and the community to which he belongs. According to the manual for early infant circumcision by Jhpiego and World Health Organization (December 2010), the benefits of infant male circumcision include the following; decreased risk of urinary tract infection meaning male circumcision decreases the risk of such infections in infants and adult men. This type of infection is 10 times less common in circumcised male infants, who have an estimated 0.1% chance of developing such an infection. Other benefits of infant circumcision include decreased risk of HIV infection, reducing the risk of transmission by 60-70%, prevention of paraphimosis which is an extremely rare condition that occurs when the foreskin is pulled back or down and trapped in the retracted position below the glands. The tissue can become swollen and obstruct the blood flow to the tip of the penis requiring urgent surgery to correct the problem, however, male circumcision can prevent this complication. There is also a reduced risk of cancer of the cervix in female sexual partners with male partners who are circumcised. Other benefits include a decrease in the risk of cancer of the penis, which in some populations occurs in 1 per 100,000 men and is much more common in men who are uncircumcised.

1.1 STATEMENT OF THE PROBLEM

HIV is predominantly transmitted by unprotected heterosexual intercourse, and effective prevention strategies which include behavioral change programs to promote abstinence and delayed sexual debut in young people, fidelity within partnership

where both people know they are sero-negative, reduction in the number of partners and correct and consistent condom use are being promoted. Reduced incidence and prevalence in several African countries, including Zambia (from 16% to 14.3%) show that these prevention messages can work, but the alarming number of new infections every day in the region means that there is a need not only to intensify and expand current prevention programs, but also to identify new methods to add to the existing ones.

Male Circumcision is one of these new potential methods and recent scientific studies have indicated that there is evidence that male circumcision reduces the risk of acquiring HIV through heterosexual intercourse in males by approximately 51% to 60 % (UNAIDS 2007). Hence the circumcision of infants is a more practical long term approach toward reversing what the World Health Organization still sees as the high level of HIV/AIDS in the country. Although there are studies on circumcision that have been done, most of these studies have focused on general male adult experiences of circumcision. For instance the Zambia Demographic Health Survey (2007) highlights adult experiences of circumcision and does not give detailed information on factors influencing such practices and any information regarding parent's knowledge, attitude and practices regarding infant and child circumcision. Since the baby cannot make an informed choice, a decision, must be made by the parents in his best interests, and for this purpose they should have comprehensive information on the risk and benefits of the procedure. In order to increase infant and child circumcision, it will require careful and immediate examination of parental knowledge, perception and acceptability of the practice. There is need for more detailed understanding of factors that may influence or inhibit the promotion of infant and child circumcision among women in communities that are especially traditionally non-circumcising, now that it is recommended as an additional HIV preventive measure ,and also because parents play a key role in deciding whether the child will be circumcised or not.

This information is much needed in a country like Zambia where circumcision and particularly infant and child circumcision has no religious or cultural significance in most parts of the country and uptake of adult male circumcision is very low.

1.2 RESEARCH OBJECTIVES

1.2.1 General Objectives

To investigate parental knowledge levels, attitudes and practices towards infant and child circumcision in the era of HIV/AIDS.

1.2.2 Specific objectives

In order to address this general objective, the study specifically examined, among

others:

- Knowledge levels on infant and child circumcision as an HIV prevention method
- Knowledge levels on the benefits of infant and child circumcision as an HIV prevention method.
- Determine parent's attitudes towards infant and child.
- Practices of infant and child circumcision
- Barriers to infant and child circumcision
- Sources of information on infant and child circumcision

1.2.3 RESEARCH QUESTIONS

In line with the survey objectives listed above, the study will address the following research questions:

1. What are parent's knowledge levels on infant and child circumcision as an HIV prevention strategy?
2. What are parent's knowledge levels on the benefits of infant and child circumcision as an HIV prevention strategy?
3. What are parent's attitudes towards infant and child circumcision?
4. Are parents taking their male children aged below 5 year for circumcision?
5. What are the barriers to infant and child circumcision?
6. What are the sources of information on infant and child circumcision?

1.3 RATIONAL /SIGNIFICANCE

There is need for more detailed understanding of factors that may influence or inhibit infant and child circumcision in communities that are traditionally non-circumcising, now that it is recommended as an additional HIV preventive measure. It is important to note the need to scale up infant and child circumcision bearing in mind its benefits. However, before scaling up the promotion of infant and child circumcision additional information is necessary to determine parental knowledge levels and attitudes towards the practice. This information will be useful to the Ministry of Community Development Mother and Child Development in designing information packages targeting parents to consider taking them for circumcision. This information can be disseminated to the parents through reproductive health services to help mothers make informed decisions regarding circumcision. This information will also be useful in designing accurate messages to be used for advocacy by organization engaged in promoting circumcision as an HIV/ AIDS prevention strategy or a health practice.

The benefits of infant and child circumcision are relative, not absolute, and the challenge will be to devise communication strategies to reinforce this point clearly. The recent developments in male circumcision present an opportunity to develop new and innovative prevention messaging, and especially to reinforce the need for combination of prevention that encourages people to use all of the prevention tools available to them. This will give an opportunity to re-engage with policymakers and program planners about the new opportunities that infant and child circumcision presents for widespread invigoration of prevention. The findings of this study will be useful in designing messages that will help parents make informed decisions regarding circumcision for their children.

The study also presents an opportunity to examine parents knowledge levels, attitudes and the risk-benefit perceptions about infant and child circumcision, and also offers the opportunity for health systems to engage parents in conversations about risk, protection, and benefits of infant and child circumcision, recognizing that

sometimes wanting to have your child circumcised isn't enough to actually make an infant child undergo the procedure.

CHAPTER TWO

LITERATURE REVIEW

Generally there are few studies that have been conducted on infant and child circumcision in Africa as most of the studies have focused on adult circumcision. Sub-Saharan Africa (SSA), home to 10% of the world's population, remains more heavily affected by HIV and AIDS than any other region of the world (UNAIDS/WHO, 2006). Although availability of antiretroviral therapy for individuals infected with HIV is increasing, many more new infections occur for every additional person started on such treatment (Global HIV prevention Working Group [GHPWG], 2006). Preventing new infections is the only realistic hope for stemming the HIV pandemic, yet currently available prevention measures have often been unsuccessful in restricting the spread of HIV (GHPWG, 2006; Muula, 2007). HIV testing and counseling, promotion of condom use, reduction in sexual partners and treatment for other sexually transmitted infections (STI) are some of main intervention strategies currently employed by national AIDS control programs.

Research evidence from over 40 observational studies (See Weiss, Quigley, & Hayes, 2000) and three randomized control trials (Auvet, Talijaard, Lagarde, Sobngwi-Tambekou, Sitta & Puren, 2005; Bailey, Moses, Parker, Agot, Maclean, Krieger, et al., 2007; Gray, Kigozi, Serwadda, Makumbi, Watya, Nalugoda, et al., 2007) indicates that male circumcision (MC) is an efficacious, partially protective strategy in reducing heterosexual transmission of HIV preventive strategy (WHO/UNAIDS, 2007). However, in some Sub-Saharan African Countries like Zambia, the uptake of male circumcision is very low.

A comprehensive review of studies conducted by the Joint United Nations Program on HIV/ AIDS- 2010, to assess the acceptability of offering male circumcision services among traditionally non-circumcising groups in East and Southern Africa, revealed that 71% of men and 81% of women were willing to have their sons circumcised. All the studies reviewed report fear of infection, bleeding excessive pain and possible mutilation at the hands of the traditional circumcisers as some of the barriers to acceptability. The study also showed that one concern around the

potential for male circumcision as an HIV prevention measure is that it may not be acceptable in communities that do not traditionally circumcise, (UNAIDS/WHO 2010).

In a related study, Purnima Madhuvan, (2008) investigated acceptability of male circumcision among mothers with male children in Mysore, India. A cross-sectional study was conducted among a convenient sample of 795 women attending a reproductive health clinic in Mysore, India in 2007. The study population consisted of a non-random sample of women who agreed to be interviewed when they came in for an examination of reproductive problems at a Hospital in Mysore. After the women were informed about the risk and benefits of male circumcision, a majority of women with uncircumcised children (n=564,81%) said they would definitely circumcise their male children if the procedure were offered in a safe hospital setting, free of charge, and a smaller number (7%) said they would consider the procedure while only 9% were not sure. Among the women who reported not circumcising any of their children, 56% (394) gave religion as the most important reasons. Other responses include: 46% (323) reported that they had no knowledge about benefits of male circumcision, 10% (70) stated that they intended to circumcise their children when they were older, 5.4% said they felt the procedure was unnecessary, 1% had not circumcised children for financial reasons.

Participants who had not circumcised their children were then asked about the various reasons that might change their mind about having their children circumcised. Reasons given included: (87%) learning that male circumcision might prevent serious health problems in their children including HIV, (4.9%) reported that if they learnt how long it takes for male circumcision to heal completely. Nearly 4% said if they learnt how a doctor would circumcise a child and (9.4%) if they understood that male circumcision would be done with minimal pain.

A similar study was conducted in New Zealand in which Mahan Afsari and colleagues (2002) looked at the attitudes of Pacific parents (N=123) to circumcision of boys. The study aimed at documenting the differences in the attitudes of Pacific parents and their male children to cultural circumcision and assesses the strength of

their beliefs. Pacific boys between the ages 8-18 years and their parent's resident in Christ Church were given a questionnaire to complete and then interviewed. Results indicate that the majority (89%) of the Pacific people felt that circumcision should be performed mainly for reasons of culture and hygiene. The average age that most Pacific people were circumcised and would want their children to be circumcised is between 6 and 10 years of age. Boys were less sure than their fathers that they would get their own sons circumcised. The study showed that circumcision is expected and surprisingly well accepted by boys of the Pacific families despite the discomfort they know the procedure causes. There is a strong cultural demand from parents for circumcision.

In Zambia, a study conducted by the Central Statistics Office- The Zambia Sexual Behavior Survey, collected information on male circumcision in 2009 and results show slight declines that the vast majority of uncircumcised men of all ages indicated they did not want to be circumcised. Overall, 78% reported they were not willing to be circumcised. The main reasons young men gave for not wanting to be circumcised include traditional beliefs, fear of pain and fear of complications. Among the adolescents aged 15-19 (45%) indicated they do not want to be circumcised because it was against their tradition, more than a third indicated it was painful, 16% feared complications, 6% felt it was against religion or that they were too old to be circumcised and 3% felt it was not natural.

In another study to assess attitudes regarding male circumcised among health care providers to Hispanic clients in Miami, Florida, Jose G Castro and colleagues (2009) provided qualitative data of attitudes and beliefs surrounding male circumcision. Qualitative data was drawn from intensive interviews with 21 providers and was analyzed for dominant themes and collapsed into overarching themes. Thirteen themes emerged; acceptability, appearance, circumcision and children, circumcision and HIV, cost cultural difference, health benefits, knowledge and personal experiences, pain and injury to the penis, perceived HIV risk, religion, sexual performance, and sexual pleasure. The study showed that Hispanic male providers related MC acceptability to American Pediatric Association guidelines, personal

circumcision status, and the skeptical regarding health benefits for sexually transmitted disease (STD) = HIV risk reduction. Female providers focused on the financial burden to parents, lack of information, and low acceptability among Hispanic men. This study illustrates the differing attitudes on circumcision held by providers and suggests that gender, culture cost and providers themselves may limit MC acceptability among Hispanic clients. Results suggested that promotion of MC as an HIV risk reduction strategy must begin with the support of medical practitioners to promote the endorsement of MC as a prevention strategy. The study used qualitative data which cannot be generalized, (Journal- AIDS PATIENT CARE and STDs, Volume 24, Number 6, 2010).

Authors of a journal titled ignoring Evidence of Circumcision Benefits by the American Academy of Pediatrics (2006) revealed that since 1999 convincing data have documented the preventive health benefits of circumcision. New evidence based advantages of circumcision have established, with the most notable being the finding that uncircumcised men are 3 times more likely than circumcised men to carry the human papilloma virus, the infectious agent involved in development of genital cancer (Cervical cancer in women and penile cancer in men). Cervical cancer is of special importance because, particularly in under-developed countries, this disease is a leading cause death in women. Hundreds of thousands of women in the world die annually from cervical cancer, and evidence shows that male circumcision could markedly reduce this number. Most recently, an International study from 5 different countries found that Chlamydia infection is 3 times more common in female partners of uncircumcised men than in female partners of circumcised men.

In another journal titled “ Circumcision in the time of HIV: When is there enough Evidence to revise the American Academy of Pediatrics Policy on Circumcision (2007)”, the authors concluded that circumcision also protects against certain other sexually transmitted diseases (STDs) and that circumcised men are at lower risk of acquiring chancroids and syphilis than uncircumcised men.

The benefits of male circumcision are mainly health related. Although studies that have been done show protective benefits against HIV infection in Africa, the

application of male circumcision in low circumcising areas where the main means of transmission is heterosexual like Zambia is low. By 2007, only 13% of the youths reported being circumcised according to the Zambian sexual behavior Survey, suggesting that infant and child circumcision rates may even be lower than 13%. However infant and child circumcision can be seen as sure way to increase circumcision uptake in view of many medical benefits. The Zambia National AIDS Council has already noted that the low level of male circumcision could reverse the gains the country has made against HIV.

Although the benefits of circumcision highlighted in most studies have focused on adults, they are applicable to infants and children. Infant and child circumcision is considerably safer and substantially less expensive than adolescent or adult circumcision. Recent modeling by Williams and colleagues, based on the protective rates achieved in the South African trial, showed that the greatest effect of infant and child circumcision would be in Southern Africa, where circumcision rates are low and HIV prevalence is high. Williams and colleagues projected that large scale implementation of male circumcision has potential to avert about 2 million new HIV infections and 300,000 deaths over the next 10 years. Over the subsequent 10 years an additional 3.7 million HIV infections and 2.7 million deaths could be averted. Furthermore, they report that combining male circumcision with prevention strategies known to reduce transmission rates would further reduce new infections. In communities with high HIV prevalence, cost analysis is not just limited to preventing HIV infections and the associated cost treatment, but the economic benefits gained by entire countries by maintaining the health of most productive age-groups of their populations, (Sharif R Sawires; 2007).

In view of these findings and some limitations from previous studies, it is important that further investigation be undertaken to look at parental knowledge, attitudes and practices as key players with specific focus on infant and child circumcision as an HIV prevention strategy so as to recommend effective ways of increasing infant and child circumcision as an HIV prevention strategy.

2.1 CONCEPTUAL/THEORETICAL FRAMEWORK

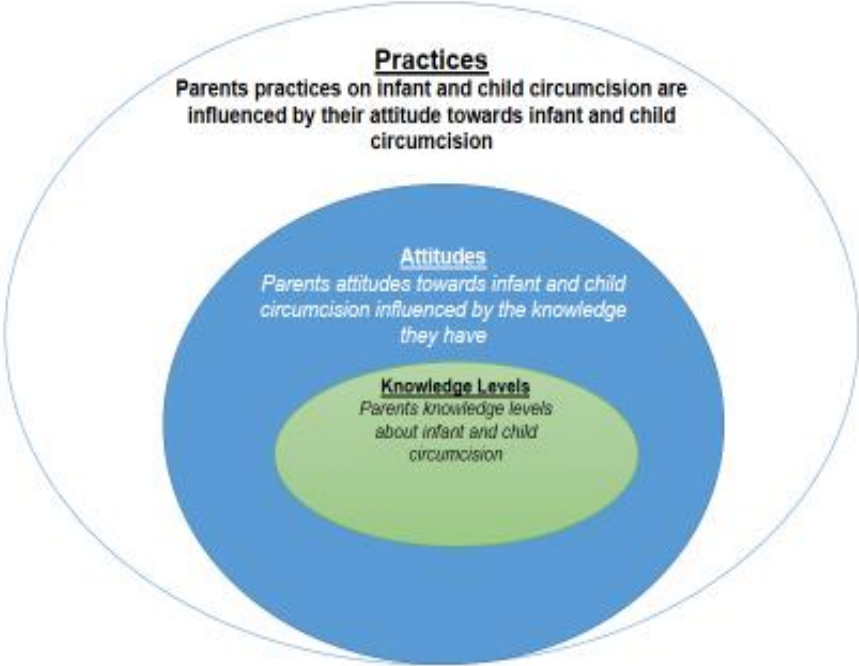
2.1.1 Social Acceptance Theory

In the social acceptance theory, researchers claimed that expectations regarding attitude change could be based on the message. Social acceptance theory is a theory that focuses on the internal processes of an individual's judgment or decision making with relation to a communicated message. Social acceptance theory was intended to be an explanatory method designed to detail when persuasive messages are mostly likely to succeed. Attitude change is the fundamental objective of persuasive communication. Social acceptance theory seeks to specify the conditions under which this change takes place and predicts the direction and extent of the attitude change. In sum, the researcher strove to develop a theory that addressed the following: a person's likelihood to change his position based on the information he has received, the likely direction of his attitude change, a person's tolerance of other positions, and the level of commitment to his own position, (Sheriff & Nebergall, 1965).

This theory is appropriate in explaining parental knowledge levels, attitudes and practices regarding infant and child circumcision. Parental attitude towards infant and child circumcision is influenced by information received from different sources but has the potential to support or act as a barrier for infant and child circumcision. The absence of appropriate information on infant and child circumcision has failed to equip parents with adequate accurate information and this has resulted in most parents believing myths influenced by traditional beliefs about infant child circumcision.

The framework in figure 1 shows the relationship of knowledge levels, attitudes and practices regarding infant and child circumcision.

Fig 1: Developed Theory – Influencing Uptake of Infant and Child Circumcision among Parents



CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Study Design

The adopted study design was purely a non-experimental design which employed an exploratory investigation to solicit information from parents with male children below the age of five on their knowledge, attitudes and practices regarding infant and child circumcision in the era of HIV and AIDS in Lusaka. This was for the simple reason that it was conducted in an uncontrolled and natural setting. There was no control group in the research.

3.1 Study Population

Parents with male children below the age of five participated in the study and were interviewed at home after making an appointment. The study population was drawn from four (4) townships in Lusaka district namely Woodlands, Kalingalinga, Mtendere and PHI which were purposively selected. The four sites were ideal as people of different economic status live in these places. The sampling unit was a parent with a male child aged below 5 years living in a particular survey area at the time of the survey. The townships were selected based on considerations that they had or were near to health facilities which are offering male circumcision. Other considerations were the different socio economic status and easy accessibility to the researcher.

3.2 Sampling Procedure

A representative sample was used, using the CSO 2010 census report as a sampling framework. The CSO has divided each compound into Census Standard Areas (CSA), which are further subdivided into Standard Enumeration Areas (SEA). Due to the huge size of the sites, SEAs were selected using systematic random sampling method. Respondents were randomly selected from these communities. In each residential area a total of 50 households were selected. In each household a parent with a male child aged below 5 years was selected for interviews. A total of 202 parents were interviewed of which 94 were male and 108 female.

3.3 Instruments for data collection

Participants were interviewed using a semi-structured questionnaire regarding their knowledge, attitudes and practices towards infant and child circumcision as an HIV prevention strategy. The questionnaire had some questions with open ended questions while quantitative information was collected using closed ended question.

3.4 Sampling of Survey Sites

Four townships were selected and stratified in terms of population densities. In each of the four townships, households were selected using circular systematic sampling. A parent with a male child below the age of 5 years from the household was identified for an interview from each selected household. If the selected household had no parent with a male child aged below 5, at that particular time a replacement was made using the sampling interval to select another household with a parent with a male child aged below 5 years.

3.5 Data Analysis

Descriptive analyses were performed to determine levels, attitudes, perception and practices among respondents. Epidata was used for data entry and the data was exported to Statistical Package of Social Sciences (SPSS) version 18 for analysis.

3.6 Ethical Issues

Permission to undertake this study was sought from the University of Zambia ethics committee. The purpose of the study was explained to the respondents and those willing to participate were recruited into the study. A private place was used to explain the purpose of the study in detail and to review the consent procedures. After consenting to participate in the study, the questionnaire was administered.

3.7 Study Limitations

Since the study was conducted in only four townships out of all the available townships in Lusaka district the sample selected was not big enough to represent the entire population.

CHAPTER FOUR

FINDINGS

4.0 Demographic and socio-economic characteristics of respondents

In this study a total of 202 parents were interviewed from Kalingalinga (48), Mtendere (50), PHI (48), and Woodlands (56) of which 47% (94) were male respondents and 53% (108) were female respondents. Table 1 provides a summary of some of their demographic and socio-economic characteristics which included; age, marital status, education attainment, educational status, monthly income and employment status.

Table 1: Gender, Age, Education, Income, Marital Status & Employment of the Respondents

Characteristics		Kalingalinga (n=48)	Mtendere (n=50)	Woodlands (n=48)	PHI (n=56)	Total N=202	
Gender	Females	56%	52%	52%	54%	53%	
	Males	44%	48%	48%	46%	47%	
Age	Mean	Female	31	30	29	29	30
		Male	32	31	34	33	32
Marital Status	Married	61%	72%	60%	67%	63%	
	Single	39%	28%	35%	27%	33%	
	Widowed	0%	0%	5%	6%	4%	
Education Attainment	No Education	9%	4%	0%	0%	3%	
	Primary	49%	48%	4%	1%	26%	
	Secondary	28%	31%	53%	48%	40%	
	Tertiary	14%	17%	43%	51%	31%	
Employment	Unemployed	36%	54%	16%	10%	28%	
	Formal employment	50%	46%	54%	59%	52%	
	Informal employment	15%	0%	30%	31%	20%	
Average Income per month (ZMW)		900	1,100	3,500	4,100	2,200	

Table 1 shows a slightly balanced representation of male and female parents across the 4 sites. The mean age across the sites was 30 years for female respondents and 32 for male respondents. In terms of education, most of the respondents had some form of education. The proportions of respondents with secondary education ranged from 28% in Kalingalinga, 31% in Mtendere, 53% in Woodlands and 48% in PHI. Woodlands and PHI had the highest proportion of respondents with secondary and tertiary education while on the other hand 14% and 7% of the respondents in Kalingalinga and Mtendere respectively had respondents with tertiary education.

The low education levels imply limited formal employment opportunities leading to low income levels for households. This is evident in that in terms of employment status, a larger proportion of respondents from Mtendere (54%) and Kalingalinga (36%) are not employed compared to Woodlands (16%) and PHI (10%). Furthermore an average monthly income by respondents from Kalingalinga and Mtendere was ZMK 900 and ZMK 1,100 respectively, while in Woodlands and PHI it was ZMK 3,500 and ZMK 4,100 respectively. This is against a basic needs basket of ZMK 3,538.54 for Lusaka (JCTR, December 2013). This basket excludes fees paid for education and health. This indicates a significant difference in the social economic status of the respondents in Mtendere, Kalingalinga and respondents in Woodlands and PHI.

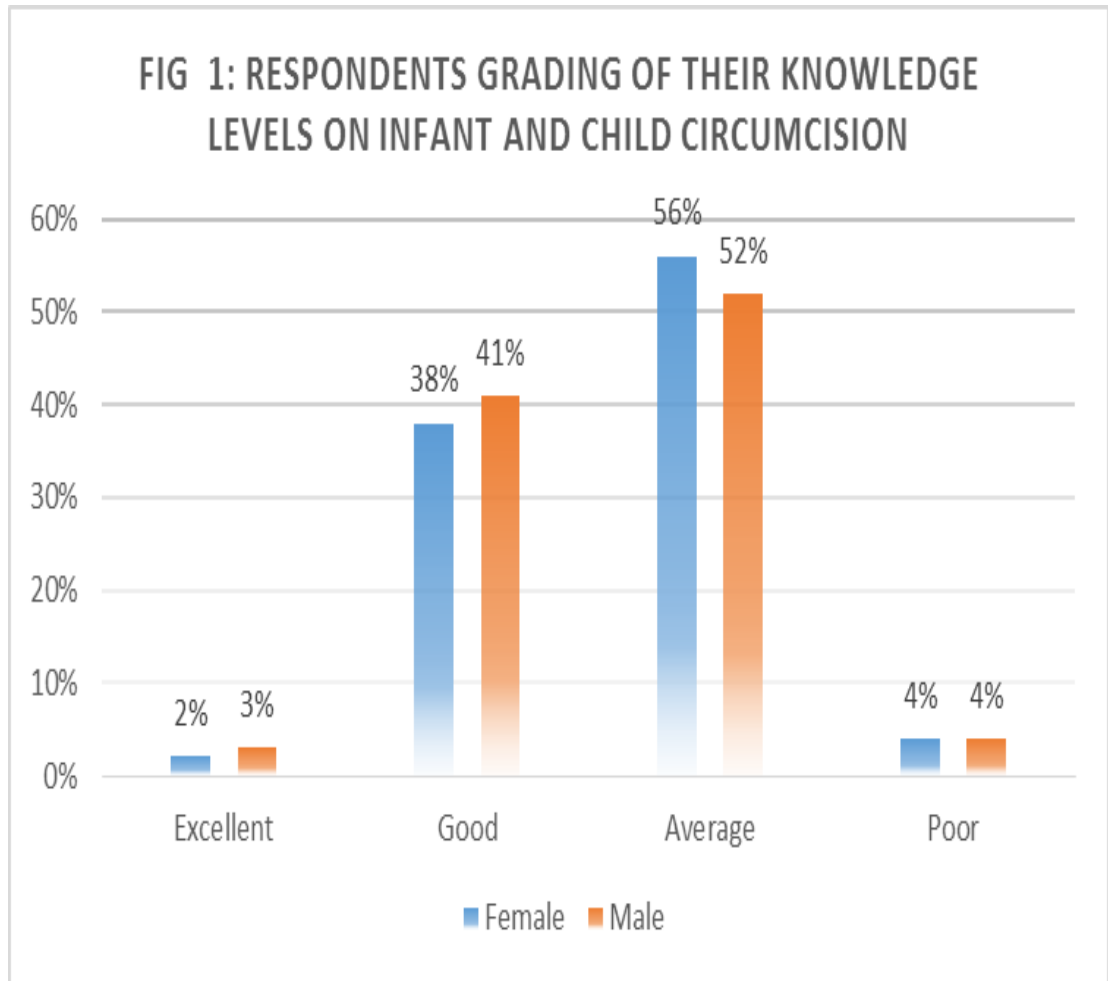
4.1 Awareness Levels on Infant and Child Circumcision

Awareness of infant and child circumcision is key in helping parents make a decision to circumcise their male children. Information on awareness levels was collected by asking respondents if they have ever heard of male circumcision, child circumcision and infant circumcision and responses are presented in the Table 2. Results indicate that awareness of male circumcision was universal among the parents across all the study sites, education levels, sex and religion.

The majority of the respondents (100%) reported having heard of male circumcision, while on the other hand awareness levels on infant and child circumcision across the sites, education levels and religion was also high. The table indicates that 97% of the respondents have heard about child circumcision and 83% have heard about infant circumcision. This can be attributed to the fact that sensitization messages on circumcision has mainly focused on adult circumcision as opposed to infant circumcision and adult circumcision. Results show no major differences across sites, gender, education and marital status on awareness levels on male, child and infant circumcision. Awareness levels are generally high.

Background Characteristics	Ever Heard of Male circumcision (n=202)	Ever heard of Child circumcision (n=202)	Ever heard of Infant circumcision (n=195)
Residence			
Kalingalinga	100%	100%	85%
Mtendere	100%	100%	84%
PHI	100%	93%	73%
Woodlands	100%	94%	90%
Sex			
Male	100%	94%	83%
Female	100%	99%	82%
Education			
No Education	100%	100%	100%
Primary	100%	88%	63%
Secondary	100%	98%	79%
Tertiary	100%	95%	92%
Marital Status			
Married	100%	98%	83%
Single	100%	96%	84%
Widow/ Widower	100%	96%	81%
Total	100% (202)	97% (195)	83% (162)

Respondents were further asked to grade their knowledge levels on infant and child circumcision as an HIV prevention method and results show that over half of the respondents (i.e. 54% female and 52% male) graded themselves to have average knowledge on infant and child circumcision as shown in figure 2. When segregated by sex, educational levels, religion results indicate that there are no differences



4.2 Knowledge on Male Circumcision as an HIV Prevention Method

Knowledge on the protection circumcision offers against HIV is important, as it can also influence parent’s decision to take male children for circumcision. In this study 70% of the parents as shown in Table 3 reported that they know that male circumcision offers protection against HIV, but only 51% of those that reported knowing that male circumcision offers protection against HIV said they believe that circumcision offers protection.

Table 3: Percent Distribution of Respondents Knowledge and Beliefs on Male Circumcision

SITE	Respondents who <u>KNOW</u> that circumcision reduces one's chances of contracting HIV (N=202)	Respondents who <u>BELIEVE</u> it reduces ones chances of contracting HIV (n=142)
Kalingalinga	60%	41%
Mtendere	86%	58%
PHI	70%	56%
Woodlands	65%	42%
Sex		
Male	72%	53%
Female	69%	49%
Educational Level		
No Education	0%	0%
Primary	25%	0%
Secondary	71%	34%
Tertiary	79%	82%
Marital Status		
Married	75%	50%
Single	63%	50%
Widow/Widower	55%	54%
Total	70% (142)	51% (72)

Results further indicate that those who said they believe that male circumcision is an HIV prevention method varied by educational status. Over a quarter (34%) of the respondents with secondary education and over three-quarters (86%) of the respondents with tertiary education believe male circumcision reduces one's chances of contracting HIV, while none of those with primary and no education believe male circumcision reduces one's chances of contracting HIV. When segregated by site, results reveal that 58% and 56% of the respondents in Mtendere and PHI respectively believe male circumcision reduces the chances of one contracting HIV, while 41% in Kalingalinga and 42% of the respondent in Woodlands believe male circumcision reduces the chances of one contracting HIV. When further segregated by gender, results show minimal differences between female (69%) and male (72%) respondents who believe male circumcision reduces one's chances of contracting HIV. However, more female respondents (26%) said they don't know whether male circumcision reduces one's chances of contracting HIV compared to male respondents (16%). There are no major differences across marital status. Overall results indicate that parents' knowledge levels on some of the benefits of circumcision are fairly high although almost half (49%) of the respondents do not believe that it offers protection.

4.3 Major Benefits of Infant and Child Circumcision

Respondents that said they have heard about infant and child circumcision were asked about the major benefits of infant and child circumcision and results are presented in Table 4. Results show that reducing the risk of HIV/STI transmission (89%) was the most cited benefit followed by hygiene (27%). Other respondents cited reducing risk of penial cancer (21%) and improvement in one's health (19%) as the major benefits. When segregated by sex and residence results indicate that there are no differences between female and male respondents and across residence in terms of knowledge levels on the benefits of circumcision. It is worth noting that slightly above a quarter of both female and male respondents see circumcision as a way of reducing the risk of both cancer in men and women. Furthermore in terms of

sites, none of the respondents in Kalingalinga cited reducing the risk of penial and cervical cancer and sexual pleasure as a benefit, and only 4% cited improvement in one's health as a benefit compared to other sites. While in terms of education, respondents with no education and primary education only cited reduction in the risk of HIV/STI as a benefit.

Furthermore respondents were also asked if there were any disadvantages to circumcision and only 20% of the respondents in all the sites said there are disadvantages with the majority citing bleeding if the procedure is not properly done as the major disadvantage.

Table 4: Percent distribution of respondents responses on the benefits of infant and child circumcision

Residence	Reduces the risk of HIV/STI transmission	Hygiene	Improves ones health status	Reduces risks of penial cancer	Reduces risks of cervical cancer	Sexual Pleasure
Kalingalinga	96% (46)	21% (10)	4% (2)	0% (0)	0% (0)	0% (0)
Mtendere	98% (49)	6% (3)	10% (5)	36% (18)	38% (19)	0% (0)
PHI	80% (45)	45% (25)	37% (19)	25% (13)	21% (11)	2% (1)
Woodlands	71% (34)	33% (15)	22% (10)	20% (9)	11% (5)	2% (1)
Gender						
Female	88% (95)	23% (25)	15% (16)	22% (23)	16% (17)	2% (2)
Male	89% (79)	32% (28)	23% (20)	19% (17)	21% (18)	0% (0)
Education						
Primary	100% (7)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Secondary	83% (102)	27% (32)	21% (26)	11% (13)	11% (14)	2% (2)
Tertiary	100%(60)	33% (20)	17% (10)	45% (27)	35% (21)	0% (0)
No education	100% (5)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Marital Status						
Married	95% (119)	20% (25)	17% (21)	18% (22)	21% (26)	2% (2)
Single	78% (50)	38% (24)	19% (12)	20% (13)	9% (6)	0%(0)
Widow/Widower	94% (5)	80% (4)	80% (4)	94% (5)	60% (3)	0% (0)
Total	89% (174)	27% (53)	19% (36)	21% (40)	18% (35)	1% (2)

4.4. Source of Information on Male, Child and Infant Circumcision

It is important to establish the sources of information on circumcision among the general public and specifically parents in order to improve on adequacy and reliability of such information. In this survey parents were asked about their sources of information on male, child and infant circumcision and results are presented in Table 5:

With 100% of the respondents saying they have heard of male circumcision, Table 5 shows their sources of information and results show that almost three quarters of the respondents cited the clinic (72%) and the radio (72%) followed by TV (50%), friends (50%) and newspaper (41%) as their sources of information on male circumcision across all the sites. Results show that there were slight differences across sites, gender and marital status.

Table 5: Percent distribution of respondents sources of information on male circumcision								
Residence	Parents	Clinic	Religious Leader	TV	Radio	Newspaper	Friends	PA
Kalingalinga	2%	75%	4%	27%	58%	38%	35%	56%
Mtendere	0%	76%	22%	46%	70%	52%	72%	38%
PHI	9%	68%	32%	73%	80%	39%	50%	18%
Woodlands	8%	69%	17%	56%	77%	35%	42%	25%
Gender								
Female	6%	41%	12%	25%	36%	21%	26%	21%
Male	2%	31%	7%	27%	36%	20%	24%	13%
Education								
Primary	0%	3%	0%	0%	0%	1%	2%	3%
Secondary	5%	44%	15%	34%	46%	22%	30%	21%
Tertiary	0%	22%	4%	17%	26%	18%	18%	7%
No Education	0%	2%	0%	0%	0%	0%	0%	2%
Marital Status								
Married	4%	48%	14%	32%	43%	34%	31%	27%
Single	2%	23%	6%	20%	26%	7%	17%	8%
Widow/Widower	0%	2%	0%	0%	3%	1%	3%	0%
Total	5%	73%	19%	52%	72%	42%	50%	34%

On child circumcision results indicate that 97% (195) of the respondents have heard of child circumcision across all the study sites. Their sources of information on child circumcision are presented in the Table 6. According to Table 6 the clinic (52%) was cited by

half of the respondents followed by the newspaper (17%) and the radio (12%). When segregated by sex, results reveal that slightly above half of the female respondents (57%) cited the clinic as a source of this information compared to less than half of the male respondents (41%).

Table 6: Percent distribution of respondents sources of information on child circumcision

SOURCES	Kalingalinga N=48	Mtendere N=50	PHI N=52	Woodlands N=45	Total
Parents	2%	8%	17%	11%	9%
Clinic	69%	38%	39%	64%	52%
TV	8%	20%	25%	4%	8%
Radio	4%	14%	15%	4%	12%
Newspaper	15%	20%	4%	17%	17%
Friends	2%	0%	0%	0%	2%

In this study over three quarters (83%) of the respondents are aware of infant circumcision across the 4 sites, with minimal differences across the sites.

Table 7: Percent distribution of respondents sources of information on infant circumcision by demographic characteristics

Residence	Relatives	Clinic	Religious Leader	TV	Radio	Newspaper	Friends
Kalingalinga	2%	71%	0%	10%	0%	15%	2%
Mtendere	9%	38%	0%	21%	13%	19%	0%
PHI	20%	40%	2%	0%	16%	18%	4%
Woodlands	12%	58%	5%	4%	5%	16%	0%
Gender							
Female	8%	61%	1%	6%	7%	15%	2%
Male	10%	44%	3%	10%	10%	22%	1%
Education							
Primary	0%	100%	0%	0%	0%	0%	0%
Secondary	15%	55%	3%	12%	6%	7%	1%
Tertiary	0%	41%	0%	2%	14%	40%	3%
No Education	0%	100%	0%	0%	0%	0%	0%
Marital Status							
Married	8%	55%	0%	5%	7%	22%	3%
Single	11%	50%	5%	14%	13%	7%	0%
Widow/Widower	0%	40%	0%	0%	0%	60%	0%

Total	9%	53%	2%	8%	8%	18%	2%
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The sources of information varied, although the health facility was the most cited source across the sites as shown in Table 7. When segregated by sex, results indicate that most female respondents cited the clinic (61%), followed by newspaper/books (15%) compared to 44% of male respondents who cited the clinic and 22% cited newspaper/books. When segregated by levels of education, results indicate that those with no education only cited a clinic, while those with secondary and tertiary education mainly cited the clinic (55%), relatives (15%), TV/Radio (18%) and newspaper/books (7%) as their source of information on infant circumcision. Respondents with tertiary education mainly cited a health facility (41%), Newspaper/books (40%) and TV/Radio (15%). A healthy facility was the most cited across education levels. In terms of socio economic status represented by residence results show no major differences across economic status as healthy facility was cited by most of the respondents across residence i.e. Kalingalinga -71%, Mtendere-38% PHI -40%, Woodlands -58%

4.5 Practices towards Infant and Child Circumcision

Parents with male children below the age 5 years participated in this study and results show that overall, 58% (118) of the parents interviewed had male children below the age of 1 year, and 74% (149) had children between 1 – 5 years as shown in the Table 7. According to Table 7 Mtendere (74%) had more respondents with children below 1 year, followed by Woodlands (58%). On the other hand woodlands had over three- quarters (85%) of respondents with children between 1- 5 years, followed by PHI (77%).

Site	Child below 1 Year	Child between 1 – 5 years
Kalingalinga	44%	75%
Mtendere	74%	58%
PHI	57%	77%
Woodlands	58%	85%
Total	58% (118)	74% (149)

Those that said they had children aged below 1 year and between 1-5 years were asked if their children are circumcised and results are presented in Table 8.

Table 8: Percent Distribution of Respondents who have circumcised their children by selected background characteristics		
	Child below 1 Year N=118	Child between 1 - 5 years N= 149
Residence		
Kalingalinga	0%	22%
Mtendere	0%	14%
PHI	4%	23%
Woodlands	6%	27%
Education		
Primary	0%	0%
Secondary	5%	20%
Tertiary	3%	32%
Gender		
Male	4%	19%
Female	1%	14%
Marital Status		
Married	2%	19%
Single	5%	25%
Widow/Widower	0%	60%
Total	4% (5)	22% (33)

With over three quarters of the respondents having heard of both infant and child circumcision as an HIV prevention method, it was expected that a number of respondents were going to report having taken their male children for circumcision. However, results show that out of the 118 respondents who said they had male children below the age of 1 year, only 4% and 2% from PHI and Woodlands respectively have taken their children for circumcision, while only 22 % across all the sites of the 149 respondents who have male children between 1- 5 years had taken their children for circumcision as shown in Table 8.

Those that have taken their male children for circumcision were asked at what age they took them for circumcision. The mean age of circumcision for children below the age of 1 year was 9 months while those between 1- 5 years was 5 years. The proportion of respondents reporting having taken their children for circumcision increased with economic status and the level of education. More respondents from high economic status i.e. PHI and Woodlands compared to those from low economic status i.e. Kalingalinga

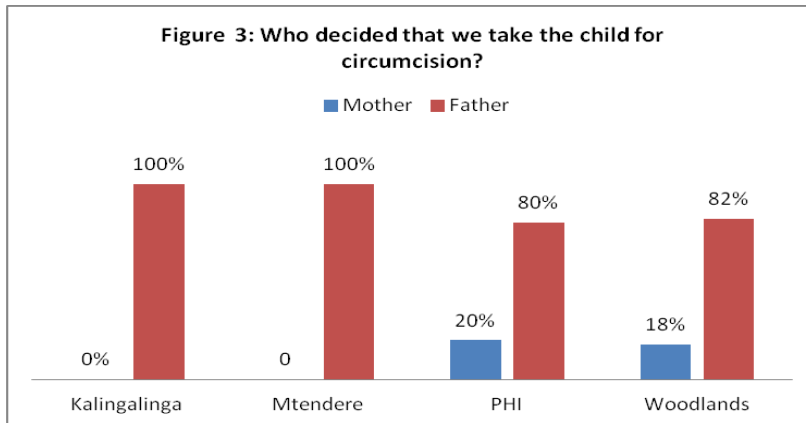
and Mtendere reported taking their male children for circumcision. Furthermore, the proportion of respondent reporting having taken their children for circumcision increased with the level of education from primary (0%) to secondary (14%) and Tertiary (25%) among those who took their children aged between 1- 5 years.

4.6 Reasons for Circumcision

Respondents who had taken their children for circumcision were further asked about the main reasons for their decision to take their children for circumcision and results are presented in Table 9. Respondents who took their children for circumcision cited reasons such as protection against sexually transmitted infections including HIV (16%) and health/hygiene (13%). A few also cited traditional culture (3%), religious belief (3%) and sexual satisfaction (2%). Results indicate that protection against sexually transmitted infection was the most cited reason for taking children for circumcision.

Table 9: Percent Distribution of respondents reason for taking children for circumcision by selected socio-economic characteristics					
	Health/Hygiene	Sexual Satisfaction	Protection from STIs/HIV	Traditional Culture	Religious Belief
Residence					
Kalingalinga	19%	0%	27%	40%	50%
Mtendere	15%	67%	12%	0%	0%
PHI	37%	17%	32%	20%	0%
Woodlands	30%	17%	41%	40%	50%
Education					
Primary	NA	NA	NA	NA	NA
Secondary	41%	33%	55%	80%	0%
Tertiary	59%	67%	45%	20%	100%
No Education	0%	0%	0%	0%	0%
Marital Status					
Married	44%	33%	50%	100%	0%
Single	11%	67%	36%	0%	100%
Widow/Widower	44%	0%	14%	0%	0%
Sex					
Female	52%	83%	41%	80%	25%
Male	48%	17%	59%	20%	75%
TOTAL	13% (27)	3% (6)	11% (22)	3% (5)	2% (4)

Respondents who have male children below the age of 5 years were further asked about who decided to take the child for circumcision and results show that in Kalingalinga and Mtendere, only fathers made the decision while in PHI and Woodlands about a quarter of the mothers reported making the decision to take the children for circumcision as shown in figure 3. However, results show that fathers are the ones that make the decision across the 4 sites.



4.7 Reasons WHY Parents have NOT circumcised the children;

In this study out of the 149 respondents who reported having male children between 1-5 years old, 57% (116) have not taken their children for circumcision. Respondents who had not taken their children for circumcision at the time of the study were asked to state the main reasons for not doing so and results are presented in Table 10;

Table 10: Percent Distribution of respondents reason for not taking children for circumcision by selected socio-economic characteristics						
	Lack of information on benefits of infant and child circumcision	It's painful/ its unnecessary/	Child will make own decision when they grow	Religious reasons	Against traditional/culture values	Father refuses
Residence						
Kalingalinga	36%	61%	50%	0%	3%	6%
Mtendere	28%	66%	45%	0%	0%	3%
PHI	49%	61%	37%	2%	2%	5%
Woodlands	44%	63%	34%	0%	0%	5%
Education						
Primary	13%	75%	50%	0%	0%	0%
Secondary	47%	69%	41%	1%	2%	8%
Tertiary	26%	46%	34%	0%	0%	0%
No Education	100%	0%	0%	0%	0%	0%
Marital Status						
Married	32%	59%	41%	1%	2%	8%
Single	53%	69%	47%	0%	0%	0%
Widow/Widower	40%	0%	0%	0%	0%	0%
Sex						
Female	26%	42%	31%	1%	2%	5%
Male	34%	51%	30%	0%	0%	2%
Total	40% (60)	62% (93)	41% (61)	1% (1)	1% (2)	5% (7)

The three most cited reasons of not taking male children for circumcision by respondents included: it's painful/not necessary (62%), child will make own decision when they grow up (41%) and lack of information on benefits on child circumcision (40%) as shown in

Table 10. A few cited the father's refusal, religious reasons and traditional/cultural values, while others shared that they do not have time to take the child to the hospital

Respondents with male children between 1- 5 years (n=116) and below 1 year (n=113) who are not circumcised were asked if they would consider taking their male children for circumcision and results indicate that 72% (41) and 82% (93) of respondents said they would consider taking their children for circumcision. Respondents who said they would take their children for circumcision were further asked what would make them consider taking their children for circumcision and the majority cited if they had more information, support and encouragement. Below are the summaries of the responses:

...if someone encouraged me and escorted me...

.. if someone can encourage me and strengthen me...

...more support and encouragement...

4.8 Attitudes towards Infant and Child Circumcision

One important component of providing knowledge about child and infant circumcision is by addressing myths, superstitions and incorrect beliefs, because they may discourage parents from taking their male children for circumcision, or they may help to sustain social stigma and discrimination. Whilst most respondents in this study had a basic understanding of the basic benefits of circumcision, information on their attitudes towards child and infant circumcision was also collected. Three questions were asked to assess respondent's attitude towards infant and child circumcision and the responses are summarized in Table 11.

Table 11: Percent Distribution of Respondents Attitudes towards Child and Infant Circumcision and its benefits by residence, education, marital status and gender

Residence	All male children should be taken for circumcision when they are below the age of 1 year			All male children should be taken for circumcision when they are between 1-5 years			Male children who are circumcised are at lesser risk of contracting HIV and other STIs		
	Agree	Disagree	Don't Know	Agree	Disagree	Don't Know	Agree	Disagree	Don't Know
Kalingalinga	25%	58%	17%	73%	17%	10%	65%	21%	15%
Mtendere	20%	80%	0.0%	82%	18%	0.0%	78%	4%	18%
PHI	30%	66%	4.0%	75%	21%	4.0%	82%	9%	9%
Woodlands	15%	71%	15%	71%	19%	10%	75%	8%	17%
Education									
Primary	13%	87%	0%	75%	25%	0%	63%	25%	12%
Secondary	26%	63%	11%	75%	18%	7%	75%	10%	15%
Tertiary	19%	76%	5%	75%	21%	4%	82%	2%	16%
No Education	0%	100%	0%	100%	0%	0%	0%	100%	0%
Marital Status									
Married	25%	69%	6%	70%	25%	5%	69%	8%	23%
Single	21%	66%	13%	82%	9%	9%	87%	13%	0%
Widow/Widower	0%	100%	0%	100%	0%	0%	75%	25%	0%
Gender									
Female	25%	69%	6%	79%	15%	6%	73%	14%	13%
Male	20%	69%	11%	71%	23%	5%	78%	6%	16%
Total	23% (46)	69% (139)	8% (17)	75% (152)	19% (38)	6% (12)	75% (152)	10% (21)	14% (29)

Results show that over half of the respondents disagreed to a statement that all male children below the age of 1 should be taken for circumcision with minimal differences in terms of education, gender and site. On the other hand, three- quarters of the respondents agreed to the statement that all male children between the age of 1-5 years should be taken for circumcision with no major differences across the sites, education and gender.

Results also show that three- quarters of the respondents agreed to the statement that male children who are circumcised are at lesser risk of contracting HIV and other STIs when they become sexually active. Overall, these results indicate a positive attitude of respondents towards child circumcision and the benefits, but a negative attitude towards infant circumcision.

CHAPTER FIVE

5.0 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

The main objective of this study was to investigate parental knowledge, attitudes and practices towards infant and child circumcision from selected residential areas in Lusaka district of Zambia. This is among the few studies that have been conducted in Zambia to look at infant and child circumcision.

The data reveals that there were slightly more females respondents than male respondents (53% vs 47%) in this study. While the overall mean age is 30.8, Kalingalinga and Mtendere have a slightly younger population than Woodlands and PHI as reflected by their mean ages. There are slightly more single people who have never married in Kalingalinga and Woodlands than PHI and Mtendere. In terms of educational levels, they varied across the sites, Woodlands and PHI have more people that have gone up to tertiary level than in Kalingalinga and Mtendere. This has implications on the type of community information strategy to be adopted to effectively reach everyone.

The socio-economic analysis reveals that Kalingalinga and Mtendere had a low socio economic status compared to Woodlands and PHI. This is evident in the educational levels and the average monthly income of respondents from Kalingalinga and Mtendere which was K 900 and K 1,100 respectively, while in Woodlands and PHI it was K 3,500 and K 4,100 respectively. This is against a basic needs basket of K 3,538.54 for Lusaka (JCTR, December 2013). Overall, the demographic data reveals some similarities in the respondents and differences mainly in terms of the socio- economic status hence comparison across the sites is valid.

The majority of the respondents have heard about male, child and infant circumcision from various sources with no differences in terms of educational levels, gender and sites. This is in line with others studies like the ZDHS, a study by Million Phiri on the uptake of male circumcise youths all indicate that knowledge levels are high. However, in this study about three quarters have heard about circumcision offering prevention against HIV, and only half of them believe that circumcision offers protection. There were differences in terms of one's education and believing that circumcision offers some

protection against contracting HIV and AIDS, more than half of respondents with tertiary education believe that it offers protection while none of the respondents with no education or primary education believe that it offers protection. This can be attributed to the lack of adequate sensitization in the past on the relationship between circumcision and HIV prevention, despite the abundant scientific evidence from both observational and interventional studies demonstrating that male circumcision significantly reduces men's risk of becoming infected with HIV through heterosexual sex.

In this study, when asked about the benefits of child and infant circumcision, the majority of the respondents cited reducing the risk of contracting HIV/AIDS, while less than half cited reducing the risk of cancer, hygiene and improvement in one's health. This indicates that despite the majority of respondents hearing about circumcision and citing benefits such as reduction in the risk of contracting HIV/AIDS only about half of the respondents believe it. Hence despite the high knowledge levels on circumcision, some respondents do not believe in the benefits and this can be attributed to lack of access to adequate and specific information on the relationship between male circumcision and prevention of HIV. This will definitely affect ones decision to take their male child for circumcision.

Other studies have also revealed the same, like a cross-sectional study by Purnima Madhuvan in India among women which showed that among the major reasons of the respondents not circumcising any of their children was lack of knowledge about the benefits of male circumcision. Another study by Mahan Afsari in New Zealand that looked at the attitudes of Pacific parents revealed that the majority of the Pacific parents felt that circumcision should be performed mainly for reasons of culture and hygiene.

In this study, respondents were asked about their sources of information and most of them cited a health facility, radio and television as their main sources of information on child and infant circumcision across the sites. Results also showed that respondents with no education or with primary education only cited a healthy facility while those with secondary education and tertiary education cited other sources such as friends, television, radio, newspapers and books. This shows that strategies used in educating the public on the benefits of circumcision should be dynamic taking in to account the educational

levels of the public and making the message easy to understand if they have to reach as many people as possible.

Data reveals that respondents had a negative attitude towards infant circumcision and a positive attitude towards child circumcision, with about three – quarters of the respondents disagreeing that all male children below the age of 1 year should be taken for circumcision. However, they agreed that all male children between the ages of 1 – 5 years should go for circumcision. The majority of people perceives the procedure to be very painful and hence would not want to subject a baby to such pain. Such fears have been reported in other studies such as in a comprehensive review of studies by the United Nations Program on HIV/AIDS in 2010 to assess the acceptability of offering male circumcision services among traditionally non-circumcising groups in East and Southern Africa, it was noted in all studies that fear of excessive pain, infection as some of the barriers to acceptability. On the other hand data reveals that about three- quarters of the respondents agreed that all male children aged between 1-5 years should be taken for circumcision, suggesting a positive attitude towards child circumcision.

Although the majority reported high levels of awareness of male circumcision and places where one can go for circumcision results, this study indicate that only 4% and 22% of respondents with male children below the age of 1year and between 1- 5 years respectively have taken them for circumcision. This, like other studies that have looked at circumcision among youths such as Zambia Demographic and Health Survey, 2007, and a study by Mr. Million Phiri (2011) in a study to investigate awareness, knowledge, attitudes and uptake of male circumcision as an HIV prevention method among the youth in Zambia, all show that only about a quarter of the youth have gone for circumcision. This is still very low given the high birth rate of 6.2 in Zambia, who theoretically, should be taken for circumcision. In this study, a few that took children for circumcision cited reasons such protection against sexually transmitted infections, hygiene, traditional culture and sexual satisfaction.

On the other hand those that did not take their male children for circumcision cited reasons such as it wasn't necessary, it's painful, child will make their own decision when

they grow up and lack of information on the benefits of infant and child circumcision, a few cited fathers refusal, religious reasons and traditional values.

Unlike in other studies, like a cross-sectional study by Purnima Madhuvan in India among women which showed that among the major reasons of the respondents not circumcising any of their children was lack of knowledge about the benefits of male circumcision. Results also indicate that the majorities (92%) of the respondents across the sites know a place where infant and child circumcision can be conducted such as University Teaching Hospital, government clinics. A few cited places such as Society for Family health, Planned Parenthood Association of Zambia, and the majority (93%) said the places are easily accessible.

In view of the theoretical framework used in this study, researchers argue that expectations regarding attitude change could be based on the message. The social acceptance theory focuses on the internal processes of an individual's judgment or decision making with relation to a communicated message. In this study the majority of the respondents have received a message about the benefits of male circumcision, however, despite the majority of respondents hearing about circumcision and citing benefits such as reduction in the risk of contracting HIV/AIDS only about half of the respondents believe it. The findings do not support the theory of that decisions making can be influenced by a communicate message. On the other side it can be argued that the message most parents received was not specific to infant and child circumcision but male circumcision, hence this could not influence the parents in taking their male children for circumcision.

CONCLUSION

Parental knowledge on infant and child circumcision is high, with the majority citing reducing the risk of contracting HIV, while less than half cited reducing the risk of cancer, hygiene and improvement in one's health as major benefits. However, less than half of the respondents believe that male circumcision offers protection against HIV and less than half have taken their male children for circumcision. Results also indicate that the majority of the respondents know a place where male circumcision is offered. Data reveal that despite the high knowledge levels on infant and child circumcision, very few people are ready to take their children for circumcision. This can be attributed to lack of adequate, specific information on infant and child circumcision. Most of the respondents have general information on infant and child circumcision.

RECOMMENDATIONS

Based on the findings recommendations are made in the hope that, if implemented, they can help in increasing the number of parents taking their male children for circumcision and ultimately reduce the rate of HIV infection in future in the country. Among the recommendations suggested is the need

1. Identify ways of utilizing antenatal and under 5 clinics in communicating factual information about infant and child circumcision and its benefits to parents. This can be done by dedicating sufficient time during antenatal and under 5 clinics to share factual information on the benefits of infant and male circumcision.
2. Provision of a platform for parents to share their fears and concerns on infant and child circumcision will help in addressing specific barriers coupled with discussions with experts in the area of circumcision guiding the discussion.
3. Development of information materials in different local languages should also be encouraged as this will help in reaching out to many parents.
4. Electronic media can also be instrumental in disseminating information on infant and child circumcision in breaking the barriers of misconceptions and myths around infant and child circumcision although they have currently focused on disseminating information on adult circumcision.

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APPENDIX-QUESTIONNAIRE